ZIMBABWE
Dapivirine ring situation and delivery channel analysis

April 2021

CHOICE Collaboration for HIV Prevention Options to Control the Epidemic

PROMISE Preparing for Ring Opportunities through Market Introduction Support and Knowledge Exchange

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RISE Reaching Impact, Saturation, and Epidemic Control

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Introduction

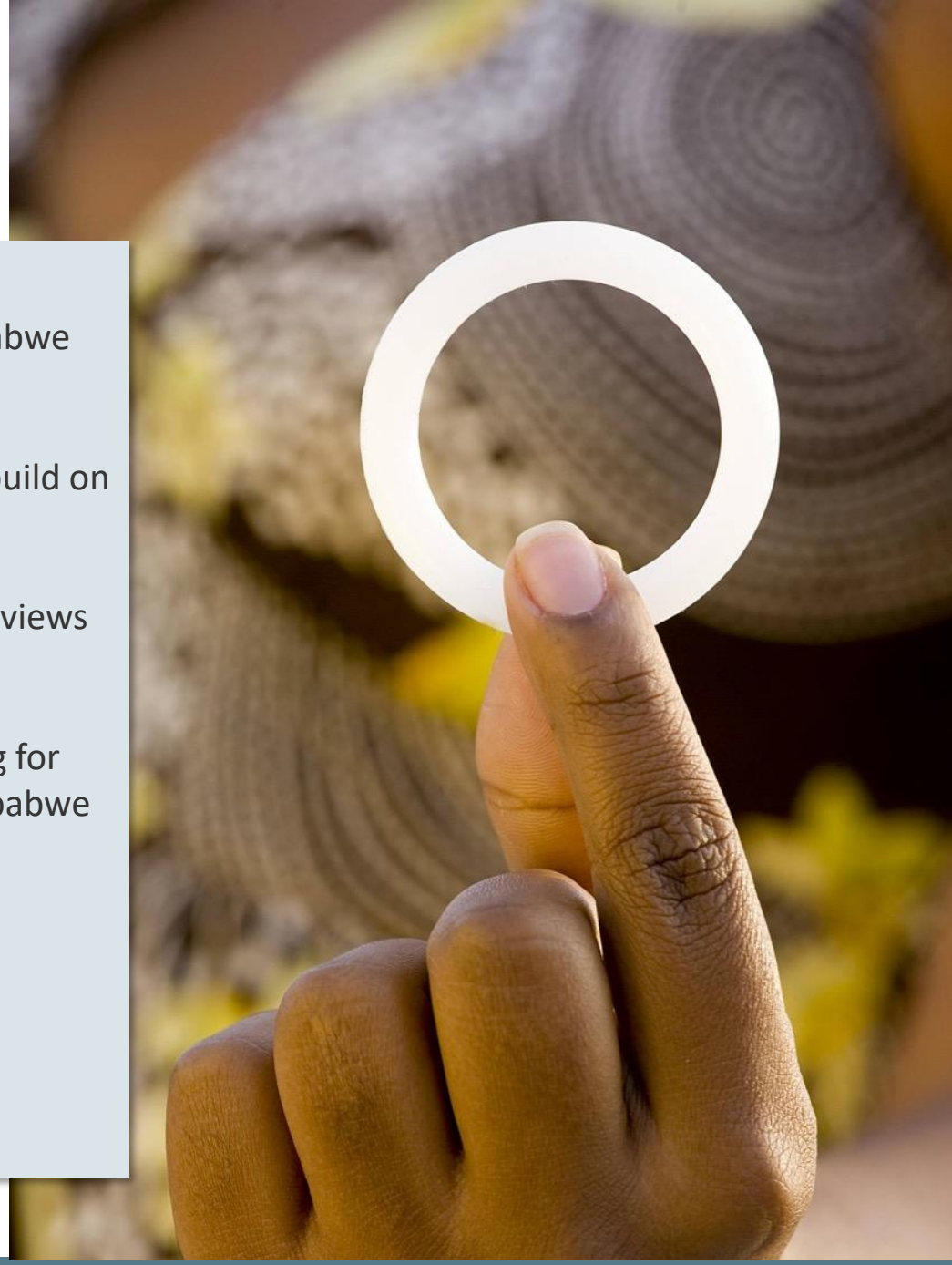
- This analysis can support introduction of the dapivirine ring (the ring) in Zimbabwe across two dimensions:
  - Considering and prioritizing **delivery channels** for the ring
  - Identifying critical steps for **ring introduction**, including opportunities to build on the introduction and scale-up of oral PrEP

- This analysis is based on several **inputs** including secondary research and interviews with key stakeholders in Zimbabwe

- This analysis can be used by **policymakers, implementers,** and others planning for introduction of the ring and other biomedical HIV prevention methods in Zimbabwe

- This **analysis** was developed in late 2020 and early 2021 by members of the PROMISE collaboration through Envision FP

- Similar analyses for several other countries and a summary of results across countries will be available on **PrEPWatch.org**



Key findings

- As a woman-controlled and long-acting HIV prevention option, **key stakeholders** recognize that the ring can be an important complement to condoms and oral PrEP in Zimbabwe.
- Zimbabwe has had a relatively **large-scale rollout of oral PrEP and HIV self-testing** (HIVST), both of which have established systems and yielded lessons for policy development, planning, supply chain, provider training, demand creation, and monitoring that can be leveraged for introduction of the ring.
- Zimbabwe is also embarking upon **introduction of DMPA-SC**, which presents an opportunity to consider the ring alongside other self-administered sexual and reproductive health (SRH) products.
- In addition, stakeholders in Zimbabwe are exploring initial efforts to integrate HIV and other **SRH services** – this effort is emerging with leadership from the Ministry of Health and Child Care (MOHCC), World Health Organization (WHO), and Zimbabwe National Family Planning Council (ZNFPC) and could further support ring introduction.
- A range of **delivery channels** will help the ring reach women at high risk for HIV, including nongovernmental organization (NGO) clinics and social franchises and ongoing NGO programs for adolescent girls and young women (AGYW); pharmacies and community healthcare workers (CHWs) may also be high priority channels depending on how the ring is classified by the National Medicines Control Authority of Zimbabwe (MCAZ).
- **Consistent investment** in commodity procurement, provider training, and demand generation will be needed and may prove challenging given competing priorities, based on the experience with oral PrEP.

Context for the dapivirine ring

Delivery channels for the dapivirine ring

Dapivirine ring introduction planning

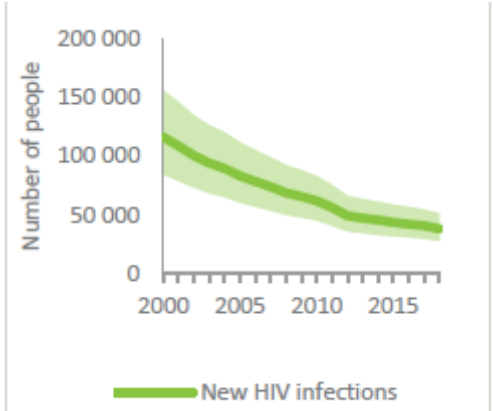
Sources

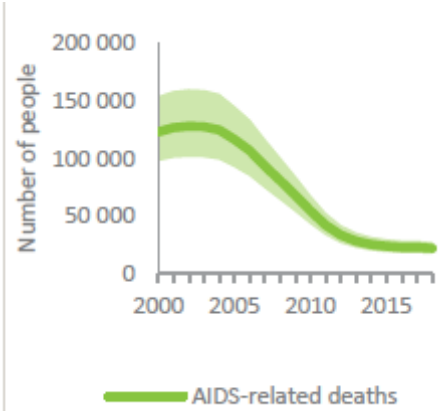
Zimbabwe's HIV incidence is decreasing overall

Zimbabwe has the fourth highest HIV prevalence rate in the world, with high rates of prevalence across populations. New infections have declined significantly in recent years and Zimbabwe has nearly reached the 90-90-90 targets. However, further progress is needed, especially among female sex workers (FSW), men who have sex with men (MSM), and adolescents.

Overview of HIV incidence and prevalence in Zimbabwe

Zimbabwe has an estimated 1.2 million people living with HIV, with a prevalence of 12.9% and 31,000 new infections annually.





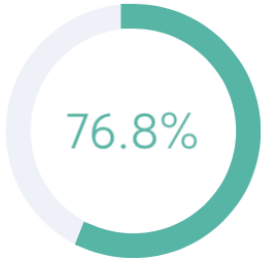
Change in new HIV infections since 2010 = -38%

Change in AIDS-related deaths since 2010 = -60%

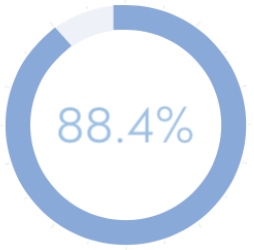
Overview of HIV prevention and treatment response

- The number of new HIV infections in the country has declined by 50% from 62,920 in 2010 to 31,000 in 2020.
- Zimbabwe is on track to achieve the 90-90-90 targets but did not achieve an initial target to reduce new infections to 15,730 by 2020.

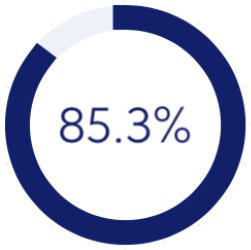
Zimbabwe progress towards 90 – 90 – 90 (2020)



Adults living with HIV knew their HIV status



Adults who were aware of their HIV status were on ART



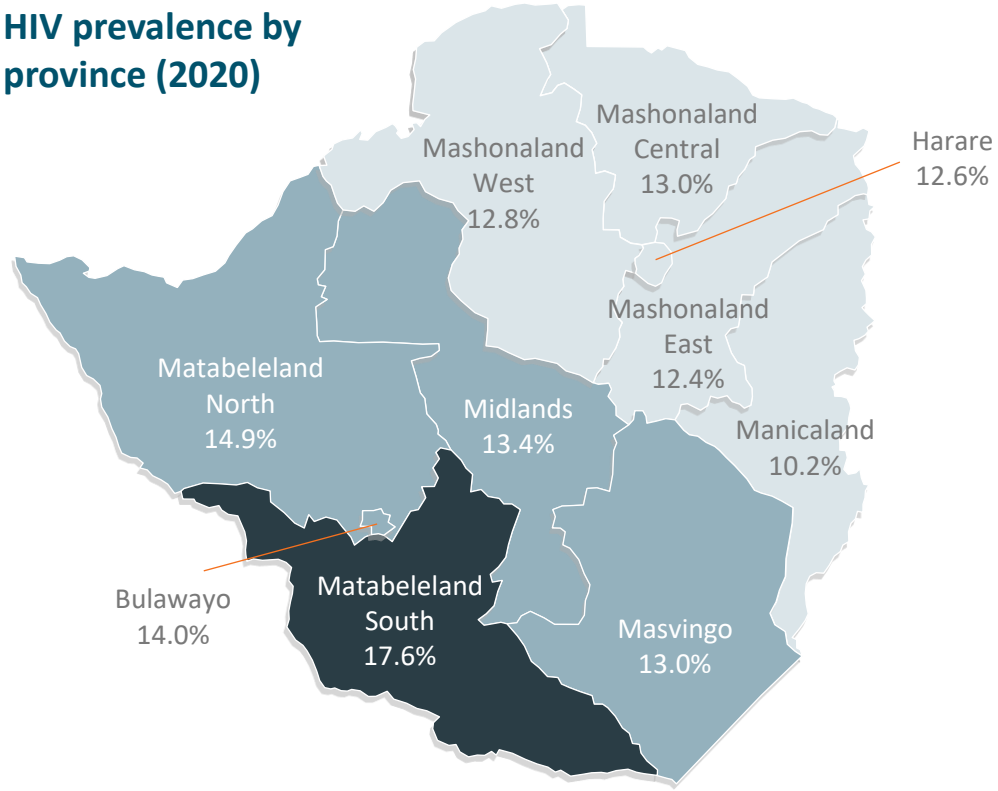
Adults who were on ART had viral load suppression

Sources: Global AIDS Response Progress Reports 2018 (UNAIDS, 2018); ZIMPHIA Summary Sheet (ICAP, 2020)

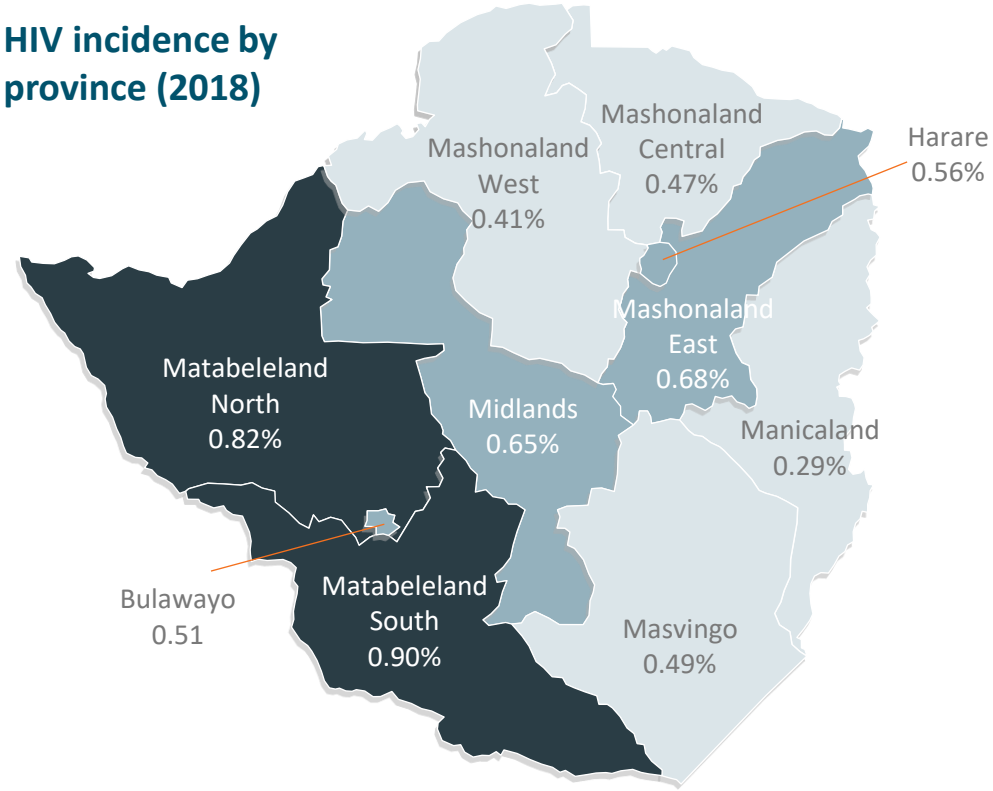
However, risk remains high, especially in certain provinces

HIV prevalence and incidence vary by province, with the highest HIV burden in South-Western Zimbabwe, especially in Matabeleland North and South.

HIV prevalence by province (2020)



HIV incidence by province (2018)

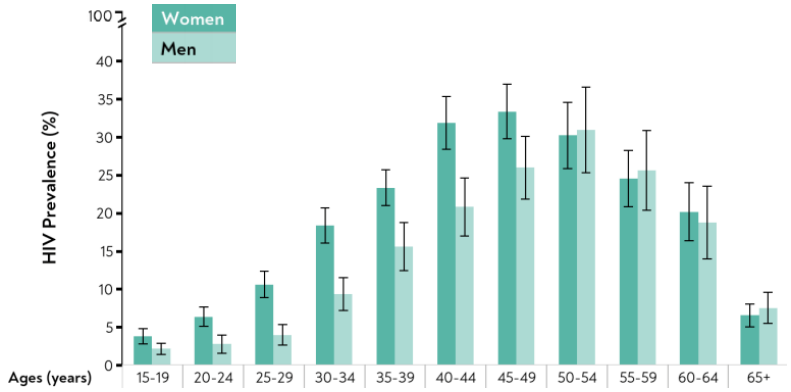


Sources: Global AIDS Response Progress Reports 2018 (UNAIDS, 2018); ZIMPHIA Summary Sheet (ICAP, 2020)

Incidence varies by population group

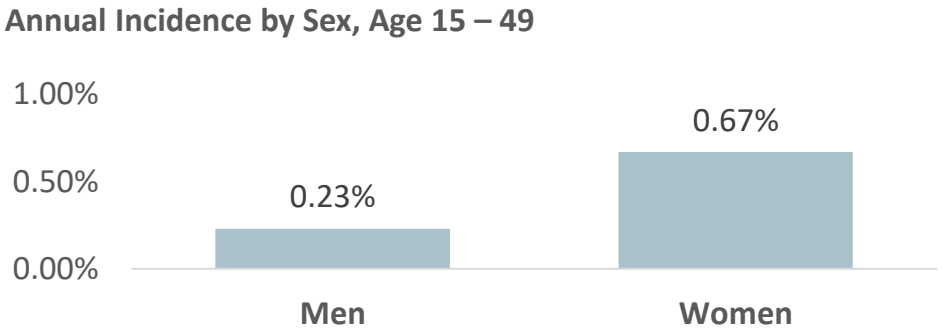
Prevalence of HIV in Zimbabwe varies widely by population, including by age, sex, and key groups. A large proportion of new infections is found among women, where their incidence is three times higher than men.

HIV Prevalence, by age and sex (2020)



HIV prevalence is **consistently higher among women** compared to men from age 20 through 49 years

HIV Incidence, by sex (2020)



Incidence of HIV in Zimbabwe is **three times higher among women compared to men** in adults aged 15-49 years.

Key Populations (2018)

People in **stable heterosexual unions** account for over half of all new HIV infections.

However, there are **growing epidemics among key populations** who are at higher risk of HIV. Incidence rates (per 100 people) for key populations include:

- Female sex workers (~44,500 population): 5.87
- Sex worker clients: 1.40
- Men who have sex with men: 1.19
- Prisoners (~20,000 population): 1.65

Sources: Global AIDS Response Progress Reports 2018 (UNAIDS, 2018); ZIMPHIA Summary Sheet (ICAP, 2020)

Adolescent girls and young women are highly impacted

Women account for 59% of the people living with HIV. The gender disparity is most pronounced among AGYW. While HIV incidence is declining overall, it has remained largely stable among AGYW.

Young adults have the highest incidence of HIV

In 2018, approximately a third of all new HIV infections in people above the age of 15 were among young people under the age of 24. There were 9,000 new infections among young women, more than double the number of new infections among young men (4,200).

Knowledge of HIV prevention among young people remains low

In Zimbabwe, 42% of young women and 47% of young men have comprehensive knowledge about HIV, limiting their ability to take control of their sexual health in a country where patriarchy, gender inequality, polygamous relationships, and intergenerational relationships persist. Although improving, HIV education and knowledge are still a challenge for young people.

Young women are disproportionately affected

Young women aged 20 – 24 years have an HIV prevalence rate over double that of their male peers (6.4% vs. 2.8%). In addition, prevalence is high among FSW (41.4%), MSM (31%), and prisoners (28%).

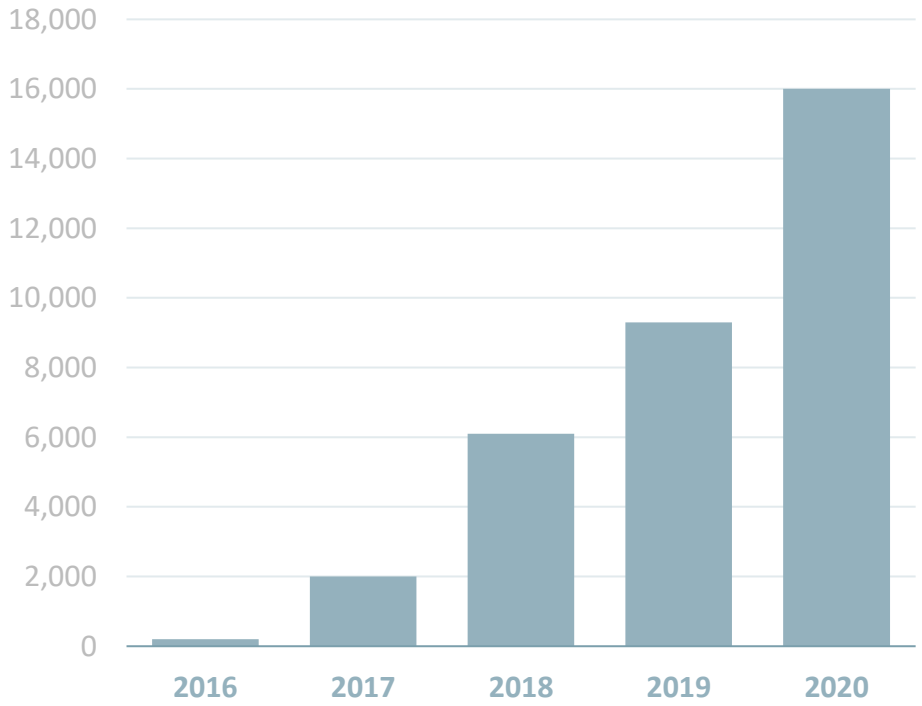
Annual incidence of HIV among adults aged 15 – 49 years is .45% (0.23% among men and 0.67% among women). **Incidence among adolescent girls is nearly double that of their male peers.**

Sources: Global AIDS Response Progress Reports 2018 (UNAIDS, 2018); ZIMPHIA Summary Sheet (ICAP, 2020)

Biomedical HIV prevention is a critical tool

PrEP rollout began with implementation projects in 2016 and transitioned to scale-up in 2017. Despite strong support from government and other key stakeholders, PrEP rollout has been hampered due to lack of funding. Since then, approximately 27,000 – 28,000 individuals have used oral PrEP.

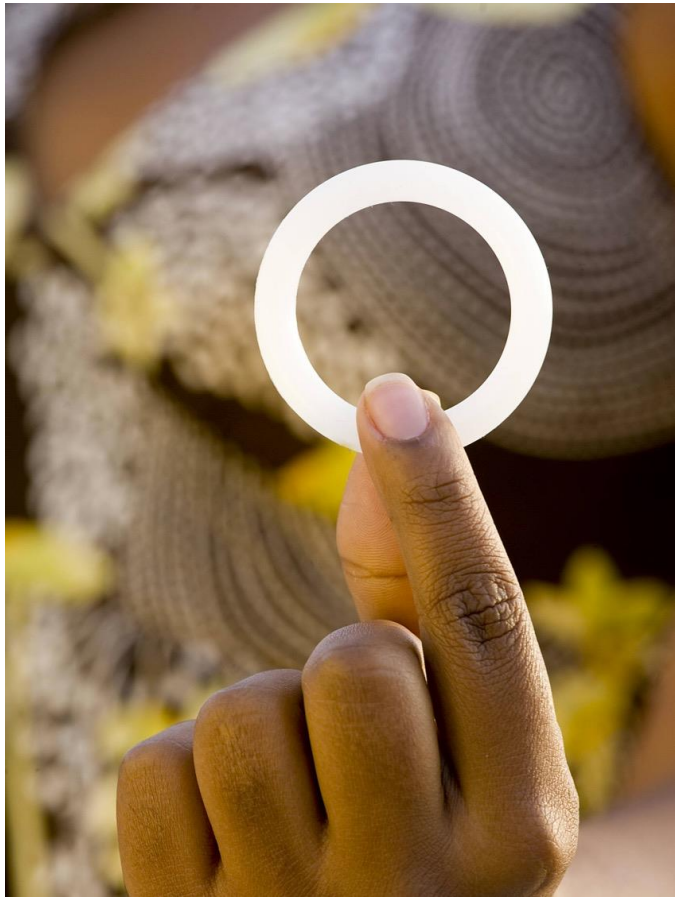
Zimbabwe oral PrEP initiations



- Oral PrEP was rolled out quickly in Zimbabwe following the issuance of WHO guidance, however funding and resourcing for oral PrEP commodity procurement has been a challenge.
- Uptake of oral PrEP has primarily been among sex workers, MSM, AGYW, and serodiscordant couples.
- Oral PrEP is being offered primarily through public sector HIV outpatient clinics and NGO-supported programs (e.g., DREAMS), with 350 sites offering oral PrEP across all districts.
- Recently, especially due to COVID, the public sector is expanding community-based delivery of oral PrEP services.
- Oral PrEP is also available via private sector providers and pharmacies, although it is expensive and unaffordable for most users through that channel.
- Target populations for oral PrEP are defined as anyone at substantial risk and guidelines note that anyone who requests PrEP and is eligible can access it, with priority populations including male and female sex workers, MSM, transgender populations, AGYW, and serodiscordant couples.
- In addition to oral PrEP, Zimbabwe has been scaling-up HIV self-testing via multiple models, including public sector facilities, CHW distribution, and pharmacies.

Sources: Zimbabwe MOHCC (2021)

The ring will be an important new HIV prevention method



Key insights from stakeholder interviews

- As a woman-controlled, long-acting HIV prevention method, the ring is an important complement to condoms and oral PrEP.
- The portfolio of HIV prevention options is starting to look more like family planning (FP) and stakeholders note there is an opportunity to build on lessons learned from family planning to ensure greater access to more choices, especially for women and girls.
- The ring may be particularly appropriate for AGYW, who are at substantial risk for HIV, but often have challenges advocating for condom use, prefer not to take a daily pill, want a more discreet option, and/or want to avoid oral PrEP side effects.
- There is significant opportunity to build from the experience with oral PrEP to introduce the dapivirine ring – in early 2021, the MOHCC started to plan for ring introduction, the technical working group (TWG) convened for oral PrEP introduction can also support introduction of the dapivirine ring, and current efforts to scale-up oral PrEP (e.g., provider trainings) can incorporate the ring.
- Zimbabwe is currently rolling out DMPA-SC as a self-administered contraception method – the rollout could yield some insights for the ring and provides an opportunity for alignment between the two products.

Context for the dapivirine ring

Delivery channels for the dapivirine ring

Dapivirine ring introduction planning

Sources

Potential delivery channels for the dapivirine ring

The ring could be made available across a diverse range of channels. This section includes a high-level assessment of the potential to deliver the ring across eight different health care delivery channels in Zimbabwe.

	Women's health delivery channels	Description
Public sector	HIV services	Opportunistic Infection (OI) clinics are the primary channels for PrEP and antiretroviral therapy (ART) services at the tertiary, secondary, and primary levels throughout Zimbabwe
	Family and child health services	Primary healthcare facilities offering family planning, antenatal care, postnatal care, immunizations, and other SRH services, including breast and cervical cancer screening, fertility services, and sexually transmitted infection (STI) screening and treatment
	Community outreach services	Community-based village health workers or community-based distributors (CBDs) who serve as links to HIV testing services (HTS) and HIV treatment, family planning, and other services; typically attached to local health facilities
Private for-profit	Commercial healthcare	Private for-profit clinics that provide health services to individuals largely covered by insurance; some private providers belong to the Zimbabwe Medical Association (ZiMA) and affiliate colleges
	Pharmacies	Private facilities that reach both urban and rural populations with medicines and some services, managed by a trained healthcare worker (HCW) or pharmacist; some pharmacies are members of the Retail Pharmacies Association
Private not-for-profit	NGO clinics and social franchises	Private not-for-profit facilities managed by NGOs. Major networks include PSI's New Start Clinics, Population Services Zimbabwe's Bluestar Network, and CeSHHAR clinics for sex workers and MSM
	Church-related hospitals	Private facilities affiliated with religious institutions that often report to the public sector and play a critical role in rural areas, with growing HTS and ART programs; most are members of the Zimbabwe Association of Church-Related Hospitals (ZACH)
	Programs for AGYW	Donor-funded, NGO-led programs that provide HIV and other services to AGYW, including DREAMS and other programs (e.g., adolescent-friendly health services provided by SASA, PZAT, or Sista2Sista)

Delivery channels differ by access and capacity

Delivery channels were assessed along six criteria: three assessing the channel's reach to women at-risk for HIV and three assessing the channel's capacity to deliver the ring. The following slides include details on the assessment findings.

Assessment criteria

1 ACCESS: To what extent does this channel reach women at-risk of HIV?

Factor	Definition
Reach	Channel provides SRH services for women and girls vulnerable to HIV.
Affordability	Services provided through this channel are affordable for women and girls vulnerable to HIV with a range of income levels.
Product portfolio	Other products that are relevant to women and girls vulnerable to HIV (e.g., HIV testing, oral PrEP, FP) are offered through this channel.

2 CAPACITY: What capacity is already in place to support ring delivery?

Factor	Definition
HTS services	Channel currently offers HIV counseling and testing services (HTS).
HCW capacity	Channel has HCW on-staff who can initiate ring use and support follow-up.
Private space	Channel has private space for women to initiate and insert ring for the first time.

Rating key

- Channel reaches high numbers of women at-risk for HIV
- Channel reaches some segments of women at-risk for HIV
- Channel does not reach many women at-risk for HIV

- Sites consistently have infrastructure, capacity needed to deliver the ring
- Some sites have the infrastructure, capacity needed to deliver the ring
- Sites rarely have the infrastructure, capacity needed to deliver the ring

1 Delivery channels access assessment

		Reach	Affordability	Product portfolio		
				HTS	PrEP	FP
Public sector	HIV services	• 95% of hospitals and primary care facilities in Zimbabwe offer HIV services • About 350 sites deliver and report on oral PrEP services • While services are widely available, users note significant stigma for this channel	• Services are offered for free, although there is often an administrative fee, which varies over time (typically USD 1.5 – 2)	✓	✓	✓
	Family and child health services	• Most district and provincial facilities and local clinics have family and child health departments • FP services available in 95% of health facilities in Zimbabwe • 73% of 1.85M contraceptive users in Zimbabwe access services via the public sector, including 89% of those using injectables, 82% of those using implants, and 70% of those using pills • 94% of pregnant women (54K) received prevention of mother-to-child transmission (PMTCT) services (2018)	• Services are offered for free, although there is often an administrative fee, which varies over time (typically USD 1.5 – 2)	✓	✓ Few pilot projects	✓
	Community-outreach services	• CBDs reach women of reproductive age who need oral contraceptives and other health services — ZNFPC has ~300 CBDs today across provinces • Available in most villages, but represent a small share of FP users (only 1.5% in 2010)	• Prices are affordable because CBDs typically do not earn margins on HIV testing or contraceptive commodities • However, ring would require subsidy to be affordable	✓	✗ *	✓
Private for-profit	Commercial healthcare	• Private sector healthcare is growing rapidly in Zimbabwe • Private health facilities account for over 15% of health facilities located in the high incidence districts of Bulawayo, Matabeleland, and Mashonaland West • 9% of women get contraceptives from the private medical sector • 10% of HIV services are delivered in the private sector	• 10% of the population is covered by insurance, however private providers typically offer tiered pricing that could be affordable even for low- and middle-income populations • The ring would require a subsidy to be comparable to other SRH products (e.g., Depo-Provera is USD 4 for 3 months, the pill is USD 1.35 per month)	✓	✓	✓
	Pharmacies	• Highly accessible but also geographically concentrated in areas that do not have the highest HIV incidence (52% of private pharmacies are located in Harare) • 13% of women access contraceptives from pharmacies (DHS)	• For contraception, low-cost generics and subsidized brands are available and are affordable across income levels • Oral PrEP is USD 20 per month plus consultation fees	✗	✓	✓
Private not-for-profit	NGO clinics and social franchises	• Typically located in major cities and some towns as well as conducting community-outreach services (e.g., PSI is in all major cities, PSZ is in 6 of 10 provinces, CeSHHAR has 6 static sites in major towns and has 24 outreach sites on on major highways) • Well-positioned to deliver to vulnerable and low-income women; but small scale relative to others and largely based in urban areas	• Affordable for populations of all income levels; social franchises subsidize services • Cost is a bit higher than the public sector, but lower than the private sector	✓	✓	✓
	Church-related hospitals	• Account for 68% of rural health services and 35% of overall national health services • Increasingly serving as HTS and ART access points via PEPFAR funding and offer referrals for HIV prevention services, but do not offer them directly • However only 2.3% of women get contraceptives at mission hospitals/clinics (DHS)	• Deliver free and low-cost services supported by government and donor funding; often more affordable than public and private hospitals	✓	✗	✓
	Programs for AGYW	• Small client base, but effectively reached AGYW in limited oral PrEP rollout (e.g., DREAMS)	• Services offered for free	✓	✓	✓

* Some efforts to deliver oral PrEP via community services during COVID-19

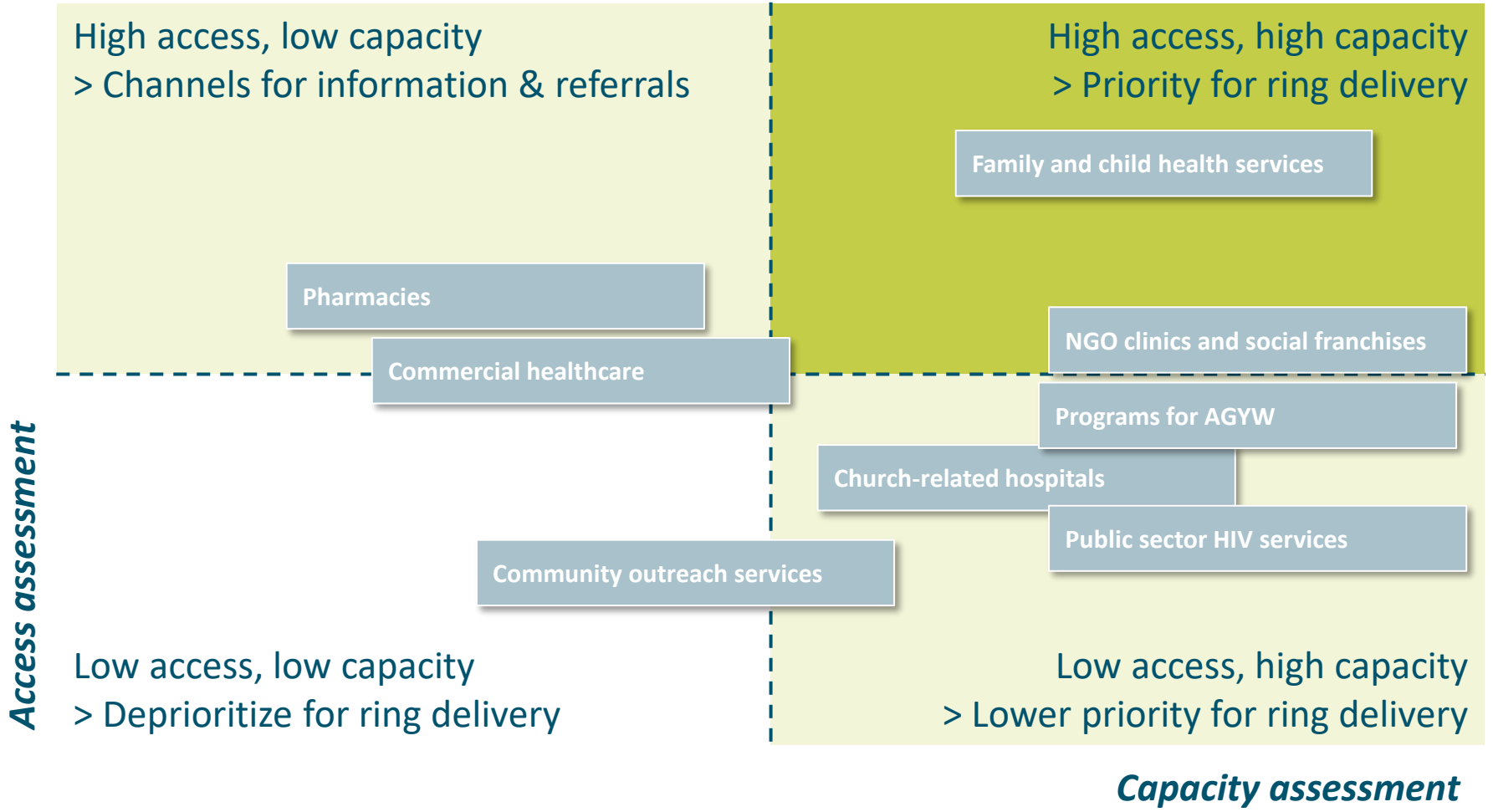
2 Delivery channels capacity assessment

		HTS	HCW capacity	Private space
Public sector	**HIV services**	• HTS available in all facilities	• Human resources have been affected by the economic crisis, including doctors' and nurses' strikes • However, staff are well trained to offer a range of SRH services	• Some issues/concerns about privacy, but typically offer services in private rooms
	Family and child health services	• Most facilities can conduct HTS and it is part of standard operating procedures, but implementation varies • FP sites are also introducing HIVST, oral PrEP, and ART as part of broader efforts to integrate SRH and HIV services – uptake of oral PrEP has been relatively low due to lack of investment in demand creation	• FP providers typically are trained on HTS, but not on specific HIV prevention or treatment options • ZNFPC is planning to train facility and community-based health workers on DMPA-SC, which will have similarities to the ring as a self-administered product	• Some issues/concerns about privacy, but typically offer services in private rooms
	Community-outreach services	• HIVST kits distributed with information on HIV, HIV prevention and ART • For HIVST, CHWs and volunteers undergo a 2–3-day training on self testing	• Have experience with offering some HTS and FP services, but would need training on the ring • Currently do not offer oral PrEP, but do offer ART services • Staff will be trained on DMPA-SC, which aligns well with the ring	• Do not have private space to initiate or demonstrate insertion of the ring
Private for-profit	**Commercial healthcare**	• Lack of standardized HIV care and training, and low provider initiated HTS • Fewer private clinics have at least one staff member trained in clinical management of HIV/AIDS (63%) compared to public clinics (92%)	• Commercial facilities and private providers offer a wide range of services and effective follow-up care	• Offer high levels of privacy, including offering services in private rooms and appointment systems that ensure privacy even when waiting for services
	Pharmacies	• Pharmacies are increasingly offering HIVST • Several offer on-site HTS	• Some pharmacies do have trained pharmacists or nurses on staff, which could provide the ring with appropriate training	• Often do not have private space, but a growing number of pharmacies have separate rooms
Private not-for-profit	**NGO clinics and social franchises**	• Significant HTS capacity: social franchises, such as PSI and PSZ, have deep expertise and experience in providing HTS services as part of a comprehensive SRH package	• Have well trained HCWs on-site with significant experience in SRH and providing bias-free services	• Offer high levels of privacy, including offering services in private rooms and appointment systems that ensure privacy even when waiting for services
	Faith-based organizations	• The majority of FBOs are required to offer HTS, but implementation and provider-initiated HTS rates remain low due to provider bias and stigma	• May have some capacity constraints in delivering SRH services, especially to young women	• Some issues/concerns about privacy, but typically offer services in private rooms
	Programs for AGYW	• These programs are designed to offer comprehensive SRH services, including HTS	• Well trained HCWs, specifically to support judgment-free SRH services for AGYW	• Services have private spaces

Priority delivery channels for the dapivirine ring

- Bringing together the access and capacity dimensions allows us to assess delivery channels against **both criteria**
- The channels in the **upper right corner** have both high capacity to deliver the ring and high access to women and AGYW at high risk for HIV who would benefit from the ring
- Channels in the **upper left** have less capacity to deliver the ring, but have high access to high-risk populations
- Channels in the **lower right** have less access to high-risk, HIV-negative populations but have high capacity to deliver the ring
- Channels in the **lower left** have neither the capacity nor reach to effectively deliver the ring

Delivery channel prioritization



Priority delivery channels for the dapivirine ring

High priority channels for the ring

- **Public sector family and child health services** have the best reach to women and girls at substantial risk for HIV and high capacity to effectively deliver the dapivirine ring. However, ring delivery through these channels will require new systems, processes, and capacities. While there is political will to support integration in Zimbabwe, integration will need to progress further to effectively introduce the ring through this channel.

- **NGO clinics/social franchises and NGO programs for AGYW**, where existing oral PrEP implementation has been successful in reaching HIV-negative AGYW at substantial risk, are another priority for immediate delivery of the ring. This could also include health services at tertiary education institutions, managed by the Ministry of Education.

- **Church-related hospitals** have significant reach to rural populations and are a growing focus for HTS, ART provision, and oral PrEP. However, they reach few women for family planning services and so may not be as effective a channel for the ring. CHWs also have a significant geographic footprint and could be a good channel for the ring, even thought they are not a significant channel for family planning service provision.

- **Pharmacies** are also a high-potential channel for referrals and potentially for ring distribution, depending on the regulatory classification of the ring. This would be particularly helpful in positioning the ring as a complement to oral PrEP.

Lower priority channels for the ring

- **HIV services / OI clinics** were originally where PrEP was introduced, however, there is widespread recognition that these channels did not effectively reach general population women and AGYW with HIV prevention services.

- **Commercial healthcare (e.g., private providers)** can be a good complement to public sector or NGO services, but have less reach than other channels due to the cost of services provided.

Context for the dapivirine ring

Delivery channels for the dapivirine ring

Dapivirine ring introduction planning

Sources

Ring introduction framework

This value chain framework has been used across countries to support planning for oral PrEP introduction. It has been adapted for the ring to identify necessary steps for ring introduction and scale-up across five major categories and across priority delivery channels. It can also be used to track progress towards ring introduction by different partners.

Value Chain for Dapivirine Ring

PLANNING & BUDGETING

National and county plans are established to implement dapivirine ring guidelines for priority end user populations

SUPPLY CHAIN MANAGEMENT

Dapivirine ring is available and distributed in sufficient quantity to meet projected demand via priority delivery channels

RING DELIVERY PLATFORMS

Dapivirine ring is delivered by trained healthcare workers in priority delivery channels to effectively reach end users

UPTAKE & EFFECTIVE USE

End users know about and understand the ring and are able to seek, initiate, and effectively use the ring

MONITORING

The ring is effectively integrated into national, provincial, district, and facility level monitoring systems

Zimbabwe ring introduction situation analysis

This framework highlights critical elements of ring introduction and assesses the current state across these elements in Zimbabwe.

PLANNING & BUDGETING

- Convene new or existing **technical working group**/ subcommittee for the ring
- Identify **target populations** for ring use
- Engage **community** stakeholders to inform planning for ring rollout
- Develop impact, cost and/or cost-effectiveness **analyses** to inform ring planning
- Include the ring in national HIV prevention and other relevant **plans** (e.g., FP)
- Develop **implementation plan and budget** to guide initial ring introduction and scale-up

SUPPLY CHAIN MANAGEMENT

- **Register** the ring and include the ring on the national essential medicines list
- Update **supply chain guidelines and logistics systems** to include the ring
- Establish **monitoring, demand forecasting, and distribution systems** to avoid stock-outs

DELIVERY

- Issue standard **clinical guidelines** for delivery and use of the ring
- Dedicate resources to conduct regular **HIV tests, initiate ring use, and support refills**
- Develop materials and conduct trainings for **health care workers** on the ring
- Establish **referral systems** to link clients from other channels to sites dispensing the ring
- Integrate support for **partner communication** and gender-based violence for ring users

UPTAKE & EFFECTIVE USE

- Develop and implement **demand creation strategies** that include ring promotion
- Address social norms/stigma to build **community and partner acceptance** of ring use
- Develop **information and tools for clients** to guide product choice and support ring use
- Support **adherence and continuation** for ring users
- Develop and communicate plans for sanitary **disposal** of used rings

MONITORING

- Establish **monitoring tools** to support data collection and analysis on ring use
- Establish systems for **pharmacovigilance** and to monitor drug resistance
- Conduct **implementation science** research to inform policy and scale-up

COLOR KEY

- Anticipate easy integration with PrEP
- Will require new effort, but no anticipated challenges
- Areas that will require significant consideration

Zimbabwe situation analysis summary findings

Summary findings from the Zimbabwe situation analysis are below, with details included on the following slides.

PLANNING & BUDGETING

- An **existing PrEP TWG** can support ring introduction
- Ongoing efforts to **integrate SRH and HIV services, introduce HIV self-testing, and introduce DMPA-SC** could align with and support ring introduction
- Other **policy and planning tools** developed for oral PrEP, including rollout scenarios and a costing and targeting framework, could be adapted to include the ring
- **Funding** has been a challenge to scale-up and sustain oral PrEP rollout and may similarly be a challenge for the ring; the ring should be considered in funding requests to key donors

SUPPLY CHAIN MANAGEMENT

- Procurement and distribution of the ring will be managed via the public sector **central supply chain** managed by NatPharm, which supports the public and not-for-profit private sector
- As a baseline, the ring can be integrated into **supply chain systems and tools for ARVs** following the model for oral PrEP
- The ring may also be included in the Zimbabwe Assisted Pull System (ZAPS) for procurement alongside **FP commodities**
- A major outstanding question is how the ring will be **classified** by MCAZ

DELIVERY

- Zimbabwe has a **broad range of delivery channels** for SRH services, including facility-based and community-based services across the public, private, and not-for-profit private sectors
- The majority of services are provided by the public sector; **training for oral PrEP is ongoing** and could integrate the ring
- Simultaneously, training is also ongoing for **HIVST and DMPA-SC**, both of which could align with training and introduction of the ring
- There are currently no screening or referrals to **intimate partner violence** services in HIV or family planning services

UPTAKE & EFFECTIVE USE

- The ring will require **general awareness-raising campaigns** that reach all communities
- **Community stakeholders and peer educators** will need to be continuously trained to serve as educated ambassadors and advocates
- **Key messages** that speak to the primary concerns of relevant stakeholders, particularly potential users of the ring, must be developed; for example, concerns around interference with sex and menstrual hygiene

MONITORING

- The ring can be easily integrated into **monitoring and evaluation (M&E) systems and tools** for oral PrEP managed by the MOHCC
- An outstanding question is the extent to which the ring could be integrated into M&E systems for **other public sector services** (e.g., family planning)
- **Pharmacovigilance** for the ring can be integrated into systems for oral PrEP, managed by MCAZ
- The PrEP TWG will manage ongoing **implementation science** to inform ring introduction and scale-up

Planning & budgeting key steps

PLANNING & BUDGETING

	What is needed to introduce the ring	Relevant Stakeholders	Considerations
Convene new or existing **technical working group**/ subcommittee for the ring	• The existing PrEP TWG guided the rollout of oral PrEP and will manage ring introduction; the group continues to meets quarterly as well as via ad hoc meetings • The Adolescent Sexual Health Forum focuses on comprehensive SRH services for adolescents and includes organizations from other sectors, including the Ministry of Education and may also be helpful to support ring introduction • There is some current HIV–SRH integration work underway led by the MOHCC, ZNFPC, and the WHO with support from PZAT and the Prevention Market Manager Project	• MOHCC AIDS & TB Unit • MOHCC Family Health Unit • PrEP TWG • National AIDS Council (NAC) • NAC Youth Council • SRH TWG • ZNFPC • WHO (supporting HIV–SRH integration) • PEPFAR • Global Fund	• Significant focus on COVID-19 in 2020 and early 2021 may make initial introduction challenging
Identify **target populations** for ring use	• Stakeholders expect the ring will be a good option for those seeking a discreet prevention option and who struggle to regularly take oral PrEP, such as AGYW or younger women who sell sex • There has recently been a significant increased uptake of oral PrEP among FSW, so uptake of the ring among that population may not be high		• A lesson from oral PrEP rollout is to not initially target the ring only to the FSW population, as that created stigma for oral PrEP
Engage **community** stakeholders to inform planning for ring rollout	• Stakeholders note the importance of engaging pastors, parents, general public, and partners • The NAC Youth Council (national and provincial levels) can help build support		• Some stakeholders may have concerns about a vaginally-inserted product
Develop impact, cost and/or cost-effectiveness **analyses** to inform ring planning	• A costing and targeting framework for oral PrEP and can be adapted for the ring • Rollout scenarios for oral PrEP were developed by OPTIONS and adapted by CHAI for use in Global Fund applications – these could be adapted for the ring		
Include the ring in national HIV prevention and other relevant **plans** (e.g., FP)	• The Zimbabwe National AIDS Strategic Plan was updated in late 2020/early 2021 – it does not currently include the ring • The Zimbabwe National Health Sector Strategy is another place to integrate the ring		
Develop **implementation plan and budget** to guide initial ring introduction and scale-up	• The 2018 PrEP implementation plan includes the ring and other emerging PrEP options, e.g., long-acting injectable cabotegravir (CAB-LA) • Resources will be required to procure commodities – roughly 2/3 of Zimbabwe's HIV procurement and all PrEP procurement is donor-funded via PEPFAR and Global Fund • Zimbabwe will likely take a phased approach to ring rollout, focusing on priority geographies/hotspots as with oral PrEP rollout		• Financing has been a challenge for oral PrEP rollout in Zimbabwe and will likely be a similar challenge for the ring; the ring should be considered in funding requests to key donors

Text in blue indicates key steps related to diverse delivery channels

Supply chain management key steps

SUPPLY CHAIN MANAGEMENT

	What is needed to introduce the ring	Relevant Stakeholders	Considerations
Register the ring and include the ring on the national essential medicines list	• The ring would need to be approved for use in the country by the MCAZ • The ring will need to be placed on Zimbabwe's Essential Medicines List or be imported into the country via a Section 75 waiver • MCAZ classification could be one of three options: prescription only, pharmacy only, or home remedy; home remedy products can be purchased over-the-counter in a range of channels and can be accessed via community-based delivery channels, including via community health workers • If needed, reclassifications can be conducted by MCAZ, following requests from MOHCC and the National Medicines Therapeutics Policy Advisory Committee (NMTPAC)	• MCAZ Registration Committee • NMTPAC	• An outstanding question is how the product will be classified by MCAZ, which will determine how the ring can be delivered
Update **supply chain guidelines and logistics systems** to include the ring	• The health commodities supply chain in Zimbabwe has been streamlined in recent years with the vast majority of health commodities now managed through NatPharm, the centralized national system • NatPharm supplies both the public and not-for-profit private sectors with SRH commodities (e.g., CeSSHAR sites, PSZ clinics) • The ring will be integrated into NatPharm's systems, including the logistics management system (LMIS), inventory management, and distribution • Distribution is managed on a quarterly basis, so the ring should be procured one quarter before programming (e.g., provider training, provision) is set to begin • The ring will need to be integrated into the ZAPS for integration with family planning commodities in primary health care settings	• NatPharm • Chemonics (manages procurement of ARVs and PrEP for US Government-funded projects) • UNDP (manages procurement for Global Fund-funded projects)	• Limited funding for the procurement of oral PrEP commodities has been a bottleneck to scaling-up PrEP services in Zimbabwe
Establish **monitoring, demand forecasting, and distribution systems** to avoid stock-outs	• Initial targets for oral PrEP were high and rollout did not match initial procurement of oral PrEP; as a result, much of early PrEP stocks was directed towards use for HIV treatment because they could not be used as PrEP • However, in subsequent years, oral PrEP programs have experienced stockouts signaling continuing challenges with accurate quantification and forecasting	• Director of Pharmaceuticals and Laboratory, MOHCC	• Setting targets for the ring may be challenging as a new product form and as a complement to oral PrEP and other HIV prevention methods

Text in blue indicates key steps related to diverse delivery channels

Ring delivery platforms key steps

DELIVERY PLATFORMS

	What is needed to introduce the ring	Relevant Stakeholders	Considerations
Issue standard **clinical guidelines** for delivery and use of the ring	• The NMTPAC leads guideline development for new products, based on adaptations of WHO guidance • Screening tools may also need to be adapted for the ring as there is some concern that they are not adequately capturing high-risk AGYW	• NMTPAC • PrEP TWG Guidelines Adaptation Committee	• Outstanding question of whether HIVST could be used as a quarterly test for the ring (it is not used for oral PrEP quarterly testing)
Dedicate resources to conduct regular **HIV tests, initiate ring use, and support refills**	• Growing community-based HTS models and CHWs are able to provide information on HIV prevention and provide referrals to ART and oral PrEP; with COVID, projects are also establishing community outposts for ART refills • There have been pilot projects to deliver oral PrEP in FP settings at ZNFPC sites in Harare and Bulawayo), but they have been difficult to sustain as PrEP screening and delivery is not a facility or provider priority and service delivery was not fully integrated (e.g., end users needed to stand in multiple separate lines for FP and oral PrEP services)	• OPHID supports community-based PrEP delivery • Provincial HIV focal persons can help identify CHW cadres for ring delivery • CHAI and ZNFPC conducted PrEP–FP integrated delivery	• ZNFPC began introducing DMPA-SC in March 2021, which presents an opportunity to align with introduction of the dapivirine ring for self-administration
Develop materials and conduct trainings for **health care workers** on the ring	• Provider training for oral PrEP is still ongoing and offers an opportunity to integrate the ring into the training curriculum • Training should include demonstrations of insertion of the ring, which was critical in the rollout of the female condom, and values clarification exercises, especially with a focus on providing SRH services to youth – this has been successful in the past • The MOHCC uses a train-the-trainer model to reach HCWs via national and provincial teams; the ring could be integrated into the HIV Prevention and Treatment Training Materials and Resources package • Family planning or other providers will require HIV sensitization training in addition to training on HIV prevention and the ring	• MOHCC • PrEP TWG • ZNFPC • Nurses Council of Zimbabwe • Zimbabwe Midwives Association	• An outstanding question is the extent to which the ring could or should be integrated into family planning training • Human resources have been affected by the overarching economic crisis, with nurses working two days a week on average
Establish **referral systems** to link clients from other channels to sites dispensing the ring	• Zimbabwe has been focused on scaling-up HST and HIVST – creating links between HIV testing and ring provision will be important • The OPTIONS project tested several strategies to establish referrals from HIV testing to HIV prevention, which could be adapted for the ring		
Integrate support for **partner communication** and intimate partner violence for ring users	• Screening for intimate partner violence has not yet been integrated into family planning or HIV services in Zimbabwe		• Stakeholders noted the importance of engaging and considering male partners of ring users

Text in blue indicates key steps related to diverse delivery channels

Uptake and effective use key steps

UPTAKE AND EFFECTIVE USE

	What is needed to introduce the ring	Relevant Stakeholders	Considerations
Develop and implement **demand creation strategies** that include ring promotion	• The Comprehensive National HIV Communications Strategy for Zimbabwe 2019–2025 captures key demand creation activities for HIV prevention • PSI is working on a national demand creation campaign for PrEP • Information, education, and communication (IEC) materials and campaigns were developed for oral PrEP with support from the OPTIONS Project – they could be adapted to include the ring • Existing cadres of peer community outreach workers and PrEP champions can help build understanding and awareness of the ring	• MOHCC • PSI • PZAT • DREAMS implementing partners	• It has been difficult to maintain sufficient attention and resources for demand creation for oral PrEP and the ring will face a similar challenge
Address social norms/stigma to build **community and partner acceptance** of ring use	• Strategies to address community and partner acceptance of ring use should be included in the Comprehensive National HIV Communications Strategy • Existing community and partner engagement activities for oral PrEP can incorporate the ring, including the HIV Prevention Ambassadors training and implementation tools • Engaging journalists on the ring can be an effective strategy to build broader awareness • The CHOICE Project, led by Pangaea Zimbabwe AIDS Trust (PZAT), is developing a module with information for parents of HIV prevention users that could include the ring		• Buy-in from community and religious leaders will be critical • A larger mass media campaign would be helpful, but has not been done due to the phased approach to oral PrEP rollout
Develop **information and tools for clients** to guide product choice and support ring use	• Key messages that speak to the primary concerns of relevant stakeholders, particularly potential users of the ring, must be developed; for example, concerns around interference with sex and menstrual hygiene • Existing oral PrEP tools and materials can be expanded to include information about all forms of PrEP, including the ring		• IEC materials will need to be translated into a range of languages, which has been challenging for oral PrEP
Support **adherence and continuation** for ring users	• Resources will be required to sustain ring-awareness campaigns beyond initial rollout • The DREAMS program has implemented several support structures that could support ring adherence, including DREAMS clubs and care groups • Healthcare worker training should be focused not only on clinical skills, but also on how to provide empathetic, client-centered adherence support		
Develop and communicate plans for sanitary **disposal** of used rings	• Messaging on ring disposal (e.g., to deter sharing of rings, guidance on the ring's effectiveness beyond the 28-day timeframe) will need to be included in client education activities, materials, and tools • Guidance on ring disposal should also be included in provider training materials		

Monitoring key steps

MONITORING

	What is needed to introduce the ring	Relevant Stakeholders	Considerations
Establish **monitoring tools** to support data collection and analysis on ring use	• PrEP M&E tools (e.g., PrEP registers, client intake forms) continue to be updated regularly and the ring could be integrated as part of routine monitoring and evaluation of HIV programs • The process to update M&E tools is led by the PrEP TWG, which considers data and reporting requirements and recommends adaptations to existing data systems, data collection tools, and processes • Establishing M&E systems for private sector or pharmacy-based delivery of oral PrEP has been challenging	• MOHCC AIDS and TB Unit • PrEP TWG	• There is an outstanding question about whether and how oral PrEP and the ring should be included in M&E for FP services as service integration progresses
Establish systems for **pharmacovigilance** and to monitor drug resistance	• Pharmacovigilance is managed by MCAZ via a voluntary reporting arrangement • Facilities have forms that can be completed and submitted to MCAZ • There is also an app that can be provided to end users • Pharmacovigilance should be a part of provider training and client education/counseling, so that they can connect ring users to the app or other reporting mechanisms	• MCAZ	
Conduct **implementation science** research to inform policy and scale-up	• The PrEP TWG will likely be responsible for discussing, identifying, and prioritizing questions to guide implementation science alongside initial ring rollout	• PrEP TWG	

Text in blue indicates key steps related to diverse delivery channels

Emerging questions about the ring

Key stakeholder questions
What has been challenging with the introduction of other female-controlled methods, like the female condom and the diaphragm?
What do we know about the dapivirine ring from the user perspective? How acceptable is the ring among AGYW? Can partners feel the ring?
How do we manage a portfolio of biomedical HIV prevention products, especially as CAB-LA becomes available?
Should ring clinical guidelines be the same as those for oral PrEP (e.g., risk assessment, STI/HIV testing frequency)?
How will rings be disposed and what are safety considerations if the rings are not properly disposed? What will the guidance be for ring disposal (e.g., can the ring be burned)?

Context for the dapivirine ring

Delivery channels for the dapivirine ring

Dapivirine ring introduction planning

Sources

Interview list

The following organizations were consulted in the development of this analysis:
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NatPharm
PSI Zimbabwe
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CeSSHAR
ITECH
OPHID
UNFPA
CHAI
FHI 360
Katswe Sisterhood
BRTI
Zimbabwe Association of Church-Related Hospitals
Women Action Group

Select desk review sources

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Thank You!

For more information, please visit:

- https://www.ipmglobal.org/our-work/our-products/dapivirine-ring
- https://www.prepwatch.org/about-prep/dapivirine-ring/

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