HIV Learning Network
The CQUIN Project for Differentiated Service Delivery

The CQUIN Network AHD Capability Maturity Model

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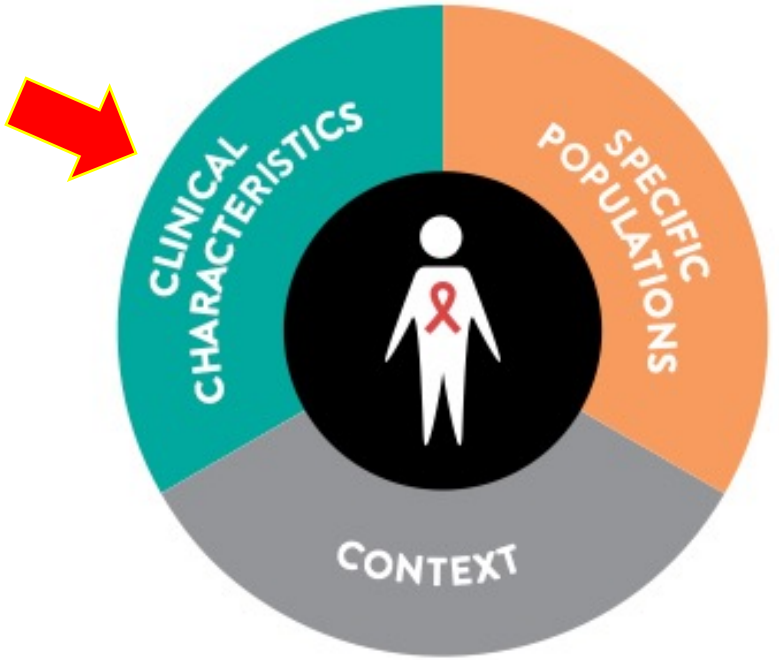
Outline

- Differentiated AHD services: the CQUIN approach
- Results of CQUIN partner country capability maturity model self-staging
- Key take-away messages

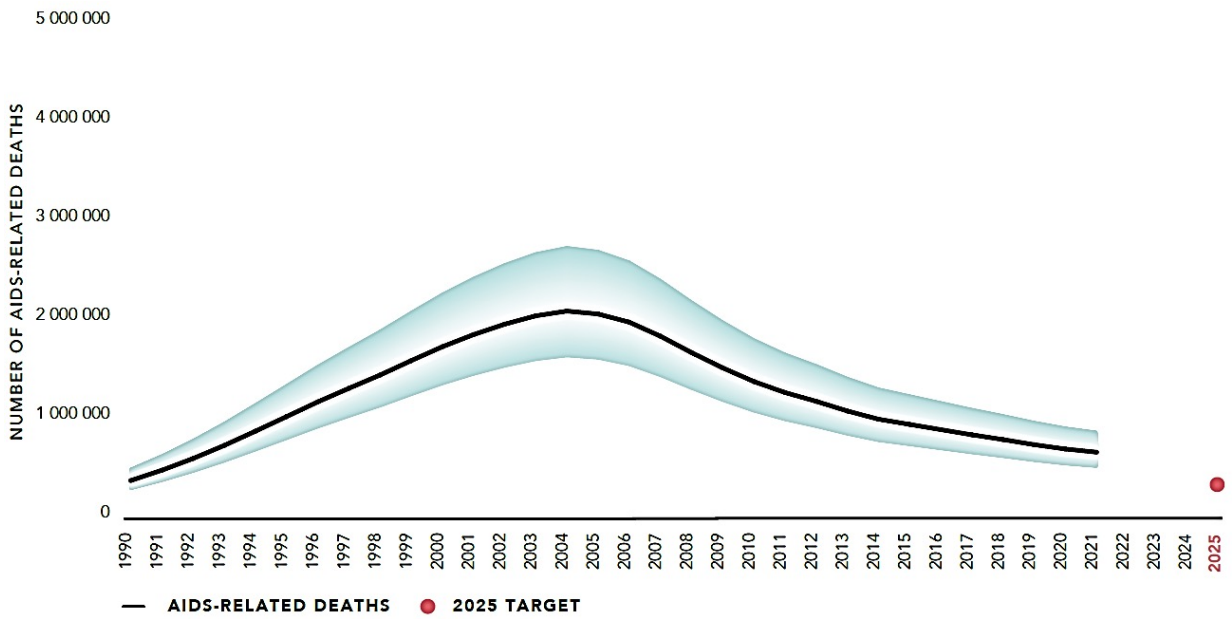
Making the DSD – AHD Connection

- While early guidance focused on less-intensive models for people established on treatment, differentiated service delivery has always been intended for people with a range of clinical characteristics
- This includes people with AHD and those at high risk of disease progression (*e.g.,* with unsuppressed viral load)
- One of CQUIN's first all-network meetings was on AHD, and one of CQUIN's earliest communities of practice is the AHD CoP
- It is the only topic for which CQUIN has convened two all-network meetings (2017 and 2020)



Why is AHD so critical to address?

AIDS-RELATED DEATHS, GLOBAL, 1990–2021, AND 2025 TARGETS



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Leading causes of mortality

Tuberculosis

- Continued increase in tuberculosis related deaths in 2020 (1.5 million) and 2021 (1.6 million), the first such increase since 2006 - trend has been reversed
- 187,000 deaths among HIV-positive people in 2021, down from 201,000 deaths in 2020.

Cryptococcal Disease

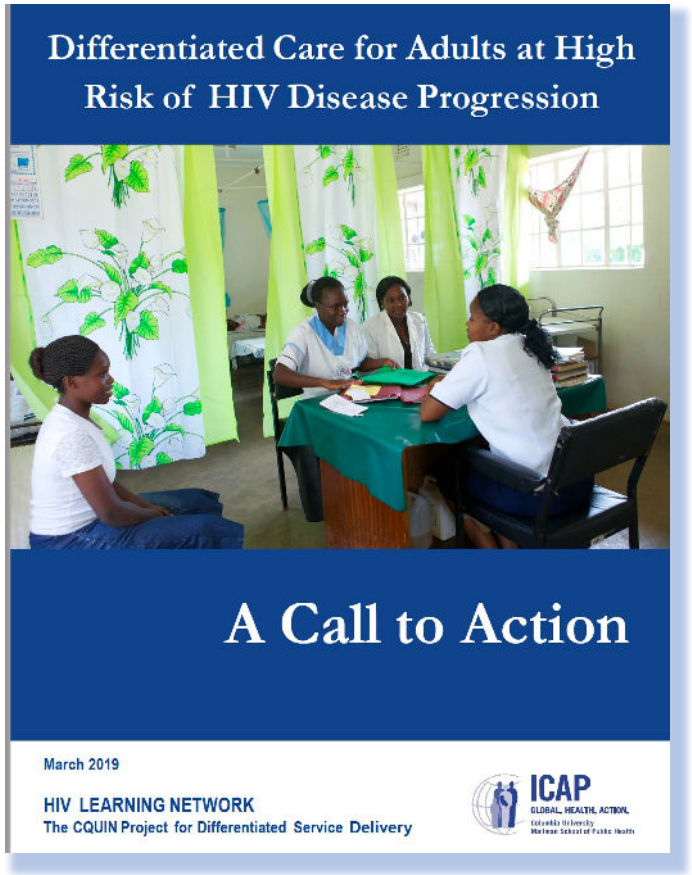
- It is estimated that cryptococcal meningitis accounts for 15% of all people dying from AIDS-related causes globally, three quarters of whom are in sub-Saharan Africa

Severe Bacterial Infections

- Estimated to cause more than one third of the hospitalizations among adults and children living with HIV worldwide
- Burden of mortality and morbidity attributable to severe bacterial infections is not well known
- Lack of appropriate diagnostic testing facilities

CQUIN's Approach

- DSD for AHD: **Call to Action**
- Launch of the CQUIN AHD **Community of Practice**
  - Country-to-country exchange of best practices, case studies and tools (virtual and via C2C visits)
- Development of AHD **capability maturity models** to support health systems strengthening approaches to national AHD programs
  - AHD-specific CMM (18 domains)
  - AHD domain in the CQUIN treatment CMM (1 domain)



CQUIN's AHD Capability Maturity Models

Defining a mature national AHD program:

- In which domains is competence required?
- What are the sequential stages of maturity within each domain?

ICAP's CQUIN team and the CQUIN AHD community of practice worked with diverse stakeholders to design and pilot the AHD-specific CMM:

- Ministries of Health, recipients of care, implementing partners, TA partners, donors and global agencies

Defining a mature national AHD program – 1

Global Guidance

- Existing global guidance on the advanced HIV disease package of care

National Policy and Guidelines

- Adaptation of global guidance into national policies and guidelines of a **nationally agreed AHD minimum package of care** that includes a combination of screening, diagnostic and management services.
- National policies include an AHD strategy which actively promotes the **implementation and monitoring of AHD services at scale at all levels of the health system** (primary, secondary and tertiary health facilities) *and* include coverage targets for AHD service delivery
- National HIV treatment guidelines include **AHD management in detail**, there is an approved disease-specific operational guide to support implementation, and it is being actively used to inform implementation *(e.g., used in trainings, mentorship and by services providers).*

Coordination, implementation planning and SOP development

- There is a **National DSD Focal Person** or someone in similar coordination role at the national level whose role includes spearheading AHD activities
- A **national AHD scale-up plan** has been developed, is being implemented nationwide, and key milestones are being regularly monitored
- **National AHD SOPs** have been developed for all the diseases in the minimum AHD package AND all of them are in use

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Defining a mature national AHD program – 2

Training

Mapping and scale-up of hubs & spokes and sample referral networks

In-patient care service delivery

- There is a **national in-service AHD training curriculum** or module(s) in place and systematic trainings based on the scale up plan have been completed for all health facilities

- **Mapping and scale-up of hubs and spokes** accompanied by a nationally recognized directory of the services at the hubs and spokes
- Over 75% of health facilities providing ART have the minimum AHD service package available (on site or by referral).
- > 75% of eligible PLHIV are **routinely assessed for AHD using CD4 testing** or alternative *(e.g., universal CrAg and/or TB LAM screening)*
- Over 75% of patients with advanced immunosuppression receive the **screening services for TB and CM** as per the national AHD package *(e.g., TB LAM, CrAg)*
- More than 75% of eligible patients receive the **OI prevention services** in the national AHD package *(e.g., TPT, CTX, cryptococcal prophylaxis)*
- More than 75% of eligible patients receive the **OI management services** in the national AHD package *(e.g., treatment of TB, cryptococcus and other OIs)*

- National SOP on **transition from out-patient to in-patient care as well as downward referral** that includes tracking of people with AHD to higher level health facilities for services that are not available onsite as well as referral for additional care to community services (such as adherence to treatment and psychosocial support)

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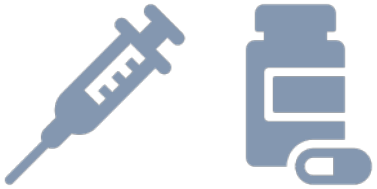
Defining a mature national AHD program – 3



Laboratory and Pharmaceutical commodities

- An **integrated** AHD related commodities forecasting, quantification and procurement implemented for **all relevant opportunistic infections** with effective procurement plan, warehousing and distribution and consumption in place and no stock-outs reported in the past 3 months.

Quality Management

- Repeated **evaluations of AHD service quality** have found that the program meets established national quality standards

Monitoring and Evaluation and Impact Assessment

- All of the necessary **AHD-related data elements** are being systematically collected, reported, analyzed and reviewed regularly and are integrated into national M&E tools and the national HMIS for HIV/ART services.
- Repeated **evaluations of implementation of the national AHD package of care** have been conducted, with evidence indicating ongoing impact in both process and outcome indicators

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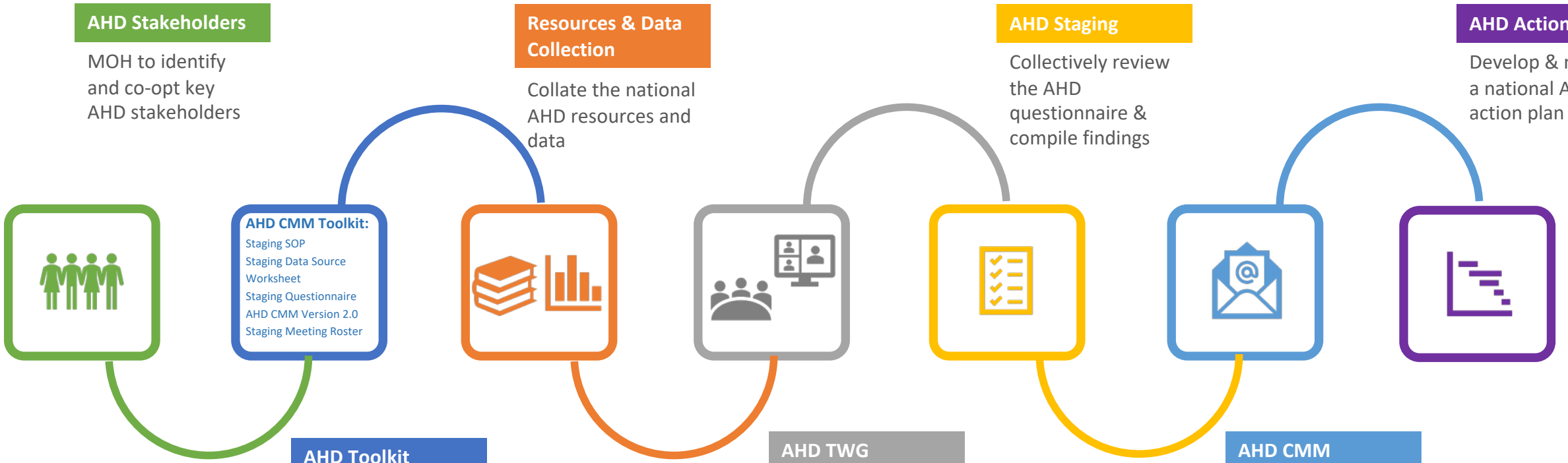
Process of Self-staging with the AHD Capability Maturity Model



Regular staging using the AHD capability maturity model is recommended with frequent monitoring of the AHD action plan

National AHD Self-Staging

- As of 2022, 14 countries have used the AHD-specific CMM
- In consultation with partner MOHs, CQUIN also introduced a single AHD domain in the CQUIN treatment CMM and 21 countries used this in their 2022 self-staging

The AHD Domain in the CQUIN Treatment Capability Maturity Models

AHD	The national HIV treatment policy does not include a national strategy or framework for AHD identification (e.g., services to identify PLHIV with low CD4) and management **AND** the national HIV treatment guidelines do not define a minimum[1] package of AHD services	The national HIV treatment policy includes a national strategy or framework for AHD identification and management **AND/OR** the national HIV treatment guidelines define a minimum package of AHD services	The national HIV treatment policy includes a national strategy or framework for AHD identification and management **AND** the national HIV treatment guidelines define a minimum package of AHD services **AND** a national AHD implementation plan has been developed and is actively being implemented nationwide	The country has completed the CQUIN AHD dashboard in the past 24 months and scored dark green in at least the 7 specific domains listed in the footnote[2]	The country has completed the CQUIN AHD dashboard in the past 24 months and in addition to achieving the light green stage, the country also has scored dark green in the 7 additional domains listed in the footnote[3]

[1]By "minimum package" we mean the nationally agreed upon combination of screening, diagnostic and management services to support PLHIV with advanced HIV disease, adapted from existing global guidance on the AHD package of care.

[2]The seven domains required for light green status include: policy, guidelines, national AHD implementation plan, standard operating protocols, coordination, engagement of recipients of care, and training

[3]The seven additional domains required for dark green status are diagnostic capability 1 & 2; patient coverage 1,2,3 and 4; and supply chain management for AHD commodities

Outline

- Differentiated AHD services: the CQUIN approach
- **Country self-staging results**
- Key take-away messages

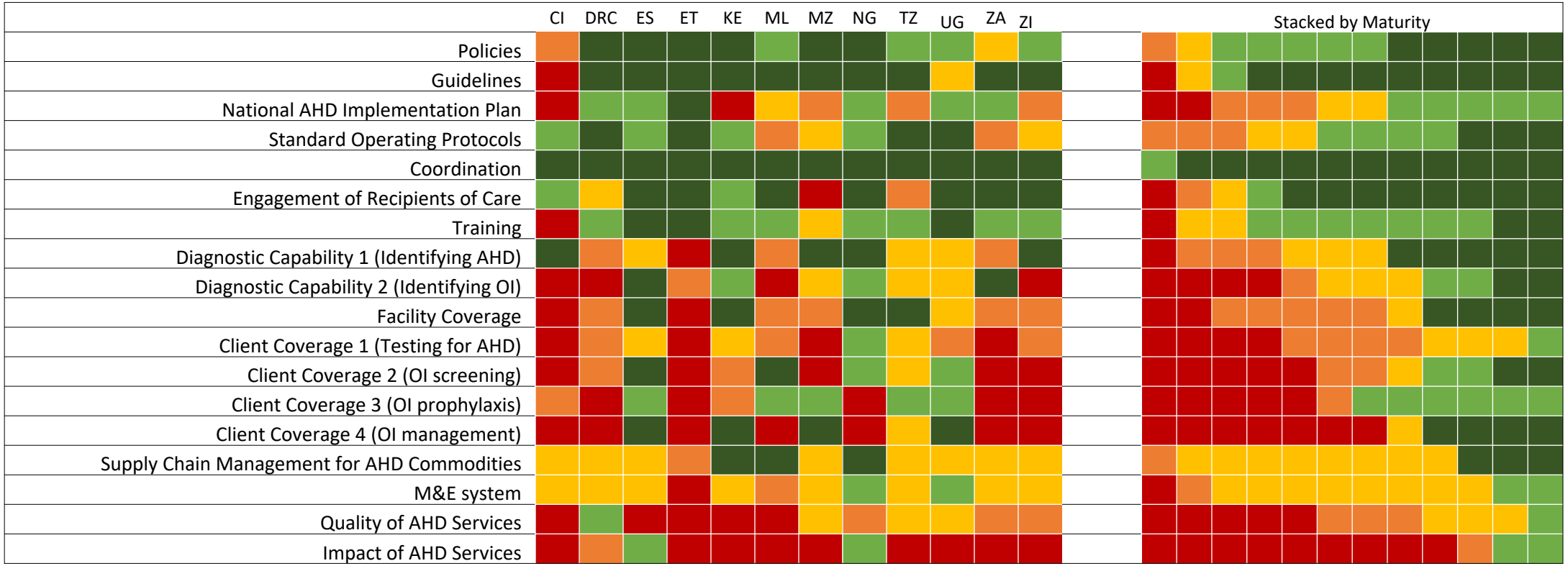
AHD Domain Results from the Treatment Capability Maturity Models

Country	Advanced HIV Disease
Burundi	
Cameroon	
Cote d'Ivoire	
DR Congo	
Eswatini	
Ethiopia	
Ghana	
Kenya	
Lesotho	
Liberia	
Malawi	
Mozambique	
Nigeria	
Rwanda	
Senegal	
Sierra Leone	
South Africa	
Tanzania	
Uganda	
Zambia	
Zimbabwe	

No.	Advanced HIV Disease	Stacked by Maturity
1		The country has completed the CQUIN AHD dashboard in the past 24 months and scored dark green in at least the specific domains listed in the footnote
2		
3		The national HIV treatment policy includes a national strategy or framework for AHD identification and management **AND** the national HIV treatment guidelines define a minimum package of AHD services **AND** a national AHD implementation plan has been developed and is actively being implemented nationwide
4		
5		
6		
7		
8		
9		
10		The national HIV treatment policy includes a national strategy or framework for AHD identification and management **AND/OR** the national HIV treatment guidelines define a minimum package of AHD services
11		
12		
13		
14		
15		
16		
17		
18		
19		The national HIV treatment policy does not include a national strategy or framework for AHD identification (e.g., services to identify PLHIV with low CD4) and management AND the national HIV treatment guidelines do not define a minimum package of AHD services
20		
21		

CQUIN AHD Capability Maturity Model Staging Results

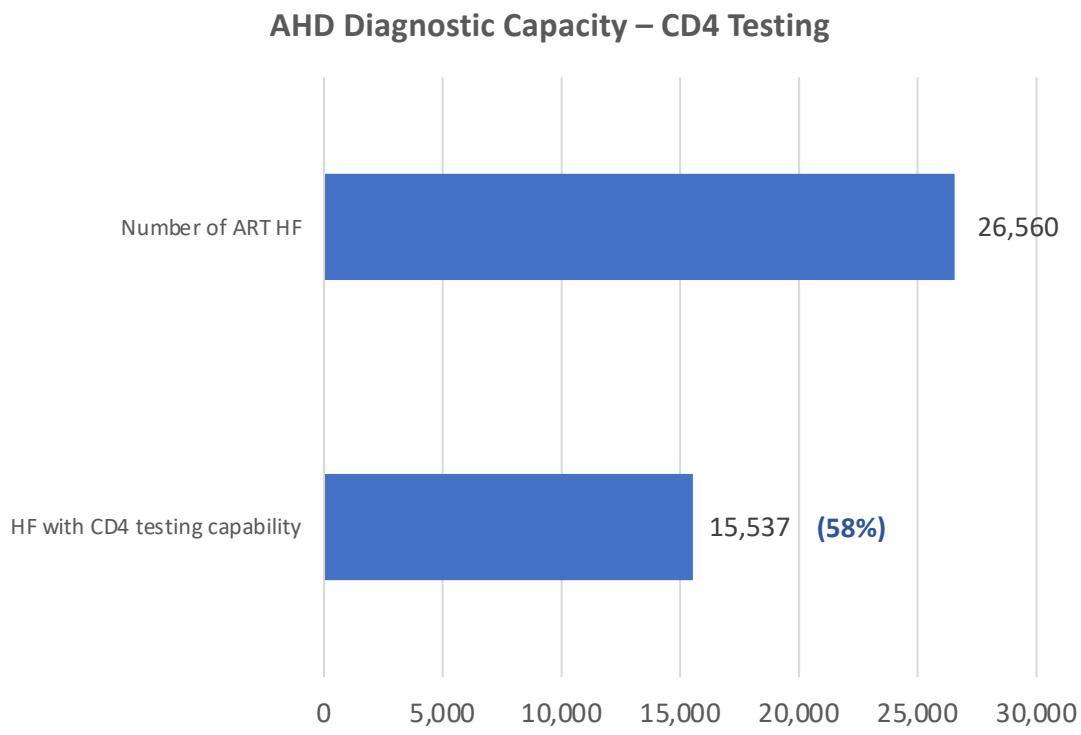
- Piloted by five countries in 2021 and scaled-up in 2022 and by November 2022, **14 countries** had conducted self-staging with the CQUIN AHD CMM: DRC, Cote d'Ivoire, Eswatini, Ethiopia, Kenya, Malawi, Mozambique, Nigeria, Sierra Leone, South Africa, Tanzania, Uganda, Zambia and Zimbabwe



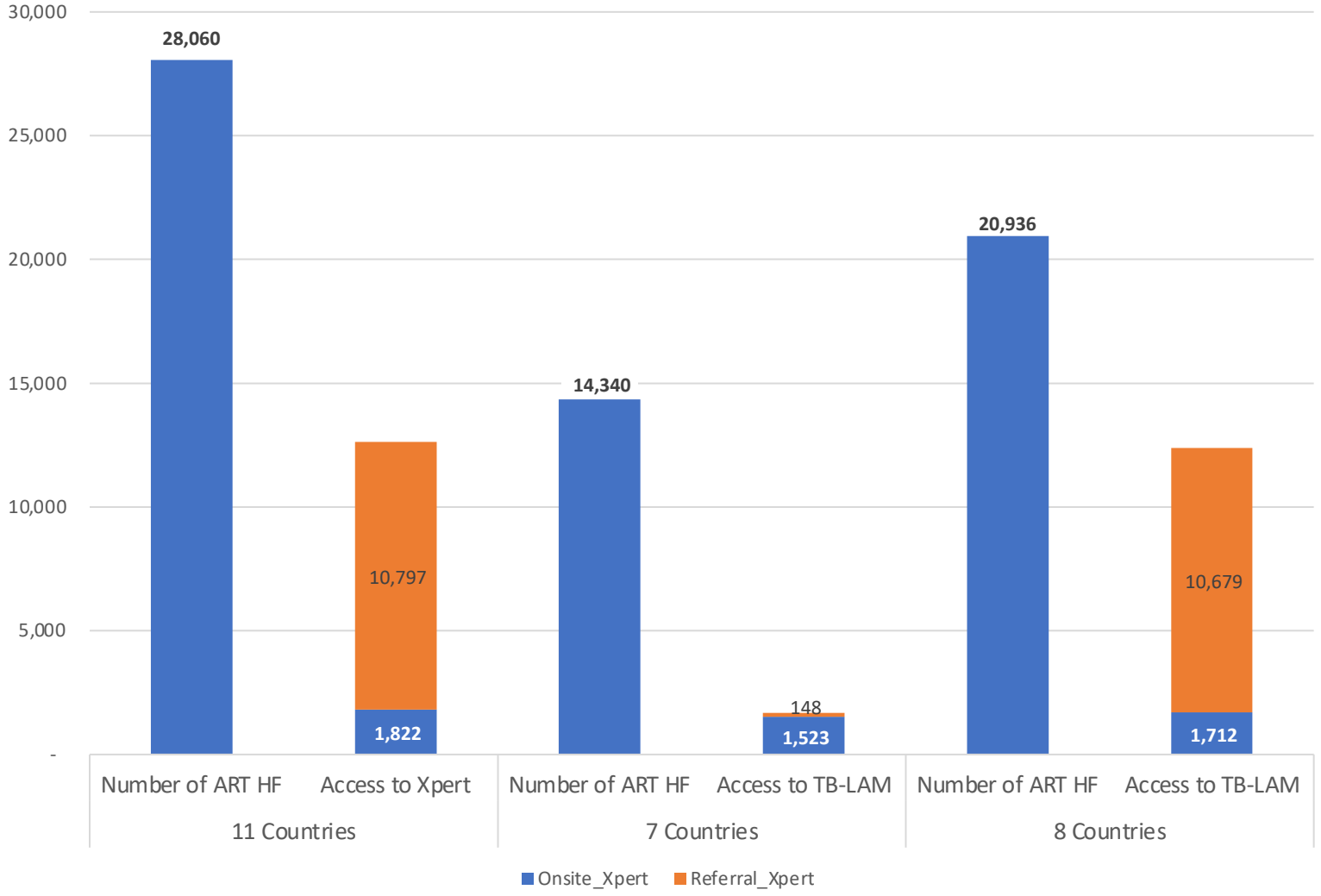
- CQUIN AHD CMM findings by country shows variability in maturity of country health systems in supporting the implementation of the AHD package of care with many countries being in the early stages of AHD program implementation

AHD Diagnostic Capacity

- Data submitted by ten countries showed 58% (15,537/26,560) of HF have CD4 access either on site or through established referral systems
- Data from eight countries with on-site CD4 diagnostic capability data, showed the ratio of on-site vs. referral for CD4 testing was 1:2.6 [Range: 1:1 to 1:505]



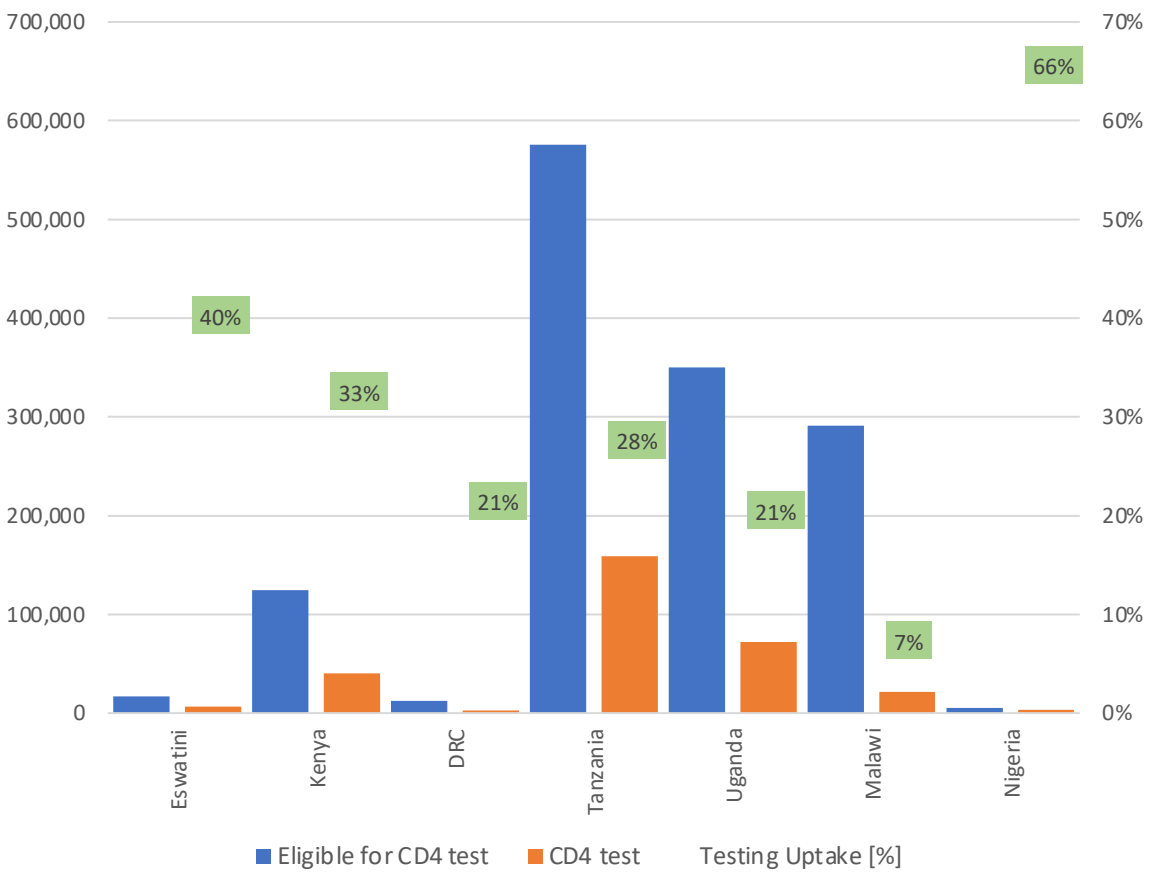
AHD Diagnostic Capacity



- Xpert Capacity: 45% (12,619/28,060)
- TB-LAM Capacity: 12% (1,671/14,340)
- CrAg Capacity: 53% (12,391/20,936)

AHD Client-level Coverage

1. CD4 Testing Uptake (N = 7 countries)



- Eligible populations in the 7 countries:
  - 6 countries - Newly enrolled, Returning to Treatment and Virological Failure
  - DRC - Newly enrolled only
- CD4 testing uptake:
  - **Overall, 22% of eligible PLHIV received a CD4 test**
  - CD4 uptake ranged from 7% in Malawi to 66% in Nigeria

AHD Client-level Coverage

2. OI Screening: TB-LAM and CrAg screening (N = 4 countries)	3. OI Prophylaxis: CTX, TPT and CM (N = 6 countries)	4. OI Management: TB and CM (N = 7 countries)
• **TB-LAM – 39%** (15,600/33,151) • **CrAg – 47%** (12,781/33,151)	• CTX - 4 countries – **72%** • TPT - 5 countries – **76%** • CM - 3 countries – **99.6%**	• TB - 7 countries – **95%** • CM - 3 countries – **100%**

AHD Facility-level Coverage

- AHD facility coverage was determined by countries as the % of health facilities with ART providing the minimum package of AHD services (on site or by referral)
- Overall, **26%** (8,617/32,946) of HF provided the comprehensive AHD Minimum Package of care either onsite or through referral mechanisms
- AHD Minimum Package – This refers to a nationally agreed upon combination of screening, diagnostic and management services to support PLHIV with advanced HIV disease adapted from existing global guidance on the AHD package of care

Outline

- Differentiated AHD services: the CQUIN approach
- Country self-staging results
- **Key take-away messages**

Key Take-away Messages

- National HIV programs need to decisively shift to a **health systems & public health approach** towards AHD implementation in order to deliver optimal AHD services at scale.
- **Access to CD4 testing** remains a key bottleneck for the AHD cascade even where there exists referral systems to existing CD4 diagnostic centers
- **Robust national AHD M&E systems** are needed to address gaps in national level data particularly on identification of AHD as well as data on OI screening, OI prophylaxis and management of OI among PLHIV with AHD
  - ✓ Routine **use of the AHD cascade data** can provide quick feedback on progress over time on the implementation of the AHD package of care
- **Scale-up of and regular use of the AHD CMM** provides ministries of health with a unique opportunity to understand their AHD programs and develop appropriate AHD scale-up plans that address identified health system barriers to AHD implementation

Thank you!