NWM2025

JOHANNESBURG, SOUTH AFRICA • 3–7 NOVEMBER 2025

Friday, 7 November 2025

Session 1

Please Scan the QR code to view the online **Program Guide**.

26TH NETWORK MEETING

NWM2025

JOHANNESBURG, SOUTH AFRICA • 3–7 NOVEMBER 2025

Texas Children's Global Health Network

IAS Updates

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Fundația Baylor Marea Neagră

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Texas Children's Global Health Network

IAS UPDATES: KEY TAKEAWAYS

IAS 2025

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AGENDA

INTRODUCTION

THEMES:

- THE IMPACT OF FUNDING CUTS
- AFRICA AT THE CENTRE
- LENECAPAVIR, THE MAGIC WORD
- THE GROWING TOOLBOX OF LONG-ACTINGNG OPTIONS
- STRIDES AND SETBACKS IN PAEDIATRIC AND ADOLESCENT CARE
- BNAB BREAKTHROUGHS
- HARNESSING TECHNOLOGY

INTRODUCTION

- **The IAS 2025 Conference**, was held in Kigali, Rwanda, with emphasis on Africa's central role in the global HIV response amid a challenging funding landscape.
- The IAS 2025 conference received over 5,250 abstract submissions, with an acceptance rate of 38%.
- Today, we capture major scientific, policy, and programmatic highlights

1.THE IMPACT OF FUNDING CUTS

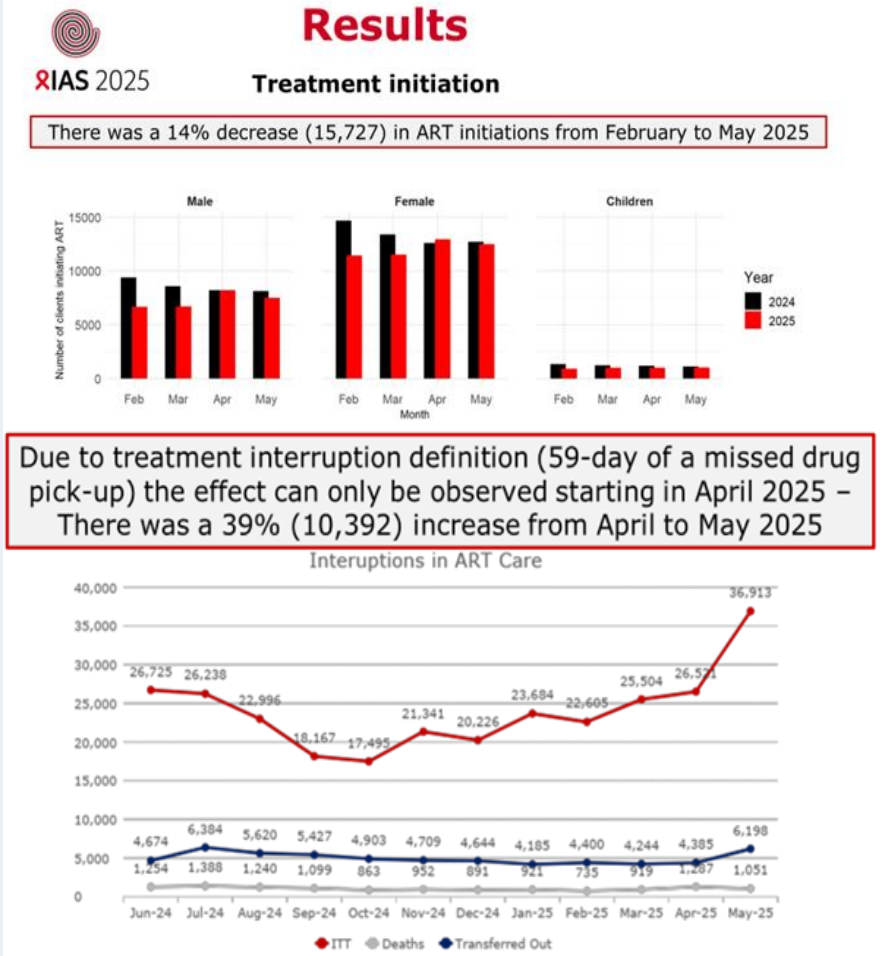
The global funding crisis sparked by the sudden slashing of US aid in early 2025 was a strong thread through IAS 2025.

However, the impact continues to be severe, as supported by a host of results presented.

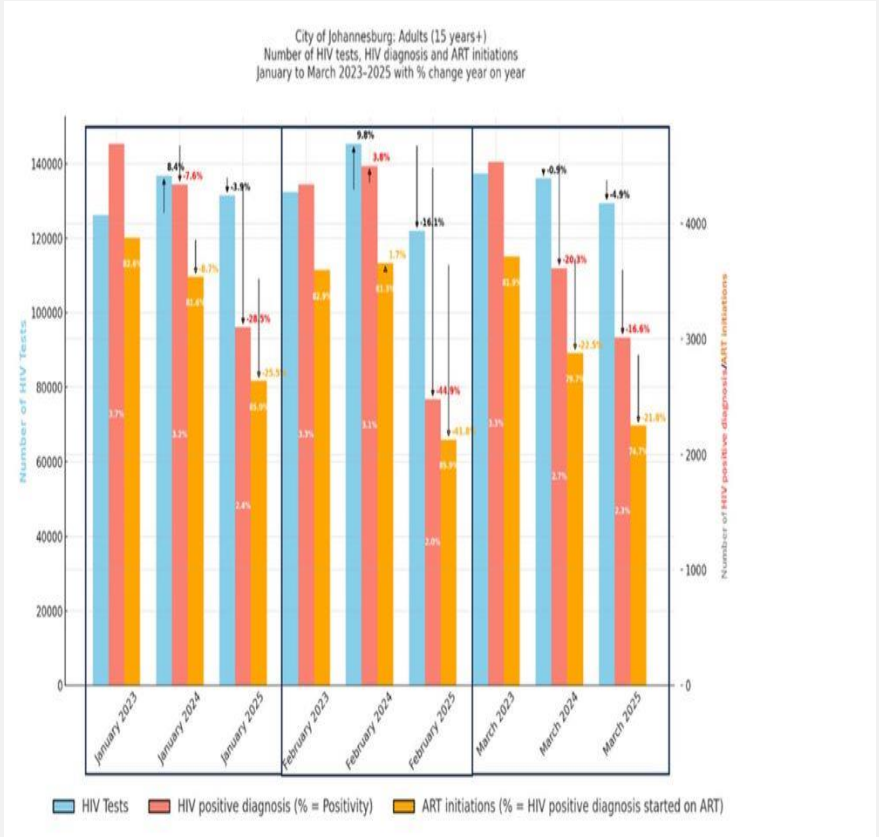
"You can't end the AIDS pandemic while African nations must choose between paying creditors and saving lives," Zackie Achmat, founder of South Africa's Treatment Action Campaign, told a press conference at IAS 2025.

"We cannot stretch people to the brink and then praise their strength while denying them support."

Mozambique, home to the third highest number of people living with HIV globally, 25% fewer adults-initiated ART in February 2025 than in February 2024 with up to 39% increase in treatment interruption



Johannesburg, South Africa, where a PEPFAR-funded award was withdrawn in February, HIV testing declined by 8.5%, diagnoses by 31% and ART initiations by 30% from Q1 2024 to Q1 2025



Latin America and the Caribbean, 87% of 40 surveyed organizations that received US funding in the past year had funds suspended, with an estimated 156,164 beneficiaries losing access to HIV services.

Global AIDS Update 2025, UNAIDS says 25 of 60 low- and middle-income countries have increased HIV spending from domestic resources. Hence, the future of the HIV response should be nationally owned and led, sustainable, inclusive, and multisectoral.

2. AFRICA AT THE CENTRE

The African continent does far more than bear the biggest load of the HIV pandemic. IAS 2025 showcased the central role of African science in shaping the global HIV response.

- IAS 2025 celebrated Africa's leadership in HIV vaccine research, highlighting African-led scientific innovation, clinical trials, and infrastructure development.
- It introduced the Africa Cure Consortium and its work to advance African leadership in the global effort to develop an HIV cure.
- Rwanda shared the importance of rapid action and global health partnerships in managing an outbreak of Marburg virus disease, which it declared contained in less than three months.

Africa's leadership in HIV vaccine research:

The case of the AMP trial

The AMP Trial

DIVERSE HIV PREVENTION OPTIONS

Highlights need for diverse HIV prevention options beyond traditional methods

bNABs

- Broadly Neutralizing Antibodies
- Safe and well-tolerated
- Can prevent HIV infections, but not consistently

FURTHER RESEARCH NEEDED

- Combine antibodies with wider breadth for better results

FUTURE POTENTIAL

- Inform development of new HIV prevention strategies
- Contribute to prevention and treatment of other infectious diseases

3. LENACAPAVIR, THE MAGIC WORD

Lenacapavir – The Magic Word

HIGHLY EFFECTIVE

- Twice-yearly injectable PrEP, nearly 100% effective in preventing HIV

GLOBAL ACCESS AGREEMENT

- Gilead & Global Fund: supply doses at no profit for 2M people over 3 years

WHO GUIDELINES

- LEN recommended as an additional HIV prevention choice

PHASE 3 PURPOSE TRIALS

- Safe, well-tolerated across diverse populations (including pregnant women & adolescents)
- 75% of participants prefer injections over daily pills

SPECIAL SITUATIONS

- Suitable for people on TB treatment

THE GLOBAL FUND

Français

News Releases

A pivotal moment in the fight to end AIDS — ensuring lifesaving innovation reaches those who need it most, wherever they live

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Global Fund Secures Access to Breakthrough HIV Prevention Drug Lenacapavir for Low- and Middle-Income Countries

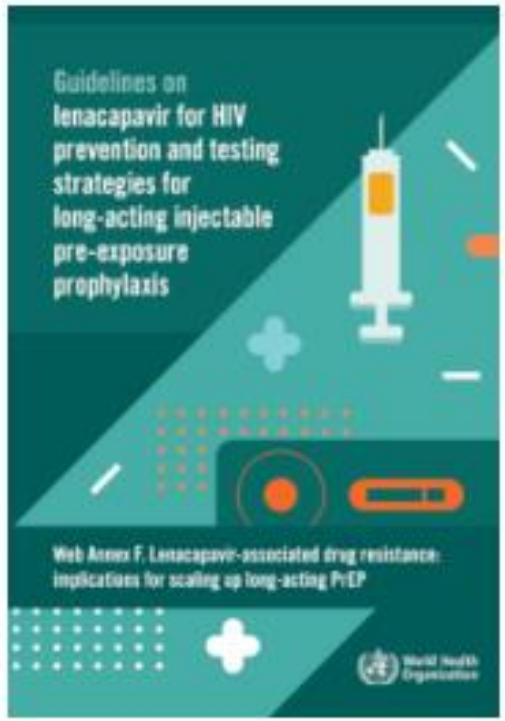
A pivotal moment in the fight to end AIDS — ensuring lifesaving innovation reaches those who need it most, wherever they live

09 July 2025

GENEVA - The Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) today announced it has signed an access agreement with Gilead Sciences to procure lenacapavir, a long-acting injectable for HIV prevention, for low- and middle-income countries (LMICs). This marks the first time in history that an HIV prevention product will be introduced in LMICs at the same time as in high-income countries — a significant milestone for global health equity.

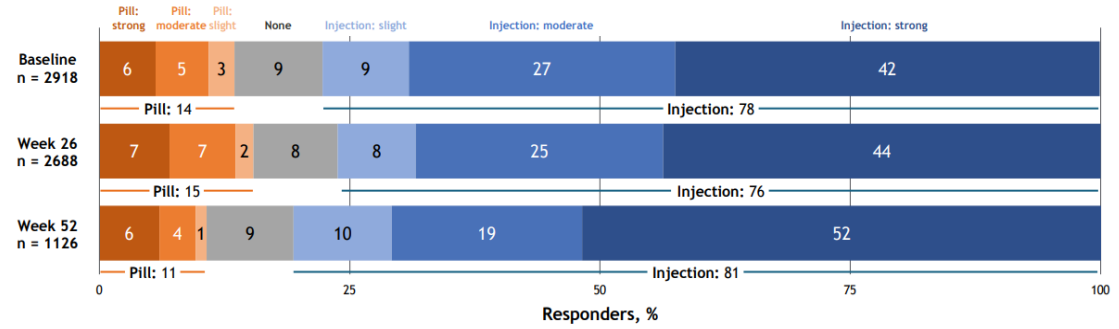
يؤمن الصندوق العالمي الوصول إلى عقار المبتكر للوقاية (Lenacapavir) ليناكابافير من فيروس العوز المناعي البشري للبلدان ذات الدخل المنخفض والمتوسط.

download in عربي



More than Three-Quarters of Participants Preferred Twice-Yearly Injections

PrEP Administration Preferences (Daily Oral Pill vs Twice-Yearly Injection)



Among those with a preference for either injection or daily pills, approximately half reported their preference as "strong"; most participants maintained their baseline preference for twice-yearly LEN through Week 52

The population presented is based on all observed non-missing responses at each visit. Question: If I could take just one kind of PrEP medication, knowing they both worked equally well, I would prefer to take PrEP medication: 1) by injection every 6 months; 2) I have no preference one way or the other; 3) by a daily pill. Follow-up question for participants who reported a preference for pills or injections: I would rate my preference for the PrEP medication I prefer as: 1) slight preference; 2) moderate preference; 3) strong preference. Percentages may not sum to 100%, or align, due to rounding. **LEN**, lenacapavir; **PrEP**, pre-exposure prophylaxis.

4. THE GROWING TOOLBOX OF LONG-ACTING OPTIONS

The Medicines Patent Pool (MPP) and ViiV Healthcare announced a licensing agreement to allow generic production of CAB-LA for HIV treatment for use in combination with rilpivirine in 133 countries, which MPP's Esteban Burrone described as "a significant step forward for equitable access".

A new addition to the toolbox of long-acting options is MK-8527, an investigational once-monthly oral pill for HIV prevention, with a study showing it is well tolerated in adults.

The first real-world implementation study of long-acting injectable cabotegravir (CAB-LA) for HIV prevention – among adolescent girls and young women(Zambia).

Incidence of AEs was Similar Across MK-8527 and Placebo Groups

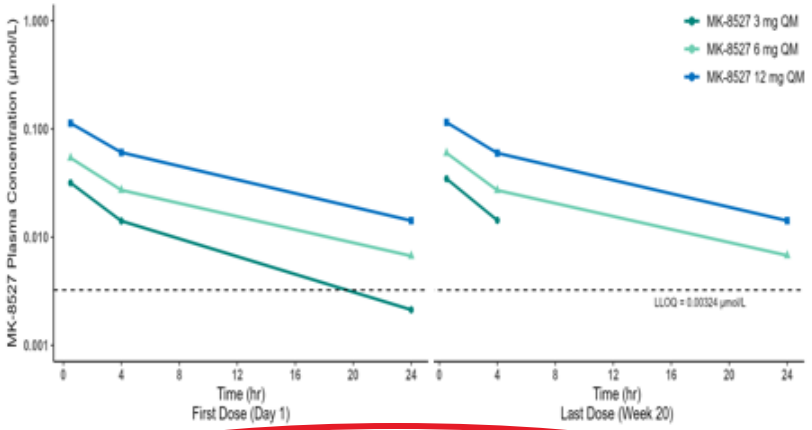
Number (%) of participants	MK-8527 3 mg N=101	MK-8527 6 mg N=101	MK-8527 12 mg N=99	Placebo N=49
with one or more adverse event (AE)	62 (61.4)	69 (68.3)	66 (66.7)	31 (63.3)
with drug-related† AE	15 (14.9)	16 (15.8)	20 (20.2)	9 (18.4)
with toxicity grade 3-4 AE	5 (5.0)	2 (2.0)	4 (4.0)	4 (8.2)
with serious AE (SAE)	2 (2.0)	0 (0.0)	1 (1.0)	1 (2.0)
with drug-related SAE	1 (1.0)	0 (0.0)	0 (0.0)	1 (2.0)
discontinued due to an AE	0 (0.0)	2 (2.0)	1 (1.0)	2 (4.1)
discontinued due to a drug-related AE	0 (0.0)	1 (1.0)	1 (1.0)	0 (0.0)

† Relationship to study drug was determined by the investigator. One participant in the 12-mg group died of a gunshot wound (not related to study drug).

- One SAE (spontaneous abortion at ~6 weeks gestation) was considered related to MK-8527 (3 mg)
- Two participants discontinued MK-8527 due to drug-related AE: grade 1 CD4/lymphocyte count decreased (6 mg); grade 2 hypoaesthesia (12 mg)
- No HIV-1 seroconversions were observed during the study

MK-8527 in Plasma

Concentration vs Time Profiles (semi-log scale)



- PK parameters for MK-8527 are dose-proportional
- No apparent accumulation of MK-8527 in plasma with monthly dosing

Dose (mg)	Parameter	First Dose (Day 1)		Last Dose (Wk 20)	
		N	GM (GCV%)	N	GM (GCV%)
12	$AUC_{0\text{-last}}$	97	0.861 (34.1)	95	0.836 (55.0)
	C_{max}	97	0.113 (64.5)	95	0.108 (72.5)
6	$AUC_{0\text{-last}}$	96	0.397 (36.1)	92	0.404 (37.3)
	C_{max}	96	0.0490 (75.6)	92	0.0538 (73.5)
3	$AUC_{0\text{-last}}$	95	0.132 (84.8)	78	0.129 (81.5)
	C_{max}	95	0.0289 (69.0)	78	0.0320 (67.5)

AUC, area under the curve (hr*µmol/L). C_{max}, maximum concentration in plasma (µmol/L). GM, geometric mean. GCV%, geometric coefficient of variation.

What was the study's main question?

- To evaluate the safety and pharmacokinetics of MK-8527 (3 mg, 6 mg, and 12 mg) oral once monthly, for 6 months, in adults with a low likelihood of HIV-1 exposure

What did this study find?

- Six consecutive monthly doses of MK-8527 (3 mg, 6 mg, and 12 mg) were well tolerated with safety profiles similar to that of placebo
- The pharmacokinetics of MK-8527 were dose-proportional

Why is this study important?

- The results of this study support the continued clinical development of MK-8527 oral QM for the prevention of HIV in Phase 3 studies

Theme 1: CAB-LA means freedom

Many participants preferred CAB-LA over daily oral PrEP, citing the burden of daily pill-taking as a key factor in their decision. Having the luxury to forget, participants described as 'freeing.'

> *When they inject you, it makes you freer… but the one for tablets you often forget, … I chose injectable prep because I don't want to be forgetting (AGYW2)*

Theme 3: Discretion and PrEP Stigma

> *[My neighbor] says that… PrEP is for prostitutes, because when you receive PrEP you will begin to do whatsoever you want (AGYW4)*

PrEP was stigmatized in the community (external environment) as for 'prostitutes'. Participants appreciated the injectable form for PrEP, which allowed them to be discreet in their use with partners and community members.

- The first <u>real-world implementation</u> study of long-acting injectable cabotegravir (CAB-LA) for HIV
  - "You get the injection and it's done": Qualitative Findings on the Introduction of Long-acting Cabotegravir for HIV Prevention among Adolescent Girls and Young Women in Zambia
- Participants appreciated that it is discreet with few side effects, and at the second interview, 100% had completed their second dose on schedule.

Theme 2: Partners can't be trusted to keep you safe

Most participants described a history of coerced, forced or unwanted sexual experiences, and a history of partners who had been unfaithful. Based on these experiences, participants perceived themselves at risk and motivated their interest in taking preventive action.

> *What made me worried [about getting HIV] is these guys don't listen, men are not trusted, so I started thinking, … what do I do, so I started PrEP so that I don't get sick (AGYW4)*

Theme 5: Significant programmatic and social support enabled uptake

DREAMS group sessions fostered peer support for CAB-LA initiation while mentors provided accessible guidance and encouragement.

> *When I had a boyfriend, people were telling that what if he cheats, he is a man. Then I came here, I have a friend, she taught me, and she told me that I have tried it and I am also using so you can use it. So, that is how I got the injection. (AGYW8)*

5. STRIDES AND SETBACKS IN PAEDIATRIC AND ADOLESCENT CARE

Author	Findings
James Wyncoll et al	Data from the ODYSSEY trial highlight key predictors of treatment failure in children starting ART, including low CD4 percentage, WHO stage 3/4 events and lower weight, supporting targeted screening and tailored support for younger children.
Tim R. Cressey, S. Abdalla, et al	Pharmacokinetic modelling supports WHO-aligned weight-band dosing of a new paediatric darunavir/ritonavir fixed-dose combination, expanding age-appropriate treatment options.
Gabriella Scarlatti et al	Early-life administration of two bNAbs (CAP256V2LS and VRC07-523LS) was safe in infants, supporting further investigation into antibody-based strategies to prevent vertical transmission.
Suwilanji Simwanza et al	In a Zambian facility, suicidal behaviour affected nearly one-third of adolescents living with HIV, driven by stigma, depression and anxiety, underscoring the need for integrated mental health services.
Nyasha Veronica Dzavakwa et al	And adherence intervention in Zimbabwe using electronic monitoring devices improved viral suppression in young people at risk of virologic failure and was well received.

BREATHER Plus Trial - Adeodata Kekitiinwa et al.

IAS 2025

Population: Adolescents (12–19 years) on TLD regimen.

Study Design: Compared short-cycle ART (weekends off) vs continuous ART.

Findings:

Short-cycle ART → **higher risk of virological rebound**.

Continuous ART → **better viral suppression**.

Implication: Weekend-off ART is **not recommended** for adolescents on TLD.

6. BNAB BREAKTHROUGHS

Broadly neutralizing antibodies (bNAbs) have a steadily growing role in HIV research, driven by insights from immunotherapy, cure science and vaccine development

Key Insights

Combination Therapies	bNAbs + immune modulators (N-803) → prolonged viral control (53% for ≥6 months).
Novel Pairings	Targeting CD4 binding site & interface region revealed antagonism → informs future design.
CAR-T Innovations	CAR-T cells engineered to secrete bNAbs reduced viral load in mouse models.
Lenacapavir Synergy	LEN + dual bNAbs preserved HIV-specific T-cell responses.
Implication	Interdisciplinary advances accelerating HIV cure strategies.

7. HARNESSING TECHNOLOGY

IAS 2025 sessions showcased communities and programme implementers increasingly drawing on technology for delivery of accessible, efficient and person-centred HIV and other health services.

Harnessing Technology - AI in TB Screening

Innovation in Nigeria:

Yield: 23% vs 8% with conventional symptom screening.

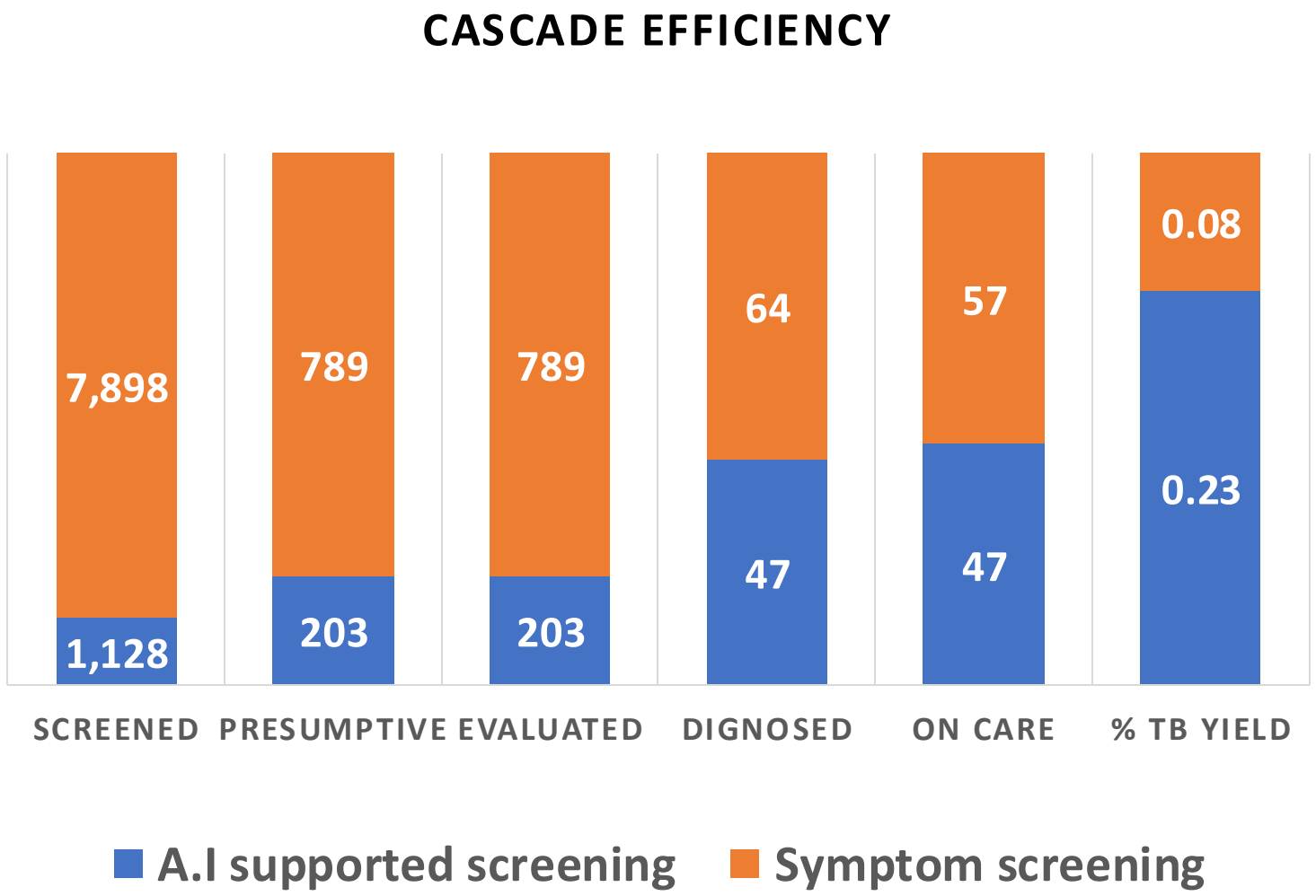
Mobile digital chest X-ray vans equipped with AI.

Enhances TB diagnosis efficiency and strengthens HIV/TB integration.

Impact:

Faster detection → better linkage to care.

Scalable solution for resource-limited settings.



In Canada, researchers have developed a chatbot called MARVIN that supports HIV self-management by providing knowledge and adherence support. **Sebastian Villanueva et al**

MARVIN: https://marvin-much.com

If you have any questions and want further details, please contact :

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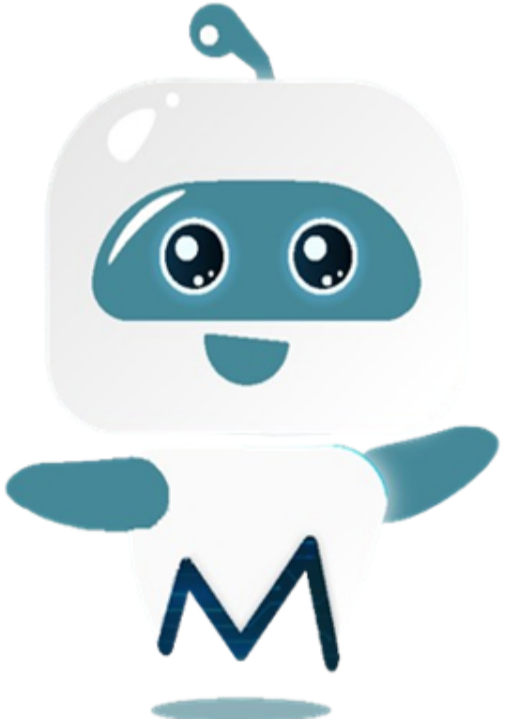

Key Takeaways

MARVIN has the potential to become:

- **An AI-based digital Companion for mental health challenges**
- **A Digital Coworker for mental health management in HIV care and prevention to support overstretching healthcare providers, but not to replace them**
- **Available 24 hours/day and 7 days /week**

Methods–Mixture of Experts–Step 1

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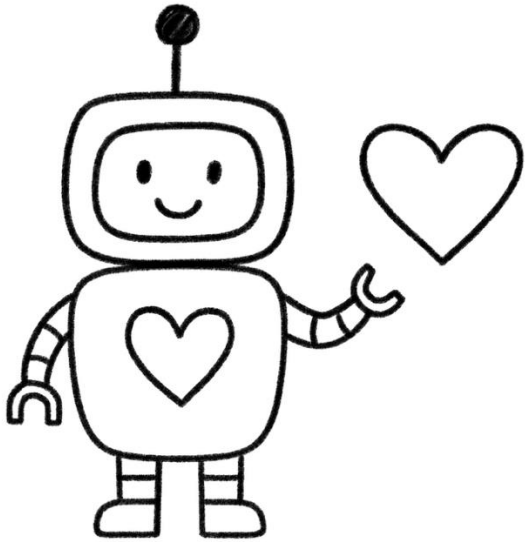
Insult towards PWH



AI Model #1: Natural language processing BERT model

Positive

Neutral

Negative

Very negative

Model #1 classification

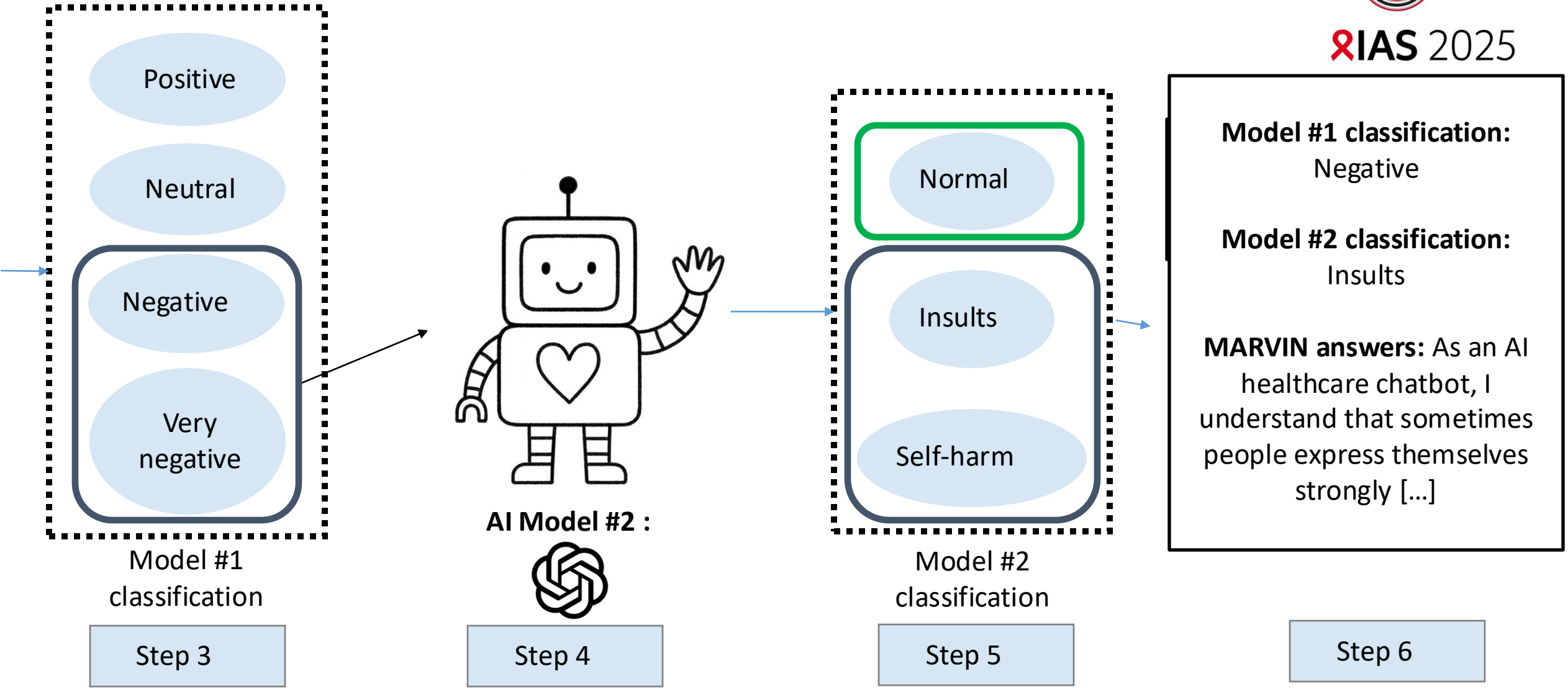
Still Important ! Ensures the model's comprehension of negative/very negative messages

Step 1

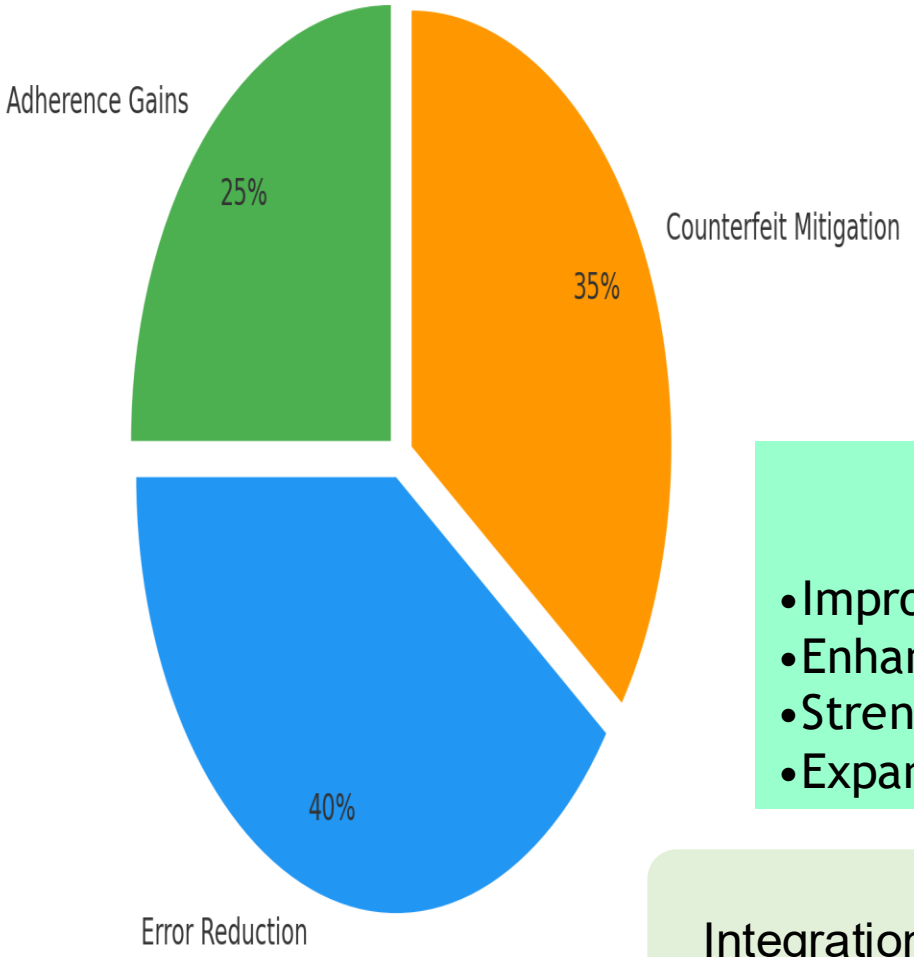
Step 2

Step 3

Methods-Mixture of Experts-Step 2



Blockchain solutions ,P.C.D. Rupasinghe et al



What is Blockchain?

A decentralized, distributed ledger that ensures secure, transparent, and tamper-proof handling of sensitive health data.

Key Benefits:

Immutability → Guarantees data integrity

Cryptography → Protects patient privacy

Decentralization → Reduces reliance on centralized systems

Why It Matters for HIV Care

Blockchain can address systemic barriers by:

- Improving **treatment adherence** (e.g., 25% increase in Kenya)
- Enhancing **trust** and reducing errors (e.g., in the US)
- Strengthening **supply chain resilience** (e.g., Malawi, Ghana)
- Expanding **rural access** and reducing counterfeit risks

Future Potential:

Integration with **AI** and **IoT** could revolutionize global health delivery and data security.

THANK YOU

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IAS 2025 updates

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Topics

Epidemiology of HIV

HIV investments and funding issues

HIV prevention

HIV treatment and Disclosure

UNAIDS Global report

- **Global HIV statistics**
- 40.8 million people globally were living with HIV in 2024.
- 1.3 million people became newly infected with HIV in 2024.
- 630 000 people died from AIDS-related illnesses in 2024.
- 31.6 million people were accessing antiretroviral therapy in 2024.
- 91.4 million people have become infected with HIV since the start of the epidemic.
- 44.1 million people have died from AIDS-related illnesses since the start of the epidemic.

People Living with HIV

- In 2024, there were 40.8 million people living with HIV.
- 39.4 million adults (15 years or older).
- 1.4 million children (0–14 years).
- 53% of all people living with HIV were women and girls.

People living with HIV accessing antiretroviral therapy

- At the end of December 2024, 31.6 million people were accessing antiretroviral therapy, up from 7.7 million in 2010, but still short of the 34 million target for 2025.

- In 2024, 77% of all people living with HIV were accessing treatment.
  - 78% of adults aged 15 years and older living with HIV had access to treatment, as did 55% of children aged 0–14 years.
  - 83% of women aged 15 years and older had access to treatment; however, just 73% of men aged 15 years and older had access.

- 84% of pregnant women living with HIV had access to antiretroviral medicines to prevent transmission of HIV to their child in 2024.

New HIV infections

- New HIV infections have been reduced by 61% since the peak in 1996.
- In 2024, 1.3 million people were newly infected with HIV, compared to 3.4 million people in 1996.
- Since 2010, new HIV infections have declined by 40%, from 2.2 million to 1.3 million in 2024. However, this falls short of the target of getting below 370 000 new infections by 2025.
- Since 2010, new HIV infections among children have declined by 62%, from 310 000 in 2010 to 120 000 in 2024. Although progress in reducing new HIV infections is greatest among children, progress has stalled in recent years.

AIDS-related deaths

- AIDS-related deaths have been reduced by 70% since the peak in 2004 and by 54% since 2010.

- In 2024, around 630 000 people died from AIDS-related illnesses worldwide, compared to 2.1 million people in 2004 and 1.4 million people in 2010. The target for 2025 is fewer than 250 000 AIDS-related deaths.

- In 2024, around 75 000 children died from AIDS-related causes compared to 240 000 in 2010.
- AIDS-related mortality has declined by 58% among women and girls and by 50% among men and boys since 2010.

- In 2024, someone died of HIV-related causes every minute.

People most affected by HIV

- HIV prevalence among adults (aged 15–49) was 0.7% globally. However, risk factors compounded by marginalization, discrimination, and in some cases criminalization, resulted in higher median HIV prevalence among certain groups of people:
  - 7.6% among gay men and other men who have sex with men
  - 2.7% among sex workers
  - 7.1% among people who inject drugs
  - 8.5% among transgender people
  - 1.4% among people in prisons.

Women and girls

- In sub-Saharan Africa, women and girls (all ages) accounted for 63% of all new HIV infections.
- In all other geographical regions, about 73% of new HIV infections in 2024 occurred among men and boys.
- Every week, 4000 adolescent girls and young women aged 15–24 years became infected with HIV in 2024—3300 of these infections occurred in sub-Saharan Africa.

Testing and treatment targets (95–95–95)

- In 2024, 87% of all people living with HIV knew their HIV status. Among people who knew their status, 89% were accessing treatment. And among people accessing treatment, 94% were virally suppressed.

- Among children aged 0–14 years the 95–95–95 targets were 63% , 87% , 86%

- Among women, the 95–95–95 targets were: 92% , 91% , and 95%.

- Among men, the 95–95–95 targets were: 84% , 87%, 94% .

- Among all people living with HIV, 87% , 77%, 73%

Investments

- At the end of 2024, US$ 18.7 billion was available for the AIDS response in low- and middle-income countries—17% below the US$ 21.9 billion needed annually by 2030 to stay on track to end AIDS as a public health threat.

- Around 52% was from domestic sources. Domestic funding increased by 2.2% in 2024, the first rise since the onset of the COVID-19 pandemic. 26 out of 61 countries have reported plans to increase their domestic HIV budgets by 2026.

- In 2025, the HIV financing architecture has undergone unprecedented changes. Most notably, the freeze and uncertainty surrounding PEPFAR's funding commitments. If PEPFAR does not return to its 2024 funding level, the current 17% funding gap could widen significantly, jeopardizing progress toward the 2030 global targets.

UNAIDS IMPACT ANALYSIS

- UNAIDS analysis suggests that the permanent discontinuation of HIV programmes previously supported by the US President's Emergency Plan for AIDS Relief (PEPFAR), including treatment and prevention, would, between 2025 and 2029, lead to:
- An additional 6.6 million new HIV Infections
  - About 2300 additional new HIV infections per day
  - A total of 5800 new infections per day today compared to 3500 in 2023
  - 660 000 additional new HIV infections among children between 2025 and 2029.
- An additional 4.2 million AIDS-related deaths
  - Over 600 additional AIDS-related deaths per day
  - A total of 2400 deaths per day in 2025 compared to 1700 in 2023
  - An additional 300 000 children will die of AIDS related causes between 2025 and 2029.
- 3 million additional children orphaned by AIDS,

HIV PREVENTION- *Lenacapavir the magic word*

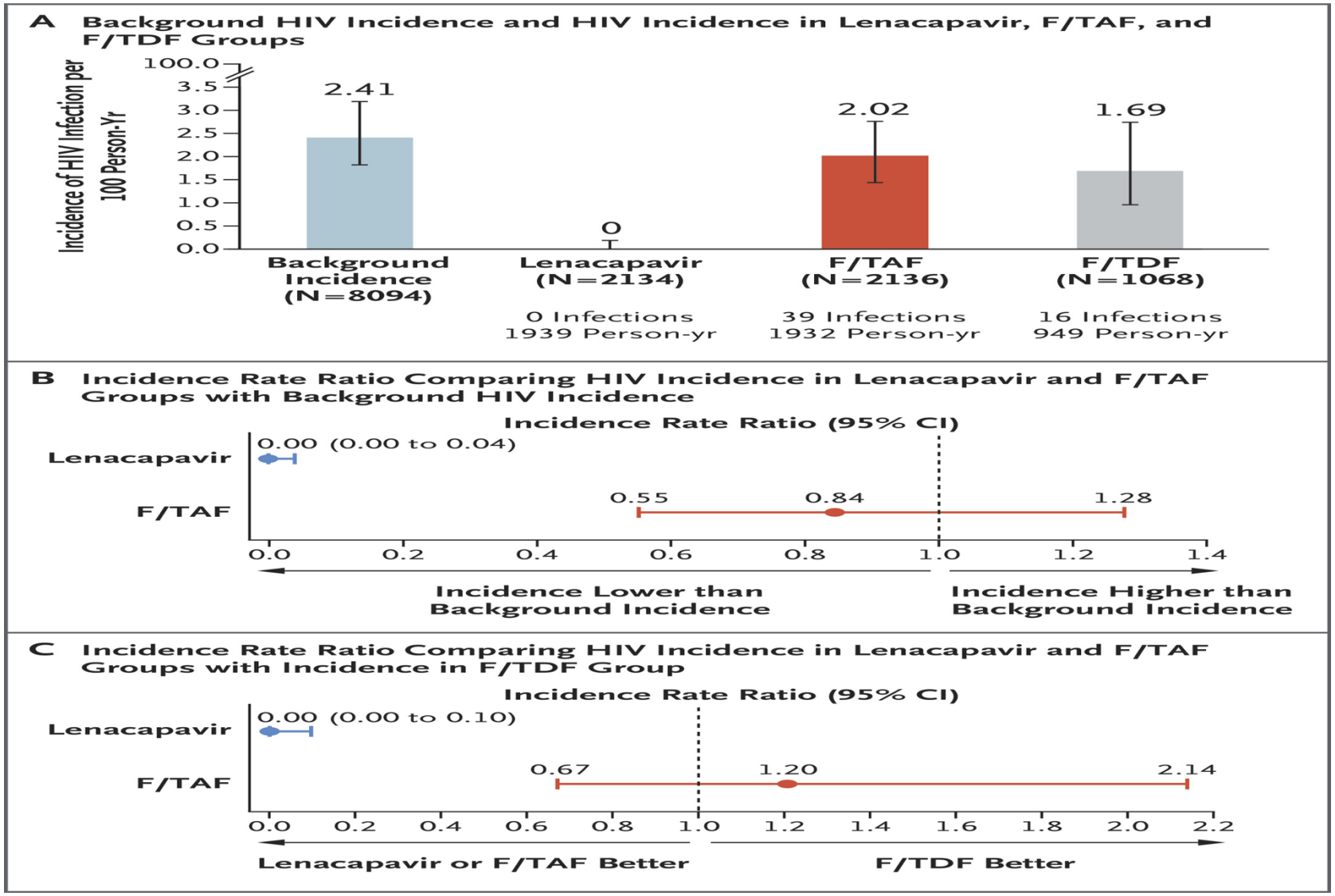
- Globally, 3.5 million persons initiated or continued PrEP during 2023, far fewer than the United Nations Programme on HIV/AIDS goal of at least 21.2 million persons initiating or continuing PrEP globally during 2025.
- On 18 June 2025 U.S. Food and Drug Administration (FDA) has approved Yeztugo® (lenacapavir)—A subcutaneous injectable HIV-1 capsid inhibitor—as pre-exposure prophylaxis (PrEP) to reduce the risk of sexually acquired HIV in adults and adolescents weighing at least 35kg, making it the first and only twice-yearly option available.

- The World Health Organization (WHO) released on 14 July 2025 new guidelines recommending the use of injectable lenacapavir (LEN) twice a year as an additional pre-exposure prophylaxis (PrEP) option for HIV prevention, in a landmark policy action that could help reshape the global HIV response.

Purpose 1 study

- **Twice-Yearly Lenacapavir vs Daily F/TAF for HIV Prevention in Cisgender Adolescent girls and young women.**
- Phase 3, double-blind, randomized, controlled trial involving adolescent girls and young women in South Africa and Uganda.
- Participants were assigned in a 2:2:1 ratio to receive subcutaneous lenacapavir every 26 weeks, daily oral emtricitabine–tenofovir alafenamide (F/TAF), or daily oral emtricitabine–tenofovir disoproxil fumarate (F/TDF).
- Among 5338 participants who were initially HIV-negative, 55 incident HIV infections were observed: 0 infections among 2134 participants in the lenacapavir group (0 per 100 person-years; 95% confidence interval [CI], 0.00 to 0.19), 39 infections among 2136 participants in the F/TAF group (2.02 per 100 person-years; 95% CI, 1.44 to 2.76), and 16 infections among 1068 participants in the F/TDF group (1.69 per 100 person-years; 95% CI, 0.96 to 2.74).

Purpose 1 trial



Purpose 1 trial

- Most participants with incident HIV infection had low or no detection of tenofovir diphosphate (34 of 37 participants in the F/TAF group and 13 of 14 in the F/TDF group; 2 participants in each group had missing data)
- There were 510 pregnancies among 487 participants: 193 pregnancies in the lenacapavir group, 219 i.n the F/TAF group, and 98 in the F/TDF group.

- A twice-yearly PrEP choice could overcome challenges with respect to adherence and persistence and result in substantial protection against HIV infection for women worldwide.

Lenacapavir dosing

- LEN is an HIV-1 capsid inhibitor. It is given to people who do not have HIV, at a dose of 927 mg (2 x 1.5mL injections), subcutaneously, every 26 weeks for the prevention of HIV acquisition.
- People starting LEN also take an oral loading dose of 600 mg (2 x 300 mg tablets) over two consecutive days, beginning on the day of the first injection.

Purpose 2 trial (Cis-gender men and gender diverse participants)

- In PURPOSE 2
- 9 incident HIV infections were identified in the TDF/FTC group (0.93 per 100 person-years; 95% CI: 0.43–1.77)

- Compared with 2 in the LEN group (0.10 per 100 person-years; 95% CI: 0.01–0.37).

• HIV Prevention Options **More options are associated with increased uptake of PREP.**

- Carbotegravir LA im every 2 months(WHO approved).
- Studies on A new ultra-long-acting CAB formulation (CAB-ULA) ULA every 4 months.
- Lenacapavir subcutaneously every 6 monthly (26 weeks) (WHO approved)
- TDF/TFC or TAF/FTC orally once daily (WHO approved).
- Dapavirine vaginal ring once monthly(WHO approved)
- MK-8527 an investigational once monthly pill for HIV prevention. The drug is advancing to Phase 3 trial.

Prep in Pregnancy

- WHO 2025 guidelines
- PrEP should not be discontinued during pregnancy or breasfeeding for women at risk of exposure for HIV.
- The choice to start, continue or discontinue PrEP when becoming pregnant should be made by the individual following discussion about the risks and benefits with a health care provider

HIV Treatment DTG in neonates

- DTG use in neonates
- 5 mg DT dose every 48 hours for two weeks, followed by 5 mg daily is now approved for newborn babies/neonates >2kgs(PETITE-DTG Study)
- The PETITE-DTG study assessed two pediatric DTG formulations, a 5 mg dispersible tablet (DTG-DT) and a novel 5 mg oral dispersible film (DTG-Film)
- One mother who participated in the trial along with her infant son said, “As soon as I put [the DTG-Film] on his tongue … it just dissolves in a few seconds, he enjoys it.”
- The approval by WHO, opens the path for use for DTG in neonates for prophylaxis and treatment.

New WHO recommendations for infant postnatal prophylaxis

- *For all HIV-exposed infants at low risk*
- *Give routine single drug prophylaxis.*
- *Preferred NVP for 6 weeks*
- *Alternatives DTG or 3TC for 6 weeks*

Proposed Dosing for DTG 10mg infant prophylaxis	
1-14 days	½ tab (5mg) every 48hrs
15-42 days	½ tab (5mg) every 24hrs

New WHO recommendations for infant postnatal prophylaxis

- For High risk infants
- Enhanced three-drug regimen prophylaxis

  Recommended ABC/3TC +DTG (term babies>2kg)
- Continue by an extended single drug prophylaxis during breastfeeding

  Recommended NVP, Alternatives DTG or 3TC

HIV Treatment ABC/3TC 120/60mg for neonates

- ABC/3TC plasma exposures during the 2 weeks of life were predicted to be within the range observed in young children after administration of 30/15 mg of ABC/3TC (¼ tablet) every 48 hours.

  Navarat Panjasawatwong1 , Adrie Bekker2 .
  https://www.croiconference.org/wp-content/uploads/sites/2/posters/2025/1048-2025.pdf

- ABC/3TC(30/15mg) ¼ tablet every 48hrs for 1st 2weeks the ¼ tablet every 24hrs upto 28days.

DOSING IN NEONATES (ABC/3TC , DTG)

Proposed Dosing in Neonatal prophylaxis High Risk Babies (1st 6 weeks)		
	ABC/3TC 120/60mg	DTG 10mg
Day 1-14	¼ tab every 48hrs	½ tab every 48hrs
Day 15-28	¼ tab every 24hrs	½ tab every 24hrs
Day 29-42days	1 tab every 24 hrs	½ tab every 24hrs
Day 29-42days (Alternative)	OR Pediatric ALD 60/30/5mg (1tab od) if >3kg	

Dual therapy for adolescents- WHO approved

- Dual ARV oral regimens: Dolutegravir (DTG) + 3TC can be used for treatment simplification for adults and **adolescents** with undetectable HIV viral load on three-drug antiretroviral regimens and without active hepatitis B infection. (Conditional recommendation, moderatecertainty evidence)
- More options for adolescents who don't tolerate 3 drug regimens.
- Dual therapy already available in **Botswana**

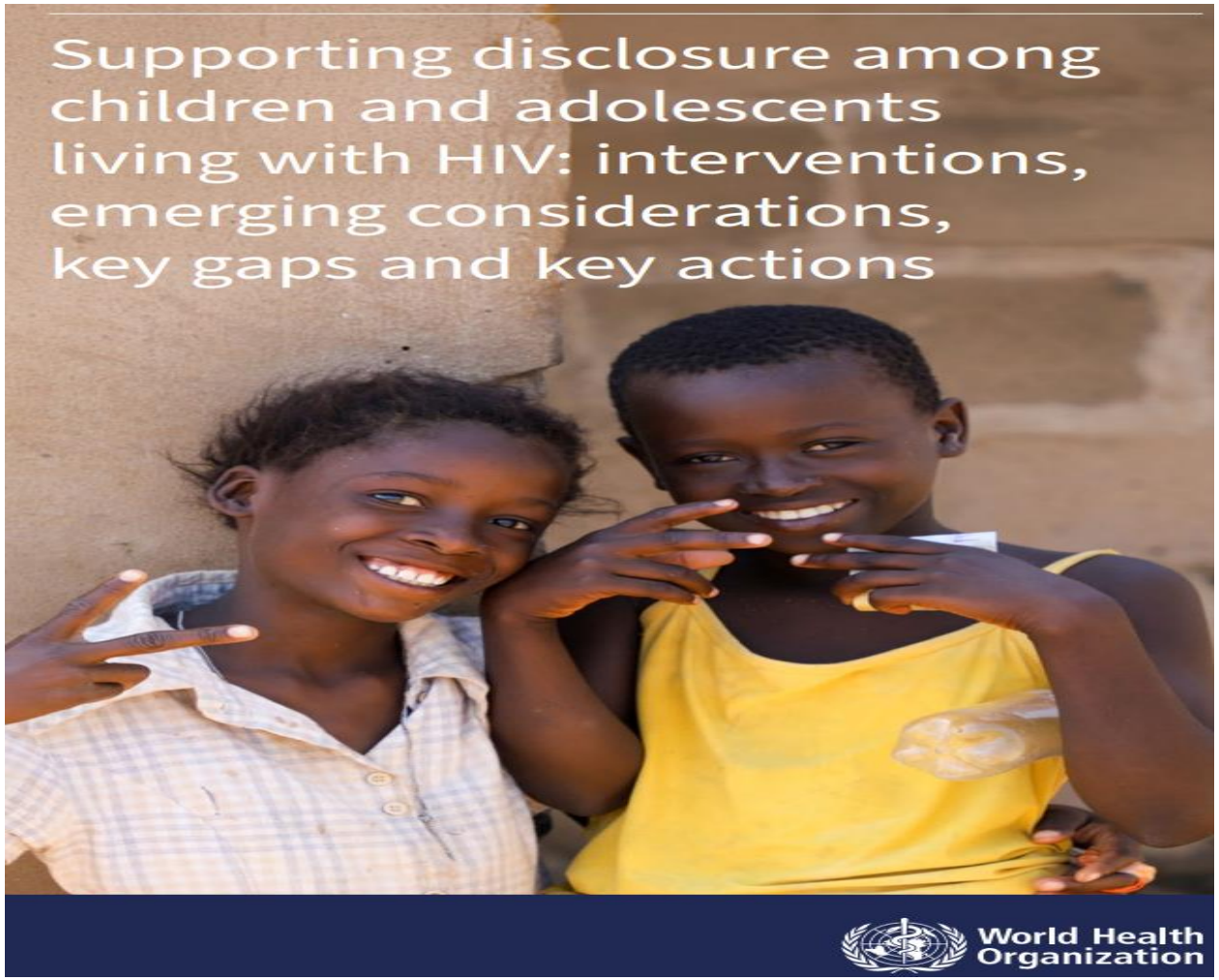
Other new developments

- Pharmacokinetic modelling supports WHO aligned weight-band dosing of a new pediatric darunavir/ritonavir fixed dose combination.

- Darunavir 120/20mg for treatment of HIV in pediatric clients at least 3 yrs and weight at least10kgs .

- Early life administration of 2 bNAbs (CAP256V2LS and VRCO7-523LS) was safe in infants, supporting further investigation into antibody based strategies to prevent vertical transmission.

New WHO guideline on adolescent Disclosure (2026)



HIV Disclosure

- **Disclosure:** refers to being told one's HIV status or sharing one's status with others.
- **Onwards disclosure:** refers to disclosure by children and adolescents of their own status to peers, family members, or partners.
- Being aware of one's own HIV status, as well as being able to share this with others safely and when ready, is key to closing gaps in prevention and care and enhancing treatment outcomes.
- Disclosing HIV status to children and adolescents is the critical first step to building health literacy and empowering them to be engaged in—and increasingly lead—decision-making about their health. This capability is essential to lifelong health.
- Supporting disclosure among children and adolescents living with HIV: interventions, emerging considerations, key gaps and key actions (WHO 2025)

References

- https://iris.who.int/bitstream/handle/10665/381896/B09471-eng.pdf?sequence=1
- https://iris.who.int/bitstream/handle/10665/381914/9789240112490-eng.pdf?sequence=1
- https://www.croiconference.org/wp-content/uploads/sites/2/posters/2025/1048-2025.pdf
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Questions & Answers ❓

IAS Updates

Session Evaluation

A quick, 1-minute “check in” to listen to your views. Your voice matters!

Please Scan the QR code to participate in the Session Evaluation.

https://www.surveymonkey.com/r/NWM2025SessionEval

26TH NETWORK MEETING | NWM2025

JOHANNESBURG, SOUTH AFRICA • 3–7 NOVEMBER 2025

Texas Children's Global Health Network

Workshop: HIV Drug Resistance Basics for Clinical Providers

Moderators: Dr. Katherine R. Simon, Mr. Alick Mazenga, Dr. Miriam Abadie, Dr. Carrie Cox

Baylor College of Medicine | BAYLOR GLOBAL HEALTH

Fundația Baylor Marea Neagră

NWM2025

JOHANNESBURG, SOUTH AFRICA • 3-7 NOVEMBER 2025

Texas Children's Global Health Network

Resistance Workshop

By the end of this workshop participants will be able to:

- Describe common reasons for high viral load and demonstrate key approaches to supporting adherence for clients with ART resistance
- Recognize risk factors for drug resistance, when drug resistance (DR) testing is clinically indicated, and explain some of the limitations of DR testing
- Identify important drug interactions for people on subsequent-line ART
- Describe treatment monitoring for clients on subsequent-line ART

Why talk about resistance

- We are seeing **more drug resistance** where we work,
  - **particularly among young people** with extensive treatment histories
- We have a **complex cohort**, with many treatment experience AYA
- Resistant virus **can be transmitted** to partners and infants
- **Adherence is an ongoing challenge**
  - important to normalize challenge and avoid punitive, fear based or condescending language
- Critical to **expand capacity** to more HCW to know **who, how and when to refer**

KAHOOT POLL: What is your experience caring for clients with resistance?

Clinical Case

KAHOOT Poll: Dolutegravir

Dolutegravir (DTG)

Very **high** genetic barrier to resistance! = more difficult to develop resistance

Currently used in initial and subsequent lines of therapy

Children over 10 yrs and over 30kgs can take TLD

Dispersible 10mg tabs – children from 4wks, >3 kgs.

(not bioequivalent – 30mg dispersible 10mg tabs = 50 mg film coated tabs)

KAHOOT POLL:

TRUE OR FALSE: Most people with HVL on dolutegravir-based ART will suppress or resuppress with adherence support

A quick refresher:
What does an HIV a viral load test measure?

Viral load measures HIV viral replication by detecting the **amount of HIV virus in a person's blood**.

VIRAL LOAD = viral replication

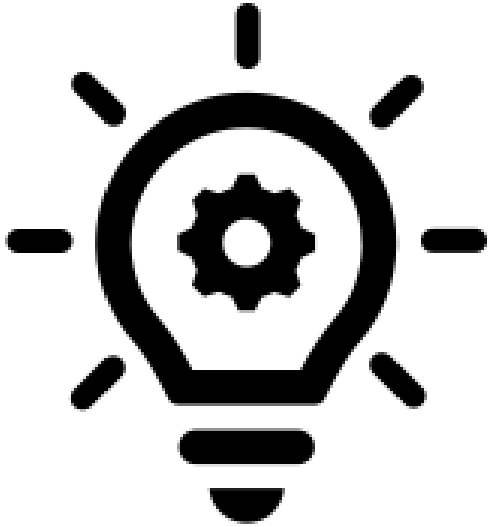
Replicating very quickly → very high VL

Replicating slowly → lower VL

Undetectable → not replicating or replicating so slowly it doesn't spill over into the bloodstream

KAHOOT Brainstorm:

What are some common reasons for a high viral load?



Taking a big step back - why is the viral load high?

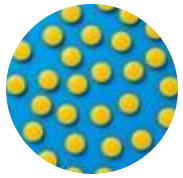
Inadequate regimens

(Mono or dual therapy, failure to dose- adjust meds, administration error)

Poor adherence –

CALHIV rely on adults for support

Not enough ARV going into the body



Drug-drug interactions, malabsorption, or inappropriate administration of medications leading to sub-optimal drug levels.

Opportunistic infections or intercurrent illnesses

ARV is going in, but drug levels aren't high enough

Resistance to one or more ARVs

ARV is going in but the drugs do NOT WORK- RESISTANCE

Why is poor adherence a problem?

Poor Adherence

↓

Viral Resistance - Resistant Mutations Form

↓

Resistant HIV

↓

ARVs No Longer Work, require more complex regimens that are more difficult to take (more pills, more frequently)

Transmitted resistance

BUT we can set people up for success with the right support!

Many children with detectable VL on DTG-based ART will resuppress with enhanced adherence support!

Examples from **Malawi** :

- HIVDR Surveillance: ~67% of CALHIV with HVL on DTG with a follow up VL resuppressed after 1st EAC
- Baylor Malawi Tingathe program: 75% (1930/2582) CALHIV with HVL on DTG suppressed after individualized enhanced adherence support[1]

Pediatric/Adolescent Treatment Failure Cascade in **7 SSA New Horizon Collaborative Countries**

- 6,425 children failing PI or DTG-based ART in Uganda, Kenya, Nigeria, Zambia, Eswatini, Lesotho, Cameroon
- 42-88% resuppressed[2]

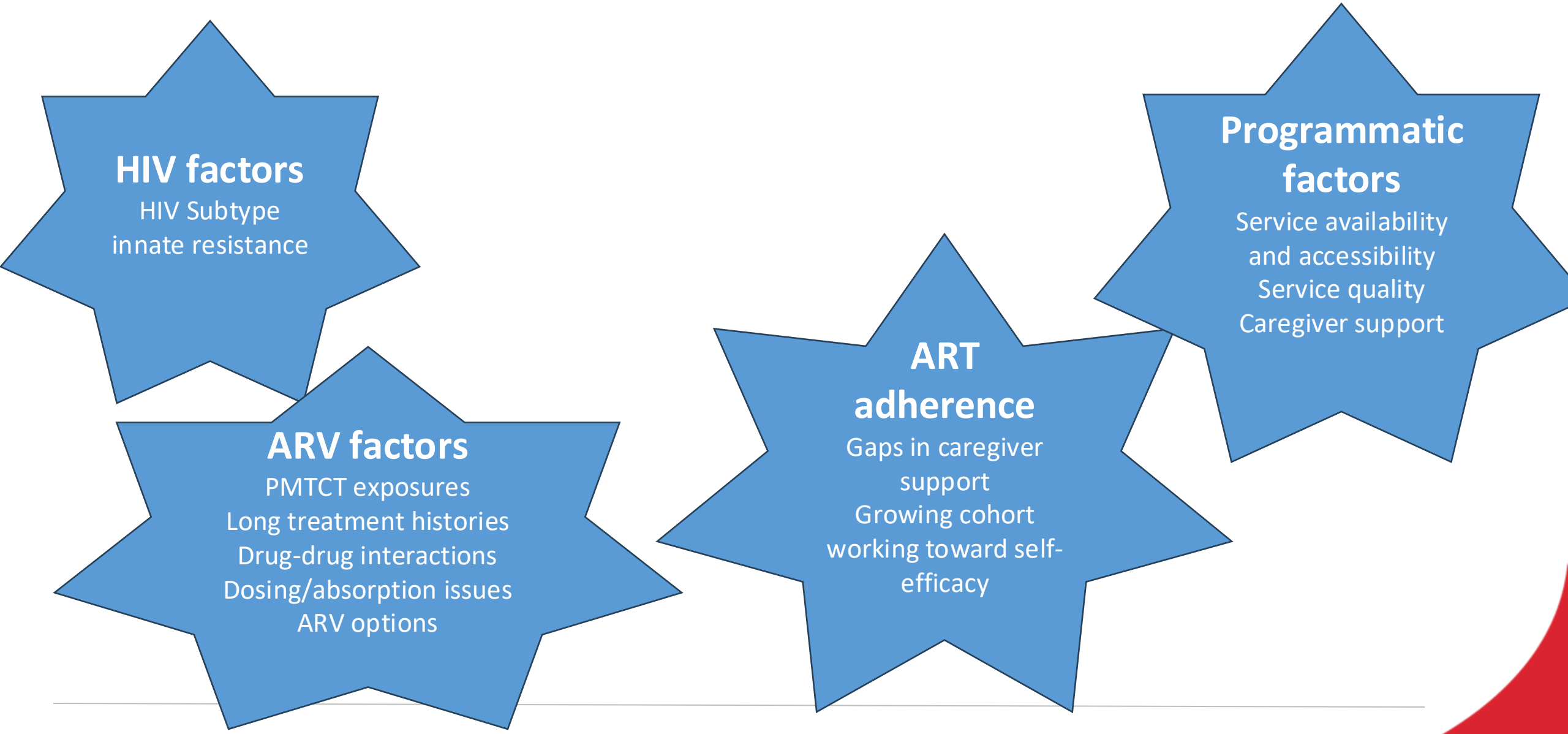
EAC is a strong tool to achieve viral re-suppression

POLL

TRUE/FALSE:

HIVDR to dolutegravir is more common in CLHIV than adults

Many factors affect development of HIV drug resistance



Risk Factor Trends for developing resistance to DTG

- **Prolonged ART histories**
  - Most children resuppress with adherence support, but re-suppression rates on DTG-based ART are lower among CALHIV than adults ~75% vs 85%[1]
- **Suboptimal adherence**, particularly **ongoing viral failure**
- **History of INSTI use**
- **Switched from NNRTI- or PI-based ART without being virally suppressed**
- **Presence of NRTI resistance**
- Use of **zidovudine-containing NRTI backbone**

Clinical Case

KAHOOT POLL: TRUE/FALSE

A result showing no resistance means the person does not have any resistant virus

How to do resistance testing

- We need enough ART in the body from daily ART dosing to get accurate genotype testing results

  The resistant virus is only detectable when there is enough ART in the body to suppress the wild-type virus

- *"We would like to do a test to help find out if this ART regimen is still working well for you. This is an expensive test. to get accurate results we need to help you take your medication every day for the next month and then collect the sample.*

  Who can help you remember every day?

  Which time works best for you?

  If you miss remember you can take it anytime until 12 hours later (sunrise/sunset)?

  Call or stop by when you have challenges?

A client with NO resistance on genotype sample may or may not have resistance

RESULT: “No resistance detected”

- Does mean: They need improved adherence
  - because if no resistance and they were taking their medication well enough the virus should sleep
  - They might have resistance that we cannot see yet,
    - the test wasn’t able to tell us because too much wild type virus is awake

- **Does <u>not</u> mean**
  - **no resistance in the client’s body**
  - the client is fine on their medication

What do we do if results: “No resistance was detected”?

This means: this **SAMPLE** has no resistance

We need more drug in the body which will either

1. Suppress the virus if no actual resistance in the body (puts wild type to sleep)
2. Reveal the resistant virus if actual resistance in the body (puts wild type to sleep)

How do we help the person to do this?

- Have a c**ooperative, supportive discussion** with the client and family
- **identify** and **agree on solutions to try to overcome adherence challenges**
- **plan weekly engagement and make needed adjustments** (in-home or phone follow-up)

KAHOOT BRAINSTORM: how do we “support adherence”?

How do we “support adherence”

First close any KNOWLEDGE gaps:

- Verify accurate **DOSE** with client
  - ask them kindly to show you the pills they take
- Verify appropriate **TIMING** of ART daily
  - show you which pills they take when
- Verify **missed doses are taken** unless 12+ hours have passed for daily medications
  - Most important to get medicine EVERY DAY even if not exactly the same time
- Confirm **no interacting** drugs or traditional medications being taken that could affect absorption of ART
- Ask person to identify **who they’d like to help them daily**
  - Find out if any way you can help them to talk to, educate that person
- Agree how and when you will **meet again to talk** - by phone/in person and agree on date and time

Review all of this and find out what new challenges at each followup

Collect VL in 3 months with good adherence.
Once good adherence attained, if VL still detectable then another genotype will likely be needed so consult

Adherence Counseling

A few tips

- Children are dependent on adults for decades
  - Kids change! Lives change!
- Adherence is a continuous PROCESS and never a one-time discussion
- Every visit routinely discuss COLLABORATIVELY and CONSTRUCTIVELY, NOT JUDGMENTALLY!
- By discussing every visit kindly and openly without judgment, you NORMALIZE this is a process
  - You expect that there will be good times and challenging times and they expect that you are there to help and not to punish them
- AVOID TELLING PEOPLE WHAT TO DO but rather ASK THEM WHAT WILL WORK in their life, family, routine
  - If you tell them they will usually agree and try but be unable to be successful

Changing regimens without addressing adherence doesn't fix the problem!

- In most of our countries, we practice public health-based care with protocols to streamline care for MOST, BUT not everyone will thrive with the same care.
- Most people will do great on TLD! Those who don't, deserve more personalized care.
- If they can't manage 1st line, how will they manage subsequent line therapy?
- Taking 80% + doses is adequate for VLS so we must create space for open discussions to allow needed support

Kahoot - practice counseling

KAHOOT POLL: TB treatment in people on DRV/r based ART

Following Clients on Subsequent-line therapy

Continue to provide **adherence support**; continue CHW case management

- PILL BURDEN CAN BE HIGH!!
- Darunavir 600mg tabs are bigger
- Sometimes 3rd line is twice daily- need a new plan!

Monitor **viral load** after regimen switch and then regularly.

Continue to **follow weight and adjust ART for weight** – if any questions, ANTICIPATE them and ask before the patient is there in front of you!

Screen for TB – most 3rd line regimens require adjusting if TB treatment is initiated so *consult 3rd line* committee in real time (call hotline) if this occurs

- Remember Darunavir has interactions with Rifampin

Case Discussions

Take-Home points

Resources for Consultation

It can be challenging to care for these complex clients, and often there is not a clear ”right” or “wrong” approach!

You are not alone ! We have incredible resources at our fingertips, even if not in person. CONSULT, CONSULT, CONSULT!

Patient care improves when bring our heads together to brainstorm and discuss– and we learn!

- Peers/supervisors at your own clinic
- National consultants / hotlines
- Regional – virtual advanced Pediatric HIV clinic with Dr Leon Levin – monthly on a Tuesday, but available for consults in between
- PVC at UCL

Take-home points

Resistance

- People on 3rd line present a different kind of challenge and its important to embrace our team environment – consult consult consult!

- Our current ART regimens with DTG as anchor drug remain an excellent choice,
  - most will achieve VLS with good adherence

    DTG resistance is rare among people who are on DTG as their first-line ART
  - but resistance to DTG is emerging

- Many with HVL on DTG-based ART will resuppress with timely EAC
  - *intervene early* with client centered adherence support
  - FDCs to help with adherence

- Don't let people wait too long with a high viral load –
  - identify and overcome situations that are interfering with daily adherence
  - obtain timely resistance testing for those who are not suppressing

Take-home points

- There are multiple reasons for HVL, but the most common is ongoing adherence challenges
- Providing tailored adherence support is critical whether someone has resistance or not -- a subsequent-line regimen only works if it gets into the body!
- Risk factors for drug resistance include long duration on ART,
- PLHIV with 2+ HVL on a DTG- or PI-based ART regimen despite good adherence should have a genotype sent
  - Fast-track for PBFW, severely immunosuppressed people
- Drug resistance testing is only useful if the PLHIV is taking their ART! Ask them to help you decide when to do the test.
- PLHIV on 3rd line ART benefit from being followed more closely, with more frequent viral load monitoring and adherence support

Workshop: HIV Drug Resistance Basics for Clinical Providers

Session Evaluation

A quick, 1-minute “check in” to listen to your views. Your voice matters!

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Lunch 🍽 & Departures 🛫

12:00 - 13:00