

# Mapping of PrEP Demonstration Studies in South Africa

WITS RHI AND NATIONAL DEPARTMENT OF HEALTH IN PARTNERSHIP  
WITH AFTON BLOOM  
AUGUST 2023



# Introduction

- Questions remain about how to best introduce the new biomedical HIV prevention methods for adolescent girls and young women (AGYW) and female sex workers (FSWs) in South Africa.
- Over the next several years, implementation studies will provide insights into these questions.
- This analysis aims to explore two topics:
  1. Investigate which questions will/will not be addressed by the current slate of ongoing or planned implementation science to inform decisions about investments in additional research (if needed).
  2. Provide an understanding of when insights across key questions will become available to help inform the rollout planning for the new PrEP methods in South Africa.
- Please contact Nicolette Naidoo ([nnaidoo@wrhi.ac.za](mailto:nnaidoo@wrhi.ac.za)) or Saiqa Mullick ([smullick@wrhi.ac.za](mailto:smullick@wrhi.ac.za)) with additional questions or for more information.

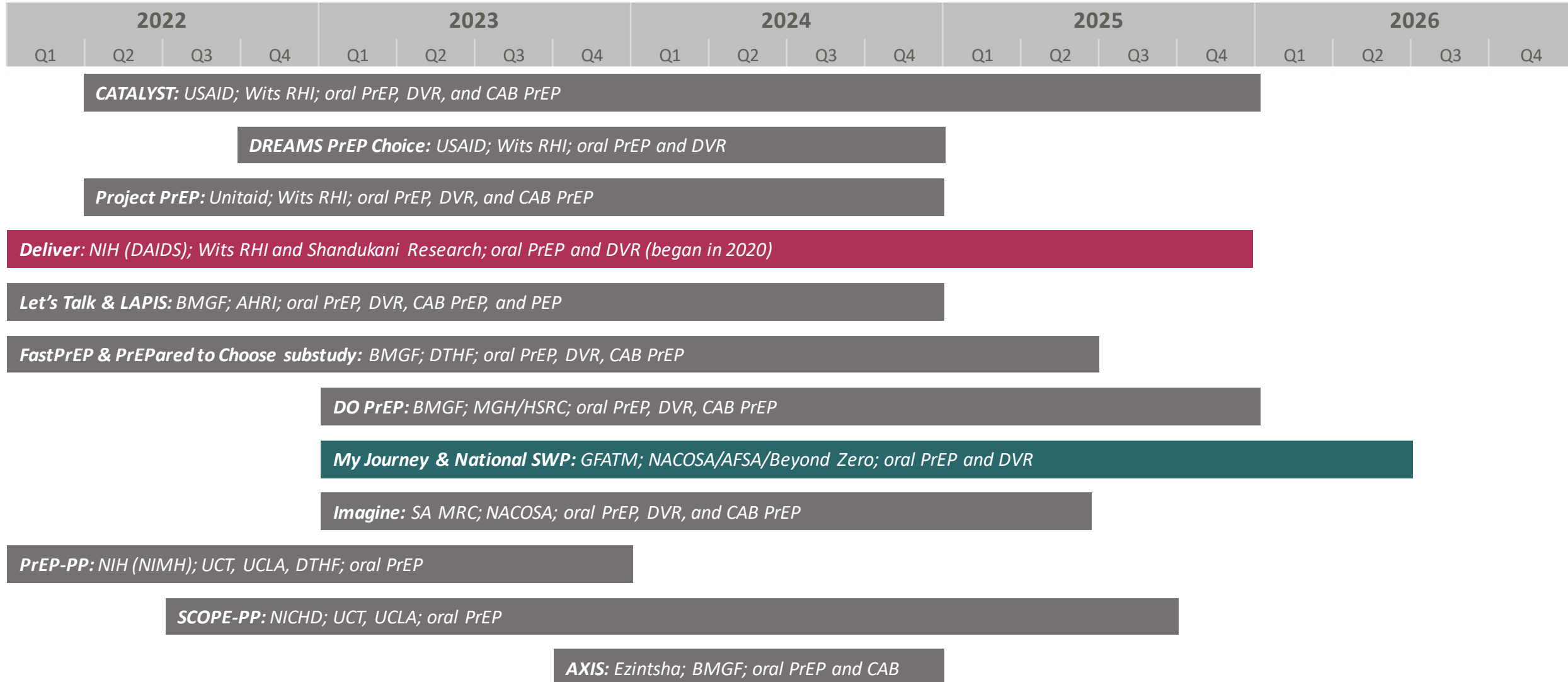
# Studies included in the mapping (1/2)

Project Name	Study reference name	Project goals
<b>CATALYST</b>	Catalyzing Access to New Prevention Products to Stop HIV (CATALYST)	To describe the implementation of an enhanced service delivery package providing choice of PrEP products among women at PEPFAR/USAID delivery sites in Kenya, Lesotho, South Africa, Uganda, and Zimbabwe.
<b>Project PrEP</b>	Project PrEP: Integrating PrEP into Comprehensive Services for AGYW	To improve the understanding of uptake and continuation of PrEP among AGYW and at-risk groups in real world settings and inform delivery models for service integration by expanding PrEP choice through the introduction and integration of new biomedical prevention options into comprehensive SRH services
<b>Deliver</b>	Deliver (MTN-042)	To monitor dapivirine vaginal ring (DVR) and oral emtricitabine (FTC)-tenofovir disoproxil fumarate (TDF) use in pregnancy
<b>DREAMS PrEP Choice</b>	DREAMS PrEP Choice Study	To examine the acceptability and feasibility of providing additional PrEP options (DVR) to AGYW accessing services through DREAMS community-based delivery
<b>B-Protected</b>	B-Protected (MTN-043)	To study safety and drug detection – DVR and oral FTC-TDF in breastfeeding mother-infant pairs
<b>Thetha Nami ngithethe nawe (Let's Talk) &amp; LAPIS</b>	Social mobilization into integrated sexual and reproductive health (SRH)/HIV care (Let's talk) Long-Acting PrEP Integrated with SRH (LAPIS)	<ol style="list-style-type: none"> <li>1) To evaluate effect of peer-led youth mobilization in community-based integrated SRH/HIV service on sexually transmissible HIV and uptake of risk-informed HIV</li> <li>2) To evaluate effect of choice of long-acting antiretroviral-based PrEP within community-based nurse-led SRH for youth on uptake and retention of effective HIV prevention among adolescents and youth in rural KwaZulu-Natal (KZN), South Africa.</li> </ol>
<b>FastPrEP &amp; PrEPared to Choose substudy</b>	FastPrEP & PrEPared substudy	To distinguish PrEP persistence patterns across different PrEP modalities (vaginal, oral, and injectable) and identify successful implementation strategies that will aid the provision of PrEP choice to adolescents and young people in South Africa from multiple delivery platforms
<b>DO PrEP</b>	Delivery Optimization for Pre-Exposure Prophylaxis (DO PrEP) Study	To test a end-to-end decentralized delivery service for PrEP to safely increase PrEP access and use among priority populations in a high-HIV prevalence setting.
<b>My Journey</b>	AYP for 3 PRs	To provide an alternative method for HIV prevention among AGYW, aligned to national guidelines; raise awareness and sensitize stakeholders on new prevention methods; support the National Department of Health (NDOH) to collect data for early learning; and create demand for uptake of DVR by key populations (KPs)
<b>National Sex Work Plan (SWP)</b>	National Sex Work Plan (SWP)	To provide an alternative method for HIV prevention among female sex workers; to raise awareness and sensitize stakeholders on new prevention methods; and to create demand for uptake by key populations
<b>Imagine</b>	Imagine Social Outcomes Based Contract	To improve HIV and sexually transmitted infection (STI) health outcomes among young women; to improve pregnancy health outcomes among young women.
<b>PrEP-PP</b>	Integrating PrEP for pregnant and breastfeeding women: Implementation Science Study	To support the integration of PrEP into antenatal care (ANC) and care for breastfeeding women, including training and mentorship of health care providers offering and initiating PrEP in high-density, high-HIV prevalence clinics in Western Cape
<b>SCOPE-PP</b>	(SCOPE-PP) in South Africa	To (1) evaluate the impact of the SCOPE-PP interventions on PrEP adherence in peripartum (EARLYPREP-P STUDY) and postpartum women (LATE-PREP-P STUDY); (2) assess acceptability and feasibility of integrating the SCOPE-PP interventions into ANC and postnatal care (PNC); (3) evaluate the cost-effectiveness and equity impact of SCOPE-PP vs. standard of care. Interventions include biofeedback following urine TFV testing and stepped care to community PrEP delivery.
<b>AXIS</b>	Acceptability and feasibility of injectable cabotegravir (CAB) PrEP versus oral PrEP in routine care up to 15 months in private pharmacies in South Africa (AXIS)	To describe acceptability of long-acting injectable cabotegravir (CAB PrEP) among different PrEP modalities, including PrEP deferral, in eligible men and women

# Studies included in the mapping (2/2)

Project Name	Study design	Lead Org.	Donor	PrEP method	Target population for monitoring and evaluation (M&E)
CATALYST	Implementation	Wits RHI	USAID	Oral PrEP, DVR and CAB PrEP	<b>End users:</b> AGYW (years 18+ years), FSWs, women engaged in transactional sex, transgender and nonbinary people (TNBP), pregnant and breastfeeding people (PBFP) <b>Key influencers:</b> Policymakers, health care providers, community health service providers, community leaders, community members, civil society organizations, key population-led organizations, parents, partners, and caregivers
Project PrEP	Implementation	Wits RHI	Unitaid	Oral PrEP, DVR, and CAB PrEP	<b>End users:</b> Female, male, and transgender people who are 15 years and older, with a focus on AGYW <b>Key influencers:</b> (included in implementation activities and evaluation): health care providers, community members, and community-based organizations
DREAMS PrEP Choice	Implementation	Wits RHI	USAID	Oral PrEP and DVR	<b>End users:</b> Sexually active women of reproductive age 18 years and older accessing PrEP or SRH at a community-based site <b>Key influencers:</b> Health care providers who provide SRH and PrEP at DREAMS sites; key informants ( NDOH, Provincial and District Prevention and youth TWG representatives) and community gate keepers
Deliver	Clinical trial	Wits RHI, Shandukani Research	NIH (DAIDS)	Oral PrEP and DVR	<b>End users:</b> Healthy, HIV-negative pregnant females, 18–40 (inclusive) years old with an uncomplicated singleton pregnancy who are willing to be randomized to study product and their infants
B-Protected	Clinical trial	Wits RHI, Shandukani Research	NIH (DAIDS)	Oral PrEP and DVR	<b>End users:</b> Exclusively breastfeeding women and their infants (i.e., moms 18 years and older, 6–12 weeks postpartum)
Let's Talk / LAPIS	Implementation	AHRI	BMGF	Oral PrEP, DVR and CAB PrEP (also will include PEP in study)	<b>End users:</b> Adolescents and youth ages 15–30 years in a rural community and including key populations
FastPrEP / PrEPared to Choose sub-study	Implementation	DTHF	BMGF	Oral PrEP, DVR and CAB PrEP	<b>End users:</b> AGYW; young men who have sex with men (MSM); TNBP, PBFP, male partners of AGYW <b>Key influencers</b> (included in implementation activities and evaluation): health care providers, facility managers, provincial and city health representatives
DO PrEP	Implementation	MGH/HSRC	BMGF	Oral PrEP, DVR and CAB PrEP	<b>End users:</b> Priority populations (adolescents and young people, including sexual minority men, ages 16-30 years)
My Journey	Program	AFSA, Beyond Zero, NACOSA	GFATM	Oral PrEP and DVR	<b>End users:</b> AGYW ages 18–24 years who are unable or unwilling to take oral PrEP
National SWP	Program	AFSA	GFATM	Oral PrEP and DVR	<b>End users:</b> Sex workers assigned female at birth who are 18+ years and unable or unwilling to take oral PrEP
Imagine	Implementation	SA MRC & NACOSA	GoSA, Aids Fdn SA	Oral PrEP, DVR and CAB PrEP	<b>End users:</b> AGYW ages 15–24 years; high school learners
PrEP-PP	Implementation	UCT, UCLA, & DTHF	NIH (NIMH)	Oral PrEP	<b>End users:</b> Pregnant and postpartum women <b>Key influencers:</b> Providers (i.e., managers, counselors, pharmacists, and nurses)
SCOPE-PP	Implementation	UCT, UCLA	NICHD	Oral PrEP (will integrate CAB PrEP once available)	<b>End users:</b> PBFP (pregnant and are gestational >21 weeks; postpartum women and their live infants) <b>Key influencers:</b> Health providers (clinics, hospitals) and male partners
AXIS	Implementation	Ezintsha, The Clicks Group, Dis-Chem Pharmacies and ICAP	BMGF	Oral PrEP and CAB PrEP	<b>End users:</b> Young women and men <b>Key influencers:</b> Providers (within private health clinics)

# Timeline of studies



Note: Timelines include preparatory phases (protocol development, ministry and donor concurrence, protocol consultations and approvals) through to study closeout. Dates for planned projects are subject to change (pending research ethics committee and site approvals). Information may be missing for studies.

\* B-Protected clinical trial is not included in timeline due to project end (2020–2021).

Implementation science Program study Clinical trial

# PrEP demonstration sites across regions in South Africa

The planned implementation science studies are spread across all nine provinces and 18 districts representing a mix of urban, peri urban and rural settings.

## **Johannesburg Health District, Gauteng**

Wits RHI, DREAMS PrEP Choice  
Wits RHI, CATALYST – Key Populations Sites (FSWs and TNBP)  
Wits RHI & Shandukani Research, Deliver & B-Protected  
AXIS, Ezintsha

## **Tshwane, Gauteng**

Wits RHI, Project PrEP  
NACOSA, Global Fund\*

## **Lejweleputswa (FS)**

Wits RHI, CATALYST

## **Thabo Mofutsunyana (FS)**

Beyond Zero, Global Fund\*

## **Frances Baard (NC)**

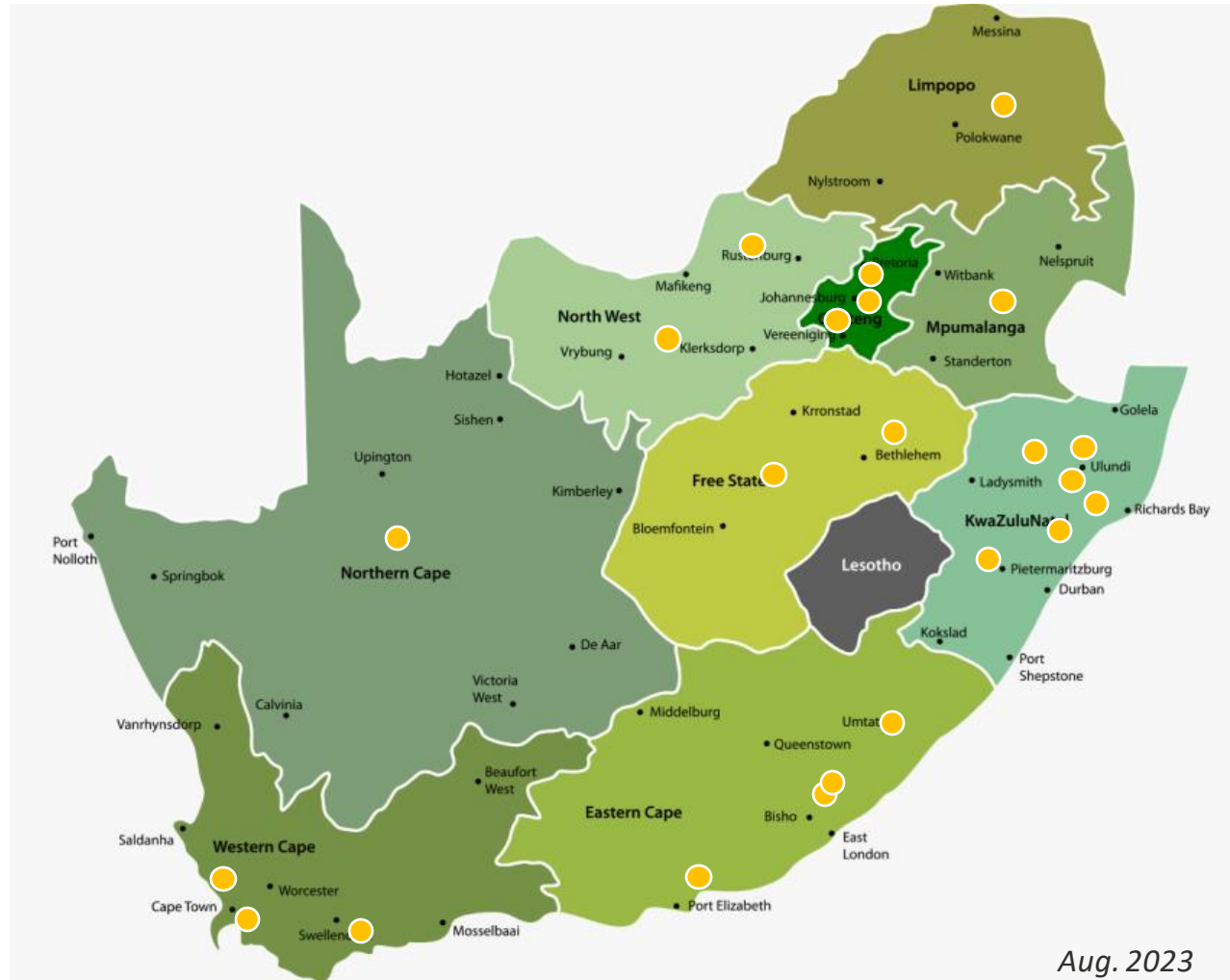
NACOSA, Global Fund\*

## **Klipfontein Mitchell's Plain, Cape Town (WC)**

DTHF, FastPrEP  
NACOSA, Global Fund\*  
UTC, UCLA & DTHF, PrEP-PP & SCOPE-PP

## **Gqeberha**

Wits RHI, Project PrEP



Aug. 2023

## **King Cetshwayo & Zululand (KZN); Ehlanzeni and Gert Sibande (MP), Sekhukhune (LP)**

AFSA & Beyond Zero, Global Fund\*

## **Newcastle, KZN and Moretele, Northwest**

SA MRC & NACOSA, Imagine

## **Hlabisa, uMkhanyakude (KZN)**

AHRI, Let's Talk & LAPIS

## **Msunduzi, Umgungundlovu (KZN)**

HSRC & MGH, DO PrEP

## **eThekweni (KZN)**

Wits RHI, Project PrEP

## **Nelson Mandela & Oliver Tambo (EC)**

Beyond Zero, Global Fund\*

## **Nelson Mandela, King Dalindyebo (EC)**

Wits RHI, Project PrEP

## **Mthatha (EC)**

Wits RHI, Project PrEP

\*Global Fund-funded program My Journey or National SWP

# Studies across PrEP methods

\* South African Health Products Regulatory Authority (SAHPRA) notification, Institutional Review Board (IRB) approval, National Health Research Database (NRHD) approval

All the implementation studies include either DVR and/or CAB PrEP in addition to oral PrEP implementation.

Project Name	Oral PrEP	PrEP ring (DVR)	CAB PrEP	Sample size across PrEP methods	SAHPRA notification *	IRB approval *	NHRD approval *
<b>CATALYST</b>	✓	✓	✓	1,639 PrEP users across all three products in South Africa, of which 1,440 DVR allocated for SA; TBC for CAB	Approved	Approved	Submitted, pending approval
<b>Project PrEP</b>	✓	✓	✓	7,400 participants across all three products; estimated 1,500 users on DVR, 2,600 on CAB PrEP, and 3,300 on oral PrEP	Approved for DVR in 2022	Approved March 2023	Approved for DVR March 2023
<b>DREAMS PrEP Choice</b>	✓	✓		804 PrEP users across oral PrEP and DVR – equally distributed	September 2023	August 2023	August 2023
<b>Deliver</b>	✓	✓		N/A	N/A	N/A	N/A
<b>B-Protected</b>	✓	✓		N/A	N/A	N/A	N/A
<b>Let's Talk &amp; LAPIS</b>	✓	✓	✓	26,000 15–30-year-olds; ~3,000 PrEP users overall; 1,300 CAB PrEP and ~100 DVR – explore numbers of PrEP	In progress	Let's Talk approved; LAPIS provisionally approved	Let's Talk approved; LAPIS submitted
<b>FastPrEP &amp; PrEPared</b>	✓	✓	✓	FastPrEP 20,000 young people for oral PrEP; 1,800 on PrEPared to Choose substudy of DVR and CAB PrEP	Submitted	Approved	Submitted, pending approval
<b>DO PrEP</b>	✓	✓	✓	2,000 young people on oral PrEP (100 AGYW on ring; TBC for CAB)	N/A	N/A	N/A
<b>My Journey</b>	✓	✓		N/A	N/A	N/A	N/A
<b>National SWP</b>	✓	✓		N/A	N/A	N/A	N/A
<b>Imagine</b>	✓	✓	✓	N/A	N/A	N/A	N/A
<b>PrEP-PP</b>	✓			1,306 pregnant and postpartum women	5 August 2019	October 2018 & yearly	May 2019
<b>SCOPE-PP</b>	✓			850 women	N/A	April 2022 & yearly	June 2022
<b>AXIS</b>	✓		✓	200	Submitted July 2023	Submitted July 2023	N/A

# Studies across target populations

Implementation studies focus primarily on AGYW, with some other priority groups included as end users. Only a few studies also include PrEP influencers as a target population for monitoring and evaluation.

\* Included in the study for SRH services; however, not a target population for PrEP initiation

\*\* Will track pregnancy outcomes if an end user falls pregnant while on PrEP

	END USERS							PrEP INFLUENCERS				
	Adolescent girls and young women (AGYW)	Adolescents and young people (AYP)	Pregnant and breastfeeding people (PBF) and their infants	Female sex workers (FSWs)	Women engaged in transactional sex	Transgender and nonbinary people (TNBP)	Men who have sex with men (MSM)	Male partners (e.g., of AGYW)	Providers and other site staff	Partners	Parents and/or caregivers	Community-based orgs. and other community leaders
CATALYST	✓		✓	✓	✓	✓			✓	✓	✓	✓
Project PrEP	✓	✓	**			✓		✓	✓	✓		✓
DREAMS	✓								✓			✓
Deliver			✓									
B-Protected			✓									
Let's Talk & LAPIS		✓		✓	✓	✓	✓		✓			✓
FastPrEP & PrEPared to Choose	✓		✓			✓	✓	✓	✓			✓
DO PrEP		✓	**		✓		✓	✓	✓			✓
My Journey	✓											
National SWP				✓								
Imagine	✓		*									
PrEP-PP			✓						✓			
SCOPE-PP			✓						✓	✓		
AXIS		✓							✓			



# Studies across PrEP delivery channels

Demonstration sites also cover a variety of delivery channels, with a focus on differentiated service delivery.

Project Name	Priority delivery channel approach	Fixed public HIV ART clinics	Public mobile clinics	Community-based models	Nonprofit health clinics	Private health clinics/ pharmacies	SRH/FP services
CATALYST	PEPFAR/USAID-funded public HIV facilities and nongovernmental organization (NGO) implementing partner (IP) sites that align with NDOH guidelines	✓			✓		
Project PrEP	Fixed public health facilities and mobile clinics, including fixed decentralized service points for comprehensive SRH services	✓	✓	✓		✓	✓
DREAMS PrEP Choice	Mobile clinics and gazebos linked to community-based sites (TVETs, universities, community safe spaces) layering with DREAMS IPs.	✓		✓	✓		✓
Deliver	Wits RHI with connection to a private health facility				✓	✓	
B-Protected	Wits RHI with connection to a private health facility				✓	✓	
Let's Talk & LAPIS	Community models with peer navigators, nurse-led mobile clinics, and fixed public facilities with connection to existing NDOH models	✓		✓			✓
FastPrEP & PrEPared to Choose	PrEP initiation through public health facilities and community-focused models (e.g., mobile clinics, local clinics, schools, courier service, youth clubs, quick PrEP depots at pharmacies)	✓	✓	✓	✓	✓	
DO PrEP	Community-based delivery with linkages to public HIV facility and mobile	✓	✓	✓			✓
My Journey	Integration in provincial DOH facilities and through community mobile units with a registered nurse	✓	✓				
National SWP	Mobile clinics in hot spot areas and linked to provincial DOH facilities	✓	✓				
Imagine	In-school youth-friendly clinic and social spaces that also offer SRH services through social impact funding models			✓			✓
PrEP-PP	Fixed public HIV clinics and community health centers (CHCs)	✓		✓			✓
SCOPE-PP	Public fixed HIV clinics with integration into ANC/prenatal (PNC) as well as community-based models	✓		✓			✓
AXIS	Private pharmacies					✓	✓

Primary PrEP delivery channel
  Connection to private or public HIV facility
  Linkage for follow-up support

# Priority research questions to inform product introduction

# PrEP introduction framework to scale new and existing biomedical prevention products

This product introduction framework has been used across countries to support planning for the introduction of PrEP products. It identifies necessary steps for PrEP introduction and scale-up across five major categories and priority delivery channels.

This framework can also be used to map research priorities across the implementation studies.

## PrEP Introduction Framework



### PLANNING & BUDGETING

National and subnational plans are established to introduce and scale-up PrEP products.



### SUPPLY CHAIN MANAGEMENT

PrEP products are available and distributed in sufficient quantity to meet projected demand via priority delivery channels.



### DELIVERY PLATFORMS

PrEP products are delivered by trained providers in priority delivery channels to effectively reach end users.



### UPTAKE & EFFECTIVE USE

End users know about and understand PrEP products and know how to access and effectively use them.



### MONITORING, EVALUATION, & LEARNING

PrEP products are effectively integrated into national, subnational, facility, community, and program monitoring systems.

# Research priorities across implementation studies

## PrEP Introduction Framework

Key questions for the Essential Medicines Committee

### PLANNING & BUDGETING

1. What is an **affordable price and cost of PrEP delivery** across multiple PrEP products?

**SUPPLY CHAIN MANAGEMENT** - *Primarily answered through secondary research after implementation studies are completed*

### PREP DELIVERY PLATFORMS

2. Which **delivery platforms and/or models** will best reach populations who need PrEP?
3. What are the **service readiness and delivery requirements** for the new PrEP methods?
4. What are **provider attitudes and beliefs** about the new PrEP methods, and what are we learning about how to inform or shape them?
5. How should the new PrEP methods be **integrated within oral PrEP provision** and/or existing PrEP programming?

### UPTAKE & EFFECTIVE USE

6. Which **demand generation strategies** are most effective to support uptake and effective use of the new PrEP methods?
7. What are **end-user preferences** across PrEP methods, and how are they making decisions among methods?
8. How do **key influencers** affect the uptake and effective use of the new PrEP methods, and how can they be engaged effectively?
9. What evidence of **social harms associated with PrEP use** has emerged, particularly for the PrEP ring?
10. What **tools effectively support choice** among the PrEP methods?
11. What are the most effective approaches to **strengthening linkages between post-exposure prophylaxis (PEP) and PrEP**?

### MONITORING, EVALUATION & LEARNING

1. What are the **characteristics and frequency of seroconversion and HIV drug resistance (HIVDR)** among PrEP users across the new PrEP methods?

# **Anticipated study findings across priority research questions**

# Anticipated coverage of priority research questions

Question	# of studies	Summary
<b>Q1</b> What is an <b>affordable price and the cost of PrEP delivery</b> across multiple PrEP products?	6	The cost of delivery will be widely assessed across delivery channels, but a gap remains for affordable pricing, particularly for CAB PrEP.
<b>Q2</b> Which <b>delivery platforms and/or models</b> will best reach populations who need PrEP?	10	The effectiveness of delivery channels to reach priority populations as well as the comparison across delivery platforms are widely covered.
<b>Q3</b> What are the <b>service readiness and delivery requirements</b> for the new PrEP methods?	6	Several studies focus on service readiness and delivery requirements for the new PrEP methods.
<b>Q4</b> What are <b>provider attitudes and beliefs</b> about the new PrEP methods, and what are we learning about how to inform or shape them?	8	Provider attitudes and beliefs will be widely assessed, with several studies including health care workers as a target population for evaluation.
<b>Q5</b> How should the new PrEP methods be <b>integrated within oral PrEP provision</b> and/or existing PrEP programming?	4	Several studies focus on the integration of the new PrEP methods within oral PrEP provision; yet more coverage is needed across delivery channels.
<b>Q6</b> Which <b>demand generation strategies</b> are most effective to support uptake and effective use of the new PrEP methods?	5	Although each study includes demand generation approaches, only a few will assess the effectiveness of the strategies leveraged for PrEP uptake.
<b>Q7</b> What are <b>end-user preferences</b> across PrEP methods, and how are they making decisions among methods?	12	End-user preferences (patterns of use, method switching, discontinuation and restart, etc.) are widely covered across all studies for all the PrEP methods.
<b>Q8</b> How do <b>key influencers</b> affect the uptake and effective use of the new PrEP methods, and how can they be engaged effectively?	8	Many of the studies will focus on understanding key influencer attitudes and beliefs as well as how to effectively engage them.
<b>Q9</b> What evidence of <b>social harms associated with PrEP use</b> has emerged, particularly for the PrEP ring?	9	Social harms will be tracked across several studies as a subcomponent for monitoring negative consequences of PrEP use.
<b>Q10</b> What <b>tools effectively support choice</b> among the PrEP methods?	5	A few studies will assess the effectiveness of support approaches for PrEP choice.
<b>Q11</b> What are the most effective approaches to <b>strengthening linkages between PEP and PrEP</b> ?	2	Only two studies will aim to strengthen the linkages between PEP and PrEP.
<b>Q12</b> What are the <b>characteristics and frequency of seroconversion and HIVDR among PrEP users</b> across the new PrEP methods?	10	PrEP efficacy across the methods for specific population groups as well as seroconversion and HIVDR data are widely tracked.

■ Significant coverage in studies (+7 studies)
 ■ Some studies address topic (3–6 studies)
 ■ 1–2 studies address topic

# Affordable price and cost of PrEP delivery across multiple PrEP products



## Research question:

What is an **affordable price and the cost of PrEP delivery** across multiple PrEP products?

Study	PrEP methods	Research objectives
CATALYST	Oral PrEP, PrEP ring, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will assess the cost of PrEP implementation for the new PrEP methods in existing USAID PrEP service delivery sites; sites will be selected in accordance with NDOH guidelines.</li> <li>Data will be collected yearly with interim analysis to identify sites with high and low performance.</li> </ul>
Project PrEP	Oral PrEP, PrEP ring, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will conduct a cost analysis assessment in collaboration with the Health Economics and Epidemiology Research Office (HERO) to understand what is the most cost-effective decentralized and simple service delivery model for HIV prevention services into comprehensive SRH services.</li> <li>The assessment will be based on financial and M&amp;E data.</li> </ul>
Let's Talk & LAPIS	Oral PrEP, PrEP ring, and CAB PrEP	<ul style="list-style-type: none"> <li>LAPIS will assess the affordability and cost-effectiveness of decentralized HIV prevention programming that is integrated with SRH services for DVR, CAB PrEP, PEP, and oral PrEP.</li> <li>The study will also assess what resources are needed for program scale-up at the provider and health systems level.</li> </ul>
FastPrEP & PrEPared to Choose	Oral PrEP, PrEP ring, and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP will conduct a cost analysis in collaboration with HERO to understand what is the most cost-effective decentralized and simple service delivery model for PrEP.</li> </ul>
SCOPE-PP	Oral PrEP	<ul style="list-style-type: none"> <li>SCOPE-PP will evaluate the cost-effectiveness and equity impact of the PrEP intervention versus standard of care of HIV treatment (e.g., estimate HIV treatment cost offsets to estimate lifetime costs and DALYs averted).</li> </ul>
AXIS	Oral PrEP CAB PrEP	<ul style="list-style-type: none"> <li>AXIS will assess participant willingness to pay for PrEP services at private pharmacies.</li> </ul>

## Insights expected across studies:

- **Several studies will assess the affordability of the PrEP methods and the cost of delivery as a study subcomponent** (i.e., the cost analysis will not be the primary objective).
- After completion of the studies, the NDOH will have insights on the **cost of delivery for all three PrEP products (oral PrEP, DVR, and CAB PrEP) across multiple service delivery channels:**
  - CATALYST will provide insights on cost of delivery in USAID-funded sites (e.g., public HIV facilities and NGO IPs) for oral PrEP, the DVR, and CAB PrEP.
  - Project PrEP will have an in-depth cost analysis of PrEP integration into comprehensive SRH services through fixed facilities and decentralized, community-based mobile clinics for oral PrEP, the DVR, and CAB PrEP.
  - Let's Talk & LAPIS will study affordable pricing and the cost of delivery for PrEP and SRH integration for the DVR, CAB PrEP, PEP and oral PrEP.
  - FastPrEP will assess the cost-effectiveness of decentralized and simple service delivery for PrEP.
  - SCOPE-PP will evaluate the cost-effectiveness of PrEP interventions for PBFP versus the lifetime costs and DALYs averted for the standard of care for HIV treatment.
  - AXIS will provide insights on client willingness to pay for PrEP services at private pharmacies.
- **Affordable pricing for CAB PrEP will not be extensively studied**, which remains a key consideration for the Essential Medicines Committee.

# 2

## Delivery platforms and/or models that reach priority populations



PrEP DELIVERY PLATFORMS

### Research question:

Which **delivery platforms and/or models** will best reach populations who need PrEP?

Study	PrEP methods	Research objectives	Type of assessment
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will assess the acceptability of delivery for the new PrEP methods across <b>USAID sites</b> to determine if they are successful at reaching priority populations: AGYW, FSWs, women engaged in transactional sex, TBNP, and PBFP.</li> </ul>	Effectiveness of delivery platform to reach priority populations
Let's Talk & LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Let's Talk &amp; LAPIS will study whether peer-led mobilization into <b>decentralized SRH services with and without a choice of long-acting PrEP</b> are effective channels for engaging young people (15–30 years) and KPs in rural South Africa.</li> </ul>	
Imagine	DVR and CAB PrEP	<ul style="list-style-type: none"> <li>Imagine will assess the effectiveness of reaching AGYW (15–24 years) within <b>school programming</b> by tracking the lessons learned on which subgroups of AGYW were reached, why, and whether they were the intended target group.</li> </ul>	
SCOPE-PP	Oral PrEP	<ul style="list-style-type: none"> <li>SCOPE-PP will assess feasibility of integrating PrEP into <b>ANC and PNC</b> to reach PBFP and will assess community delivery in postpartum women.</li> </ul>	
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will assess the uptake and use of PrEP across <b>fixed facility, mobile, and decentralized service delivery platforms</b>.</li> </ul>	Comparative analysis across delivery channels
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>DREAMS PrEP Choice will compare uptake of the DVR across differentiated service delivery models within <b>community-based DREAMS sites</b>.</li> </ul>	
LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>LAPIS will provide a comparative analysis on PrEP uptake and continuation in community-based settings.</li> </ul>	
FastPrEP & PrEPared to Choose	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP will assess which follow-up implementation strategies across hub-and-spokes models (e.g., <b>mobile clinics, local clinics, schools, courier service, youth clubs, quick PrEP depots at pharmacies</b>) are most effective at ensuring prevention effective use of the DVR by tracking whether PrEP users are following up and continuing PrEP at 6 and 18 months from initiation at a HIV clinic.</li> </ul>	
DO PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>DO PrEP will assess whether <b>home- and community-based initiation</b>, refills, and monitoring of PrEP achieves high PrEP access, effective use, and persistence among priority populations compared to clinic-based PrEP delivery.</li> </ul>	
My Journey	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>My Journey will compare the effectiveness <b>of community-based models (e.g., mobile units vs. fixed space in a HIV clinic)</b> to reach AGYW (18–24 years). The study will measure ease of access and patterns of use of PrEP across AGYW with different service delivery platforms.</li> </ul>	

### Insights expected across studies:

- Across the studies, the NDOH will have a **comprehensive view on both the effectiveness of the delivery channels to reach priority populations as well as how delivery platforms compare** for PrEP uptake and continuation across these population groups.
- CATALYST, Let's Talk, Imagine, and SCOPE-PP will focus on the **effectiveness of different delivery models to reach priority groups** (e.g., USAID sites, PrEP integration in SRH/ANC/PNC, and in school programming) across the PrEP methods.
- Project PrEP, DREAMS PrEP Choice, Fast PrEP, DO PrEP, LAPIS, and My Journey will provide **comparative analyses on PrEP uptake and continuation across delivery models and PrEP methods**, particularly to highlight whether community-based models are more effective for reaching priority groups than HIV clinic settings.





3

# Service readiness and delivery requirements for the new PrEP methods

## Research question:

What are the **service readiness and delivery requirements** for the new PrEP methods?

Study	PrEP method	Research objectives
CATALYST	Oral PrEP, DVR and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will assess the readiness and feasibility of USAID-funded facilities (public and NGO IPs) to implement and offer PrEP choice for oral PrEP, DVR and CAB PrEP.</li> <li>Data will be regularly monitored with bi-annual reports; an interim analysis will identify sites with high and low performance.</li> </ul>
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>DREAMS PrEP will study the service readiness for implementation in communities.</li> </ul>
Project PrEP	Oral PrEP, DVR and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will assess the feasibility and service delivery requirements for integrating new PrEP methods into existing SRH services.</li> <li>Project PrEP will assess the facilitators and barriers to new PrEP method introduction within routine primary care settings.</li> </ul>
LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>LAPIS will explore the effectiveness and real-world implementation of adding in the choice of PrEP methods to community-based integrated SRH and PrEP delivery models (including practical implementation issues and safety).</li> </ul>
FastPrEP & PrEPared to Choose	Oral PrEP, DVR and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP/PrEPared will assess what are the characteristics of delivery sites (e.g., the size and type of facility across mobile sites, clinics and HIV service providers) to accept an invitation to receive training for the integration of PrEP programming and subsequently compare which delivery sites follow through to integrate PrEP post-training (e.g., tracking PrEP delivery, initiation and continuation within these sites post-training).</li> <li>FastPrEP/PrEPared will also track what program modifications were needed across the intervention and why they occurred, specifically considering DVR provision and CAB PrEP administration.</li> </ul>
AXIS	Oral PrEP and CAB PrEP	<ul style="list-style-type: none"> <li>AXIS will describe operational suggestions from participants on how to improve PrEP service delivery at private pharmacies.</li> </ul>

### Insights expected across studies:

- Through CATALYST, DREAMS PrEP Choice, Project PrEP, LAPIS, FastPrEP/ PrEPared, and AXIS the NDOH will learn more about:
  - Service readiness for USAID-funded PrEP access points** (e.g., public health facilities and NGO IP sites) to integrate the new PrEP methods
  - Lessons learned about PrEP provider training and program modifications** that are needed to ensure PrEP integration within mobile sites and HIV clinics (e.g., based on size, type of facility) for DVR and CAB integration
  - The feasibility and service readiness and delivery requirements** for the PrEP integration in existing SRH services
  - Operational improvements for service delivery** at private pharmacies
- It is unclear whether the studies track the service readiness to support PrEP choice across priority populations.** Nevertheless, the combined studies to reach a wide range of target populations: AGYW, AGYW male partners, FSW, young MSM, women engaged in transactional sex, TBNP, and PBFP.

# Provider attitudes and beliefs about the new PrEP methods



## Research question:

What are **provider attitudes and beliefs** about the new PrEP methods, and what are we learning about how to inform or shape them?

Study	PrEP methods	Research objectives
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will assess the provider factors and barriers to the implementation process (e.g., including acceptability of the new PrEP methods among providers) for integrating the new PrEP methods, including health care providers as a target population for assessment in the study.</li> <li>A clinic committee will advise on the planning, development, and implementation of the study as well as provide input and feedback to convey questions and concerns to the research team.</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will explore provider experiences, perceived acceptability of service delivery components, and facilitators and barriers to new PrEP product delivery, as well as provider needs to implement new PrEP products, including capacity development requirements.</li> </ul>
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>DREAMS PrEP Choice will assess the factors that influence choice and uptake of the different PrEP methods, including health care providers who provide SRH and PrEP at DREAMS sites as a target population for assessment in the study.</li> </ul>
Let's Talk & LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Let's Talk &amp; LAPIS will explore the feasibility from a provider perspective of adding in the choice of CAB PrEP, DRV, and PEP to community-based, integrated SRH and PrEP delivery models</li> </ul>
Imagine	DVR and CAB PrEP	<ul style="list-style-type: none"> <li>Imagine will study the acceptability of the DVR, PrEP choice, and the service delivery package among providers.</li> </ul>
PrEP-PP	Oral PrEP	<ul style="list-style-type: none"> <li>PrEP-PP &amp; SCOPE-PP will assess the acceptability and feasibility of integrating PrEP interventions into ANC and PNC at the organizational and provider level.</li> </ul>
SCOPE-PP		
AXIS	Oral PrEP and CAB PrEP	<ul style="list-style-type: none"> <li>AXIS will describe provider experiences and perceptions of CAB PrEP implementation at private pharmacies.</li> </ul>

## Insights expected across studies:

- While several studies (CATALYST, DREAMS PrEP Choice, Imagine, SCOPE-PP) will provide the NDOH with some insights on the provider-level factors and barriers to PrEP choice and uptake, **only CATALYST, Project PrEP, DREAMS PrEP Choice, Let's Talk, LAPIS, and SCOPE-PP will include health care providers as a target population to understand acceptability among providers.**
- CATALYST and Project PrEP will provide a deeper understand of **provider attitudes and beliefs within fixed and mobile public health facilities, as well as in sites of PEPFAR/USAID-funded NGO IPs** that already have existing infrastructure for oral PrEP. This will give the NDOH insights on provider attitudes and acceptability to offer PrEP choice for the DVR and CAB PrEP across a wide range of population groups (AGYW, KPs, etc.).
- DREAMS PrEP Choice will assess how **health care providers who provide SRH and PrEP at DREAMS sites influence choice and uptake among end users** for oral PrEP and the DVR. This will give the NDOH insights on health care provider attitudes and beliefs for those who are familiar to give SRH services for AGYW in youth-friendly spaces.
- Although health care providers are not a target population within the study assessment, Imagine will provide insights on the acceptability of the DVR and PrEP choice among **school-based health care providers** who offer both PrEP and SRH services as an integrated package for AGYW.
- PrEP-PP & SCOPE-PP will provide the NDOH with insights on **health care provider attitudes toward PBFP** initiating and continuing PrEP within public health clinics as well as ANC and PNC.
- AXIS will provide the NDOH with insights on **private sector provider bias.**

# Integration of the new PrEP methods within oral PrEP provision



## Research question:

How should the new PrEP methods be **integrated within oral PrEP provision** and/or existing PrEP programming?

Study	PrEP methods	Research objectives
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will assess facility- and health system-level facilitators of and barriers to the implementation of the new PrEP methods, building on the existing PrEP service delivery within existing USAID-funded sites in public health facilities and NGO IP sites that are in accordance with NDOH guidelines.</li> <li>The study will include a quality improvement (QI) approach to adapt the enhanced service delivery package for PrEP choice throughout the duration of the study, including a QI Collaborative to facilitate knowledge sharing and stakeholder advisory mechanisms.</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will assess the integration of the DVR and CAB PrEP within comprehensive SRH services in fixed and mobile facilities as well as conduct a substudy on the integration of PrEP into STI management.</li> </ul>
LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>LAPIS will explore the effectiveness and real-world implementation of adding the choice of CAB PrEP, the DRV, and PEP to community-based, integrated SRH and PrEP delivery models (acceptability, feasibility, practical implementation issues, and safety).</li> </ul>
FastPrEP & PrEPared to Choose	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP will assess facility-level facilitators and barriers to PrEP product implementation, including testing models of providing PrEP choice counseling</li> </ul>

## Insights expected across studies:

- Most studies will build on existing oral PrEP infrastructure and provision; however, **only two will study the integration of the new PrEP methods within oral PrEP provision** as a core component of the study.
  - CATALYST will provide the NDOH insights on **integration of DVR and CAB PrEP within existing oral PrEP programming in USAID-funded public health facilities and NGO clinics** that reach AGYW, FSWs, women engaged in transactional sex, TNBP, and PFBF.
  - Project PrEP will provide the NDOH insights on the **integration of the DVR and CAB PrEP within fixed HIV facilities, mobile clinics, and other fixed, decentralized service points**. Project PrEP will also provide the NDOH some insights on the integration of PrEP within STI management.
  - FastPrEP will provide the NDOH insights on the facility-level **facilitators of and barriers to PrEP implementation within public health facilities and community-based models**.
  - LAPIS will provide the NDOH insights into adding in the **choice of CAB PrEP, the DRV, and PEP to community-based integrated SRH and PrEP delivery models**.



6

# Demand generation strategies (1/2)

**Research question:**

Which **demand generation strategies** are most effective to support uptake and effective use of the new PrEP methods?

Study	Research objectives	Demand generation strategies
CATALYST	<i>No clear research objective defined</i>	<ul style="list-style-type: none"> <li>Add PrEP choice to existing community engagement and demand generation activities</li> <li>Align stakeholders around a common AGYW positioning strategy for PrEP</li> <li>Apply the positioning strategy to refresh national demand creation strategies and campaigns</li> <li>Roll out interventions with influencers—parents, peers, providers—to normalize PrEP</li> <li>Adapt user-support tools and strengthen the capacity of ambassadors in PEPFAR-supported programming, including DREAMS</li> </ul>
Project PrEP	Project PrEP will determine the most effective demand creation and messaging strategies for increasing uptake and promoting effective use of PrEP.	<p>Demand generation will be undertaken only for oral PrEP and HIV prevention services until the new PrEP methods are widely available. Strategies implemented will include:</p> <ul style="list-style-type: none"> <li>Print, digital, and mass media</li> <li>Social mobilization targeting AGYW (e.g., community celebration events, network of AGYW HIV prevention ambassadors, community information agents who mobilize AGYW, etc.)</li> <li>Client support for continuation (in-person and digitally)</li> </ul>
DREAMS PrEP Choice	DREAMS PrEP Choice will study increased demand for services through targeted demand creation activities in communities to support the normalization and buy-in of PrEP as an effective prevention tool.	<ul style="list-style-type: none"> <li>Dialogues with communities supported by CBOs</li> <li>HIV prevention ambassadors engaging AGYW in communities</li> <li>Addressing ward councilors, traditional leaders, chiefs</li> <li>Radio interviews on African local radio stations</li> <li>Social media posts (e.g., targeted and boosted posts using the MyPrEP Facebook page)</li> </ul>
Let’s Talk & LAPIS	Let’s Talk & LAPIS will study which social mobilization approaches will attract young people to create demand for risk-informed HIV prevention.	<ul style="list-style-type: none"> <li>Peer-led social mobilization</li> <li>Structured needs assessment and support</li> <li>Referral into community-based integrated HIV/SRH services through mobile AFYS</li> </ul>
FastPrEP & PrEPared sub-study	<i>No clear research objective defined</i>	<ul style="list-style-type: none"> <li>Leveraging existing Youth Reference Group (of PrEP users and PrEP-naïve members)</li> <li>Recruiting existing FastPrEP clients and previous ring study participants</li> <li>PrEP ambassadors</li> <li>Designing materials to help women make informed decisions across the PrEP methods</li> <li>Digital, social and print media on oral and new PrEP modalities</li> </ul>



6

# Demand generation strategies (2/2)

**Research question:**

Which **demand generation strategies** are most effective to support uptake and effective use of the new PrEP methods?

Study	Research objectives	Demand generation strategies
DO PrEP	<i>No clear research objective defined</i>	<ul style="list-style-type: none"> <li>• Motorcades/load hailing</li> <li>• Community events and mobilization</li> <li>• Partnerships with HIV counseling and testing centers and programs</li> <li>• Home-based and mobile HIV testing programs</li> <li>• Family planning clinics, youth clinics, post-abortion clinics</li> <li>• Pharmacies that provide emergency contraception and PEP (e.g., for sexual assault)</li> <li>• Social media platforms popular among young people</li> </ul>
My Journey	My Journey will study the effectiveness of social mobilization strategies to increase uptake by AGYW.	<ul style="list-style-type: none"> <li>• Information, education, and communication materials</li> <li>• Contacting existing My Hope cohorts</li> <li>• Information shared in local newspaper and radio</li> <li>• Create demand in targeted areas of implementation (community and facilities)</li> <li>• AYP ambassadors/influencers</li> <li>• Community dialogues</li> <li>• Focus group discussions</li> </ul>
National SWP	<i>No clear research objective defined</i>	<ul style="list-style-type: none"> <li>• Meetings with local stakeholders and gatekeepers</li> <li>• Program awareness creation meetings for sex workers, health campus teams</li> <li>• Community engagement with traditional leaders, community strengthening systems (CSSs), implementing organizations (IPOs)</li> </ul>
Imagine	Imagine will assess the role of key influencers (e.g., parents) within demand creation and PrEP education models.	<ul style="list-style-type: none"> <li>• Engage AGYW in gamification approaches post screening within school programming</li> </ul>

**Insights expected across studies:**

- Although all studies deploy demand generation strategies, **only a few will measure the effectiveness of the demand generation strategies** to increase prevention/effective PrEP use and continuation.
- The **NDOH will have lessons on the effectiveness of demand generation strategies** across several studies: DREAMS, LAPIS, DO PrEP, My Journey, and Image.
- All these studies focus on **reaching AGYW and other priority groups** through community mobilizers and dialogues, peer influencers, partner counseling, and mass media campaigns (e.g., radio, TV, social media platforms).

# End-user preferences across the PrEP methods (1/2)



## Research question:

What are **end-user preferences** across PrEP methods, and how are they making decisions among methods?

Study	PrEP methods	Research objectives and / or research question
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will conduct in-depth assessments of end-user preferences and how they are making decisions among methods through:               <ul style="list-style-type: none"> <li>Assessment of patterns of PrEP use and use effectiveness in the context of PrEP choice (i.e., preventive effective use) as well as an assessment of sociodemographic and contraceptive use correlation to PrEP use patterns</li> <li>Assessment of how end users use PrEP, including continuation, method switching, and restart and discontinuation patterns</li> <li>Assessment of PrEP method acceptability among PrEP users and which product end users prefer when offered choice</li> </ul> </li> <li>Service statistics (monthly disaggregated facility-level data on PrEP use) will assess change in PrEP uptake over the course of the study.</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will study the uptake and continuation of PrEP among AGYW and other priority groups (e.g., transgender) in fixed and mobile SRH services to understand:               <ul style="list-style-type: none"> <li>The factors that influence choice and uptake of the different PrEP methods</li> <li>The frequency of and reasons for switching between PrEP products</li> <li>The rates of PrEP continuation, as well as the factors that affect continuation and how they differ by PrEP product</li> </ul> </li> </ul>
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>DREAMS PrEP Choice will study the uptake, preference, and patterns of long-acting method use among women of reproductive age at the DREAMS site.               <ul style="list-style-type: none"> <li>Assessment of whether offering additional choice influences coverage of PrEP for AGYW</li> <li>Assessment of the frequency of and reasons for switching between PrEP products</li> <li>Assessment of the rates of PrEP continuation among DVR users and the factors that affect discontinuation across PrEP products</li> </ul> </li> </ul>
LAPIS	Oral PrEP, DVR, and CAB PrEP	LAPIS will explore the acceptability, preferences, reach, and retention of long-acting PrEP among end users.
FastPrEP & PrEPared sub-study	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP will assess the demographic, risk profile, and clinical characteristics of early PrEP adopters for the new methods (DVR and CAB PrEP) compared to oral PrEP.</li> <li>FastPrEP will also measure the time required for end users to self-select to adopt DVR or CAB PrEP as opposed to other PrEP modalities.</li> </ul>
DO PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>DO PrEP will study end-user experiences of PrEP use over time (access, effective use, and persistence) as well as their preferences and experiences with PrEP delivery approaches and products.</li> </ul>

# End-user preferences across the PrEP methods (2/2)



## Research question:

What are **end-user preferences** across PrEP methods, and how are they making decisions among methods?

Study	PrEP methods	Research objectives
My Journey	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>My Journey will assess the acceptability and uptake of and stigma associated with DVR use by AGYW. My Journey will also study end-user perceptions of the concurrent use of DVR and tampons.</li> </ul>
National SWP	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>The National SWP program will study the acceptability of the DVR among the sex worker community, based on learning from how the introduction of the menstrual cup may influence preference for the DVR among the sex worker community.</li> </ul>
Imagine	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Imagine will assess service quality perceptions from end users, building on insights from other interventions similar to the DVR (e.g., such as vaginal products like the menstrual cup and diaphragm).</li> <li>Imagine will also look at the values and preferences underlying PrEP method choice and use as well as PrEP uptake, continuation/discontinuation, patterns of use/prevention effective use, concomitant use, and switching patterns between oral PrEP and DVR.</li> </ul>
PrEP-PP	Oral PrEP	<ul style="list-style-type: none"> <li>PrEP-PP will assess the acceptability of PrEP among PBFP within public HIV clinics and CHCs.</li> </ul>
SCOPE-PP	Oral PrEP	<ul style="list-style-type: none"> <li>SCOPE-PP will assess the acceptability of PrEP among PBFP within ANC and PNC, including differentiated community-based delivery of PrEP in postpartum women.</li> </ul>
AXIS	Oral PrEP and CAB PrEP	<ul style="list-style-type: none"> <li>AXIS will study PrEP uptake, persistence, and patterns of transition on each form of PrEP, as well as the risk profiles of those taking up and/or deferring PrEP services.</li> <li>AXIS will also describe the associations between sociodemographic factors, reported sexual behavior, PrEP knowledge, and previous PrEP use and PrEP choice.</li> </ul>

## *Insights expected across studies:*

- The NDOH will have a **wide range of insights on end-user preferences**—this is a core research objective across all the studies.
- Among the insights the NDOH will gain, the **most common across studies include:**
  - Acceptability of PrEP among AGYW as well as PBFP
  - Patterns of PrEP use and use effectiveness in the context of PrEP choice (i.e., prevention effective use) with sociodemographic and contraceptive use correlation to PrEP use patterns
  - Continuation, method switching, and restart and discontinuation patterns
  - PrEP method acceptability among PrEP users and which product end users prefer when offered choice
  - PrEP acceptability and patterns of use within private pharmacies across client socioeconomic factors, as well as across oral PrEP and CAB PrEP

# Key influencer attitudes and engagement models



## Research question:

How do **key influencers** affect the uptake and effective use of the new PrEP methods, and how can they be engaged effectively?

Study	PrEP method	Research objectives
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will assess the attitudes of key influencer and communities (e.g., among partners, parents, and caregivers), including establishing a community advisory board as well as a youth advisory board.</li> <li>The study will establish or leverage existing stakeholder advisory mechanisms, including community advisory boards (e.g., Lejweleputswa community) and youth advisory mechanisms (e.g., NextGen Squad).</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will study the factors that influence choice and uptake of the different PrEP methods, which may include key influencer attitudes; however, this is not a core component of the study.</li> <li>Several key influencer engagement models will be deployed:               <ul style="list-style-type: none"> <li>Planned 22 community engagement activities with AGYW, as well as parents and other community members, including traditional and religious leaders</li> <li>Facilitating 2 large engagements with AGYW and their male peers, including Generation PrEP! Simunye Ambassadors and community informant agents</li> </ul> </li> </ul>
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>DREAMS PrEP Choice will study the factors that influence choice and uptake of the different PrEP methods, particularly to understand community considerations from community gatekeepers.</li> </ul>
My Journey	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>My Journey will study male sex partner perceptions of DVR use by their AGYW partners and how they influence AGYW.</li> <li>The program will engage key influencers, such as ward counselors, civil society organizations, and traditional and religious leaders as well as CSS IPOs.</li> </ul>
National SWP	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>The National SWP program will engage key influencers, such as traditional leaders, CSS IPOs, and gatekeepers in hot spots, to raise awareness and sensitize stakeholders on the new PrEP methods.</li> <li>Furthermore, the program will assess whether sexual partners are able to feel the ring.</li> </ul>
Imagine	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Imagine will assess the most effective engagement models for parents in education and demand creation to get their support for PrEP as an empowerment option for young women.</li> </ul>
PrEP-PP	Oral PrEP	<ul style="list-style-type: none"> <li>PrEP-PP &amp; SCOPE-PP will assess the acceptability of PrEP (and HIV self screening) for the male partners of PBFP.</li> </ul>
SCOPE-PP		

### Insights expected across studies:

- The NDOH will have a **broad understanding of key influencer attitudes and beliefs, as well as the engagement models to effectively educate and sensitize them** on the new PrEP methods.
- Key influencer groups that will be engaged include:
  - Parents and caregivers**
  - Male partners of AGYW and PBFP**
  - Community members such as traditional and/or religious leaders**
  - Community health volunteers/ward counselors**
  - Sex worker gatekeepers**
- The insights from the studies will inform **how key influencer attitudes and beliefs affect a wide range of end users:** AGYW, AGYW male partners, FSWs, young MSM, women engaged in transactional sex, TBNP, and PBFP.



# 9

## Social harms associated with PrEP use

### Research question:

What evidence of **social harms associated with PrEP use** has emerged, particularly for the PrEP ring?

Study	PrEP method	Research objectives and / or research question
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will include job aids for health care workers to support gender-based violence (GBV) response as a part of the enhanced service delivery package.</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will document and analyze the proportion and types of social harms experienced by participants using PrEP (by PrEP method).</li> <li>Routine screening for GBV and mental health is conducted for all Project PrEP participants.</li> </ul>
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>Collection of social harms experienced by study participants</li> <li>DREAMS PrEP Choice will conduct a series of in-depth interviews and focus group discussions after enrollment where participants will be screened for mental health disorders, GBV, and substance use.</li> </ul>
LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>LAPIS will explore social harms and the safety of delivering a choice of CAB PrEP, the DRV, and PEP within community-based integrated SRH and PrEP delivery models through a mixture of quantitative and qualitative data collection.</li> </ul>
FastPrEP & PrEPared to Choose	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>While assessing social harms is not a core component of the study, FastPrEP/PrEPared will also monitor the negative consequences of PrEP use in young people, based on self-report at each in-person visit. These data may elevate evidence of social harms, particularly related to DVR use by AGYW.</li> </ul>
My Journey	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>The My Journey program includes GBV and intimate partner violence (IPV) awareness as a component of the service delivery package; however, monitoring social harms for PrEP use is not a core research objective.</li> </ul>
National SWP	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>The National SWP program includes GBV awareness and screening as a core component of its layered services; however, monitoring social harms for PrEP use is not a core research objective.</li> </ul>
PrEP-PP	Oral PrEP	<ul style="list-style-type: none"> <li>PrEP-PP &amp; SCOPE-PP will assess occurrences of adverse events, including IPV and/or the end of a relationship, associated with PrEP uptake among PBFP.</li> </ul>
SCOPE-PP		

### Insights expected across studies:

- A number of studies include gender-based violence and intimate partner violence awareness as a component of the service delivery package, but **several studies will provide deeper insights on the negative consequences of PrEP use** through participant interviews at each in-person visit (e.g., DREAMS PrEP Choice, Project PrEP, LAPIS, FastPrEP/PrEPared, PrEP-PP, and SCOPE-PP).
- There is an opportunity for further research to track social harms across the studies, especially considering that **monitoring any evidence of social harms associated with PrEP use is a priority for the Essential Medicines Committee**, particularly to move forward with the approval of the DVR in South Africa.

# Tools to effectively support choice among the PrEP methods



## Research question:

What **tools effectively support choice** among the PrEP methods?

Study	PrEP method	Research objectives
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will develop user-support tools for PrEP choice (e.g., job aids) and strengthen the capacity of ambassadors in PEPFAR-supported programming, including DREAMS.</li> <li>The study will include a QI approach to adapt the enhanced service delivery package for PrEP choice throughout the duration of the study, including a QI Collaborative to facilitate knowledge sharing and stakeholder advisory mechanisms.</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will implement the support tools developed and recommended in the NDOH guidelines. A formal evaluation of client and provider tools is not planned but would be explored through qualitative data collection.</li> </ul>
Let's Talk & LAPIS	Oral PrEP, DVR and CAB PrEP	<ul style="list-style-type: none"> <li>Let's Talk &amp; LAPIS will study the effectiveness of a peer-led REDCap based needs assessment and tailored psychosocial support to increase uptake, retention, and adherence to HIV prevention among young people (15–30 years).</li> </ul>
FastPrEP and PrEPared to Choose	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP &amp; PrEPared to Choose will co-create a PrEP choice counseling script with key stakeholders (youth, PrEP providers, peer navigators) and sexual health product choice experts.</li> <li>The aim will be to identify potential enablers and barriers to the implementation of the PrEP choice counseling process at the level of the community, health care facility, PrEP provider, and PrEP user.</li> </ul>
Imagine	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Imagine will study the effectiveness of client support interventions/tools to support continued use of PrEP among AGYW in schools, including an assessment of what investments improve uptake and the needed system-, provider-, and user-level supports to support informed choice and prevention effective use of the DVR.</li> </ul>

### *Insights expected across studies:*

- The NDOH will have **insights on the most effective user-support tools for PrEP choice across several studies.**
- CATALYST will employ a quality improvement approach to adapt the enhanced service delivery package for PrEP choice throughout implementation. The NDOH will have insights on **how to adapt support tools that are designed for USAID-funded HIV facilities and IPs.**
- Let's Talk, LAPIS, and Imagine will provide the NDOH with lessons on the **effectiveness of peer-led support tools that are designed for adolescents and youth in community-based models** (e.g., community mobile sites, in-school youth-friendly clinics).
- FastPrEP & PrEPared to Choose will identify the **enablers and barriers to PrEP choice counseling at the individual, community, and health care facility levels** within fixed and mobile HIV clinics.

# Linkages between PEP and PrEP



## Research question:

What are most effective approaches to **strengthening linkages between PEP and PrEP?**

Study	PrEP method	Research objectives	Is screening for PEP included in the study (e.g., eligibility criteria)?
LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>LAPIS will explore the uptake of PEP packs amongst adolescents and youth who are eligible but choose not to take up oral or long-acting PrEP.</li> <li>Describe patterns of PEP use</li> <li>Describe PEP into PrEP journeys</li> </ul>	<ul style="list-style-type: none"> <li>LAPIS will screen for PEP use and will encourage PEP users to initiate PrEP.</li> </ul>
DO PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>No clear research objectives defined</li> </ul>	<ul style="list-style-type: none"> <li>DO PrEP will screen for PEP. Participants who meet criteria for PEP will be offered 28 days of PEP prior to transition to PrEP.</li> </ul>

### *Insights expected across studies:*

- **Only two studies will track the linkages between PEP and PrEP.**
- LAPIS will study several research objectives that will provide the NDOH with **insights on patterns of use for PEP and the journey from PEP to PrEP**. These insights will help the NDOH understand the **linkages between PEP and PrEP use within community models**, nurse-led mobile clinics, and fixed public facilities.

# Frequency and characteristics of seroconversion and HIV drug resistance across the PrEP methods



## Research question:

What are the **characteristics and frequency of seroconversion and HIV drug resistance** among PrEP users across the new PrEP methods?

Study	PrEP methods	Research objectives
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>CATALYST will include an in-depth HIV drug resistance and monitoring study to describe clinically relevant indicators among PrEP users, including rates of HIV infection and drug resistance among PrEP users who acquire HIV following PrEP exposure.               <ul style="list-style-type: none"> <li>Which combination of HIV testing works best in detecting HIV among CAB PrEP users</li> <li>The number of PrEP users who seroconvert</li> <li>The proportion and rates of HIVDR mutations among PrEP users who acquire HIV</li> <li>The side effects that are frequently reported across the PrEP methods</li> </ul> </li> </ul>
DREAMS PrEP Choice	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>DREAMS PrEP Choice includes an HIVDR sub-study in most recent modifications (currently in approvals as of October 2023).</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Project PrEP will monitor the incidence of HIV, as well as the associated HIV viral load and resistance patterns, among PrEP users across the PrEP methods.</li> </ul>
LAPIS	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Let's Talk &amp; LAPIS will monitor drug resistance and virological suppression in all seroconverters.</li> </ul>
FastPrEP & PrEPared sub-study	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP/PrEPared will assess the negative consequences of PrEP use in young people (e.g., side effects), based on self-report at each in-person visit.</li> </ul>
My Journey	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>My Journey will monitor seroconversions among AGYW using DVR.</li> </ul>
National SWP	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>The national SWP program will monitor the side effects associated with PrEP use, as well as the correct and acceptable at-home waste disposal of DVR for clients.</li> </ul>
Imagine	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Imagine will assess and compare prevention effective use for oral PrEP and the PrEP ring.</li> </ul>
PrEP-PP	Oral PrEP	<ul style="list-style-type: none"> <li>PrEP-PP &amp; SCOPE-PP will monitor PrEP adherence through blood levels for PBFP, HIV incidence in participants, and the number of adverse events (e.g., side effects, IPV).</li> </ul>
SCOPE-PP		

## Insights expected across studies:

- Many studies will track the **frequency and characteristics of seroconversion and side effects across the priority population groups as well as the service delivery channels.**
- CATALYST, DREAMS PrEP Choice sub-study, Project PrEP, and LAPIS are the only studies that are specifically tracking HIVDR.
- The data across the studies will be of great value to the Essential Medicines Committee, considering this is a key research question for the approval of the new PrEP methods in South Africa.

# Deep dive: Pregnant and breastfeeding people (1/2)

## Research question:

For studies focused on PrEP provision to PBFP, what are the **studies seeking to learn?** What **data or indicators** will be collected?

Study	Study design	PrEP methods	Research objectives and data indicators tracked
Deliver	Clinical trial	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>Deliver is a study focused on <b>PrEP use among HIV-negative pregnant females and their infants</b>. The study will track the following indicators:               <ul style="list-style-type: none"> <li>Maternal and Infant Safety: To describe the maternal and infant safety profile associated with study product exposure during pregnancy</li> <li>Pregnancy Outcomes: To describe the pregnancy outcomes associated with study product exposure during pregnancy</li> <li>Pregnancy Complications: To describe pregnancy complications associated with study product exposure during pregnancy</li> <li>Infant Drug Levels: To describe infant levels of study drugs associated with study product exposure during pregnancy</li> <li>Adherence: To characterize adherence to open-label use of the DVR (25 mg) and oral Truvada in pregnant women.</li> <li>Acceptability: To characterize acceptability of open-label use of the DVR (25 mg) and oral Truvada in pregnant women.</li> <li>Genital Microenvironmental: To describe changes in the genital microenvironment associated with study product exposure during pregnancy</li> </ul> </li> </ul>
B-Protected	Clinical trial	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>B-Protected is a study focused on <b>PrEP use among breastfeeding mothers 6–12 weeks postpartum</b> and their infants. The study will track the following indicators:               <ul style="list-style-type: none"> <li>Maternal Safety Outcomes: To describe the maternal safety profile associated with study product exposure during breastfeeding in both study arms</li> <li>Infant Safety Outcomes: To describe the infant safety profile associated with study product exposure during breastfeeding in both study arms</li> <li>Drug Detection: To summarize the frequency of study drug detection and concentration of study drug(s) in mothers and their breastfeeding infants</li> <li>Adherence: To characterize adherence to open-label use of the DVR (25 mg) and oral Truvada in breastfeeding women</li> <li>Acceptability: To characterize the acceptability of open-label use of the DVR (25 mg) and oral Truvada in breastfeeding women</li> </ul> </li> </ul>
CATALYST	Implementation	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>The study includes PBFP as a target population and will track pregnancy and infant outcomes by PrEP product as a key research objective. Implementation for CATALYST is primarily in USAID-funded HIV facilities and NGO IPs.</li> </ul>
FastPrEP & PrEPared to Choose	Implementation	Oral PrEP and CAB PrEP	<ul style="list-style-type: none"> <li>FastPrEP includes PBFP as a target population and will track reach, delivery effectiveness, and PrEP continuation.</li> <li>For the PrEPared to Choose substudy, women who become pregnant on CAB PrEP will continue use and infant outcomes will be tracked.</li> </ul>
PrEP-PP	Implementation	Oral PrEP	<ul style="list-style-type: none"> <li>PrEP-PP is a study focused on PrEP use among pregnant and postpartum women. The study will track the following indicators from first ANC visit through 12 months postpartum:               <ul style="list-style-type: none"> <li>Individual level/acceptability: reach/PrEP uptake, effectiveness, and maintenance/PrEP continuation and adherence</li> <li>Staff level/feasibility: adoption and implementation</li> <li>Safety, including pregnancy and birth outcomes in cohort of 1,300 pregnant women</li> </ul> </li> </ul>
SCOPE-PP	Implementation	Oral PrEP	<ul style="list-style-type: none"> <li>SCOPE-PP is a study focused on PrEP use among PBFP (gestational &gt;21 weeks) postpartum and their live infants through 12 months postpartum</li> <li>Indicators tracked: PrEP continuation and adherence, acceptability, and feasibility among PBFW and providers, safety (pregnancy &amp; birth outcomes, IPV)</li> </ul>

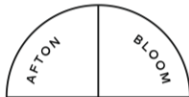
# Deep dive: Pregnant and breastfeeding people (2/2)

## Research question:

Across all studies, how is **pregnancy tracked for PrEP users**? What **follow-up protocols and/or strategies** are being used (e.g., to track eventual birth outcomes)?

Study	PrEP methods	How is pregnancy tracked for PrEP users?	What follow-up protocols and/or strategies are being used (e.g., to track eventual birth outcomes)?
CATALYST	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Project PrEP	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Pregnancy screening is conducted for all clients not on effective contraception at PrEP initiation and prior to provision of a new PrEP product.</li> <li>Project PrEP will document the proportion of clients who become pregnant while using PrEP (by method) and the proportion initiated on PrEP during pregnancy.</li> </ul>	<ul style="list-style-type: none"> <li>NDOH pregnancy outcome reporting tool</li> </ul>
DREAMS	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
LAPIS	Oral PrEP, DVR, CAB PrEP, and PEP	<ul style="list-style-type: none"> <li>Pregnancy tests at baseline and each visit</li> <li>Report women who fall pregnant on CAB PrEP to pregnancy/ART register</li> <li>Counseling on risk/benefit of PrEP continuation</li> <li>Follow the participant closely (ANC and PNC) with enhanced safety monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>[Description of follow-up protocols and/or strategies (e.g., to track eventual birth outcomes) within study design]</li> </ul>
FastPrEP / PrEPared to Choose	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Pregnancy screening at initiation and follow-up visits</li> </ul>	<ul style="list-style-type: none"> <li>Pregnancy will be tracked, and the outcome recorded and reported to Western Cape Pregnancy Register and SAHPRA</li> </ul>
DO PrEP	Oral PrEP, and CAB PrEP	<ul style="list-style-type: none"> <li>Pregnancy tests at study visits if applicable and counseled about PrEP use and adherence during pregnancy and breastfeeding if applicable</li> <li>Indicators tracked: Continuation and adherence, acceptability, and feasibility</li> </ul>	<ul style="list-style-type: none"> <li>Participants who become pregnant during the study will be encouraged to remain on PrEP per national guidelines. Pregnant participants are eligible to remain in the study and will continue to have follow-up visits.</li> </ul>
My Journey	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
National SWP	Oral PrEP and DVR	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Imagine	Oral PrEP, DVR, and CAB PrEP	<ul style="list-style-type: none"> <li>Pregnancy testing is incentivized through accessibility and availability, as well as the provision of an incentive if an AGYW tests quarterly</li> </ul>	<ul style="list-style-type: none"> <li>A person on PrEP who becomes pregnant will be tracked for the time of implementation of the study, as the program includes linking pregnant learners with ANC before 20 weeks and follow-up.</li> </ul>

# ACKNOWLEDGMENTS



*MOSAIC is made possible by the generous support of the American people through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) cooperative agreement 7200AA21CA00011. The contents of this presentation are the responsibility of MOSAIC and do not necessarily reflect the views of PEPFAR, USAID, or the U.S. Government.*

*Photo Credit: MOSAIC Consortium*

