

Integration of HIV and NCD Services: Perspectives of Recipients of Care and Healthcare Workers in South Africa, Zambia, and Malawi

A CQUIN-AMBIT Webinar

Tuesday, October 3, 2023

HIV Coverage, Quality, and Impact Network



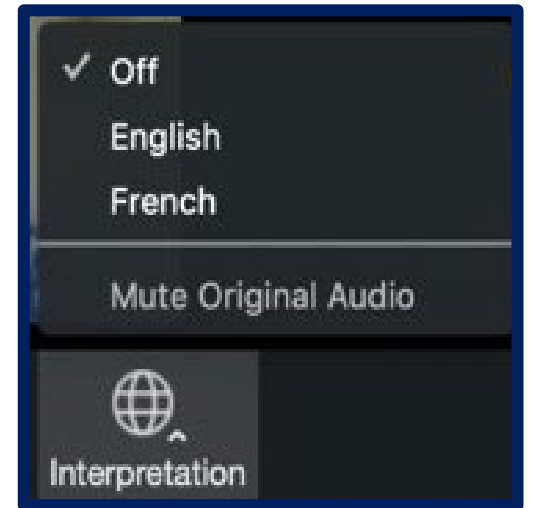
Welcome/ Bienvenue



Bill Reidy

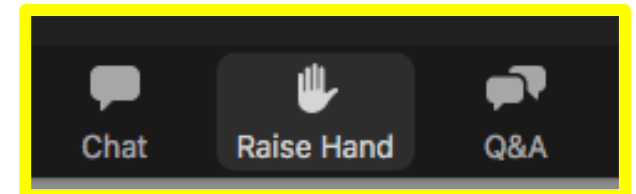
Deputy Director,
Strategic Information
ICAP at Columbia University

- Be sure you have selected the language of your choice using the “Interpretation” menu on the bottom of your screen.
- Assurez-vous d’avoir sélectionné la langue de votre choix à l’aide du menu <<Interprétation>> en bas de votre écran Zoom.



Housekeeping

- 60-minute webinar with a framing presentation followed by a panel discussion with Q&A
- Slides and recording will be available on the CQUIN website (www.cquin.icap.columbia.edu)
- Please type questions in the Q&A box located on the toolbar at the bottom of your screen
- If you would prefer to speak, please use the “raise hand” function on the toolbar and we will unmute you so that you have control of your microphone
- If you are a French or English speaker, please ask your question in your language of choice and the interpreters will translate as needed



Agenda

Welcome and introductions: Bill Reidy, ICAP New York

Findings from the Retain6/AMBIT 2.0 project:

- Mariet Benade
- Linda Sande
- Aniset Kamanga

Q&A and Panel discussion:

- Musa Munganye, NDOH South Africa
- Lawrence Khonyongwa, MANET+ Malawi
- Suilanji Sivile, MOH Zambia

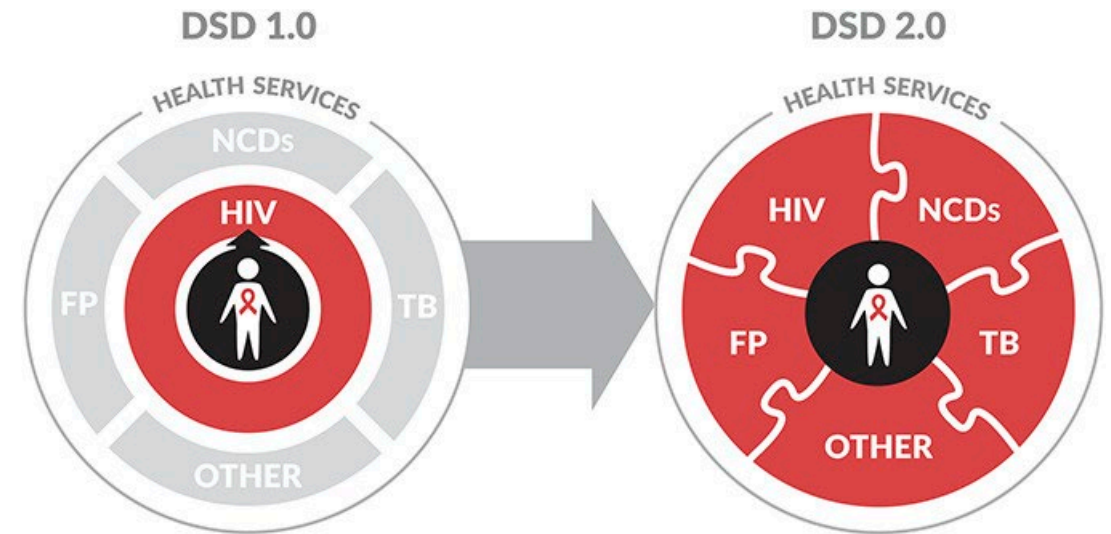
Background – 1

- CQUIN 2.0 has an expanded focus that includes the **integration of non-HIV services into HIV programs** (and, more specifically, into DSD models) with the goal of providing holistic person-centered care
- In 2023, CQUIN will focus on:
 - ✓ SRH / Triple Elimination: starting with integration of **FP services** [June webinar]
 - ✓ NCDs: starting with integration of **HTN services** [July and October webinars] and **Mental Health services** [August webinar]
 - ✓ TB: continued focus on integrating TPT and case finding into DART models
- In 2024, we will pull these streams together into an all-network meeting on integrated person-centered care for people living with HIV

Background – 2

CQUIN conceptual framework:

- ✓ Integration is a means not an end – the goal is not integration itself, but improved coverage, quality, and impact of health services
- ✓ Differentiated approaches contribute to this goal by delivering person-centered services that meet the needs and expectations of recipients of care
- ✓ Our hypothesis is that integrating non-HIV services into HIV programs will expand and accelerate these efforts



Ehrenkranz P, Grimsrud A, Holmes CB, Preko P, Rabkin M. Expanding the Vision for Differentiated Service Delivery: A Call for More Inclusive and Truly Patient-Centered Care for People Living With HIV. *J Acquir Immune Defic Syndr*. 2021 Feb 1;86(2):147-152. PMID: 33136818; PMCID: PMC7803437.

Case Study: Presenters



Mariet Benade
Senior Research Fellow
Boston University



Linda Sande
Senior Researcher
University of Witwatersrand
Johannesburg, South Africa



Aniset Kamanga
Program Manager – Research
for AMBIT & RETAIN6
Projects | Clinton Health
Access Initiative

Integration of hypertension and diabetes services with HIV care in Malawi, South Africa, and Zambia

Linda Sande, Mariet Benade, Aniset Kamanga
Retain6 and AMBIT 2.0 Projects
October 3, 2023

HIV Coverage, Quality, and Impact Network



About the Projects

- AMBIT 2.0 and Retain6 are Bill and Melinda Gates Foundation-supported projects to generate better information about the outcomes and impact of differentiated service delivery and identify opportunities to improve service delivery models.
- The projects conduct primary data collection in Malawi, South Africa, and Zambia.
- In each country, the projects collect data from clients, providers, and the EMR at a set of “sentinel” healthcare facilities.
 - 12 sentinel sites in Malawi and Zambia; 17 in South Africa
- You can find our results and reports at www.sites.bu/ambit.

Objectives

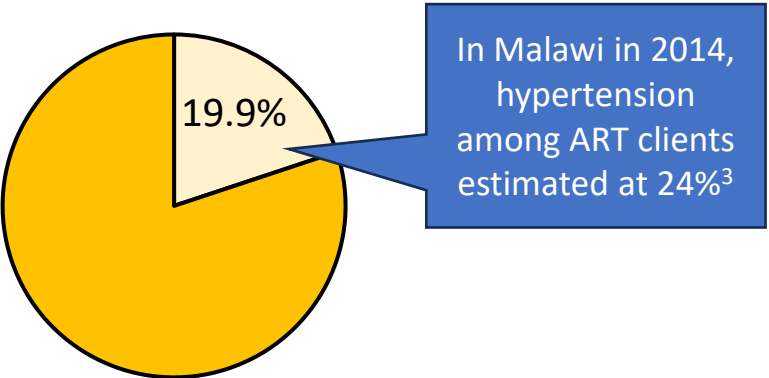
- To describe the degree of integration of NCD care, namely hypertension and diabetes care, into existing HIV clinics in Malawi, South Africa, and Zambia
- To identify opportunities to improve integration of NCD care in existing HIV clinics in Malawi, South Africa, and Zambia



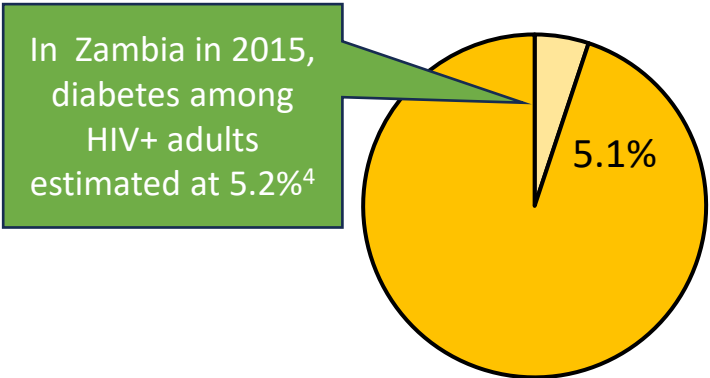
SENTINEL site characteristics	Zambia (n=12)	Malawi (n=12)	South Africa (n=17)
% rural	33%	58%	59%
% mission hospitals	8%	17%	0%
Average number of ART clients (range)	5,404 (2,370-13,386)	6,223 (1,025-24,247)	3,411 (1,182-7,934)

Background – prevalence of HT and DM among people with HIV

Average hypertension prevalence among PLHIV in southern Africa¹

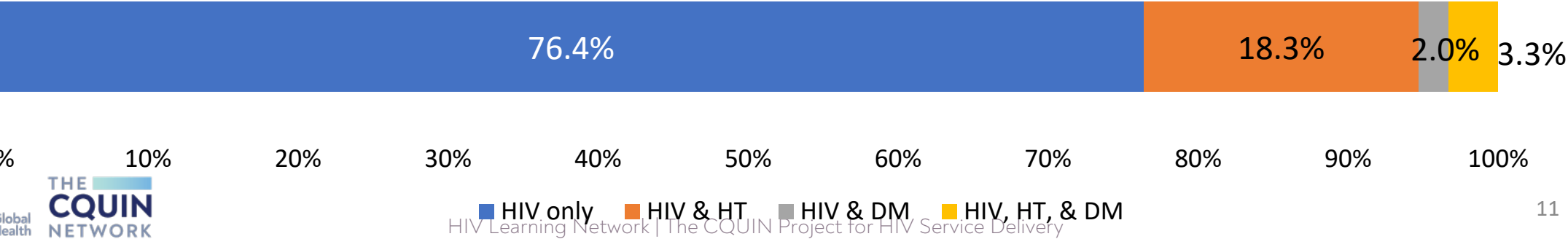


Average diabetes prevalence among PLHIV in sub-Saharan Africa²



1. Bigna et al 2020.
2. Peer et al 2023.
3. Divala et al 2016..
4. Shankalala et al 2017.
5. Rajagopaul et al 2021.

Breakdown of prevalence of HIV, hypertension, and diabetes at ART clinic in Kwa-Zulu Natal, South Africa in 2017 (n=301)⁵



What is integration?

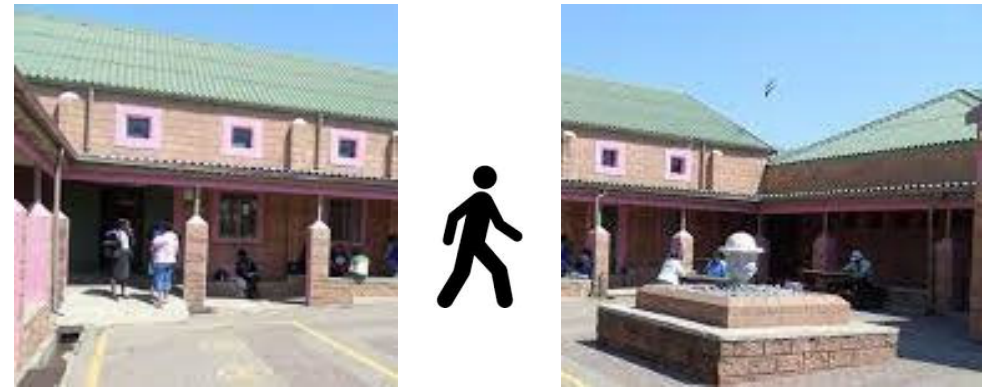
- “Integration” may refer to combining care services, management, procurement, guidelines, or various other aspects of healthcare delivery
- We are interested in integration at the primary healthcare level—how to expand the scope of healthcare services offered to clients at the same location and time
- Here, we define integration as the **provision of non-HIV care within the ART clinic**, during routine ART visits, in a “one stop shop” model

INTEGRATED



HIV clinic also provides services for hypertension, diabetes, and other conditions

NOT INTEGRATED



HIV clinic refers to another department or a different facility for services for hypertension, diabetes, and other conditions

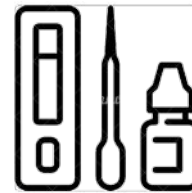
For NCD integration, four broad service categories

1 Screening and diagnosis



- Vitals: weight, blood pressure, pulse, glucose
- Client health history
- Family history

2 Monitoring and management



- Hypertension/diabetes laboratory tests and or/and non-laboratory monitoring tests
- Regular check of condition

3 Treatment



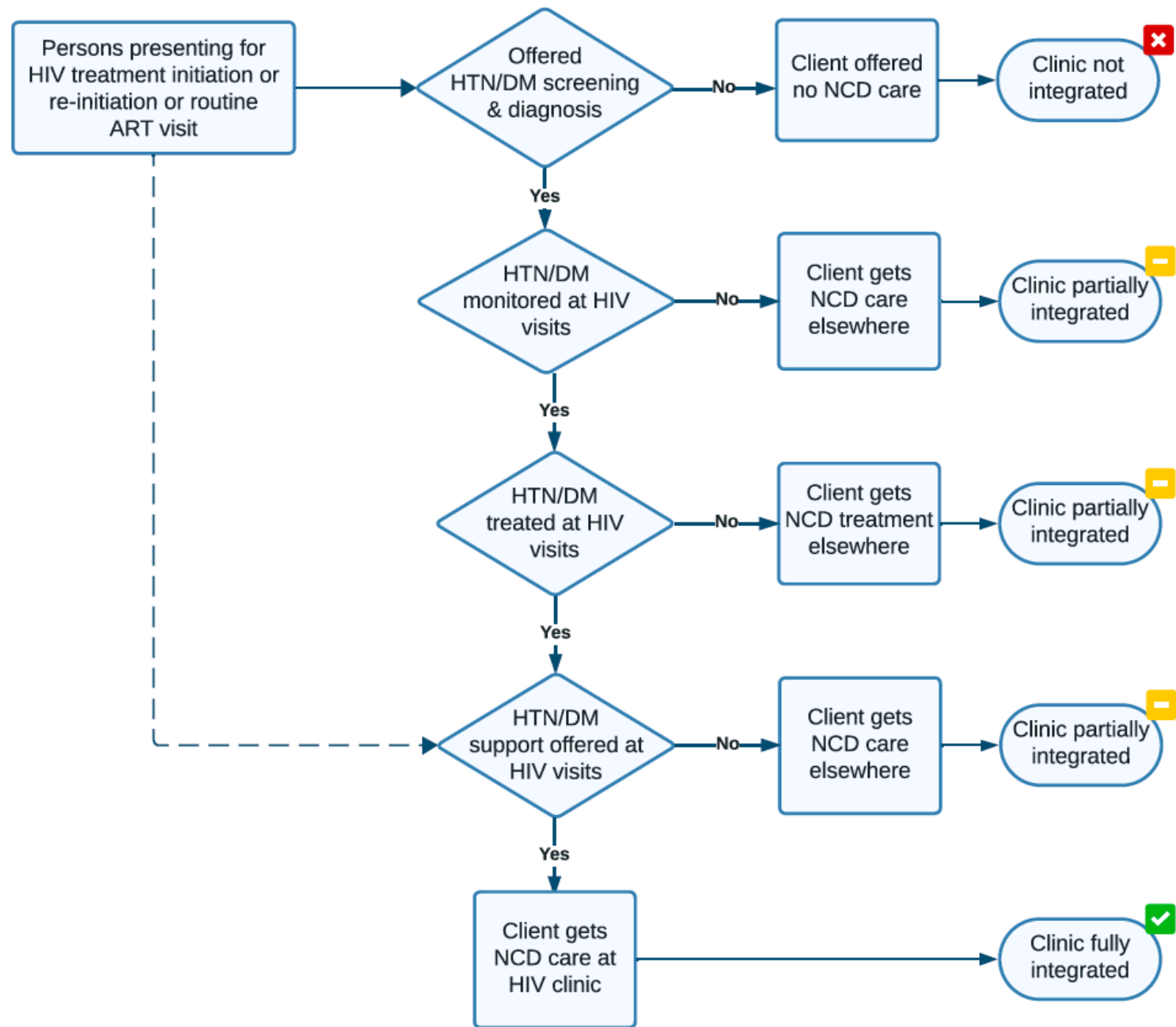
- Any hypertension/diabetes-related medication dispensed

4 Support



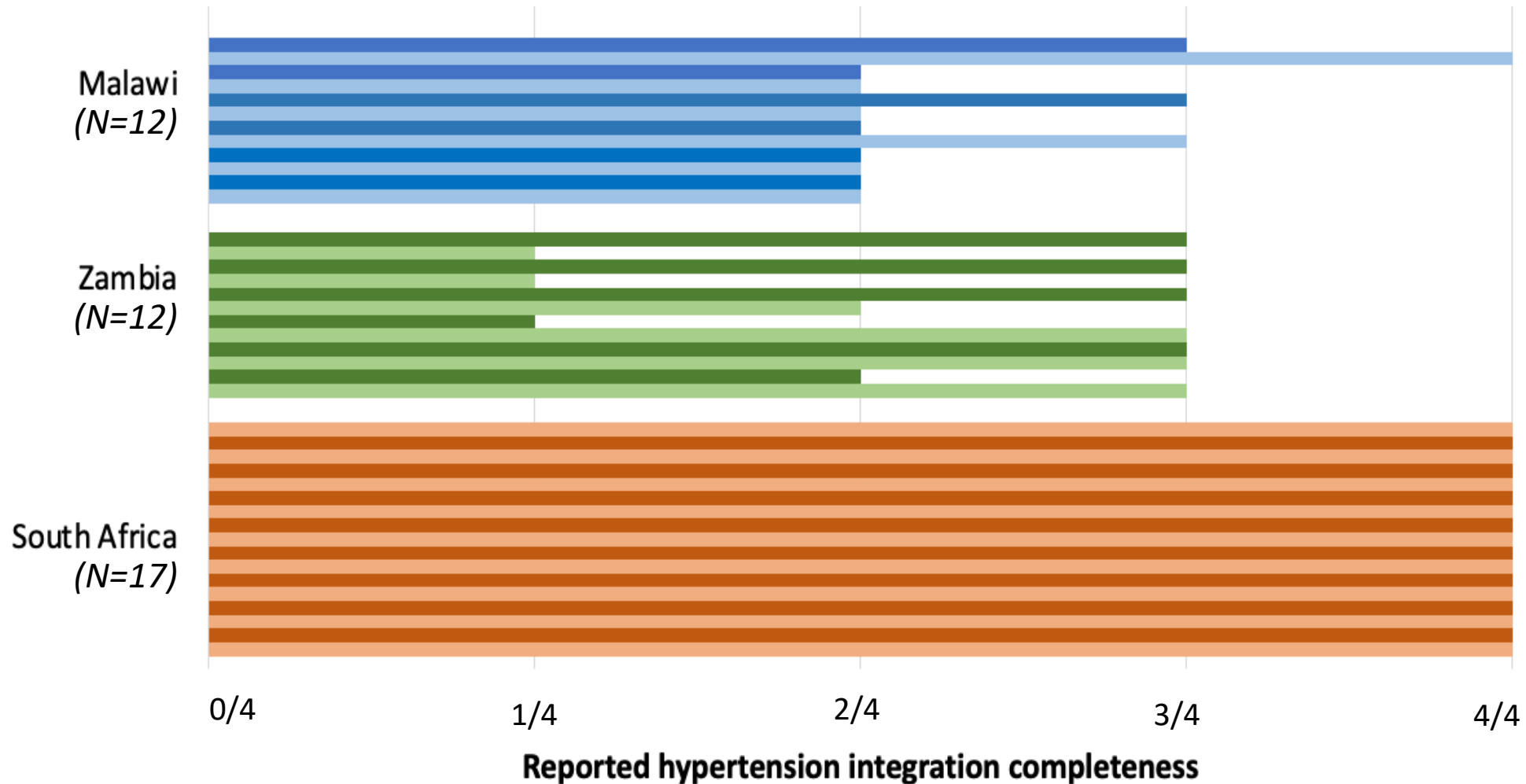
- Information, education and counselling, lifestyle advice, nutrition assessment, referral guidance

An integrated client pathway at the PHC level



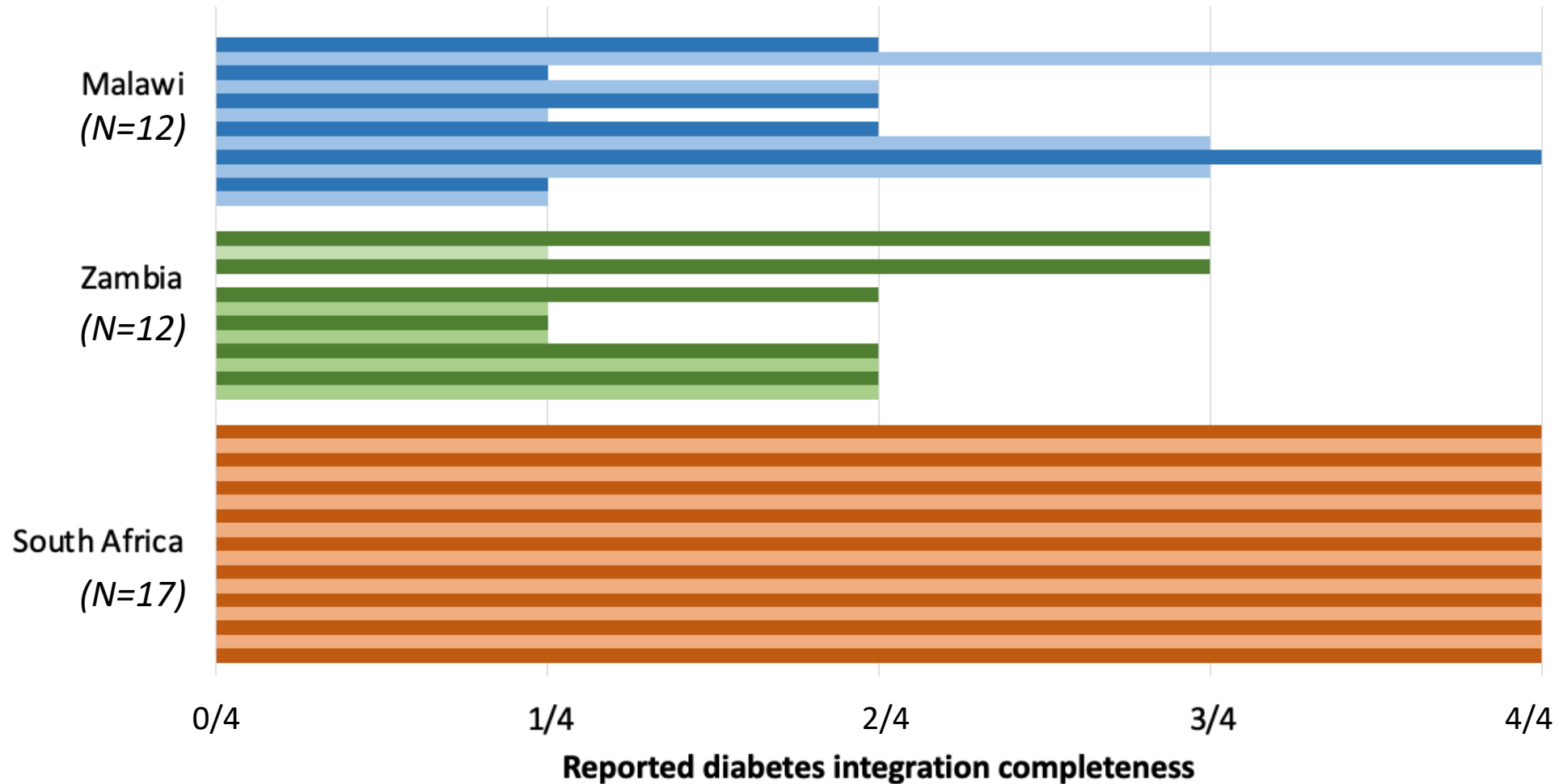
Hypertension integration completeness by facility

Of the four broad service categories, facilities in SENTINEL offered...



Diabetes integration completeness by facility

Of the four broad service categories, facilities in SENTINEL offered...



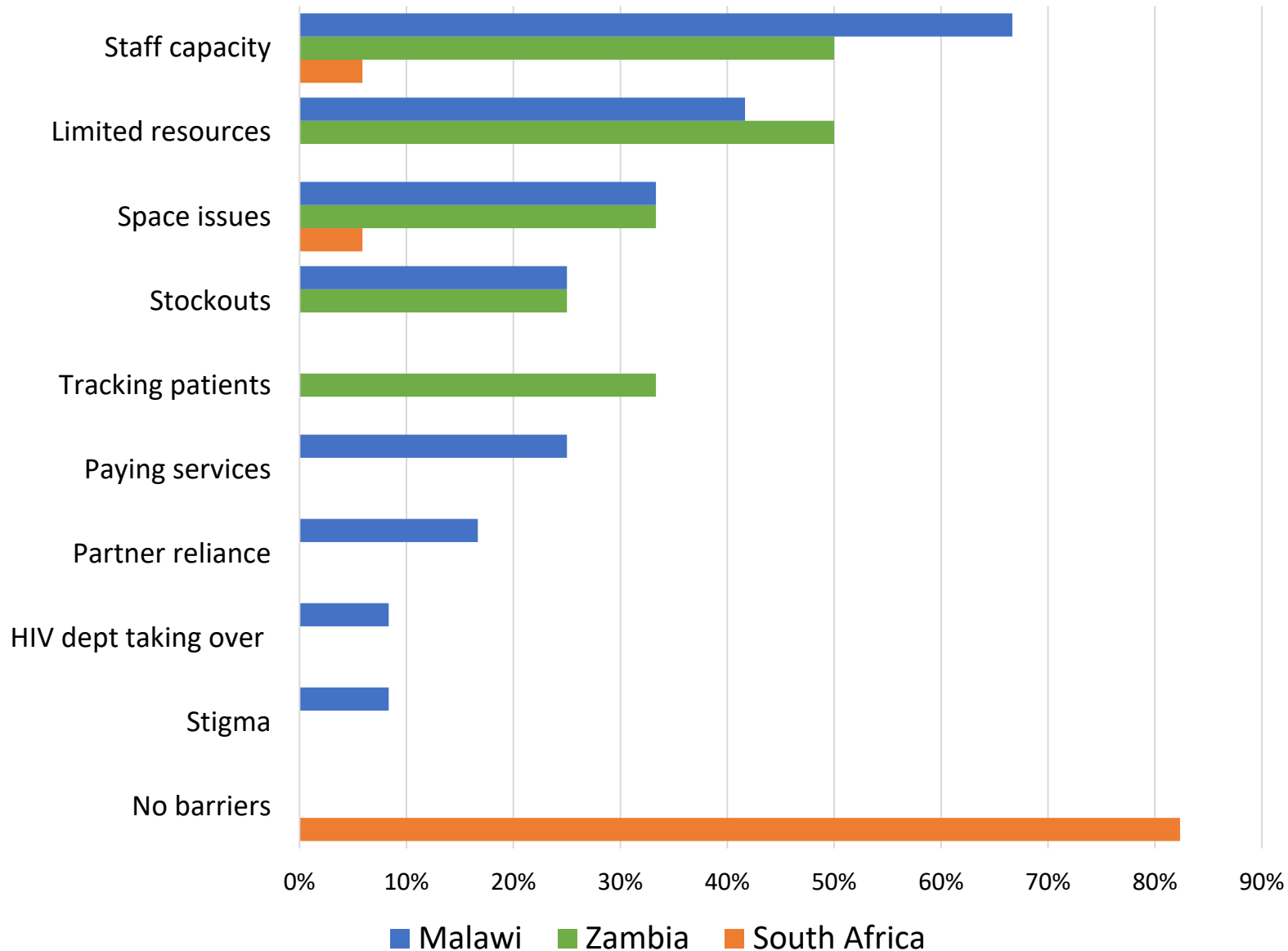
Variation in HT/DM integration among 12 ART clinics in Malawi

	Hypertension				Diabetes			
	Screening & diagnosis	Monitoring & management	Treatment	Support	Screening and diagnosis	Monitoring & management	Treatment	Support
Total % integrated	100%	8%	33%	100%	67%	25%	25%	100%
M1	✓			✓				✓
M2	✓			✓				✓
M3	✓			✓	✓	✓		✓
M4	✓		✓	✓	✓	✓	✓	✓
M5	✓		✓	✓	✓		✓	✓
M6	✓			✓	✓			✓
M7	✓			✓				✓
M8	✓			✓	✓			✓
M9	✓			✓	✓			✓
M10	✓			✓				✓
M11	✓	✓	✓	✓	✓	✓	✓	✓
M12	✓		✓	✓	✓			✓

Variation in HT/DM integration among 12 ART clinics in Zambia

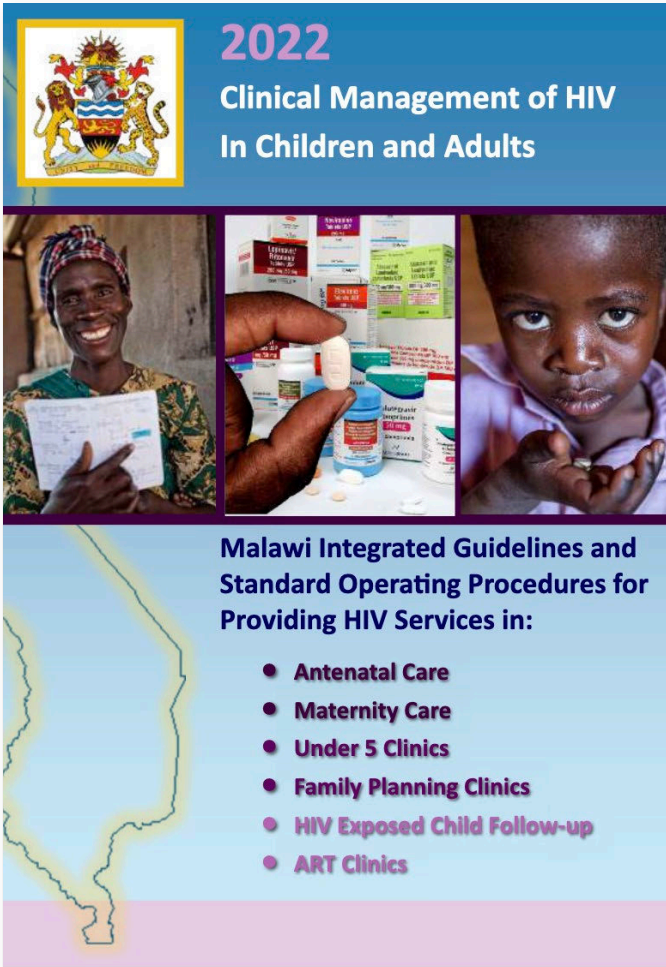
	Hypertension				Diabetes			
	Screening & diagnosis	Monitoring & management	Treatment	Support	Screening & diagnosis	Monitoring & management	Treatment	Support
Total % integrated	100%	17%	42%	75%	67%	0%	17%	83%
Z1	✓		✓	✓	✓			✓
Z2	✓			✓	✓			✓
Z3	✓		✓	✓	✓			✓
Z4	✓		✓	✓	✓			✓
Z5	✓	✓		✓				✓
Z6	✓							✓
Z7	✓			✓	✓			
Z8	✓	✓		✓	✓			✓
Z9	✓							
Z10	✓		✓	✓	✓		✓	✓
Z11	✓							✓
Z12	✓		✓	✓	✓		✓	✓

Challenges with integration as perceived by providers across all three countries



- Limited staff capacity in terms training and knowledge to provide integrated care was the most commonly reported challenge to integration of services
- Funding, space, stockouts of HTN and DM supplies, and challenges tracking clients across departments after referrals were other commonly reported challenges, especially in Malawi and Zambia
- Facilities in South Africa were more likely to report no barriers to integration

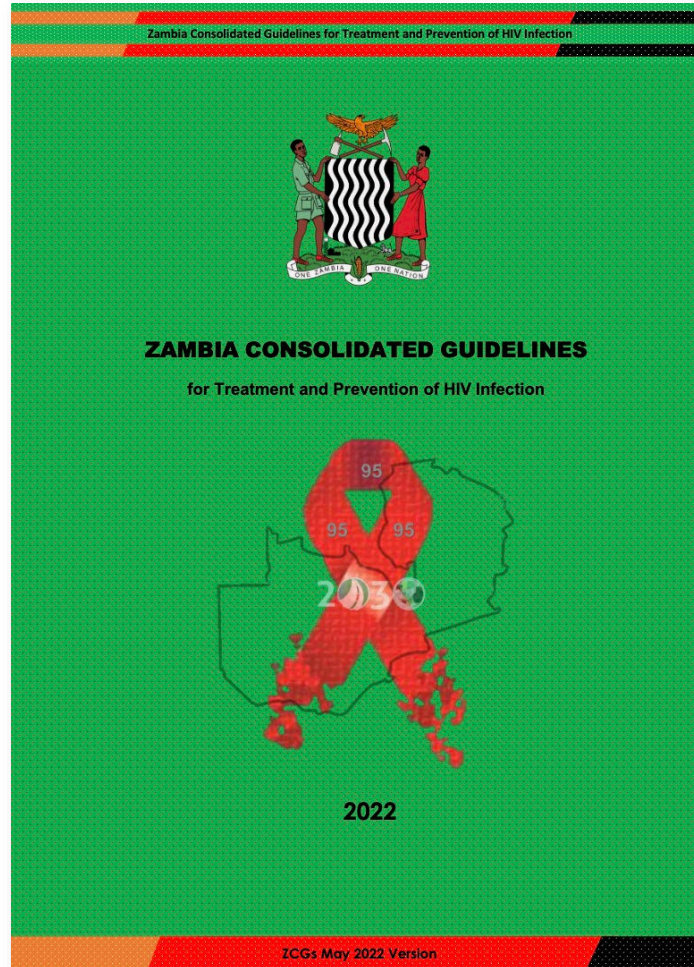
All three countries address some aspects of integration in their national ART guidelines



2022
Clinical Management of HIV
In Children and Adults

Malawi Integrated Guidelines and Standard Operating Procedures for Providing HIV Services in:

- Antenatal Care
- Maternity Care
- Under 5 Clinics
- Family Planning Clinics
- HIV Exposed Child Follow-up
- ART Clinics

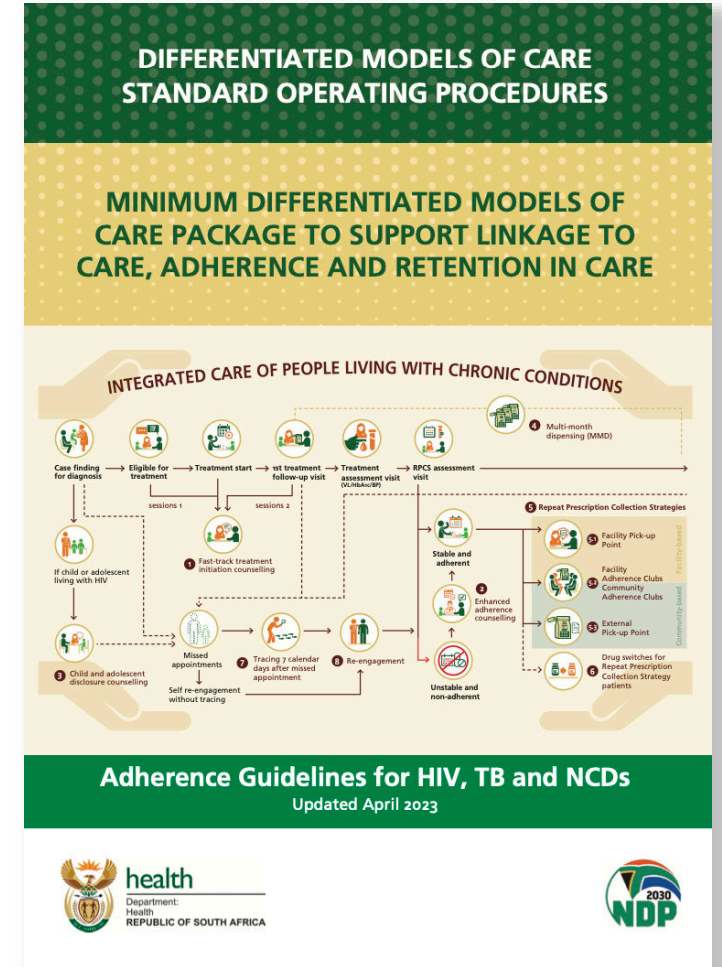


Zambia Consolidated Guidelines for Treatment and Prevention of HIV Infection

ZAMBIA CONSOLIDATED GUIDELINES
for Treatment and Prevention of HIV Infection

2022

ICGs May 2022 Version



DIFFERENTIATED MODELS OF CARE
STANDARD OPERATING PROCEDURES

MINIMUM DIFFERENTIATED MODELS OF CARE PACKAGE TO SUPPORT LINKAGE TO CARE, ADHERENCE AND RETENTION IN CARE

INTEGRATED CARE OF PEOPLE LIVING WITH CHRONIC CONDITIONS

Case finding for diagnosis → Eligible for treatment → Treatment start → 1st treatment follow-up visit → Treatment assessment visit (VLM/ARV) → RPCS assessment visit → Multi-month dispensing (MMD)

Child and adolescent disclosure counselling → Missed appointments → Self re-engagement without tracing → Tracing 7 calendar days after missed appointment → Re-engagement → Stable and adherent → Unstable and non-adherent

Fast-track treatment initiation counselling

Enhanced adherence counselling

Repeat Prescription Collection Strategies:

- 1 Facility Pick-up Point
- 2 Facility Adherence Clubs
- 3 Community Adherence Clubs
- 4 External Pick-up Point
- 5 Drug switches for Repeat Prescription Collection Strategy patients

Adherence Guidelines for HIV, TB and NCDs
Updated April 2023

health
Department:
Health
REPUBLIC OF SOUTH AFRICA


2030
NDP

But the recommendations and level of detail vary widely

Services	Malawi	South Africa	Zambia
① Screening and diagnosis	<ul style="list-style-type: none"> • Blood pressure at ART initiation, then annually • Blood glucose at ART initiation, then annually 	<ul style="list-style-type: none"> • Blood pressure at ART initiation • Urine dipstick for protein and glucose • Blood glucose if deemed at risk 	<ul style="list-style-type: none"> • Blood pressure at every ART visit • Blood glucose at ART initiation then annual • Fasting lipid profile at ART initiation, then annually
② Monitoring and management	<ul style="list-style-type: none"> • No clear guidance on monitoring of NCDs once diagnosed • Testing for complications referred out of ART clinic 	<ul style="list-style-type: none"> • Guided by standard PHC treatment guidelines • Blood pressure checked monthly for first 3 months • HbA1C every 3 months starting month 3 	<ul style="list-style-type: none"> • Baseline creatinine • HbA1C every 3 months • Regular monitoring of blood pressure, foot ulcers, signs of neuropathy • Annual referral for diabetic retinopathy and urinalysis
③ Treatment	<ul style="list-style-type: none"> • Stepped approach to treatment outlined in ART guidelines • ART and NCD cards kept at ART clinic • Align ART and NCD appointments if full integration not possible 	<ul style="list-style-type: none"> • According to PHC essential medicines list • Allows for multi-month dispensing as with ART once client is stable 	<ul style="list-style-type: none"> • Stepped approach to treatment outlined in ART guidelines
④ Support	<ul style="list-style-type: none"> • Emphasis on prevention among those with mild presentation 	<ul style="list-style-type: none"> • Education about lifelong management and goals of management • Encouragement to achieve control to become eligible for CCMDD 	<ul style="list-style-type: none"> • Lifestyle modification is a critical part of prevention and management of NCDs among PLHIV

Hypertension investigations performed as part of HIV care in South Africa (self reported by providers)

	Weight	Blood pressure	Waist circumference	Urine dipstick	Serum creatinine and eGFR	Serum potassium
<i>Timing of tests according to guidelines (in months):</i>	0,1,2,3,6,9,12	0,1,2,3,6,9,12	0	0,12	0,12	0,6,12
Clinic A						
Clinic B						
Clinic C						
Clinic D						
Clinic E						
Clinic F						
Clinic G						
Clinic H						
Clinic I						
Clinic J						
Clinic K						
Clinic L						
Clinic M						
Clinic N						
Clinic O						
Clinic P						
Clinic Q						

 Services offered as per guidelines	Services offered less often than guidelines recommend	Services not offered at this facility	Services offered on unknown schedule	Services offered more than guidelines
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Diabetes investigations performed as part of HIV care in South Africa (self reported by providers)

Timing of tests according to guidelines (in months):	Weight	Blood pressure	Fingerprick blood glucose	Waist circumference	BMI	Urine dipstick	Serum creatinine and eGFR	Serum potassium	HBA1c	Lipogram/cholesterol	Foot examination	Eye exam (screen for retinopathy)
	0,1,2,3,6,9,12	0,1,2,3,6,9,12	0,1,2,3,6,9,12	0	0	0,12	0,12	0,12	3,6,9,12	0	0,12	0,12
Clinic A	Green	Red	Green	Red	Red	Grey	Red	Red	Yellow	Grey	Red	Red
Clinic B	Green	Green	Green	Red	Red	Grey	Red	Red	Yellow	Red	Red	Red
Clinic C	Green	Green	Green	Red	Red	Grey	Red	Red	Yellow	Grey	Red	Red
Clinic D	Green	Green	Green	Red	Red	Red	Red	Red	Yellow	Grey	Red	Red
Clinic E	Green	Yellow	Yellow	Red	Red	Grey	Grey	Red	Yellow	Red	Red	Red
Clinic F	Green	Green	Green	Red	Red	Red	Red	Red	Blue	Grey	Red	Red
Clinic G	Green	Green	Yellow	Red	Blue	Blue	Grey	Red	Grey	Grey	Red	Red
Clinic H	Red	Green	Green	Red	Red	Blue	Grey	Grey	Grey	Blue	Grey	Grey
Clinic I	Green	Green	Green	Red	Red	Blue	Grey	Grey	Grey	Blue	Yellow	Grey
Clinic J	Red	Green	Green	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Clinic K	Red	Red	Green	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Red	Grey
Clinic L	Yellow	Yellow	Green	Red	Blue	Blue	Red	Red	Red	Red	Red	Red
Clinic M	Green	Green	Green	Red	Red	Red	Grey	Red	Yellow	Red	Red	Red
Clinic N	Red	Red	Green	Red	Red	Red	Grey	Red	Yellow	Grey	Red	Red
Clinic O	Red	Red	Green	Red	Grey	Red	Red	Red	Yellow	Grey	Grey	Red
Clinic P	Red	Red	Green	Red	Red	Grey	Red	Green	Grey	Red	Red	Red
Clinic Q	Red	Red	Green	Red	Red	Grey	Red	Red	Grey	Grey	Red	Red



Services offered as per guidelines

Services offered less often than guidelines recommend

Services not offered at this facility

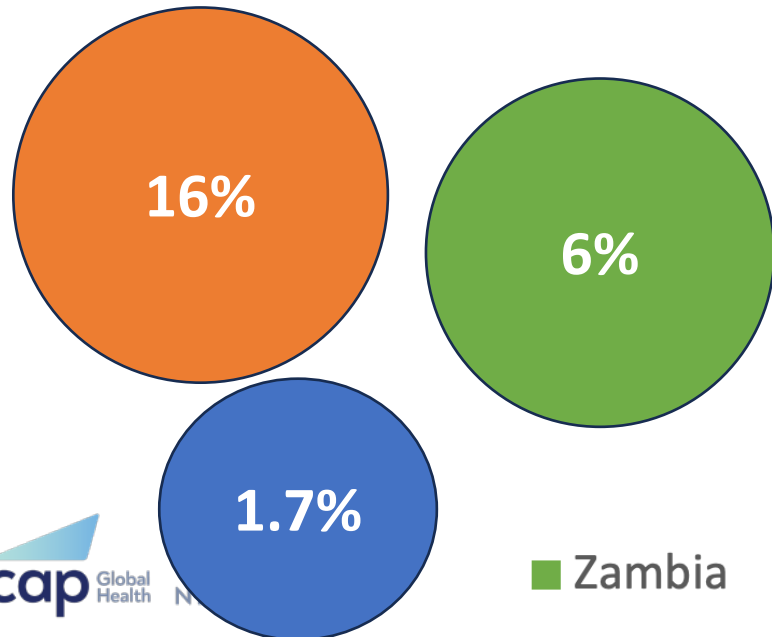
Services offered on unknown schedule

Services offered more than guidelines

Self-reported client experience with integration: Clients already established on HIV treatment (>6 months on ART)

Survey respondents	Zambia N=411		Malawi N=543		South Africa N=724	
Clinical condition	No HT or DM	Self-reported HT or DM	No HT or DM	Self-reported HT or DM	No HT or DM	Self-reported HT or DM
N	386	25	534	9	610	114
Age (median)	37	53	34	47	38	51
Female	69%	84%	71%	89%	76%	79%

% of all clients self-reporting HT and/or DM



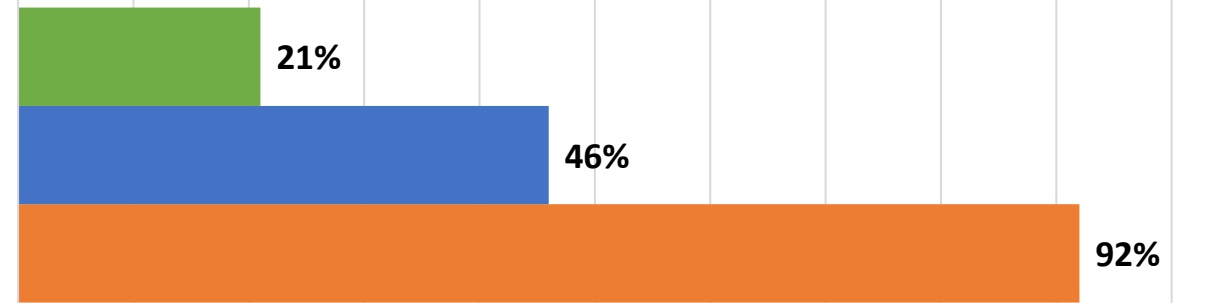
Of those reporting HT and/or DM...

	Zambia	Malawi	South Africa
Hypertension	88%	44%	84%
Diabetes	12%	56%	16%

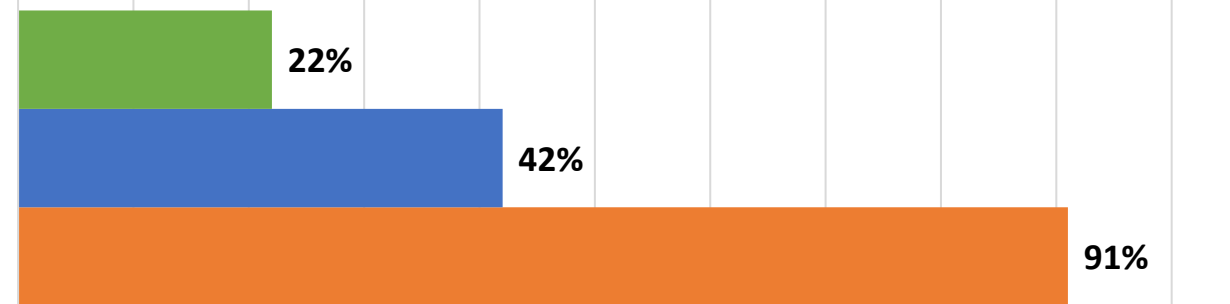
Self-reported client experience with integration: Clients already established on HIV treatment (>6 months on ART)

Among clients with other chronic conditions, the proportion who...

ALWAYS OR ALMOST ALWAYS ABLE TO COMBINE HIV VISITS WITH THE VISITS FOR A COMORBIDITY



ALWAYS OR ALMOST ALWAYS COLLECTS MEDICATION FOR A COMORBIDITY AT THE SAME TIME AS HIV MEDICATION

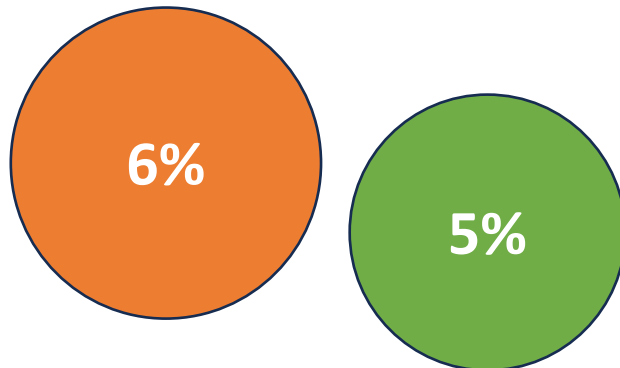


0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Self-reported client experience with integration: first 6 months of HIV treatment (not yet established)

Survey respondents	Zambia (N=771)	South Africa (N=1109)
Age (median)	34	35
Female	67%	72%

% of all clients self-reporting HT and/or DM



Of those reporting HT and/or DM...

	Zambia	South Africa
Hypertension	86%	78%
Diabetes	14%	22%

ART client perspectives on NCD integration in Zambia



“I would prefer where all services for client whose newly initiated or re-initiated on ART being done in one just one room. Not a situation where you are being referred to other departments to receive these other services for different underlying conditions...It’s quite cumbersome when you are on ART and they have to treat these other underlying conditions like BP, diabetes, TB etc. “



*“Even me I was found to have when I came for drug pick up, when they were testing and checking I was found to have BP which was high so it goes together. **If it was not for this program maybe I wouldn’t have known fast that I have [high] BP.** It’s good if both were checked at the same time. “*



*“It’s better that somebody comes to ART clinic for everything because **these health providers that attend to us are the ones that know us** and they're the ones that know that this person is taking treatment and it is easy for them to help us. ART clinic where we can find help for other diseases.”*

FGD respondents in Zambia reflect on NCD integration and...

1. Generally think it would be a good thing to get care for all in one place
2. Perceive it is happening to a certain degree
3. Expressed trust in HIV care system and ART clinic staff

ART client perspectives on NCD integration in South Africa



*“It would be **helpful to get all medication for different ailments in a single consultation.** Getting medication on different dates will be too costly on transportation.”*



*“Here at the clinic, **they make you go through the entire clinic.** When I started taking the treatment they told me I was going to get it from room one because in the other room they are attending to the elderly people. I get there and sit maybe for 30 minutes. When I go to the other side I have to join a queue. I also have to go and check BP. **It all takes time.**”*



*“It would help for health workers [in mobile clinics] to arrive with all the resources needed to help clients...**The health worker needs to come with the blood pressure cuff and finger –prick test for diabetes.** BP and Diabetes are very critical and require attention. They are actually worse than HIV if not treated. This is important so as to give clients the correct medication. ”*

FGD respondents in South Africa reflect on NCD integration and...

- 1. Perceive it is not happening to the extent it should be**
- 2. Generally think it would be a good thing to get care for all in one place, be it from the clinic or mobile clinic**

SPENDING WISELY

Exploring the economic and societal benefits of integrating HIV/AIDS and NCDs service delivery



A recent systematic review by the NCD Alliance suggests that integration of NCD care into HIV clinics...

- May improve clinical outcomes
- Likely does not worsen HIV outcomes
- 85% of economic benefits accrue to clients, not healthcare systems
- Has insufficient evidence regarding cost effectiveness

Acknowledgements

With thanks to:

- Malawi Ministry of Health, Zambia Ministry of Health, and South Africa National Department of Health
- SENTINEL facilities, staff, and clients who participated in our surveys
- Bill and Melinda Gates Foundation
- CQUIN, for inviting us to share our findings.



Thank you!



Note:

Slides and recordings from today's session will be posted on the CQUIN website:

<https://cquin.icap.columbia.edu/>

Q&A/Discussion



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National Department of Health
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Thank you!

