

# Providing a Differentiated Package of Care for Advanced HIV Disease

Session 3

---

February 1, 2024



# Please introduce yourself in the chat



- Name
- Organization
- Country

Feel free to type your questions in the Q&A box or the Zoom chat feature at any point during today's session. We will have dedicated time to answer your questions.



# Webinar Agenda (7:30 am–9:00 am EST)

- **Welcome and Introductions**  
Hind Satti, FHI 360
- **Presentation: Reducing HIV-related mortality: Experiences implementing an Advanced HIV Disease package of care among people living with HIV**  
Inoussa Zabsonre, USAID
- **Presentation: Uganda's experience in providing a differentiated service and care to AHD clients: 2020-2023**  
Proscovia Namuwenge, Uganda Ministry of Health
- **Presentation: Advanced HIV Disease: Lessons Learned and Next Steps**  
Gabriel Kibombwe, FHI 360
- **Panel Discussion**  
Deborah Carpenter, FHI 360
- **Q & A Discussion**  
Joseph Msofe, FHI 360
- **Closing remarks**  
Deborah Carpenter, FHI 360

# Panelists



**Inoussa Zabsonre**  
USAID



**Proscovia Namuwenge**  
Uganda Ministry of Health



**Gabriel Kibombwe**  
FHI 360



**USAID**  
FROM THE AMERICAN PEOPLE



**PEPFAR**  
20 YEARS OF IMPACT



## Reducing HIV- Related Mortality:

- *Experiences Implementing an Advanced HIV Disease Package of Care among People Living with HIV*

*Dr. Inoussa Zabsonre, MD, MPH*  
*USAID TB/HIV Technical Advisor*



**USAID**  
FROM THE AMERICAN PEOPLE



**PEPFAR**  
20 YEARS OF IMPACT

## Outlines

- Global TB and TB/HIV data,
- PEPFAR priorities
- Best practices and Challenges

- TB remained the world's second leading cause of death from a single infectious agent in 2022, after COVID-19, and caused almost twice as many deaths as HIV/AIDS.
  - ✓ Estimated **10.6 million people** developed TB in 2022,
  - ✓ Newly diagnosed with TB: **7.5 million in 2022**
  - ✓ TB caused an estimated **1.30 million deaths**.
    - ✓ **63% were bacteriologically confirmed**

✓ In 2022:

- 55% of people who developed TB were men,
- 33% were women and
- **12% were children** (aged 0–14 years).

✓ Globally, an estimated **410 000 people** developed MDR/RR-TB in 2022.

- Among all incident cases of TB in 2022,  
✓ **6.3% were people living with HIV;**



# Pediatric TB

- A total of **613,000 children** and young adolescents with TB were notified in 2022
- Of **390,000 children** and young adolescents notified with TB:
  - ✓ **260,000 (67%)** had a known HIV status (newly or previously tested):
    - **4.4% were HIV-positive.**
      - ✓ Out of 12,000 children and young adolescents with TB-HIV co-infection, just under 10,000 (86%) were on ART.

- The total number of deaths caused by TB was **1.30 million**  
**✓1.13 million deaths** among HIV-negative people.

### Deaths from TB among PLHIV:

✓Deaths from TB among people with HIV : **167 000**.

- an estimated 78 000 were adult men (47% of the total),
- 58 000 were adult women (35% of the total) and
- **31 000 were children (18% of the total).**

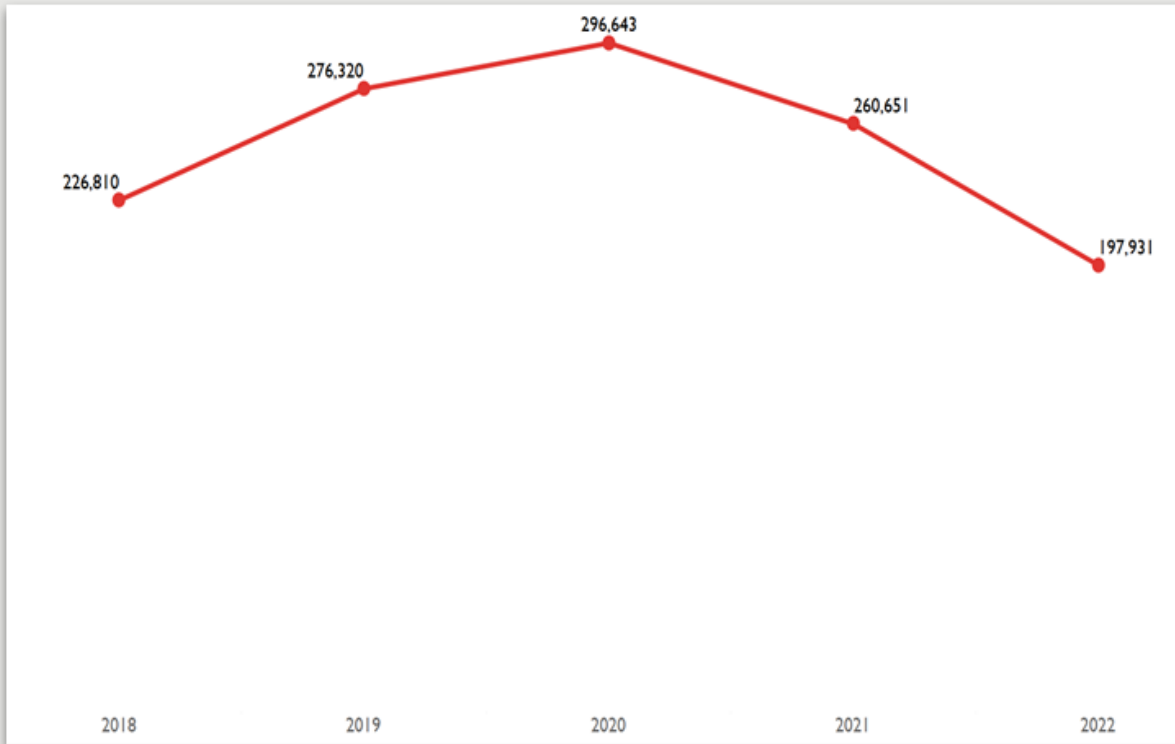
# TB related deaths in 2022

- **457** TB related death among PLHIV every day in 2022
- An estimated **214,000** children and young adolescents (<15 years) died from TB
  - Each day, **600 children** and young adolescents died from TB
    - **85** CLHIV died from TB every day in 2022
    - **16%** of the people who died from TB worldwide were children and young adolescents,
    - **31,000 (14%)** were in those with HIV,
    - **76%** of HIV-negative deaths were in children aged <5 years.
    - **96% of deaths** occur in children and young adolescents who did not access TB treatment.

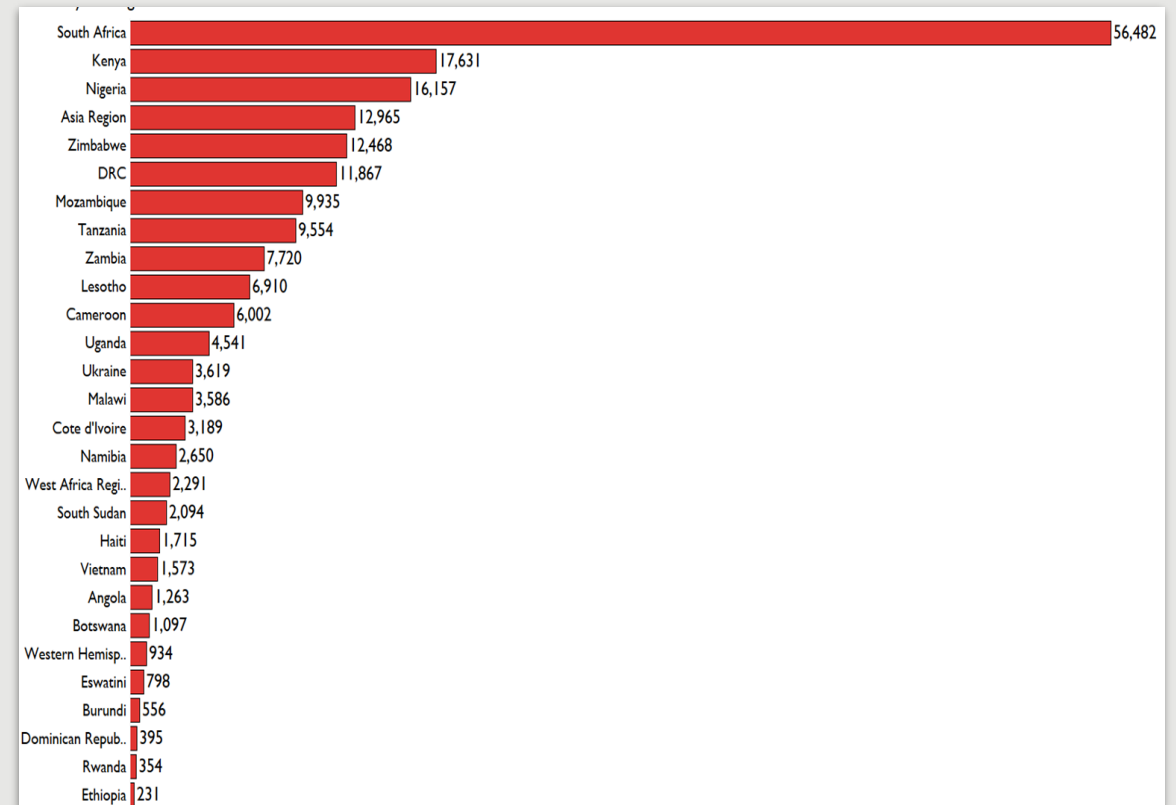
# Missing TB diagnosis among PLHIV in PEPFAR-

**Analysis** Only **48%** active TB cases diagnosed and initiated on TB Treatment while 52% were missed in 2022

Trends overtime

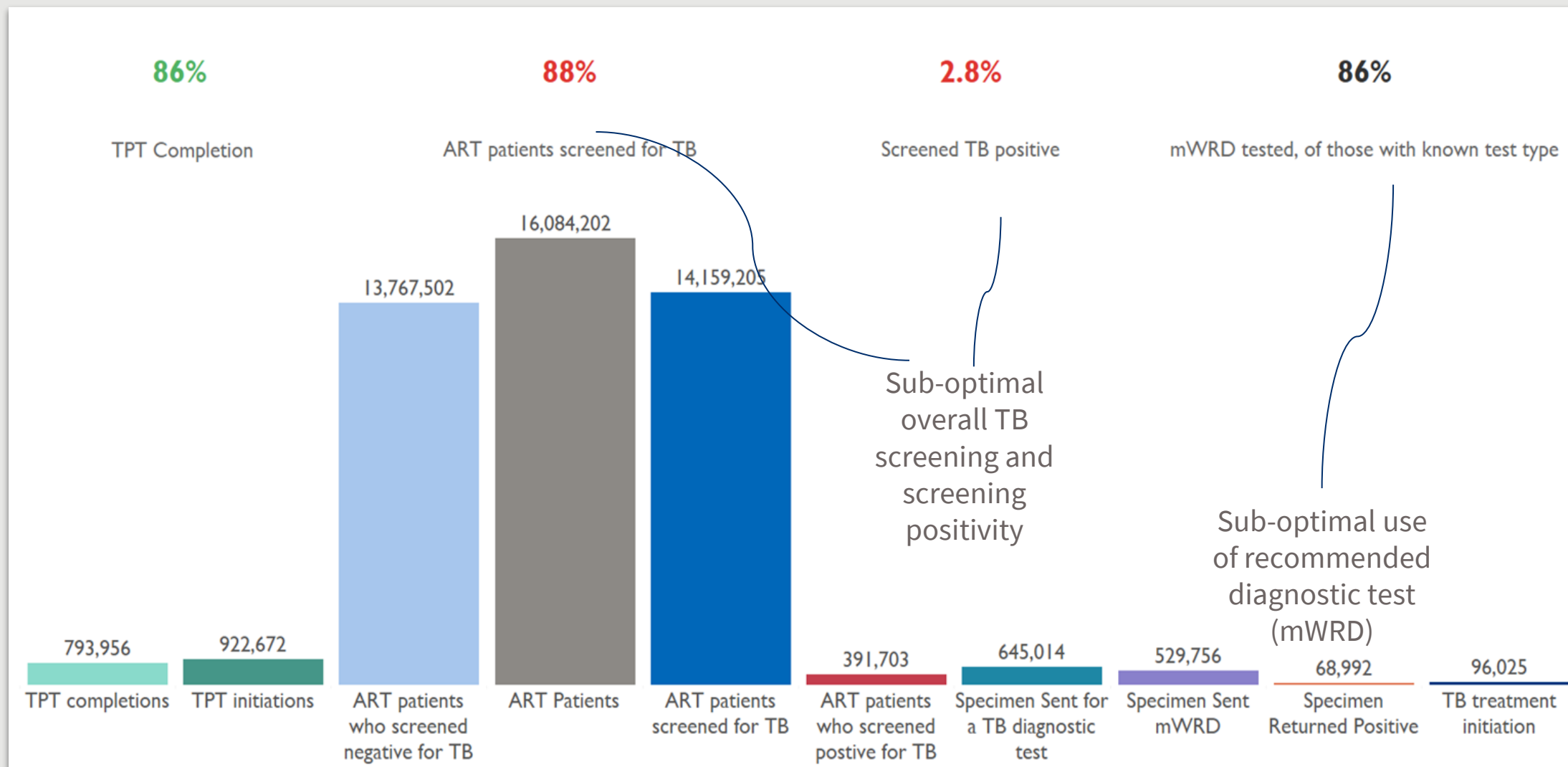


2022 Missed TB diagnosis by OU



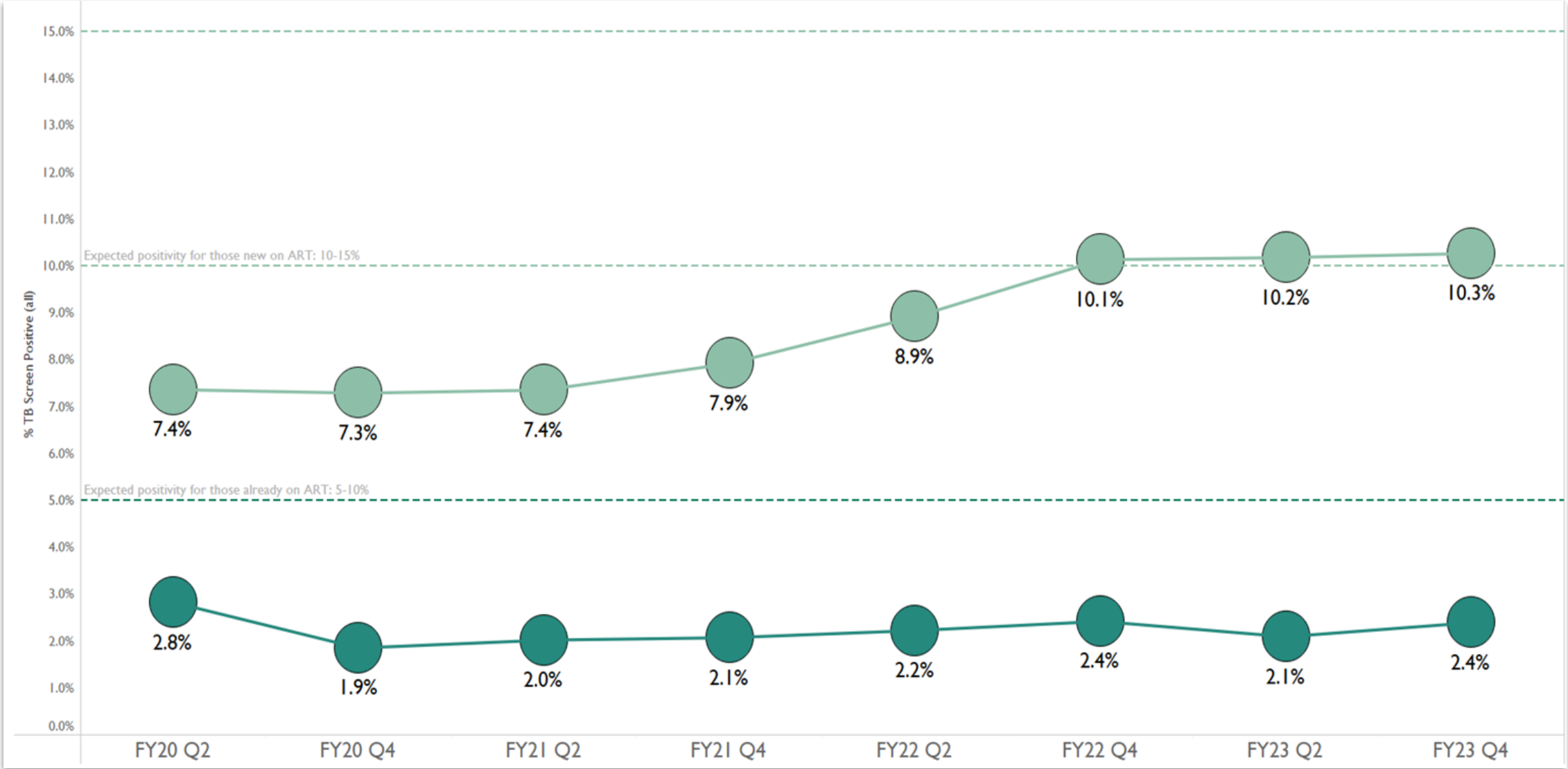
\*Publication available [here](#)

# FY23-Q4 PEPFAR TB/HIV Treatment Cascade



No results for Tanzania, Nigeria, and Ukraine is excluded

# TB Screening positivity among “new on ART clients” is increasing, while TB positivity among “already on ART clients” is stagnating.



# LF-LAM

- The LF-LAM assay serves to identify patients at higher risk of mortality from TB.

**There is evidence to support mortality reductions with the use of LF-LAM in patients with advanced HIV disease, and typically those who are admitted to hospital care.**

- LF-LAM point-of-care testing is strongly recommended for individuals with advanced HIV disease on TB case finding, including individuals who are seriously ill and hospitalized.
- These diagnostic interventions should **happen in parallel, not sequentially.**



# LF-LAM

## TB screening and Diagnostic for PLHIV using LF-LAM

For symptomatic PLHIV admitted to hospital (*in addition to mWRD*):

- Do LF-LAM test,
- Do a chest X-ray if clinically indicated,
- Do other investigations for extra-pulmonary TB if clinically indicated.

Enquire of TB contacts

For symptomatic PLHIV seen in an outpatient setting (*in addition to mWRD*):

- Do LF-LAM test if:
  - Clinical signs and symptoms of TB (W4SS)
  - CD4 count <200 within the last 6 months or
  - advanced HIV disease or
  - current serious illness.
- Do a chest X-ray if clinically indicated.



# TB Implementation Strategy

- Purpose:

Provide guidance to PEPFAR countries teams on the process to develop and monitor implementation of TB/HIV Acceleration Plans (TAP) to meet PEPFAR TB case finding commitment to detect **2 million** active TB cases and prevent at least **500,000** TB-related deaths among PLHIV over the next 5 years

## Advancing TB Case Detection and Mortality Reduction among PLHIV

*Implementation Strategy*

*Concept note*

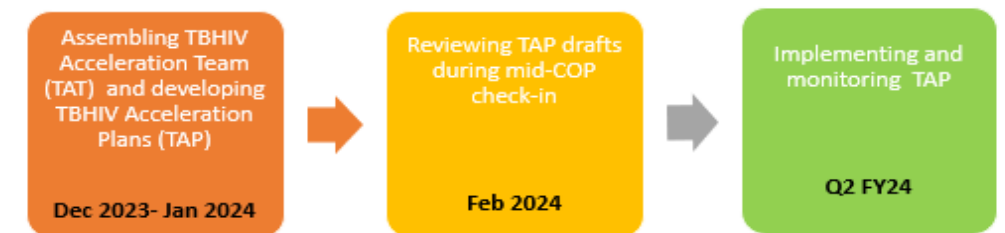
### Outline

1. Executive summary
2. Introduction
3. Purpose, Scope, and Goals
4. Roles, Responsibilities, and Partnerships
5. Key components of the TBHIV Acceleration Plan
6. Measurement and Monitoring
7. Accountability

### Executive Summary

Tuberculosis (TB) remains the most common cause of death among people living with HIV. PEPFAR has significantly contributed to reducing the global burden of TB among PLHIV through increased antiretroviral therapy (ART) uptake and the aggressive scale-up of TB preventive therapy (TPT) in recent years. Meanwhile, TB case finding efforts are lagging. At the United Nations General Assembly (UNGA) 2023, GHSD- PEPFAR committed to detect 2 million active TB cases and prevent at least 500,000 TB-related deaths among PLHIV over the next 5 years. This implementation strategy provides PEPFAR country teams with operational guidance on specific steps and processes to translate this commitment into tangible results, and demonstrable impact. This strategy aims to help countries improve their overall approach to provide high quality TB services for all PLHIV particularly those most at risk for developing TB disease. It also provides a roadmap on how to engage relevant TB & HIV stakeholders to develop, validate, implement and monitor TBHIV Acceleration Plans (TAP) to achieve country specific agreed-upon targets. The key steps in implementing PEPFAR's new effort to advancing TB case detection and mortality reduction are summarized in Figure - 1.

Fig - 1: Key Steps and Timeline for the TBHIV Acceleration effort:



# Key Activities

1. Adoption and scale-up with fidelity of the latest WHO-recommended, enhanced TB screening tools such as **chest digital X-rays** with human reader or artificial intelligence (AI)-Powered Computed-Aided Detection software (CAD) and ensuring **optimization of molecular testing coverage for all PLHIV**, including child-friendly specimen collection for children and adolescents.
2. Achieving **100% screening coverage** by ensuring all PLHIV are screened for TB every time they come to the clinic (including routine medical consultation, viral load testing, and medication pick up)
3. Ensuring that all presumptive TB cases are promptly referred for clinical evaluation and have **specimens collected for molecular testing**. TB treatment should be initiated whenever TB disease is diagnosed to achieve TB detection and treatment goals.

# PEPFAR Priorities

All PLHIV clients should be screened for TB symptoms at each clinical encounter.

- Explore ways to **improve their TB screening performance** in accordance with updated WHO screening recommendations and the country guidelines.
- Consider adding **Chest X-Ray (CXR), LF-LAM or a mWRD** (GeneXpert or Truenat) test to their current screening algorithm to maximize screening yield.
  - ❖ Particular focus should be placed on ensuring that all PLHIV screened positive for TB have
    - ✓ specimens collected;
    - ✓ these specimens sent for WHO-recommended diagnostic testing (e.g. GeneXpert or Truenat), and
    - ✓ results reported (and acted upon).

# PEPFAR Priorities

- Procure and utilize the urine lipoarabinomannan (LF-LAM) assay.
- LF-LAM should be used in combination with GeneXpert. As per national guidelines and the country best practice,
- Support Stool-based pediatric TB case finding effort in close collaboration with the NTLP and HIV programs.
- Ensure WHO-recommended diagnostic assays, such as Xpert MTB/RIF Ultra and Truenat

Delays in TB diagnostic workup and therefore TB treatment and ART initiation result in significant morbidity and mortality.

# Best practices

- Pediatric Stool-based TB diagnostic for children (DRC, Vietnam, Zambia, Zimbabwe, Malawi....)
- LF-LAM implementation and scale-up
- Digital X-Rays implementation and scale-up  
✓ *<https://www.stoptb.org/file/17260/download>*

# Challenges

- Suboptimal investment on New and innovative tools and instrument for TB case finding among PLHIV
- Low TB screening positivity yields (quality issues)
- Poor integration and service decentralizations

**THANKS**

**MERCI**

**OBRIGADO**

**GRACIAS**



# **Uganda's experience in providing a differentiated service and care to AHD clients: 2020-2023**

## **Uganda's efforts to address TB/HIV and CM**

**Dr. Proscovia Namuwenge, Ministry of Health Uganda**





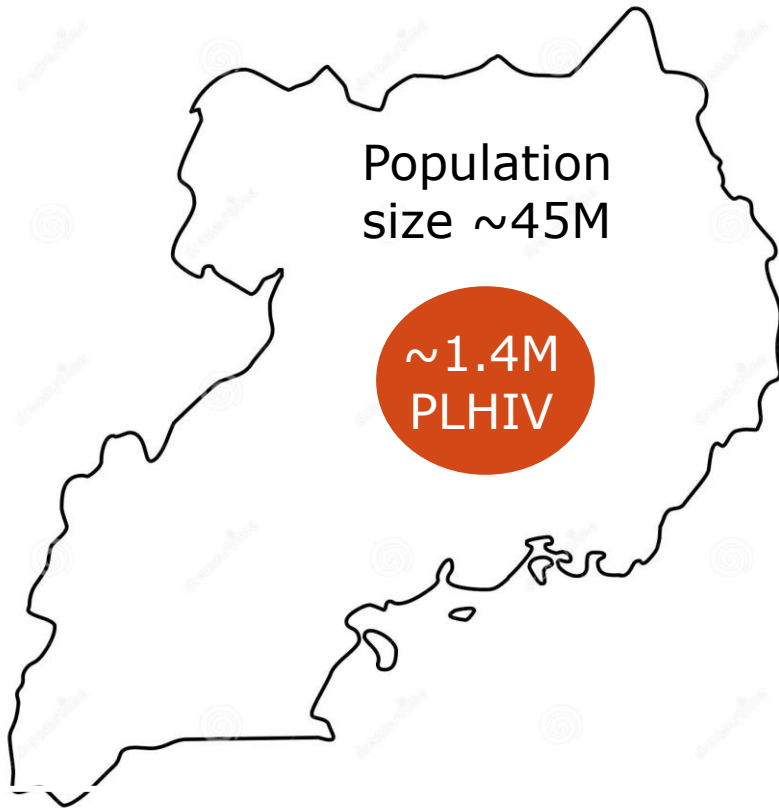
# Overview

1. Context & Background
2. AHD Implementation Approach
3. The Introduction and Scale-up of AHD Commodities
4. Brief about the new AHD screening technologies
5. AHD Performance
6. Lessons Learned through Implementation





# HIV burden in Uganda

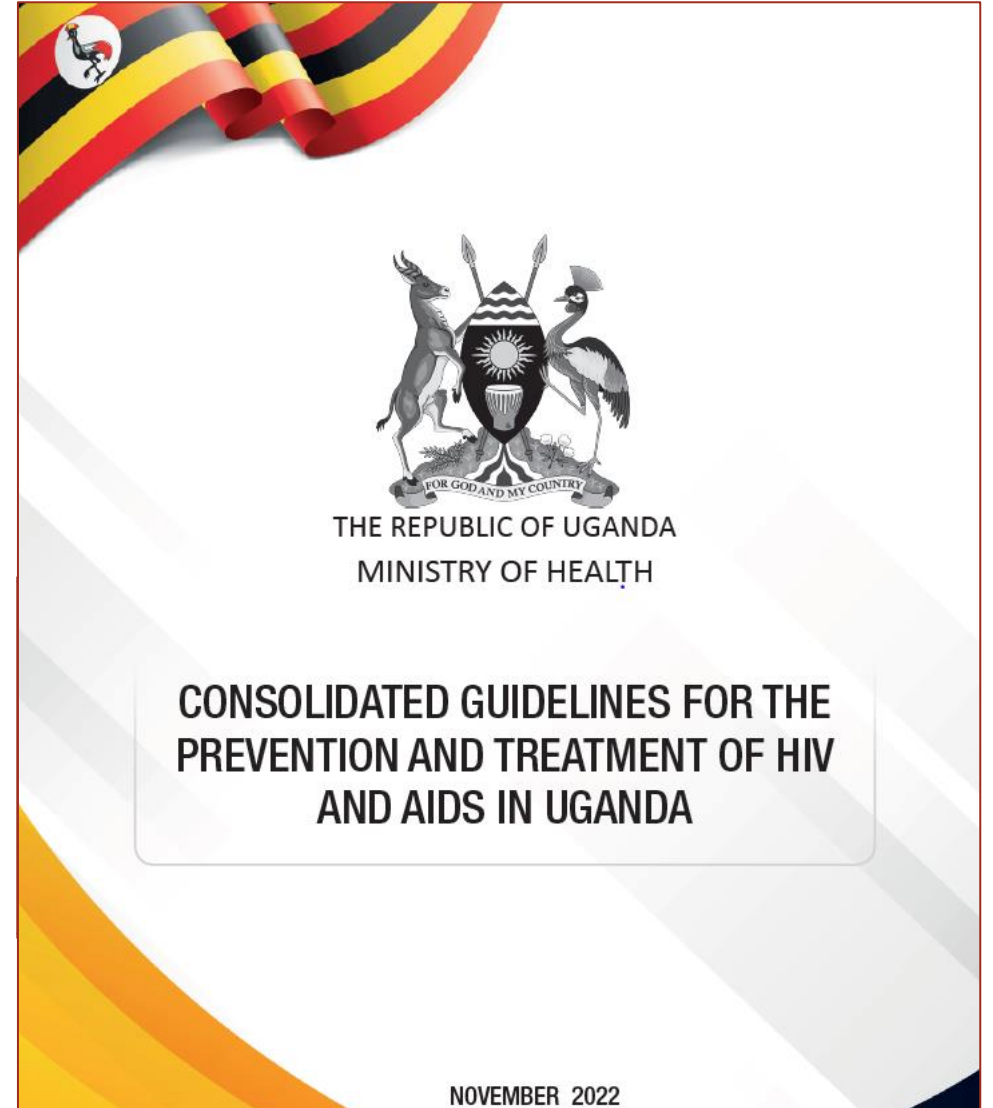


- Adult prevalence of HIV is ~5.4% (2020)
- 1.33M (91%) of patients on ART
- Overall ~20% of PLHIV in care had a CD4 cell count <math><200 \text{ cells/mm}^3</math> (Program data 2023)
- AIDS-related mortality has declined rapidly over the last decade, from ~56,000 in 2010 to ~22,000 in 2020, in large part due to expanded access to ART
- TB is the leading cause of death among PLHIV
- However, introduction of the AHD package of care has further reduced mortality among PLHIV



# Background

- In 2017, WHO guidelines were published outlining the management of AHD
- At the time, the availability and accessibility of AHD commodities was limited in Uganda
- Symptomatic screening was primarily utilized to select for further OI screening rather than identifying AHD patients via CD4 testing
- **Since 2020, Uganda has implemented the full WHO recommended AHD package of care**
- Uganda's 2022 HIV Guidelines include a dedicated chapter focused on Management of Advanced HIV Disease





# AHD Implementation Approach

## Governance



- An AHD working group was constituted consisting of government, supported by CHAI and including additional partners, IPs, academia, and community to strategize, plan and monitor AHD implementation. This group continues to meet monthly



## Guidelines

- HIV guidelines reviewed through the AHD TWG and updated in 2022 to include AHD commodities and provision of care in line with WHO guidance



## HCW trainings

- HCWs were trained on provision of AHD care, through regional ToTs and subsequent facility-level trainings by implementing partners



## Distribution

- Optimal AHD commodities were procured through the Unitaid / CHAI program and distributed to implementing sites



# AHD Implementation Approach



## M&E

- AHD specific indicators were drafted, discussed within the AHD TWG and included in national M&E system DHIS2 for routine monitoring purposes
- **AHD surge**, Shared site level targets,
  - Weekly reporting
  - biweekly performance review and monitoring at national level



## Site Supervision

- Routine MSVs were conducted with low-performing, high-volume implementing facilities to identify challenges and propose interventions



## Community

- PLHIV community was engaged directly via workshops and distribution of materials to amplify AHD messaging and generate demand for AHD care provision



## Procurement

- Partners were engaged throughout the implementation process, to assist with scale up, and to ensure buy-in for procurement of AHD commodities with an eye towards long-term success



# The Introduction of AHD Commodities

Timeline	Diagnostics CD4 Test	Diagnostics OIs	OI treatment
Baseline (pre-2020)	Device based CD4 testing in 300 sites	TB LAM & CrAg LFA Available only at 335 hub sites	Amphotericin B deoxycholate + fluconazole
2020 & 2021	VISITECT® device free CD4 testing available at 12 field testing sites	TBLAM increased to 750 sites	Introduced 5FC & L-AmB at 19 RRH and National hospitals
2023	Scaled up Visitect to over 220 sites	TBLAM increased to 1070 sites	3HP
2024	Introduced Aspergillosis & Histoplasmosis testing in 9 pilot sites	Introduced CRP as TB screening test among PLHIV to 50 pilot sites	<i>*Planned to increase CM treatment initiation sites from 19 to 50 sites</i>



# NEW AHD TESTING TECHNOLOGIES

## Histoplasmosis Enzyme-Linked Immuno-Sorbent Assay (ELISA)

Country is field testing Histoplasmosis ELISA

Previously limited availability of Rapid test kits hampered testing for these conditions

Histoplasma GM Enzyme immunoassay [HGM201] is available as a test kit

This assay is for urine specimens only & detects circulating Histoplasma antigens in urine by ELISA

It is highly sensitive (95%) and Specificity is 97%







# NEW AHD TESTING TECHNOLOGIES

## Aspergillus Galactomannan Lateral Flow Assay (AGM LFA)

Country is field testing AGM LFA

It is an immunochromatographic test system for the qualitative detection of AGM in serum and bronchoalveolar lavage (BAL) samples

The test can be used as an aid in the diagnosis of aspergillosis when used in conjunction with other diagnostic procedures such as culture, histology, and radiographic evidence

Sensitivity and specificity of BAL/Serum GM detection is 88% and 87% compared to culture which is 30%





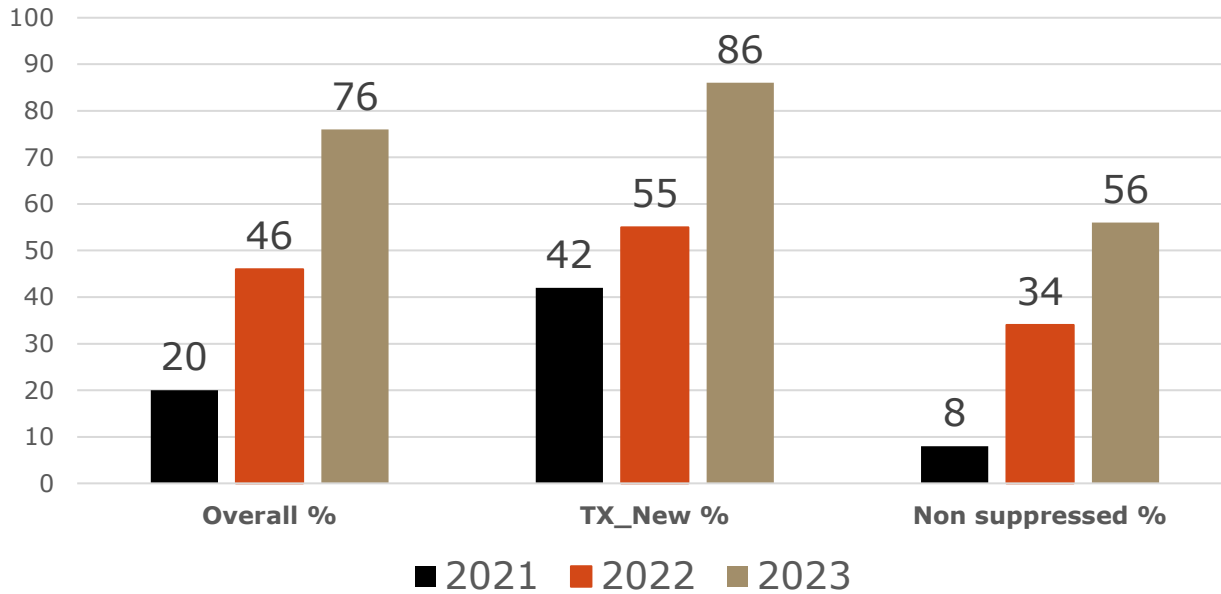


# **Performance along the AHD cascade**



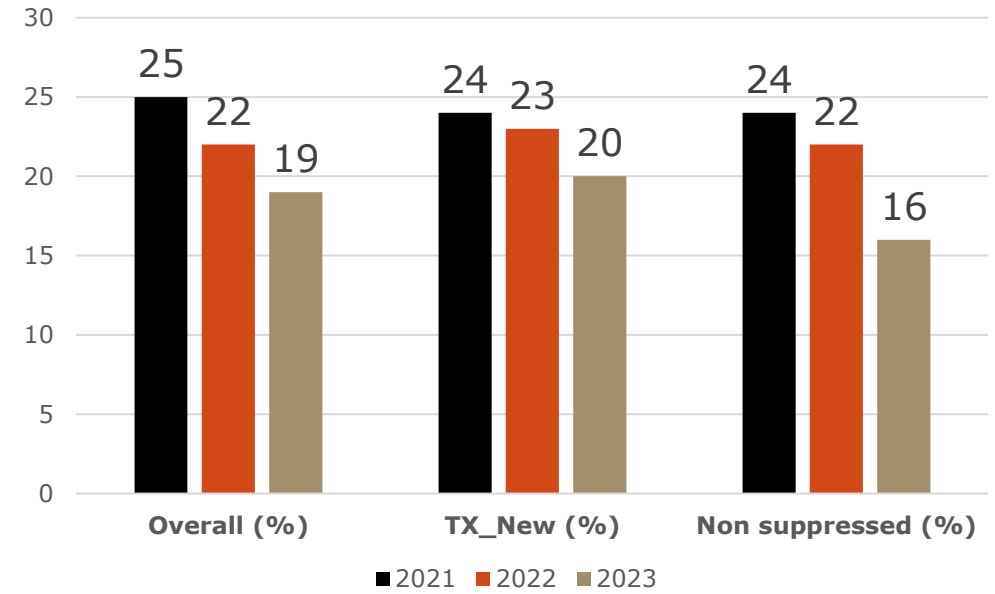
# AHD CASE IDENTIFICATION

### CD4 testing for AHD identification



**Increased screening for AHD from 20% (2020) to 76% (2023) overall**

### % HIV Positive with CD4 <200

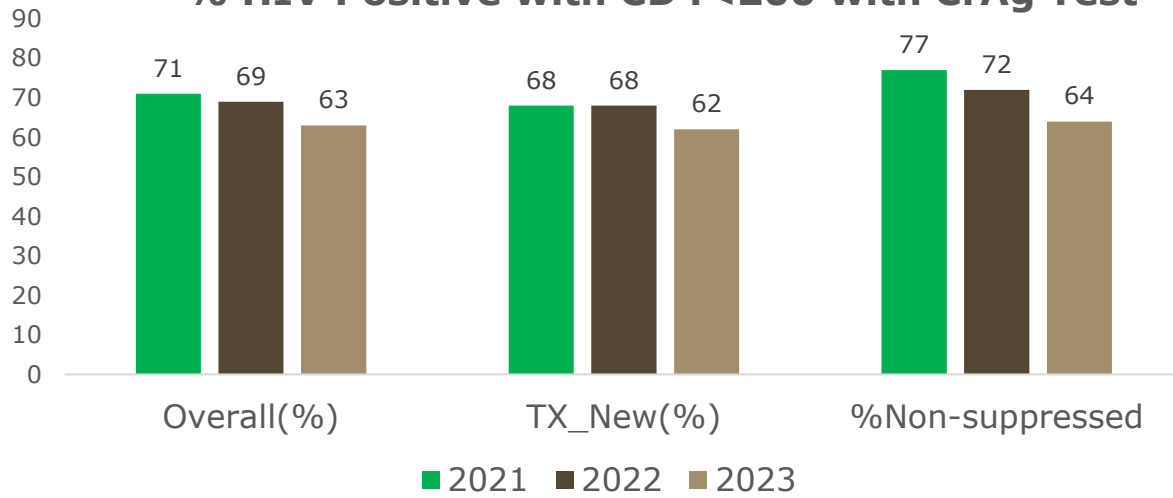


**Reduced % of HIV+ with AHD from 25% (2020)-19% (2023) overall**



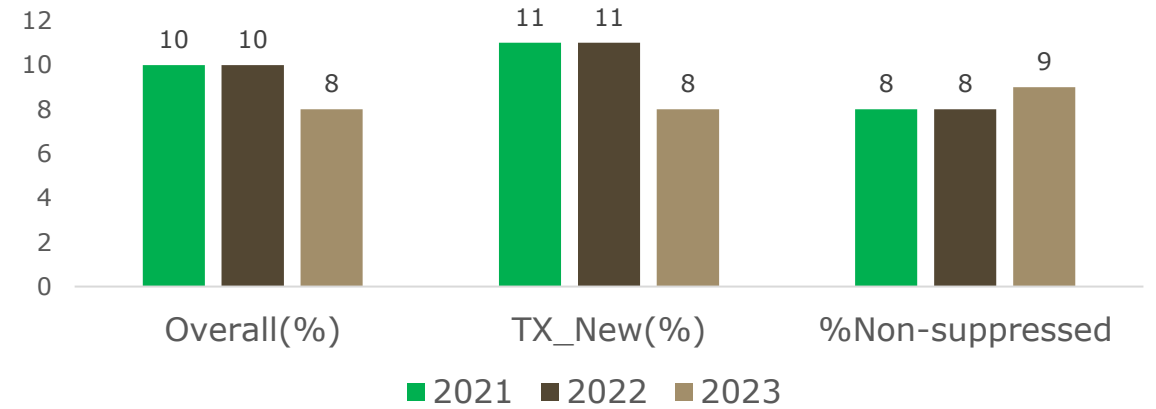
# CRYPTOCOCUS IDENTIFICATION AND MANAGEMENT

### % HIV Positive with CD4<200 with CrAg Test



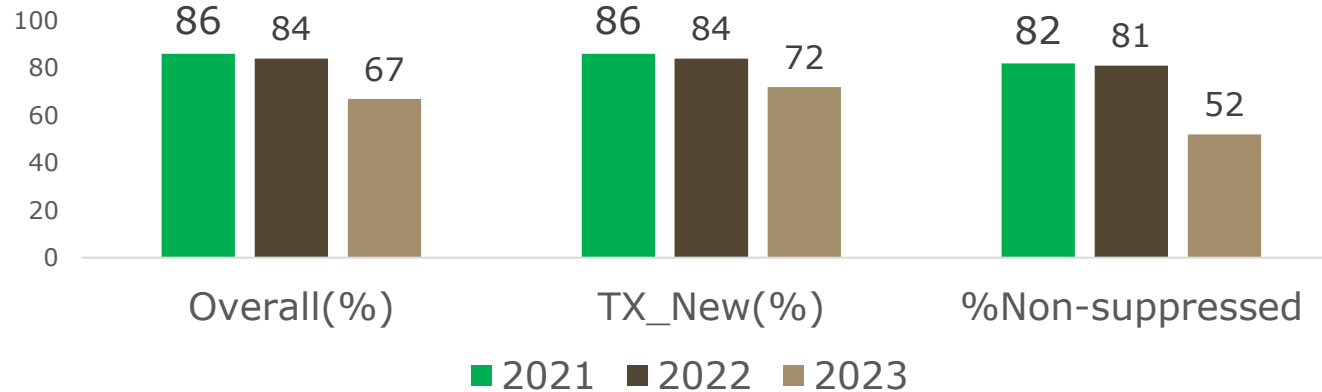
**Declining access/delivery of CrAg testing among AHD**

### % HIV +ve with a positive CrAg Test



**Stagnated CrAg positivity 8%-10% overall**

### % with CrAg+ provided Fluconazole

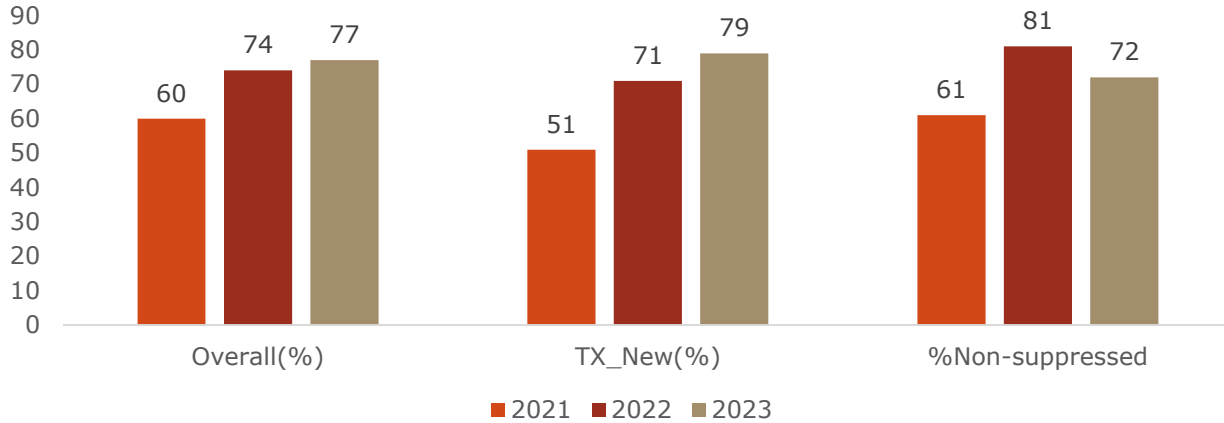


**Declining access/delivery of Fluconazole for AHD in 2023 (67%) overall**

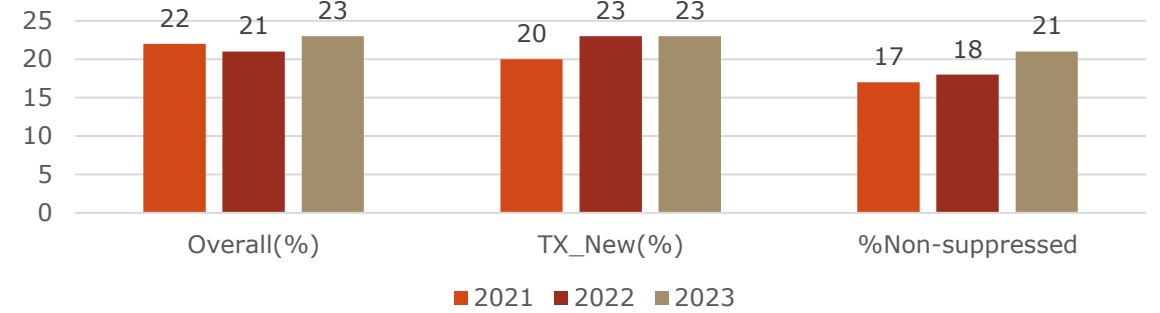


# TB IDENTIFICATION AND MANAGEMENT

**% HIV+ with CD4 <200 provided TBLAM test**



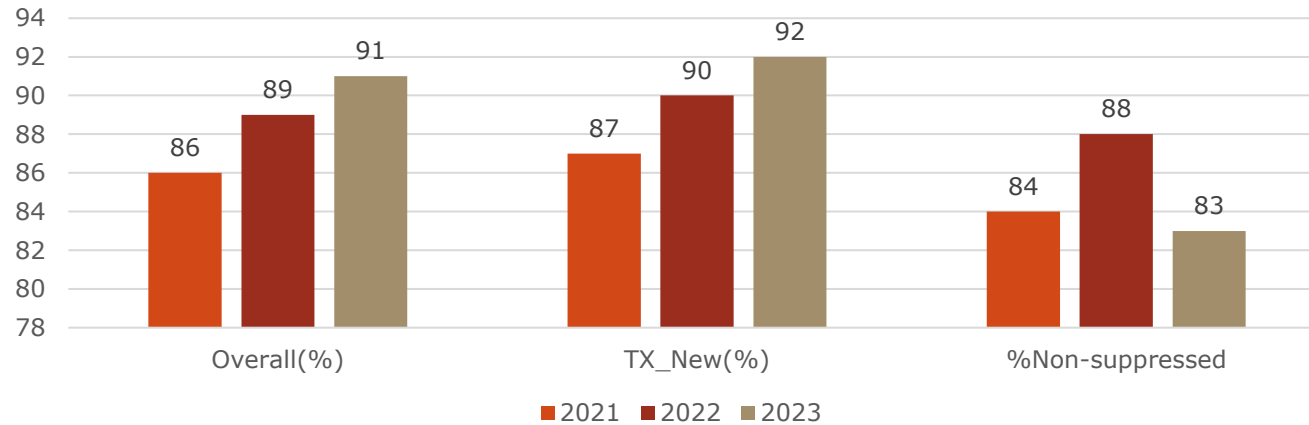
**% HIV+ with CD4 <200 provided TBLAM test**



**Sub-optimal TB-LAM testing among AHD patients 60% (2021) - 77% (2023) overall versus 100% target**

**High and stable yield of TB from TB LAM testing 22-23%**

**% Positive TBLAM provided TB treatment**

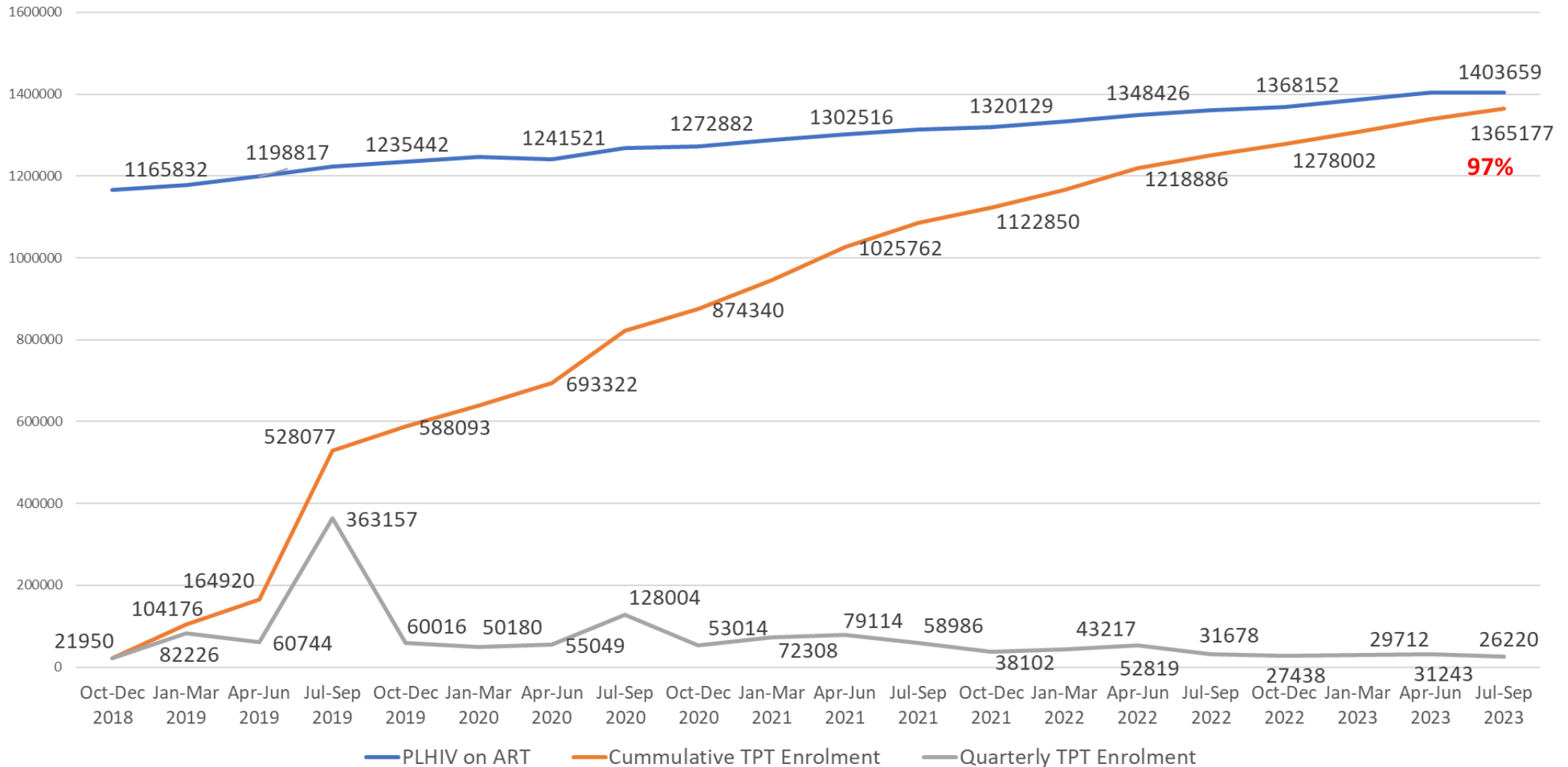


**High linkage of TB LAM positives to TB treatment**



# TPT enrolment trends among PLHIV

### TPT coverage among PLHIV on ART





# Lessons learned through implementation

Area	Lesson Learned
Stakeholder engagement	Early conversations with stakeholders is imperative to ensure buy-in of relevant parties with an eye toward long-term success
Commodity distribution	Distribution of CD4 should be closely monitored to target gaps in CD4 testing
	Regular review of in country distribution and analysis of stock between sites allows for optimal use of product through redistribution
	The right balance should be struck between increasing access by distributing commodities to more sites, and ensuring HCW capacity by limiting commodity distribution to a smaller number of sites that can be closely monitored



# Lessons learned through implementation

Area	Lesson Learned
Capacity strengthening	Ongoing consistent trainings are needed to capacitate HCWs to provide complex AHD care
	Regular reviews of CD4 machine functionality should take place to maximize output, given ongoing challenges with maintenance
Monitoring and evaluation	Supportive supervision visits are valuable in identifying challenges as they arise
	Data reporting is important to monitor uptake of commodities and propose solutions to address any gaps that arise



**THANK YOU**



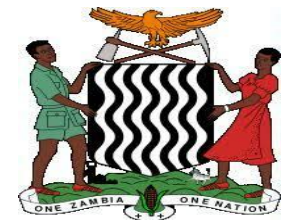
# FHI 360/CDC EPHO TA Project

Advanced HIV Disease: Lessons Learned and Next Steps

February 2024

Gabriel Kibombwe, MPH

DCOP/Care and Treatment Lead



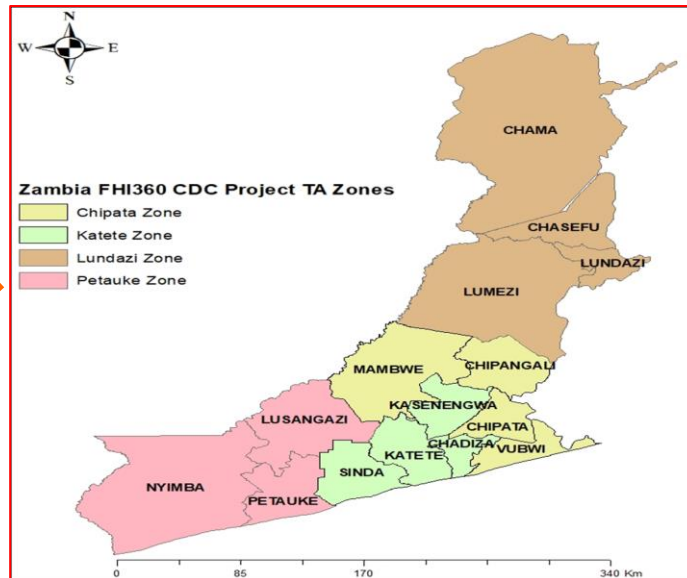
# Project Overview

## Goal:

- TA to Eastern PHO to attain epidemic control with quality

## Geographic coverage & Scope:

- Scale up AHD management and NCD integration
- Target group: all sub-populations
- FY24 (2023-2024)
- Support 15 Districts, 378 health facilities



## Outcomes:

1. Integration: NCD screening & Management within HIV Care (ART) in high volume sites

2. Scale up: Screening and management of AHD in all high-volume sites

3. Capacity: Training and mentorship for implementation of integration

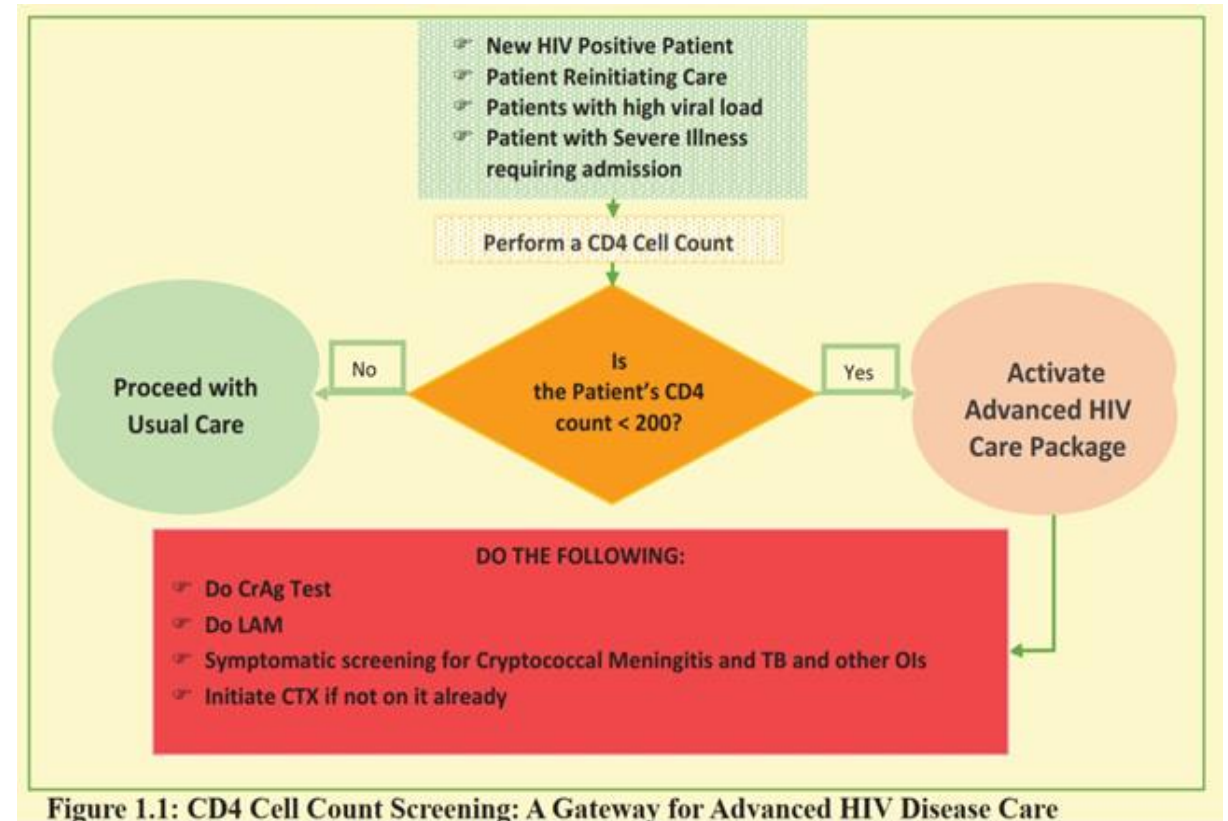
4. Data use: Daily SRM and gap remediation

5. Quality: CQIs in the HIV prevention and continuum to meet service standards

# Background

## Zambia country context:

- More than 1,200,000 on ART,
- Estimated 17.7% of 15 to 59 years old TX\_New had a CD4 < 200 cells/mm<sup>3</sup>
- Approx. 29% HIV-associated deaths annually
- Among the dead, 76% HIV/TB coinfectd
- About 5,000 Cryptococcal Meningitis cases annually
- AHD associated deaths include those
  - initiating ART after a prolonged HIV infection without ART
  - falling out of care
  - on non-effective ART due to HIV drug resistance.
  - with Non-Communicable Diseases (NCDs).
- This is compounded by mental health which causes both delays in commencement of care and attrition out of care.



# Situation Analysis: Eastern Province

**Purpose:** Provide technical backstop to Zambia CDC-TA project in preparation for Y4 AHD and NCD focused TA.

**Objectives:** Review current TA support and identify gaps around AHD, NCDs and recommend existing global innovations and practices for adaptation and co-creation of local solutions.



## Methods:



Tools: Site Assessment



In Brief With PHO/DHO and facility leads and Advisors



Observations/ Interactions At Relevant Points Of Services



Folders, Tools Audit And Register Review



Discussion With Facility Staff, And Focal Persons



Interactions With CEA

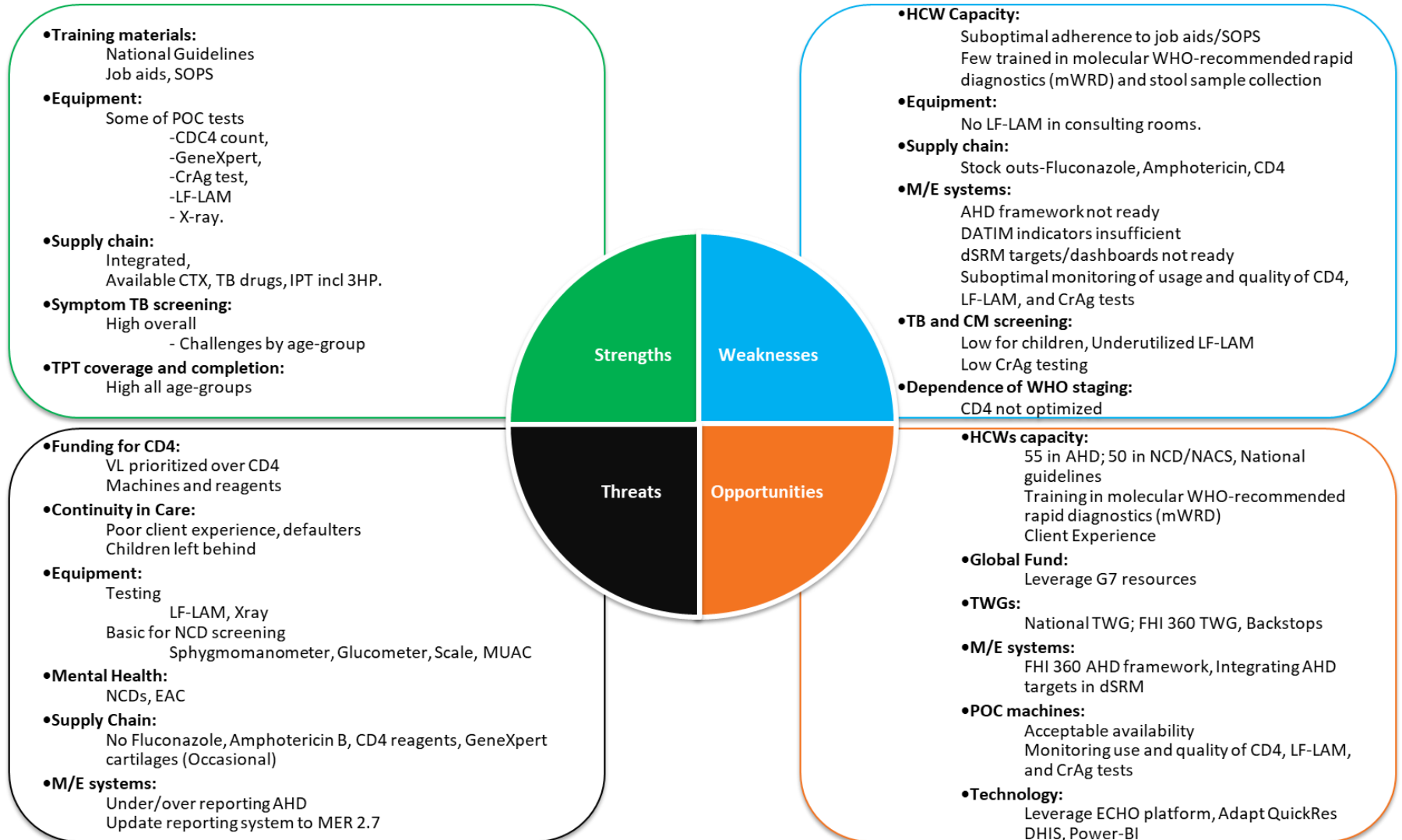
## Advance HIV Disease Management Checklist - AHD Management Package (based on WHO recommendations 2017)

Selection Criteria		Guidance	Scoring	Weight	total	Comments
Method Codes : O = observation; R = records; I = interview; G = group discussion						
Scoring : N/A = not applicable; No = 0; Partly = 1; Yes fully = 2						
<b>1. AHD policies, tests and drugs availability</b>						
<b>1.1 Policies for AHD management</b>						
1	The Guidelines or SOP is available on site to ensure that ALL newly enrolled HIV cases are screened and managed for AHD	Check document	1	1	1	
2	Staff managing HIV patients were trained and understand their roles and responsibilities for the screening of AHD	Randomly interview with staff (Team leader, counselor, triage, peer...)	1	1	1	
3	Staff in other departments, especially infectious diseases, dermatology, neurologie and pneumology have been sensibilized and trained for the detection of HIV and AHD		0	1	0	
<b>1.2 Tests availability</b>						
4	Baseline CD4 is available for newly enrolled and re-engaged PLHIV		1	1	1	
5	CrAg RDT is available for eligible PLHIV		0	1	0	
6	SputumXpert MTB/RIF is available for eligible PLHIV		1	1	1	
7	Urine LF-LAM is available for eligible PLHIV		0	1	0	

# Summary of findings

## •Key observations:

- Relative high mortality:
  - Mostly HIV/TB co-infected
  - All deaths reported in FYQ2 and Q3 co-infected
- Stock outs:
  - Fluconazole
  - CD4 count reagents
- Not All <5 years CLWHIV screened for TB and other OIs.
- No standard AHD M&E framework
  - Available indicators insufficient to ascertain AHD burden
- Knowledgeable HCWs, with minor information gaps.





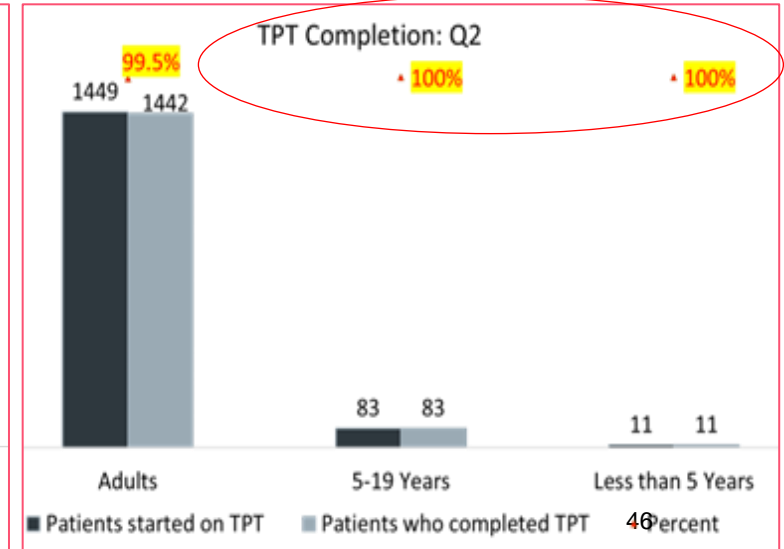
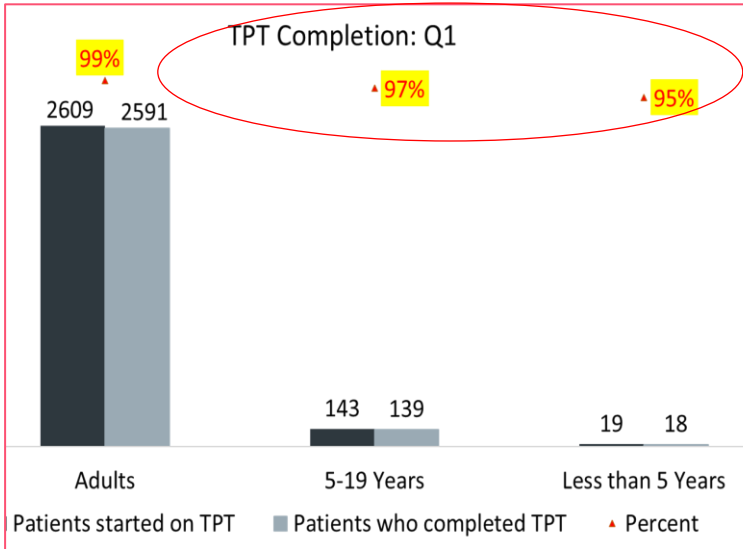
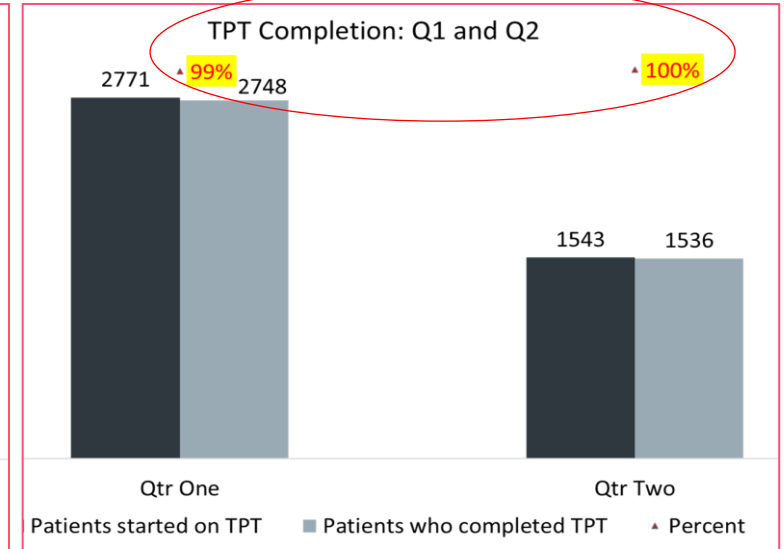
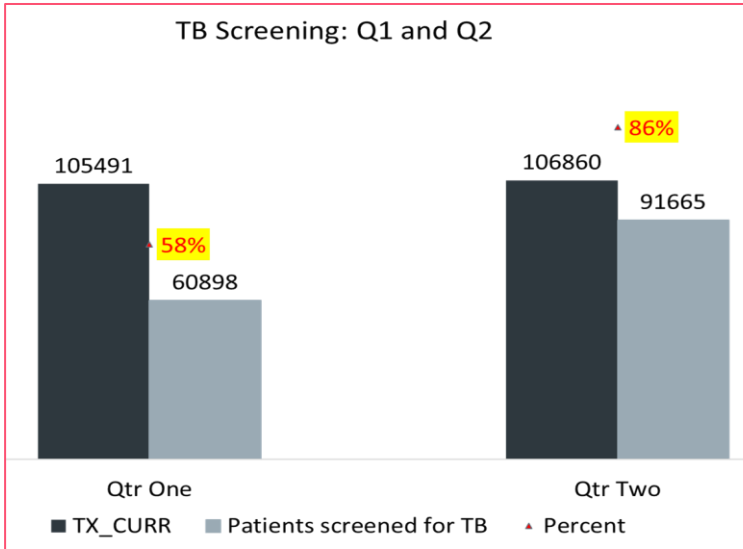
# Strengths

- Symptom TB screening:

- High overall
  - Challenges by age-group

- TPT coverage and completion:

- High all age-groups



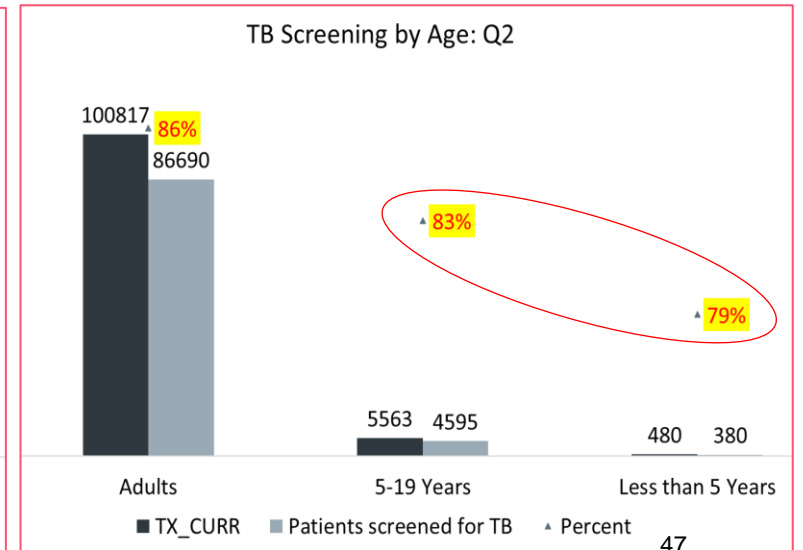
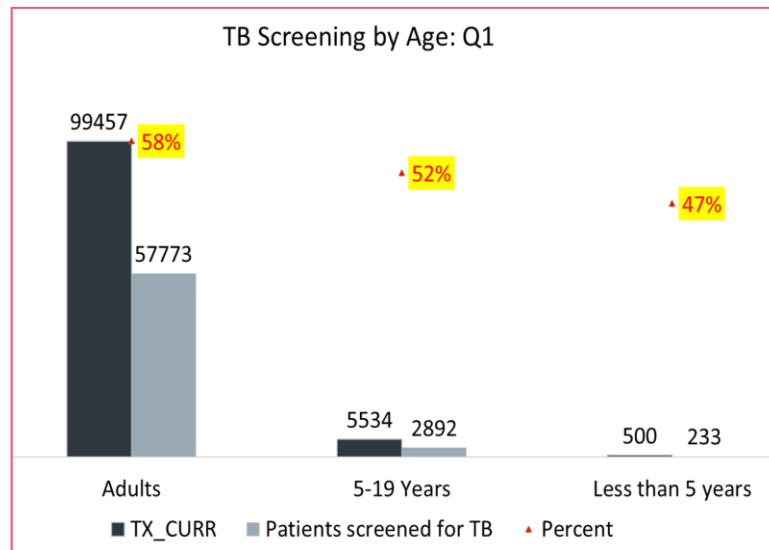
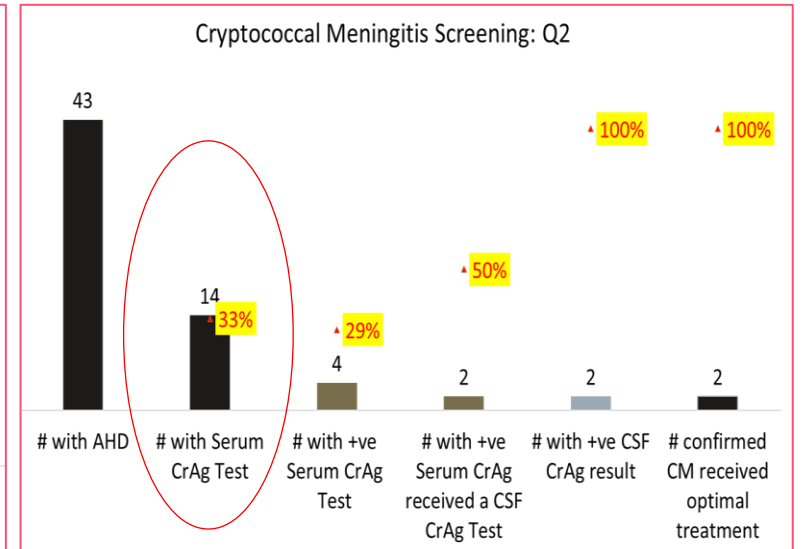
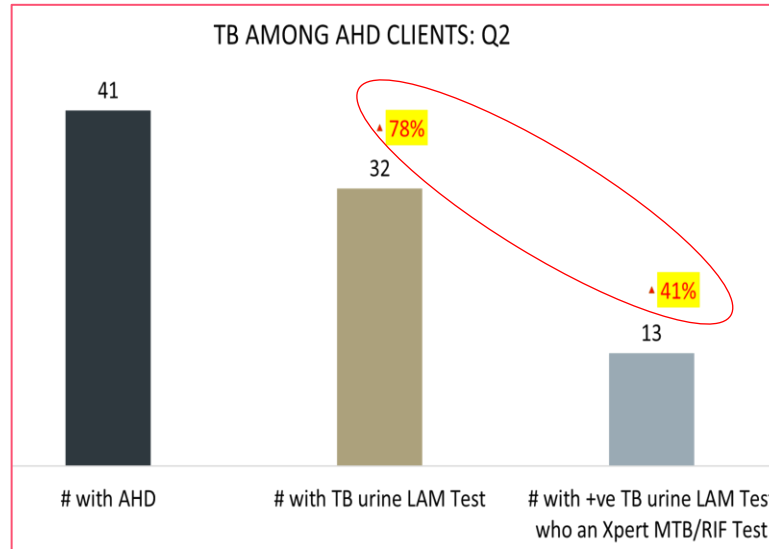
# Weaknesses

- **Equipment:**

- No LF-LAM in consulting rooms.

- **TB and CM screening:**

- Low for children
- Underutilized LF-LAM
- Low CrAg testing



# Opportunities

- Global Fund:

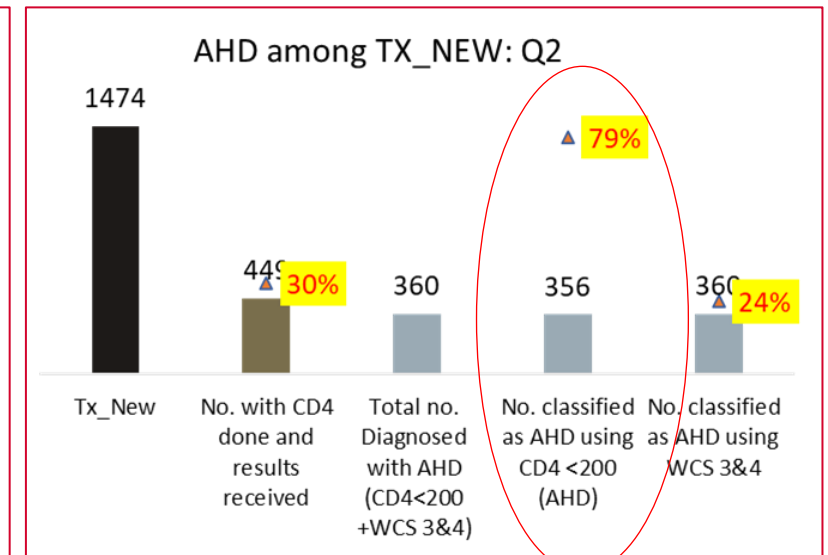
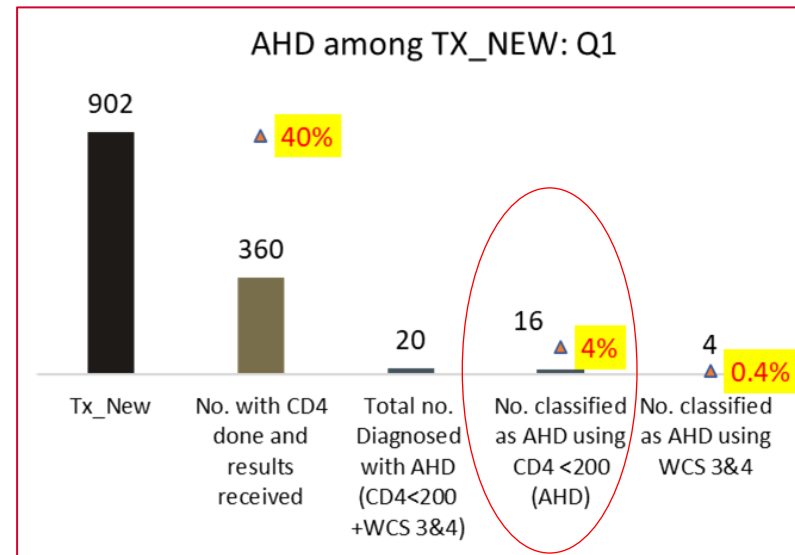
- Leverage G7 resources

- M/E systems:

- FHI 360 AHD framework
- Integrating AHD targets in dSRM

- Technology:

- Leverage ECHO platform
- Adapt QuickRes
- DHIS, Power-BI





# Threats

- **Funding for CD4:**

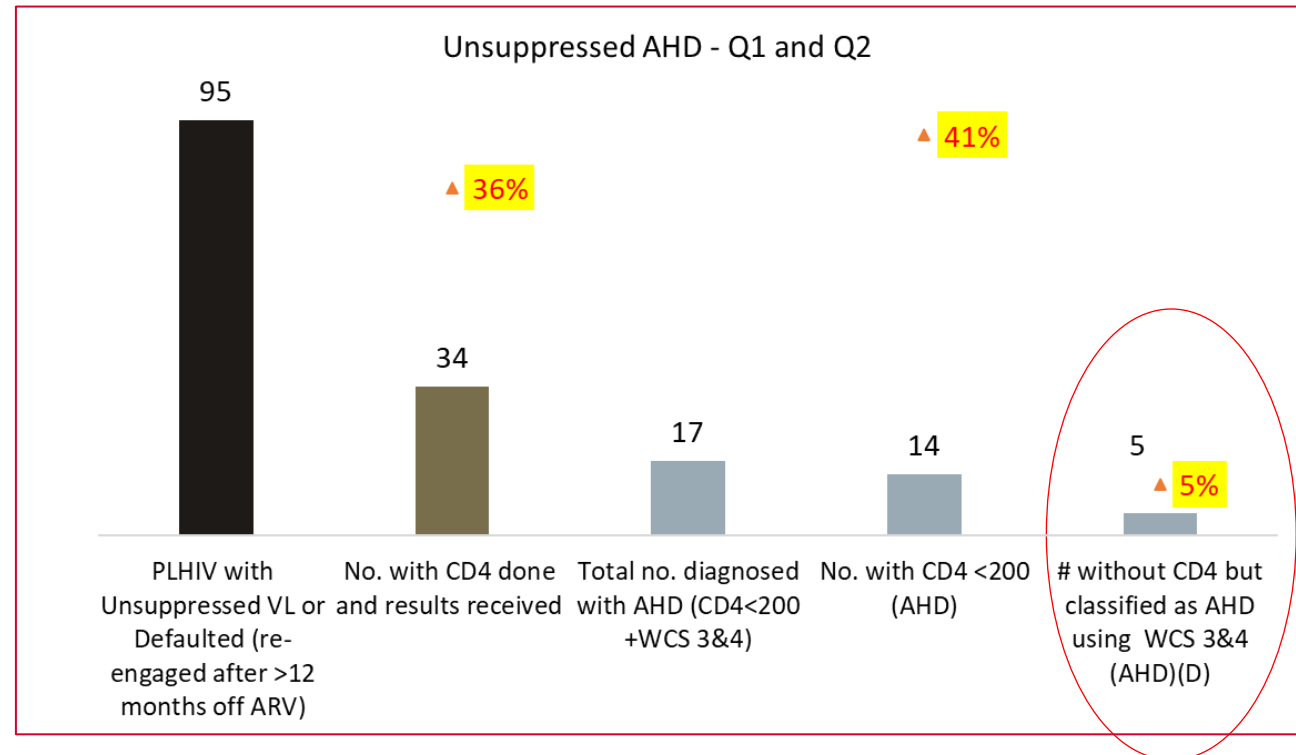
- VL prioritized over CD4
- Machines and reagents

- **Supply Chain:**

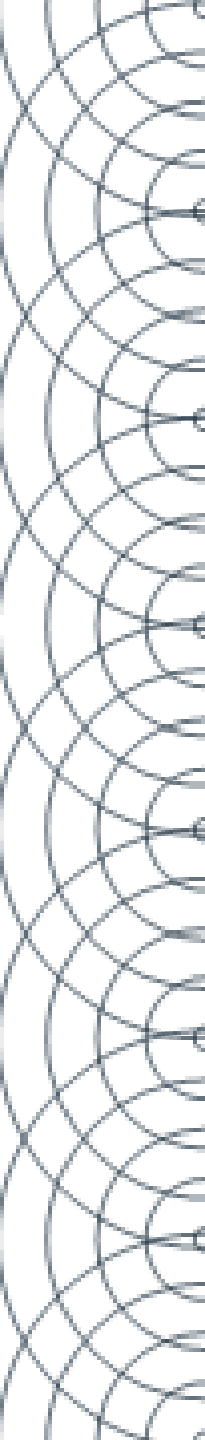
- No Fluconazole, Amphotericin B, CD4 reagents, GeneXpert cartridges (Occasional), LF\_LAM

- **M/E systems:**

- Under/over reporting AHD



# Activities



# Ensuring equipment availability for AHD and NCD screening

## •Issue:

- Review availability of equipment for AHD and NCD integration

## •Actions taken:

- Created & deployed online evaluation tool
- Conducted on-site verification of submissions
- Reviewed Pharmacy and Clinical forms.

## •Baseline findings:

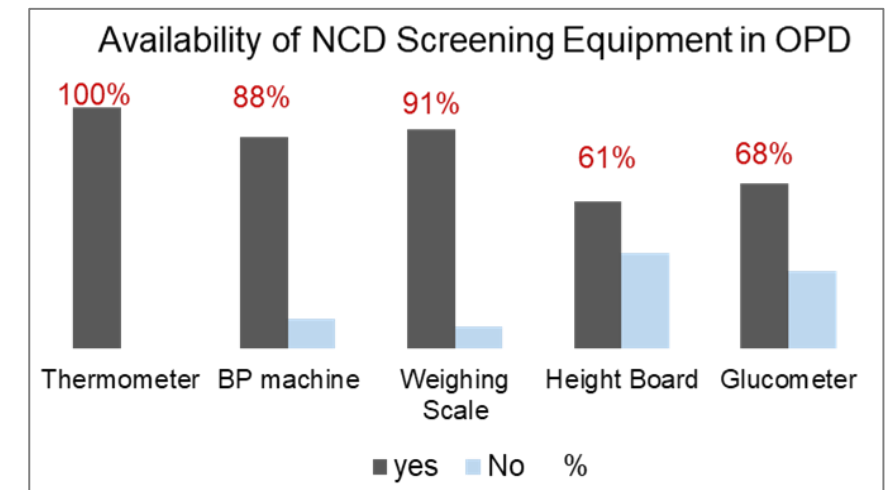
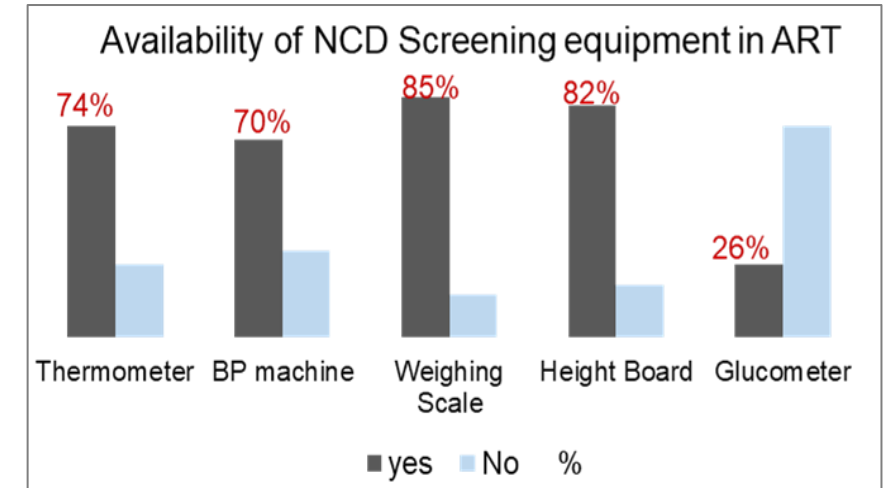
- 30% without sphygmomanometers.
- 15% without weighing scale
- 08% without height board
- 74% without glucometer in ART.

## •Steps taken:

- EPHO purchased and distributed:
- 160 adult and 75 Pediatric BP machines,
- 160 Weighing scales,
- 90 Glucometers and 260 packs of strips

## •Ongoing:

- TSS on NCDs screening, diagnosis, management and integration in ART.



# Establishing Lab equipment functionality for AHD and NCD integration

## •Issue:

- Functional status of laboratory equipment unknown.

## •Actions taken:

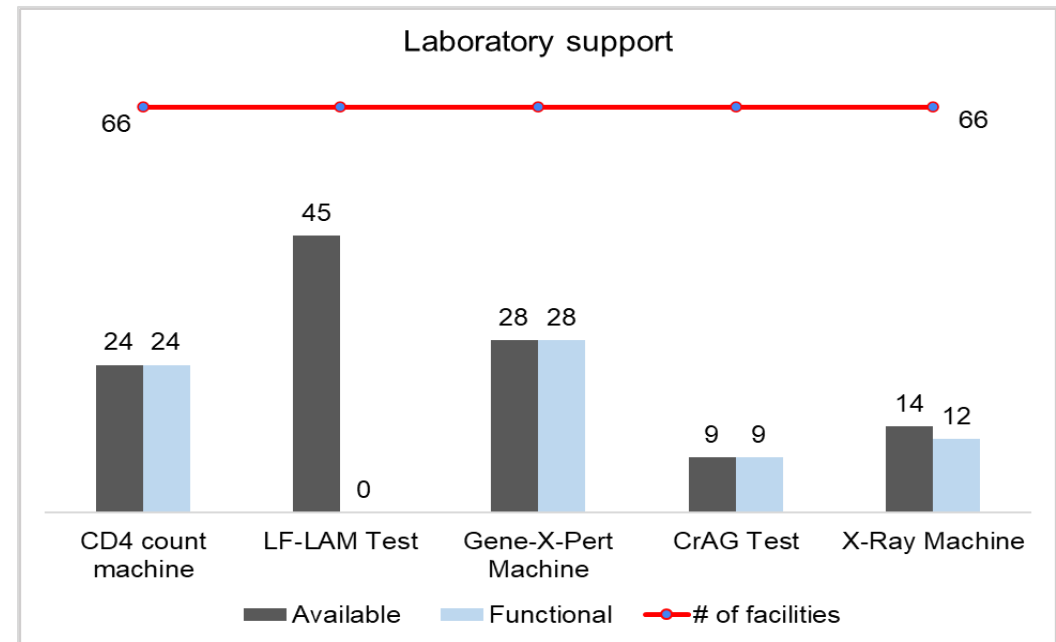
- Created evaluation tool
- Deployed tool on-line for quick data collection
- Conducted on-site verification of submissions

## •Findings:

- 36% have CD4 count machines, all functional.
- 42% have GeneXpert's, all functional.
- 21% have Xray, 2 none functional.
- 14% can conduct serum CrAg test.
- > 68% had Urine LF-LAM test.

## •Ongoing:

- Process re-engineering of courier system to cover all facilities
- Reducing result TAT.
- Expanded utilization of serum CrAg and Urine LAM



# Improving AHD and NCD Data Collection

- **Issue:**
  - Improvised registers used to document data on AHD management and NCD integration in ART.
- **Action Taken:**
  1. Proposed register to MOH National TWG for adoption
    - Captures all necessary data for planning M&E
  2. Printed and distributed to all facilities
  3. Oriented the facility staff on AHD indicators.
  4. Adapting FHI 360 AHD M/E framework for reporting
  5. Incorporating AHD indicators in dSRM
  6. Monitoring data quality

Data element	
Number of New PLHIV enrolled into care (TX_New)	
Number of new PLHIV enrolled into care screened for AHD by any method	WHO staging
	Baseline CD4 testing
Number of New PLHIV enrolled into care who diagnosed with AHD	By WHO clinical stage
	By CD4 count <200
Number of ART patients who experienced an interruption in treatment (IIT) during any previous reporting period, who successfully restarted ARVs within the reporting period and remained on treatment until the end of the reporting period.	RTT
	Received CD4 testing
	CD4 test count <200
Number of people living with HIV and on ART [in the reporting period] who have unsuppressed viral load (>1000 copies/mL) who received CD4 test.	Unsuppressed
	Received CD4 testing
	CD4 test count <200
Number of new PLHIV with diagnosed with AHD by any method who were screened for TB	clinical
	LF-LAM
	GeneXP
Number of new PLHIV diagnosed with AHD by any method who were confirmed to have active TB	
Number of new PLHIV diagnosed with AHD by any method who were confirmed	

AHD indicators tracked in dSRM

Integrated AHD/NCD National Register under finalization

Date	ART Number	Full Name	Sex	Age	Phone and Address	Type of Client (TX_New, Restart, High VL)	ART Enrolment date	WHO staging	CD4 (Cells/m <sup>3</sup> )	Height (m)	BP (mmHg)	Type of NCD identified	NCD Treatment or Management Started?	TB screen Type	TB Screen Result	TB Treatment Started?	Serum CrAg	Crpto Treatment Started?	Comment
								(1,2,3,4,ND)	VL (Copies/mL)	Weight (Kgs)	RBS (mmols)	Diabetes, Hypertension, Cancer, Mental Health, Disability	Yes/No	Yes/No	Postive, Negative, Detected, Not-Detected, Normal, Abnormal	Yes/No	Postive, Negative	Yes/No	
												Date	LF_LAM, GeneXPert, CXR, Clinically		Date		Date		

# Training HCWs: AHD and NCDs integration in ART

## •Issue:

- Some HCWs not trained in: NCDs management and integration in ART, in AHD and ZCG22.

## •Actions taken:

- Reviewed training database for needs assessment.
- Assessed availability of NCD guidelines and SOPs for integration.
- Produced SOPs and guidelines for printing.
- Facilitated trainings: NCDs and AHD

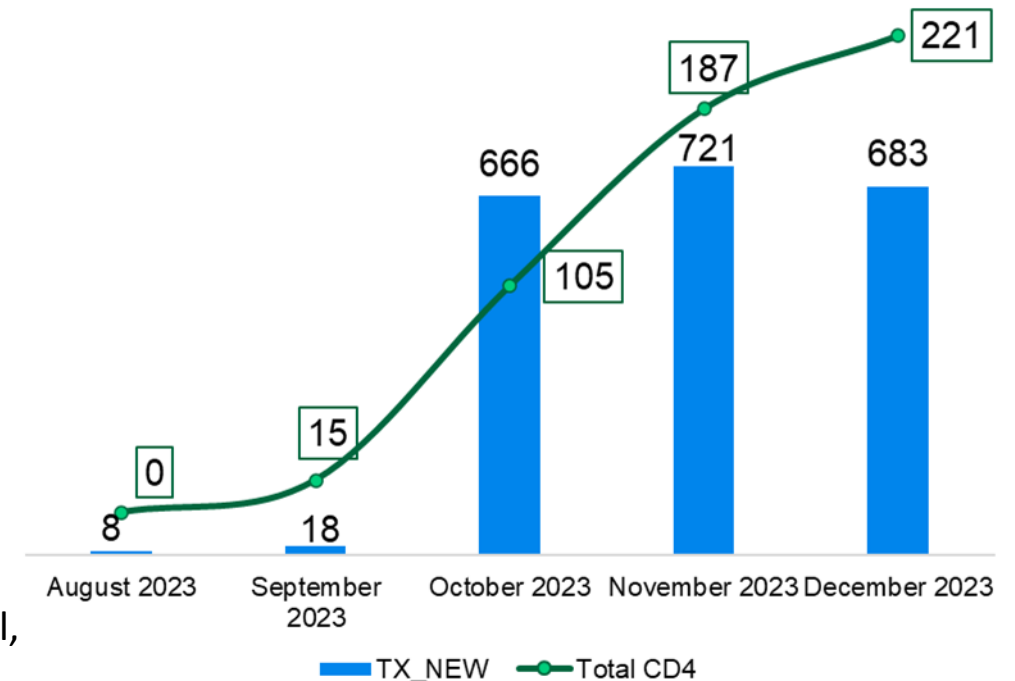
## •Outcomes:

- 100 HCWs trained in NCD management and integration
- 80 HCWs trained in AHD management
- Guidelines, SOPs printing and distribution

## •Next steps:

- Adaptation of Community AHD guidelines
- Develop comprehensive data management guidelines incl, registers, job aids, SOPs
- Follow up mentorship to ensure integration

## Trend Analysis: CD4



# Client Experience is person-centered, .....leaves no one behind

•Issue:

- PWD left behind

•Action taken:

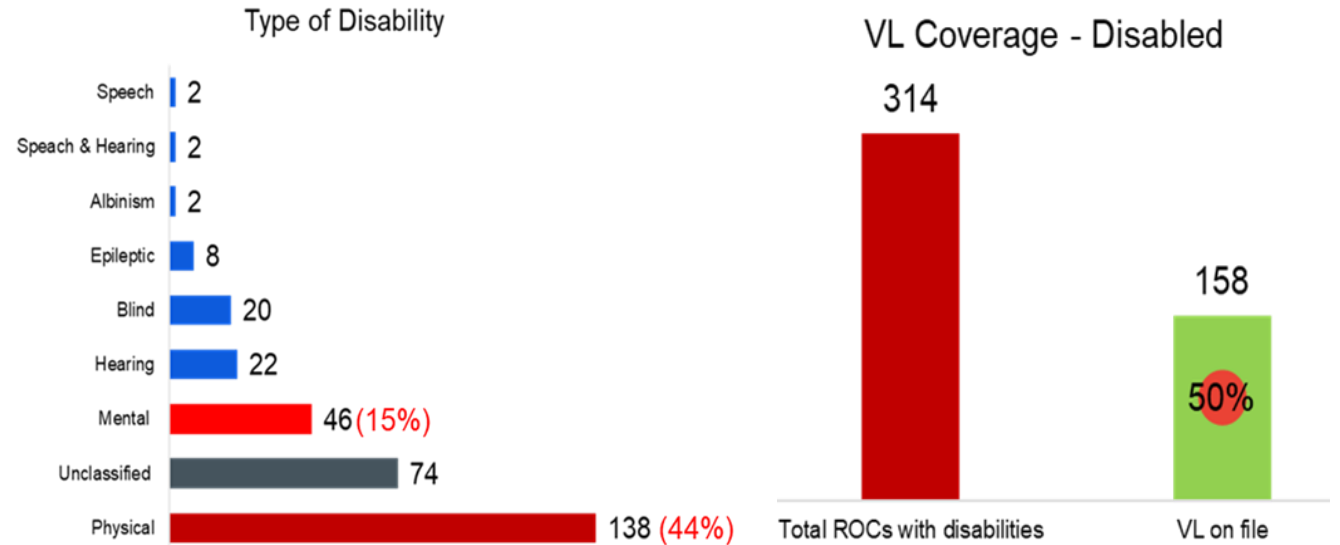
- Identified PWDs as being left behind
- Worked with EPHO to develop line-listing and categorization template for PWDs
- Identified PWDs and service gaps.
- EPHO conducted training for speech impaired PWDs

•Observations:

- 44% PWDs physical; 15% mental.
- 96% VLS; 50% VLC
- 50% on 6MMD
- 01% <200 cell/mm3 CD4

•Next steps.

- Adapt FHI360 IEC materials for blind and speech impaired.
- Support PWD networks.



*System adaptations to ensure PWDs can assess the same services such as VL at convenient location*





# Conclusions and recommendations

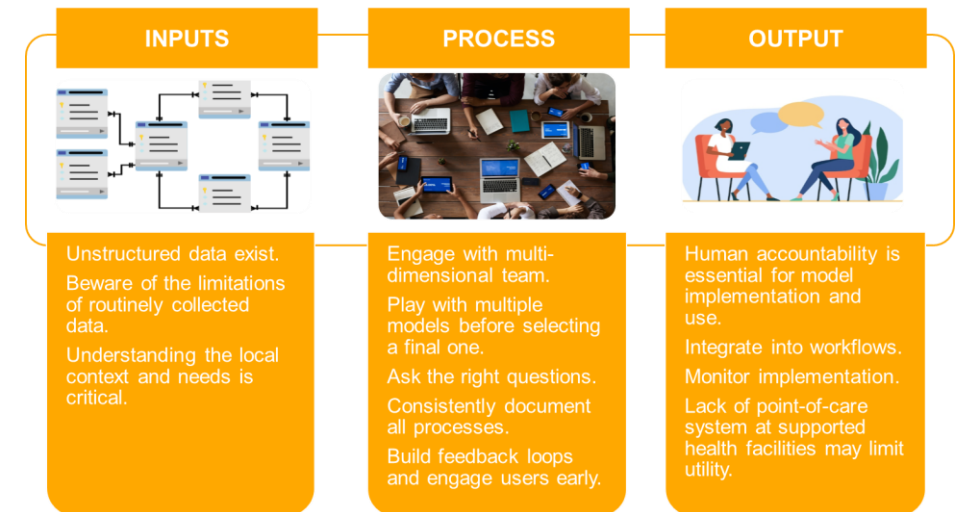
## •Conclusion:

- AHD accounts for the most HIV associated deaths, and all deaths overall
- Lack of CD4 testing contributes to missing AHD cases
- Focus on children especially < 5 years needed,
  - Mentorship on TB screening and other OIs
  - Training on TB stool sample testing and integration
- TA on facility level Supply Chain Management
  - Support forecasting and quantification of drugs and reagents.

## •Recommendations:

- Increased funding allocation for,
  - CD4 Count reagents
  - LF-LAM for real POC implementation
  - Drugs: Fluconazole, Amphotericin B, 3HP.
- Investing in technology
  - Machine Learning/Artificial intelligence
  - QuickRes

## Machine Learning development process





# Resources

- [Advanced HIV Disease Community Guidelines](#)
- [Client Experience Training](#)
- [Total Quality Leadership and Accountability \(TQLA\) Fact sheet](#)
- [QuickRes](#)



## FHI 360 Client Experience Training

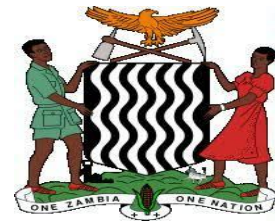
**Learning objectives**

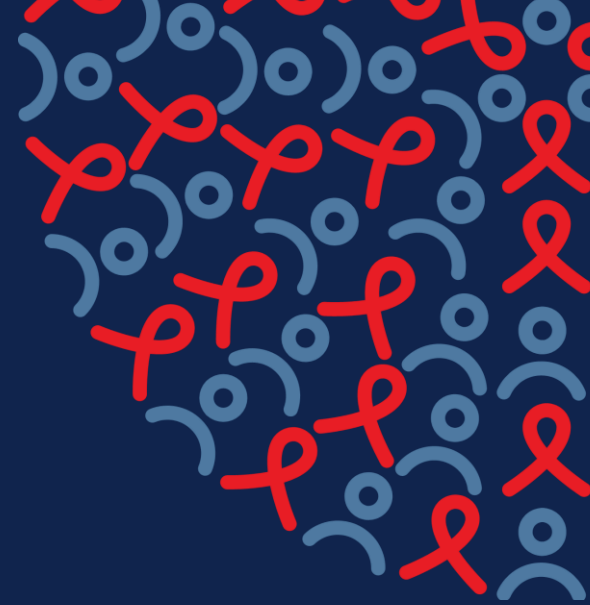
1. Understand TQLA strategy and client experience approach: meaning, principles, application, and measurement.
2. Understand the application of principles of client experience for quality of care and treatment.
3. Understand and demonstrate ability to conduct and interpret client experience surveys.
4. Learn to develop interventions and test and take them to scale for achieving lean impact and societal benefits.
5. Understand and demonstrate proficiency in Client Appointment and Tracking Systems (electronic and paper based).
6. Understand and demonstrate proficiency in the interruption in treatment analysis, use of predictive analytics, and reporting using electronic and paper-based system.
7. Understand use of monitoring and reporting system and demonstrate knowledge of the interruption in treatment indicators.
8. Utilize client experience data for TQLA decision-making.
9. Know how to document and disseminate knowledge management products.



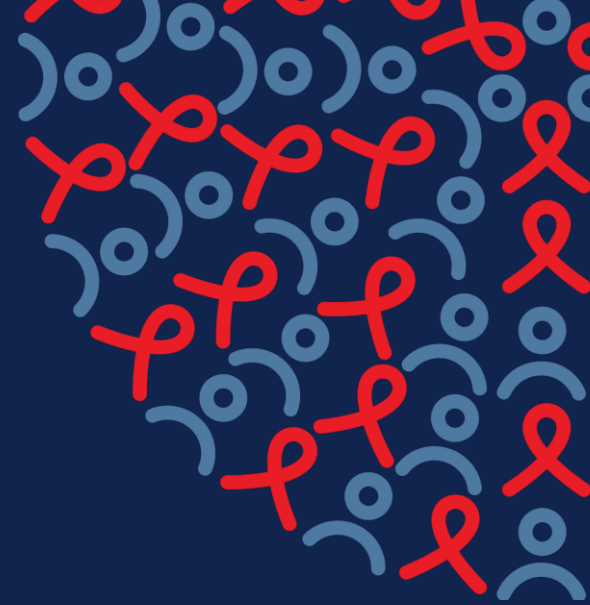
# Acknowledgments

Thank you!





# Panel Discussion



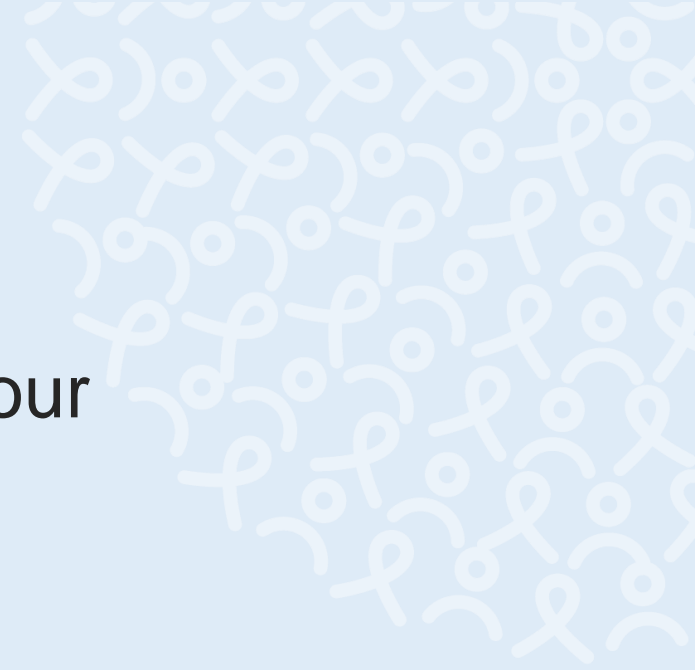
# Q & A Discussion



# Closing Remarks

# Let's Stay Connected!

- Click [here](#) for more information about EpiC and our resources.
- Subscribe to follow the EpiC project [here](#).





EpiC is a global cooperative agreement dedicated to achieving and maintaining HIV epidemic control. It is led by FHI 360 with core partners Right to Care, Palladium, and Population Services International (PSI).