HIV MID-YEAR MARKET MEMO

JUNE 2023

Introducing the seventh edition of CHAI's **HIV Mid-Year Market Memo**, a brief covering the latest trends in the HIV space in LMICs since the publication of CHAI's annual HIV Market Report in December 2022.

For questions, reach out to Jessica Fox (jfox@clintonhealthaccess.org)

PEPFAR & UNAIDS UPDATES

Global partners continue to emphasize the need for equitable access to health services, prioritization of vulnerable groups, and sustainable system strengthening to accelerate the response to end the HIV/AIDS epidemic.

PILLARS OF PEPFAR'S NEW FIVE-YEAR STRATEGY

- Health Equity for Priority Populations
- Sustaining the Response
- Public Health Systems and Security
- Transformative Partnerships
- Follow the Science

UNAIDS DANGEROUS INEQUALITIES

Key inequalities where immediate action is possible and urgent

Gender inequalities

Lack of progress for **key populations**

Inequalities for **children**

TEST SMART

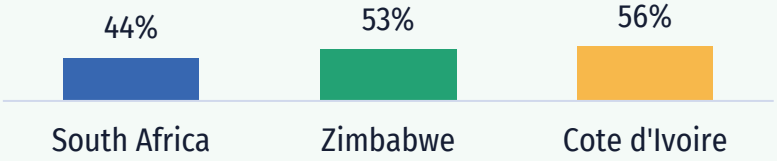
Pediatric Testing Gaps

½ of CLHIV who survive to the age of 2 projected to remain undiagnosed

Modelling predicts CLHIV past age 2 are more likely to die than be diagnosed and put on ART

Highlights the need to close gaps in PMTCT/EID and deploy a comprehensive testing approach for children

Projected Percent of CLHIV under 2 Undiagnosed



HIV Self-Testing

2 new HIVSTs in WHO PQ review

- → Sedia Asante HIVST would be the 2nd oral fluid HIVST
- → Premier's First Response HIVST is a blood-based test
- → Potential for both to be available by end 2023
- → Both expected to be priced less than US $2 EXW

In a qualitative antenatal care study in Uganda, HIVST for pregnant women and secondary distribution to male partners was found to be acceptable, particularly for women in stable relationships.

TREAT RIGHT *Advanced HIV Disease*

CD4 Market Shifts

- → **BD will stop manufacturing FACSCount and FACSPresto** analyzers and cartridges in 2024, but will provide support for the duration of the shelf life of final orders
- → **Abbott will no longer manufacture Pima analyzers**, but will continue to supply Pima cartridges and bead standards as well as service and refurbish existing analyzers

COMING SOON Given upcoming market changes, CHAI is developing a CD4 demand forecast split by testing platform to inform decision making for suppliers and countries.

Cryptococcal Meningitis

27K CrAg tests performed across 6 CHAI and Unitaid-supported countries in 2022, a 6% increase from 2021

- → A new semi-quantitative lateral flow CrAg assay from IMMY expected to be available in 2023/2024
- → Potential to simplify linkage to care by negating the need for confirmatory lumbar puncture in a subset of patients

Check out optimal CM treatment introduction in Uganda

Histoplasmosis

- → A study of urine-based histoplasmosis antigen testing supports the adoption of decentralized screening as a part of the AHD package of care
- → Pricing remains a barrier, but pipeline products are expected to launch at a lower price

Check out work on histoplasmosis in Nigeria

TREAT RIGHT *Advanced HIV Disease*

Tuberculosis

8-week regimen for treating drug susceptible TB is as efficacious and safe as the standard 6-month regimen

56 countries procured 3HP as of Dec 2022, enabled by-manufacturing capacity scale up to 4M patient courses annually from 108K in 2018

Pediatric AHD

→ **30%** of CALHIV (0-19) present with severe immunosuppression at HIV diagnosis

→ Only **6%** of sites in SSA have the laboratory capacity to diagnose TB in CALHIV, despite being a leading cause of death

Mpox

Mortality from mpox among PLHIV increases as CD4 decreases

WHO recommends PLHIV with AHD as a priority group for mpox vaccination

TREAT RIGHT *Adults*

TLD and DTG (50 mg)

~19M PLHIV on TLD/DTG in 1L and 2L in LMICs

<$50 USD EXW Per person per year cost of TLD

D²EFT STUDY 48-WEEK RESULTS

→ A switch to TDF+XTC+DTG without universal access to genotyping was non-inferior to DRV/r and two NRTIs following Tx failure

→ Mirrors evidence from NADIA, VISEND, and ARTIST studies supporting the use of DTG plus recycled TDF/3TC in 2L for people whose NNRTI-based 1L has failed

→ WHO guidelines on NRTI recycling currently not updated

URINE TENOFOVIR ASSAY

→ Urine assay tests under development to detect tenofovir drug levels could support treatment and oral PrEP adherence monitoring

→ Urine assay tests are predictive of viral suppression for individuals on tenofovir

→ Currently, no US FDA approved or commercially available product

DRV/r (400/50 mg)

→ A fixed-dose combination of darunavir and ritonavir (DRV/r 400/50 mg) is available for **$17.50 per pack EXW** from **Hetero Labs** for use in 2L among PLHIV who are PI-naïve

→ **PEPFAR can now procure DRV/r (400/50 mg)** following an independent review of Hetero's WHO PQ dossier by FHI360

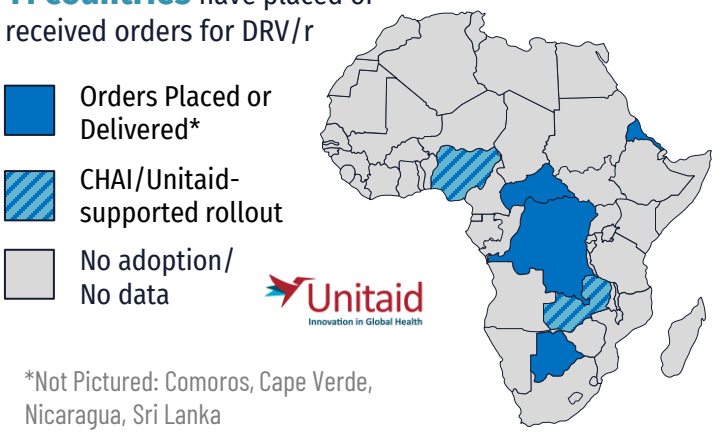
→ WHO guidelines on DRV/r in 2L have not been updated, presenting a barrier to broader adoption

> We call on the WHO to urgently remedy the current status of DRV/r and replace LPV/r as the preferred regimen with immediate effect… There is no justifiable reason to maintain the current second-line regimen now that a fixed-dose combination of DRV/r is available at an affordable price.
>
> ***March 2023 Afrocab Letter to the World Health Organization*** *following a Dec 2021 community position statement on DRV/r*

DRV/r (400/50 mg) Adoption

As of Q1 2023

11 countries have placed or received orders for DRV/r



*Not Pictured: Comoros, Cape Verde, Nicaragua, Sri Lanka

Resources to support DRV/r introduction can be accessed on the CHAI HIV New Product Introduction Toolkit

Lenacapavir (LEN)

REGULATORY APPROVALS

→ Dec 2022: US FDA approved the first capsid inhibitor, LEN, for treatment-experienced adults with multidrug-resistant HIV

2x LEN doses per year administered as subcutaneous injections after completion of an oral starting dose

PIPELINE DEVELOPMENT

→ CALIBRATE (Ph 2): Subcutaneous LEN in combination with other ARVs maintained high rates of virologic suppression through week 80 for treatment-naive PLHIV

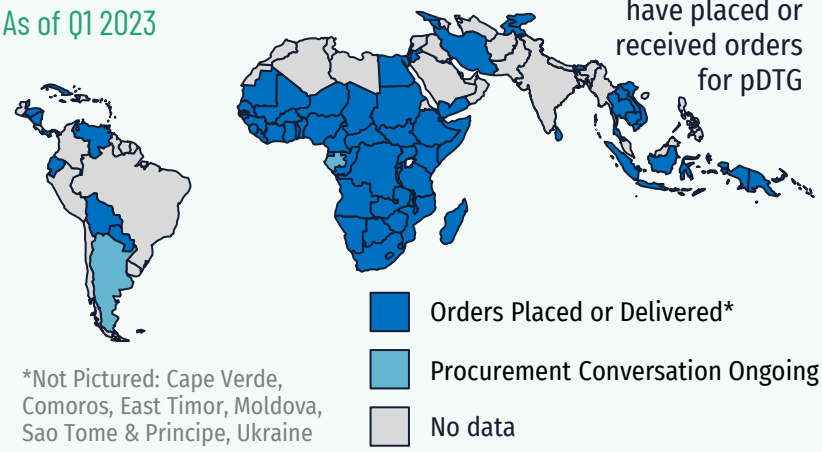
→ LEN for prevention: Two Ph. 3 efficacy trials (PURPOSE 1 & 2) currently underway with expected completion in early 2024

TREAT RIGHT *Pediatrics*

Pediatric Dolutegravir (pDTG)

150K + Children on pDTG as of April 2023

DTG (10 mg) Disp. Scored Adoption
As of Q1 2023



*Not Pictured: Cape Verde, Comoros, East Timor, Moldova, Sao Tome & Principe, Ukraine

75 countries have placed or received orders for pDTG

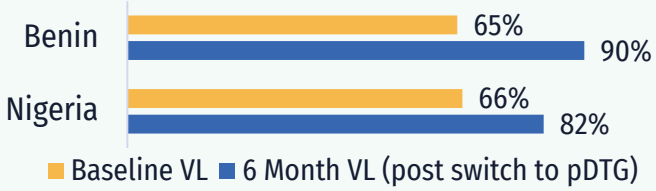
TORPEDO STUDY 6-MONTH RESULTS

Unitaid

Following transition to pDTG, the proportion of CLHIV with an **undetectable viral load increased** by 25 and 16 percentage points in Benin and Nigeria, respectively

95% of caregivers in Benin and 99% in Nigeria report their child's **preference for pDTG** over previous treatment regimens

Percent of CLHIV on ART with <50 copies/mL



Pediatric DTG Oral Film

→ Laurus Labs received US FDA tentative approval in April 2023 for DTG 5mg and 10mg oral films
→ This is the first pediatric ARV oral film, which could have administration and adherence benefits for young children

Pediatric ALD

Generic pediatric ABC/3TC/DTG (60/30/5 mg) disp. tablets (pALD) will provide the WHO-recommended 1L regimen for CLHIV in one pill.

Suppliers	Regulatory status	Expected pack size
Viatris & Aurobindo	US FDA – Filed in Q1 2023 (**approval possible in Q3 2023** as early as 6 months after filing)	180
Cipla	GF ERP – approved Dec 2022	30, 90

As optimal products are rolled out, smaller volumes of legacy products will be required for certain populations or circumstances. To **ensure access and supply of low volume products:**

Countries should **accurately forecast** and work with procurement entities to **place orders well in advance** so that manufacturers can plan accordingly

pALD INTRODUCTION CONSIDERATIONS

Forecasting and quantification: Review stock status and pipeline orders, quantify pALD needed

Procurement and introduction: Plan for future single and dual product procurement for special circumstances, develop a transition plan for pALD

Training and capacity building: Modify clinical materials, conduct trainings, and engage PLHIV

Monitoring: Review and adapt M&E systems, review pALD uptake and adjust as needed

GAP·f Global Accelerator for Paediatric formulations WHO Hosted Network

For additional guidance on pALD introduction: GAP-f pALD Planning Considerations for National Programmes

Point of Care Early Infant Diagnosis and Maternal Viral Load Testing

LIFE Study

6,500+ mother and infant pairs

73% Relative reduction of mortality in the first 6 months after birth among infants with HIV who received POC EID testing at birth and rapid initiation of ART

93% Infants diagnosed with HIV started ART within 2 days of a positive result

~2X Increased likelihood that high-risk neonates identified via maternal POC viral load testing received enhanced HIV prophylaxis (AZT + NVP)

Global Alliance to End AIDS in Children

An alliance of multisectoral stakeholders that aims to end AIDS in children by 2030, although funding is needed to operationalize.

Strategic pillars of the alliance include:

- Early testing & treatment for CALHIV
- Improve ART coverage in PBWLHIV
- Improve access to PrEP
- Address inequalities

STAY NEGATIVE

Expansion of existing prevention options and services alongside novel, transformative products and choice-driven programming offer the opportunity to better meet the needs of those at risk of HIV.

Cabotegravir Long-Acting (CAB-LA)

3 generic manufacturers (Aurobindo, Cipla, Viatris) granted licenses in March 2023 by MPP to produce CAB-LA, a critical step for future sustainable, affordable supply

→ Generic access driven by **community and partner advocacy**

→ COGS analyses indicate potential for low production costs through generic manufacturing

→ Major access challenges persist requiring urgent action, including **serious volume constraints** and **likely high pricing** of ViiV product for several years

CAB-LA LMIC Country Approvals

Botswana | Malawi | South Africa | Zimbabwe

CAB-LA RESEARCH & EVIDENCE GENERATION

→ HPTN 083: Rare cases of long-acting early viral inhibition (LEVI) found in CAB-LA users when an individual seroconverts, but HIV is not detectable due to viral suppression, delaying diagnosis

→ HPTN 084: Protective drug levels in cisgender women persist long enough to suggest quarterly dosing may be feasible, which would enable delivery on the same schedule as injectable contraceptives

→ HPTN 084-01: Cisgender female Africans younger than 18 years old found CAB-LA for PrEP highly tolerable and 92% preferred it to daily oral TDF/FTC

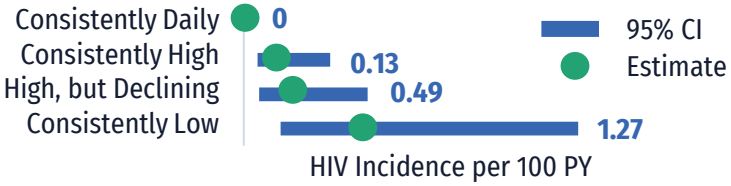
→ Implementation projects planned across 14 LMICs (11 countries in sub-Saharan Africa) investigating PrEP choice, uptake, use, and demand and delivery channels

Oral PrEP

Oral PrEP use by pregnant women was **not associated with preterm birth** or small for gestational age infants

Similar effectiveness of daily oral PrEP found for cisgender women who showed consistently high (4 doses/wk) or consistently daily (7 doses/wk) adherence

HIV Incidence vs. Oral PrEP Adherence



Dual Prevention Pill (DPP)

2 clinical crossover studies began in South Africa and Zimbabwe in Q4 2022 investigating **choice and DPP adherence**

Prevention Funding

CIFF and the Global Fund established a catalytic matching fund of $25M USD eligible to Kenya, Mozambique, Nigeria, South Africa, Uganda, and Zambia to drive scale-up of PrEP, including introducing novel PrEP options

Dapivirine Vaginal Ring (DVR)

→ DELIVER: Women can safely use the DVR for PrEP in the third trimester of pregnancy and during breastfeeding

→ B-PROTECTED: Low levels of dapivirine found in participants' breast milk and even lower concentrations of the medicine in infants' blood, posing no safety risk

→ INTEREST: Early data from a demonstration project in Zimbabwe shows strong DVR adherence rates demonstrating feasibility in young women

DATA SOURCES

1. CHAI's annual data request to 25+ LMICs
2. Articles from journals and news outlets
3. Supplier and partner market intelligence
4. Major conferences and meetings
5. WHO guidelines and PEPFAR technical guidance

ACRONYMS USED

1L: First-line
2L: Second-line
3HP: Three months of weekly RPT+INH for TPT
AHD: Advanced HIV disease
ART: Antiretroviral therapy
CALHIV: Children and adolescents living with HIV
CLHIV: Children living with HIV
CrAg: Cryptococcal antigen
DRV/r: Darunavir/ritonavir
DTG: Dolutegravir
EID: Early infant diagnosis
EXW: Ex-works
GF ERP: Global Fund Expert Review Panel
HIVST: HIV self-test
LMIC: Low- and middle-income country
LPV/r: Lopinavir/ritonavir
MPP: Medicines Patent Pool
NNRTI: Non-nucleoside reverse transcriptase inhibitor
NRTI: Nucleoside reverse transcriptase inhibitor
pALD: Pediatric ABC+3TC+DTG
pDTG: Pediatric DTG (10 mg) scored, dispersible
PEPFAR: President's Emergency Plan for AIDS Relief
PI: Protease Inhibitor
PLHIV: People living with HIV
POC: Point-of-care
PrEP: Pre-exposure prophylaxis
SSA: Sub-Saharan Africa
TB: Tuberculosis
TLD: TDF+3TC+DTG
UNAIDS: Joint United Nations Programme on HIV/AIDS
US FDA: United States Food and Drug Administration
VL: Viral load
WHO: World Health Organization
XTC: Emtricitabine or lamivudine

This memo was made possible through the generous support of Unitaid, with complementary support from the UK Foreign, Commonwealth & Development Office (FCDO).

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