Integration of HTN into HIV Service Delivery in Eswatini

Ms Ginindza Ntombi
NCD Program Manager
MOH Eswatini

Integrating non-HIV Services into HIV Programs
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Introduction

- Eswatini has a high burden of communicable and non-communicable diseases (NCDs), with the latter leading to **46% of deaths in 2019**.
- The **age-standardised mortality rate** across four major NCDs (cardiovascular disease, chronic respiratory disease, cancer and diabetes) and Mental Health was one of the highest in Africa at **1,254/100,000** and **745/100,000** population in males and females, respectively.
- HIV and Tuberculosis (TB) continue to be a major cause of morbidity and mortality in Eswatini.
- Eswatini is listed among **the 41 high TB/HIV burden countries**, with current estimates of TB prevalence at **907/100,000** population.
- Eswatini had 199,947 people receiving antiretroviral therapy in 2021 and has made strong progress towards achieving the 95-95-95 goals for HIV, reaching 94-97-96 in 2021.

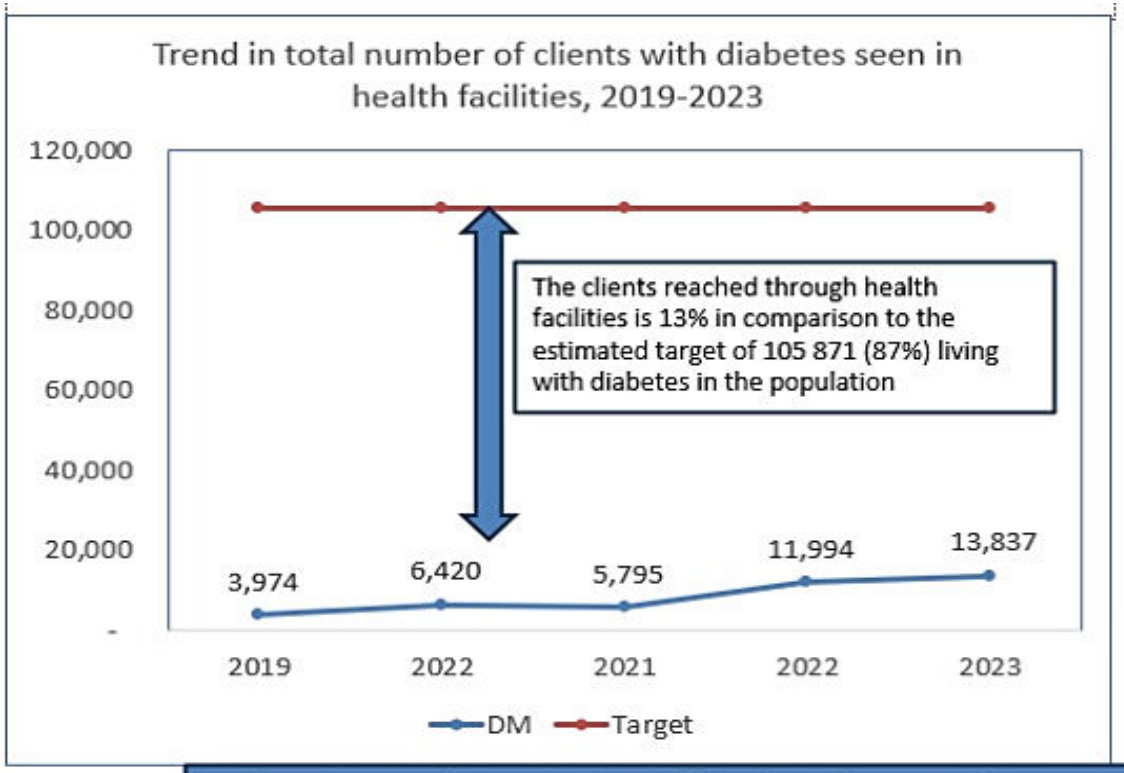
WHO Country disease outlook published August 2023

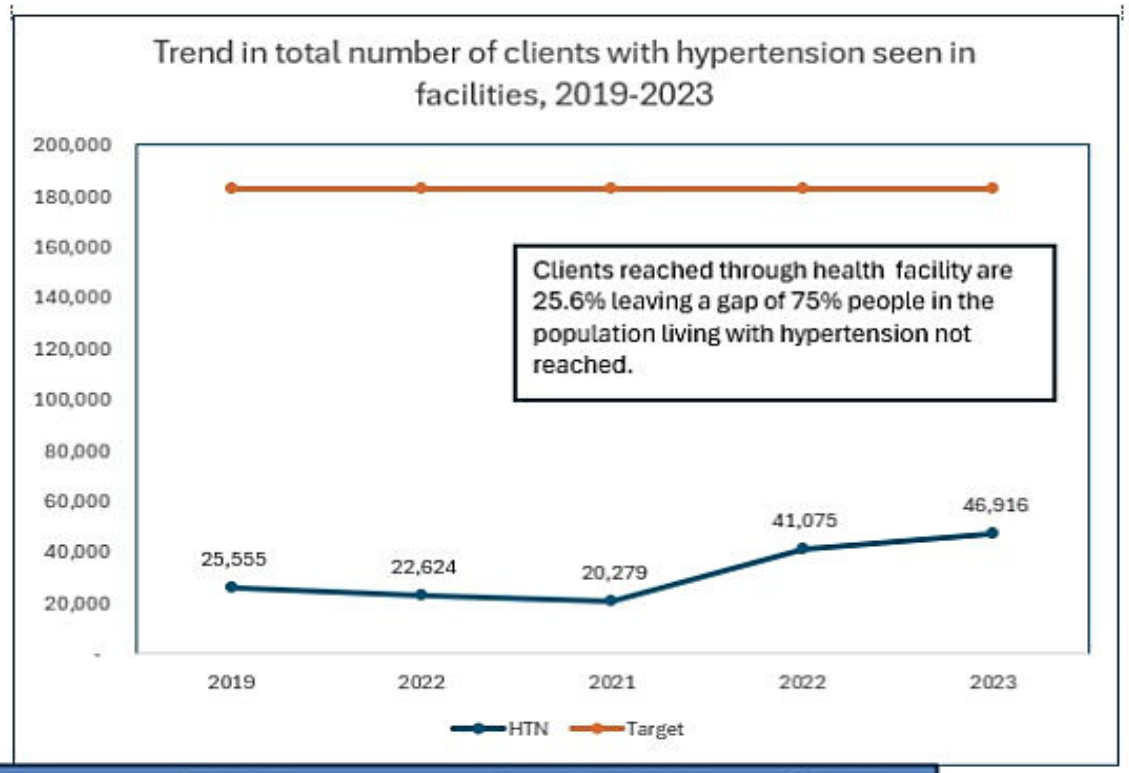
Time series on cause of deaths in Eswatini

TOP 10 cause of deaths	2009	2015	2019	2021
1	HIV/AIDS	HIV/AIDS	HIV/AIDS	Cardiovascular disease
2	TB	LRTI	LRTI	Covid-19
3	LRTI	Ischemic Heart Disease	Diabetes	Respiratory Diseases
4	Diarrhoeal Infections	Cardiovascular disease	TB	Injuries
5	Diabetes	TB	Stroke	Sepsis/Infection
6	Stroke	Diabetes	Ischemic Heart Disease	Chronic Kidney Disease
7	Neonatal Disorders	Diarrhoeal diseases	Diarrhoeal diseases	Cancer
8	Ischemic Heart Disease	Road injuries	Neonatal Disorders	Diabetes
9	Road Injuries	COPD	Road Injuries	Cerebrovascular disease
10	Chronic Kidney Disease	Self-Harm (Mental Health)	Chronic Kidney Disease	HIV related Deaths

Global Burden of Disease reports 2009, 2015, 2019, 2021

Time series on clients' SEEN in health facilities with Hypertension & Diabetes





The Central Statistics Office(CSO) population estimates of 2017 suggests that 182 665 and 105 871 people are living with hypertension and diabetes mellitus, respectively

	STEPs 2014 Prevalence	Projected target by 2023	Health access gap
Diabetes	14.2%	100%	**86.6%**
Hypertension	24.5%	100%	**75.5%**

NCD Annual reports 2019-2023

HIV disease burden in Eswatini

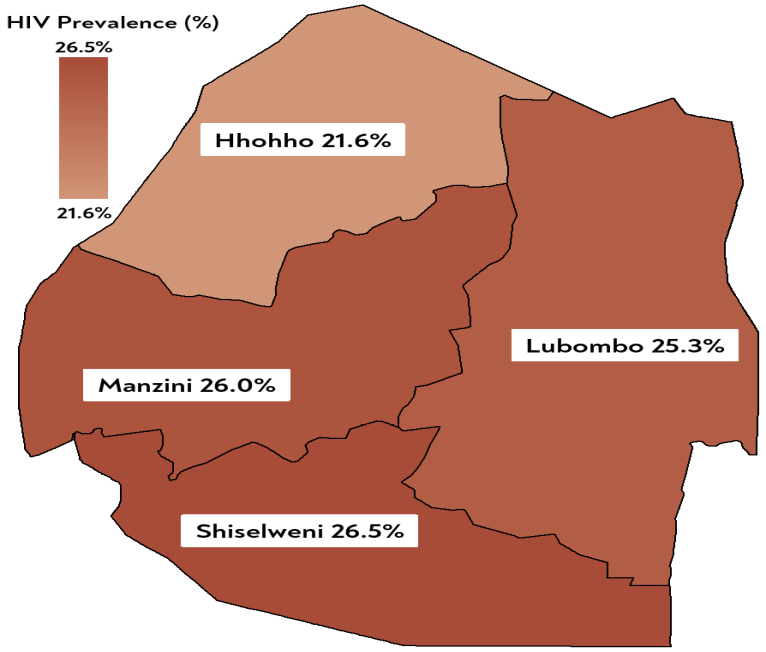
- **Annual incidence of HIV** among adults (aged 15 years and older) **in Eswatini was 0.62%,** which corresponds to approximately 4,000 new cases of HIV per year among adults.
- HIV incidence was nearly **seven times higher among women** (1.11%) than among men (0.17%).
- **Prevalence of HIV** among adults **in Eswatini was 24.8%,** which corresponds to approximately 185,000 adults living with HIV, higher among women (30.4%) than among men (18.7%).
- **Among those aged 25-29 years**, HIV prevalence was **more than 5 times higher among women** than men.
- **Prevalence of VLS** among HIV-positive adults regardless of their knowledge of HIV status or use of antiretroviral therapy (ART) in **Eswatini was 88.6%:** 90.1% among women and 86.1% among men.

SHIMS3 2021 web summary report

HIV disease burden in Eswatini

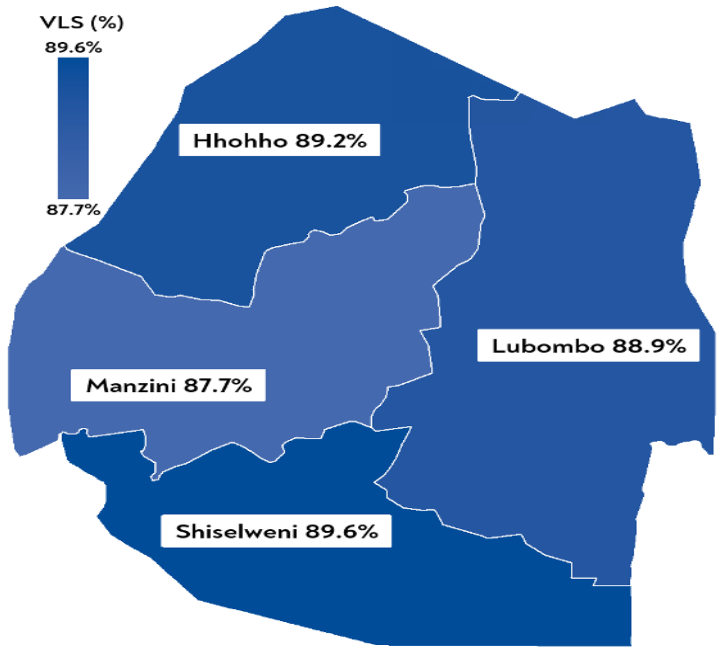
HIV Prevalence by region

Ranges from 21.6% in Hhohho to 25.3% in Shishelweni



Viral Load Suppression (VLS) by region

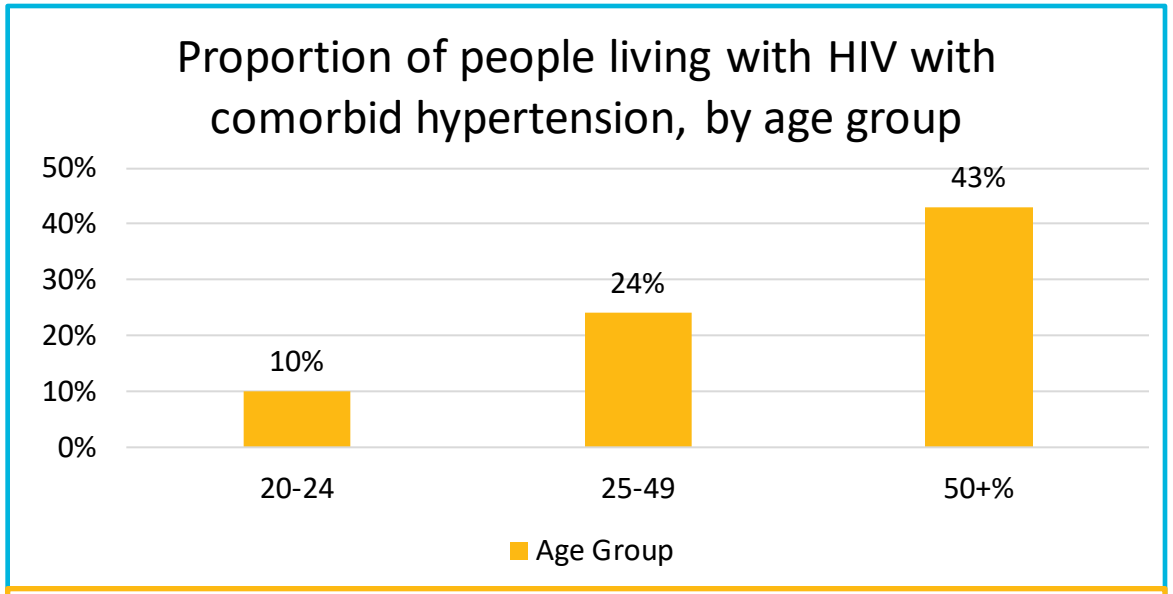
Ranges from 87.7% in Manzini to 89.2% in Hhohho



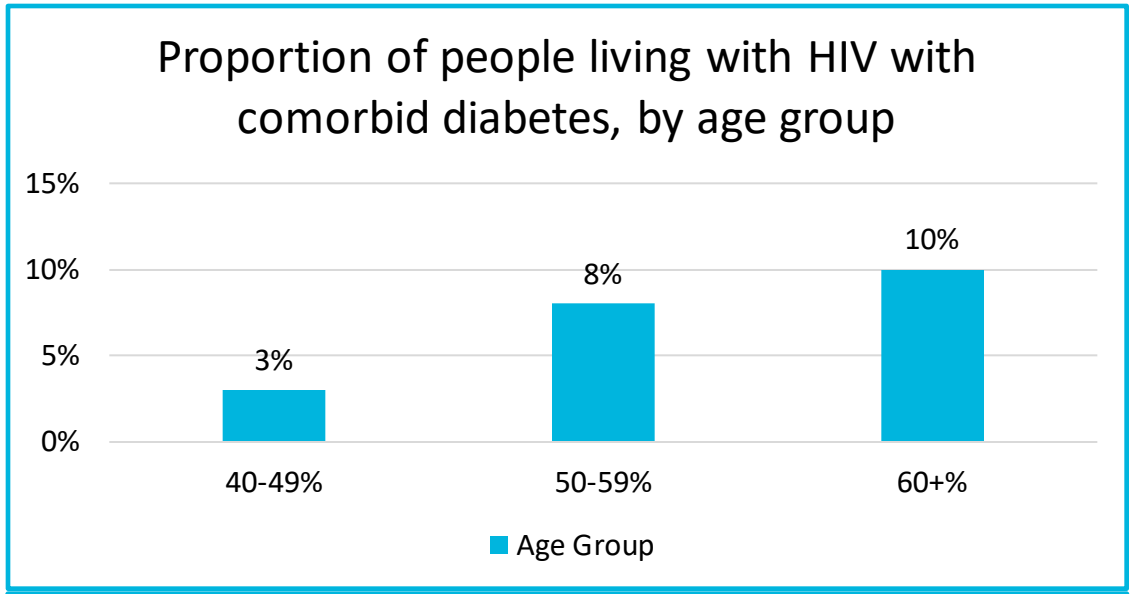
SHIMS3 2021 web summary report

NCD/HIV Comorbidity, ICAP 2016

As treatment success increases for HIV, more people live long enough to develop NCDs, a double burden of disease.



By the age of 50, almost 1 in 2 PLHIV will develop hypertension[1]



By the age of 50, almost 1 in 10 PLHIV will develop diabetes[1]

[1]HEARTS Study, 2016. ICAP

NCD co-morbidity amongst over 40s

Hypertension, diabetes and comorbidities in the WHO-PEN@Scale household survey across Eswatini

	N=10940			N=3760	
	n	%		n	%
Hypertension	2965	27.1	Hypertension and depression	1594	42.4
Diabetes	593	5.4	Hypertension and HIV	800	21.3
			Hypertension and diabetes	778	20.8
			Hypertension, diabetes and depression	362	9.6

The WHO-PEN@Scale household survey described high levels of non-communicable diseases and co-morbidities in the population over 40 years of age.

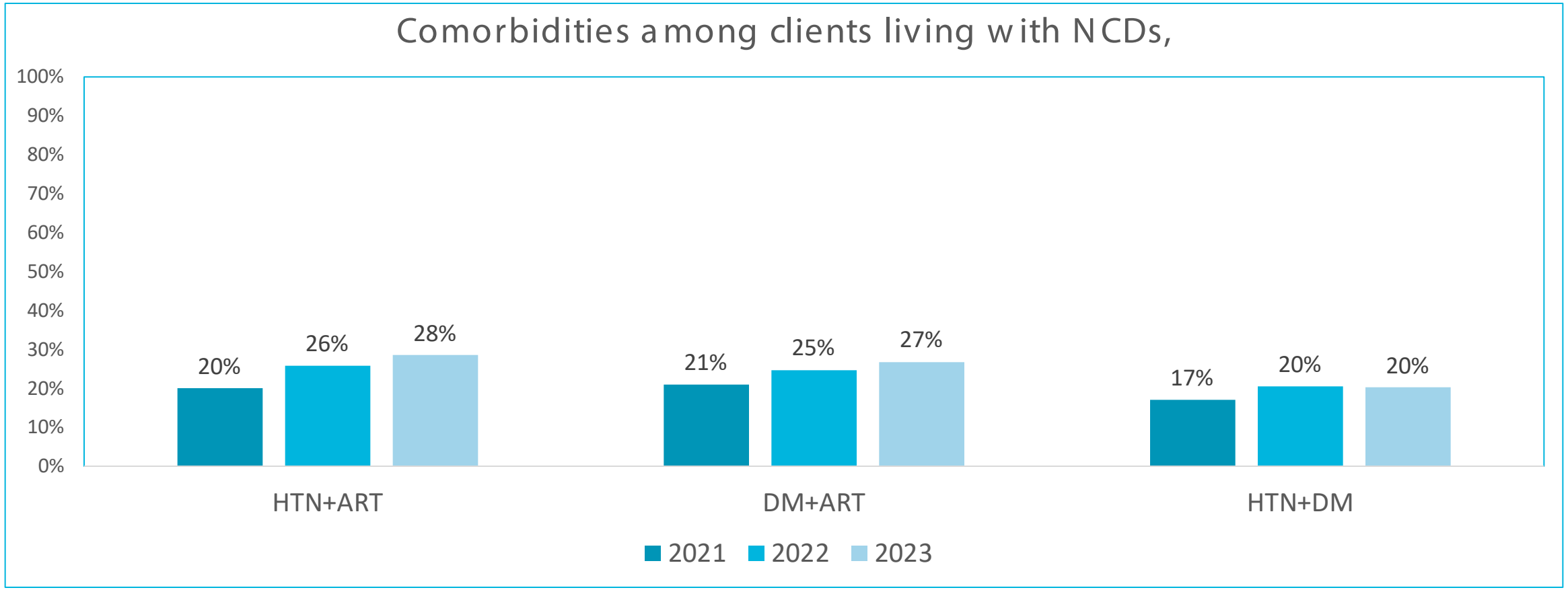
>1 in 4 in 10,940 screened positive for hypertension (27%) and (5%) for diabetes, of these;

- Around ¾ of those with hypertension or diabetes (72%) report more than one condition:
- Almost ½ half (42%) had depression as well as hypertension,
- 21% HIV persons comorbid with HTN and 21% comorbid with HTN & DM.

Living alone and a life history of abandonment created particular vulnerability for co-morbidities and exacerbated disease burden.

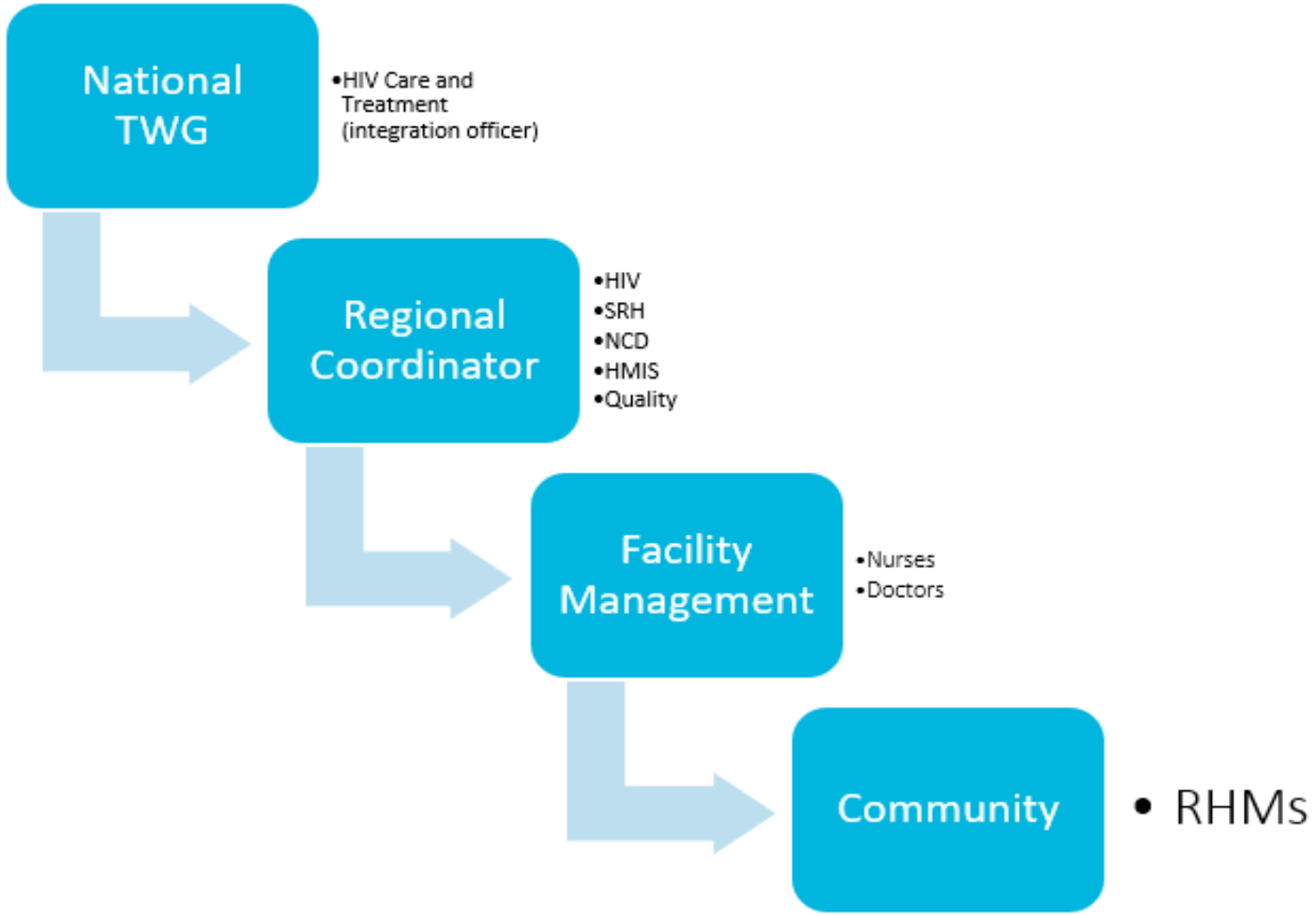
The WHO-PEN@Scale project received funding from the European Union's Horizon 2020 research and innovation programme: grant agreement No 825823

Current co-morbidity trends among clients living with NCDs and HIV



CMIS 2021-2023

Coordination of HIV/NCD Integration



NCD/HIV integration strengths & opportunities

STRENGTHS

- NCD/HIV integration started at primary level facilities
- NCD clients are eligible for up to 3MMD
- >80% of RoCs on ART are on a DTG based ART regimen
- NCD, Mental health, Cervical cancer, HIV related malignancies modules included in HIV training curriculum
- New NCDI Clinical Guidelines incorporating integrated protocols and guidelines
- Chapter 10 of the Integrated HIV Management Guidelines dedicated to NCDs (DM, HTN, HIV related malignancies and Mental Health)
- Standard Operating Procedures for Facility-based Treatment Clubs (FTCs) including Fast Track model.
- Standard Operating Procedures for Community-based Adherence Groups (CAGs)
- NCD, Mental health, Cervical cancer, HIV related Malignancies modules included in HIV training curriculum

OPPORTUNITIES

- MOH recognizes increasing NCD Disease burden and the need for package of care for an aging population of PLHIV with NCDs
- Leverage existing successful models that exist within HIV program to reach high-risk and vulnerable persons (e.g. men and adolescents) to increase NCD case finding and linkage.
- Basic care package for PLHIV indicates NCD screening at baseline and routinely especially for “at-risk” populations e.g., >40, Obese, Family history of diabetes, or with a cardiovascular event
- Opportunities for multi-disciplinary collaboration with specialists such as physicians, psychologists

The Integrated Chronic Disease Management (ICDM) Framework

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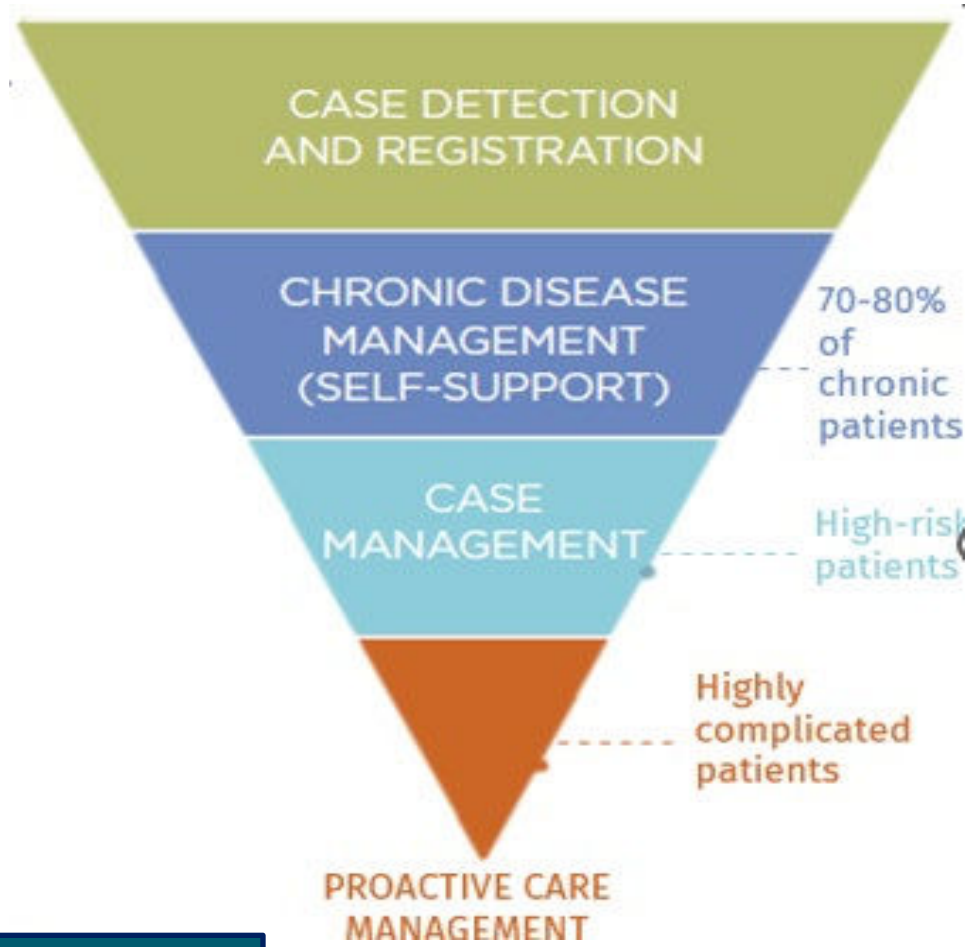
Integrated Chronic Disease Management (ICDM) framework

THE CONTEXT: WHAT IS INTEGRATED CHRONIC DISEASE MANAGEMENT (ICDM)?

- Integrated Chronic Diseases Management (ICDM) is a model of managed care that provides for integrated prevention, treatment and care of chronic patients at primary healthcare level (PHC) to ensure a seamless transition to "assisted" self-management within the community.
- ICDM aims to achieve optimal clinical outcomes for patients with chronic communicable and non communicable diseases (NCDs) using the health system building blocks approach.
- The ICDM model is based on a Public Health approach to empower the individual to take responsibility for their own health, whilst simultaneously intervening at a community/population health service level.
- This approach adopts a systems perspective & addresses interventions across the spectrum of continuity of care that include:
  - Primary prevention through health promotion, early detection, appropriate screening & surveillance
  - Secondary prevention by providing appropriate treatment & care



The main aim is to ensure early detection & appropriate management of high-risk patients

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Chronic diseases to be included in the ICDM

"*Chronic*" refers to a condition that continues or persists and will require management over an extended period.

Chronic Communicable Diseases	Chronic Non Communicable Diseases
• People living with HIV&AIDS	• Hypertension
• All patients with TB receiving medication	• Diabetes
• Down referred Multi-Drug Resistant TB (MDR-TB) patients	• Chronic Obstructive Pulmonary Disease (COPD)
• Mothers that have commenced ART during antenatal period	• Asthma
• Children on the PMTCT program attending with mothers	• Epilepsy
	• Cancers
	• Mental health illness that are managed at PHC level

Eswatini diseases integration progress review

HIV and TB integration

Since 2008, the MoH has made progress to respond to the HIV/TB dual epidemic through the decentralization of integrated HIV/TB care in in public health facilities and communities, that enabled one stop shop access to HIV/TB health care services. By 2021 more than 90% of Eswatini's public health facilities were offering integrated care and treatment to more than 200,000 HIV positive patients and >100,000 TB patients have been treated.

The HIV and TB integration includes:

- **Integrated HIV/TB national program**
- **Integrated HIV/TB national guidelines**
- **Integrated HIV/TB HCWs capacity building**
- **Integrated HIV/TB screening, diagnosis and treatment**
- **Integrated HIV/TB Client Management Information System module (CMIS)**
- **Integrated data review meetings and reporting**

HIV and NCD integration

- **Screening of HIV clients for cervical cancer, diabetes and hypertension**
- **Linkage to care for HIV clients for diabetes and hypertension**
- **Wholistic management of HIV clients with diabetes and/or hypertension**
- **Referral to care for cervical cancer management**

Eswatini diseases integration progress review

Approach

Initial definition

Integrated care defined as a 'one-stop' chronic care facility, where patients with either one or more of the three conditions (HIV, Diabetes and Hypertension) receive care at same triage point, sharing same waiting area, reviewed by the same clinician and given single return appointment if they have more than one condition.

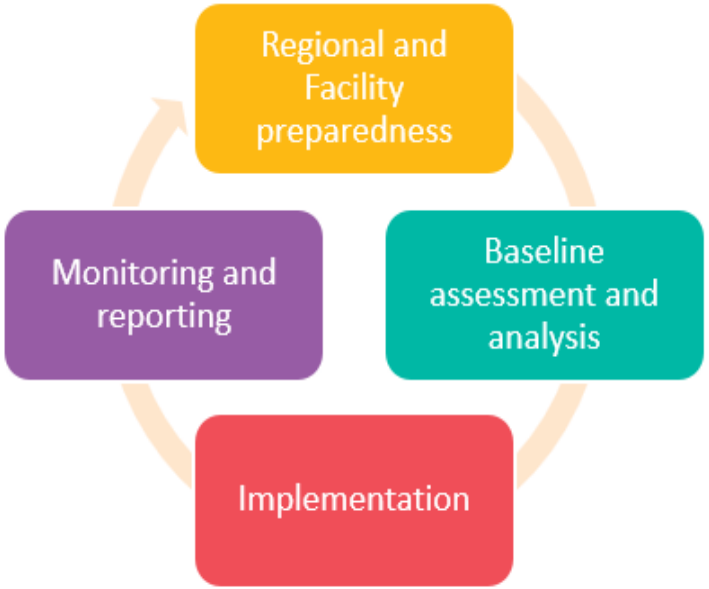
Approach
Implementation of the ICDM model

Step 1 — **Preparedness at national, regional and facility levels**

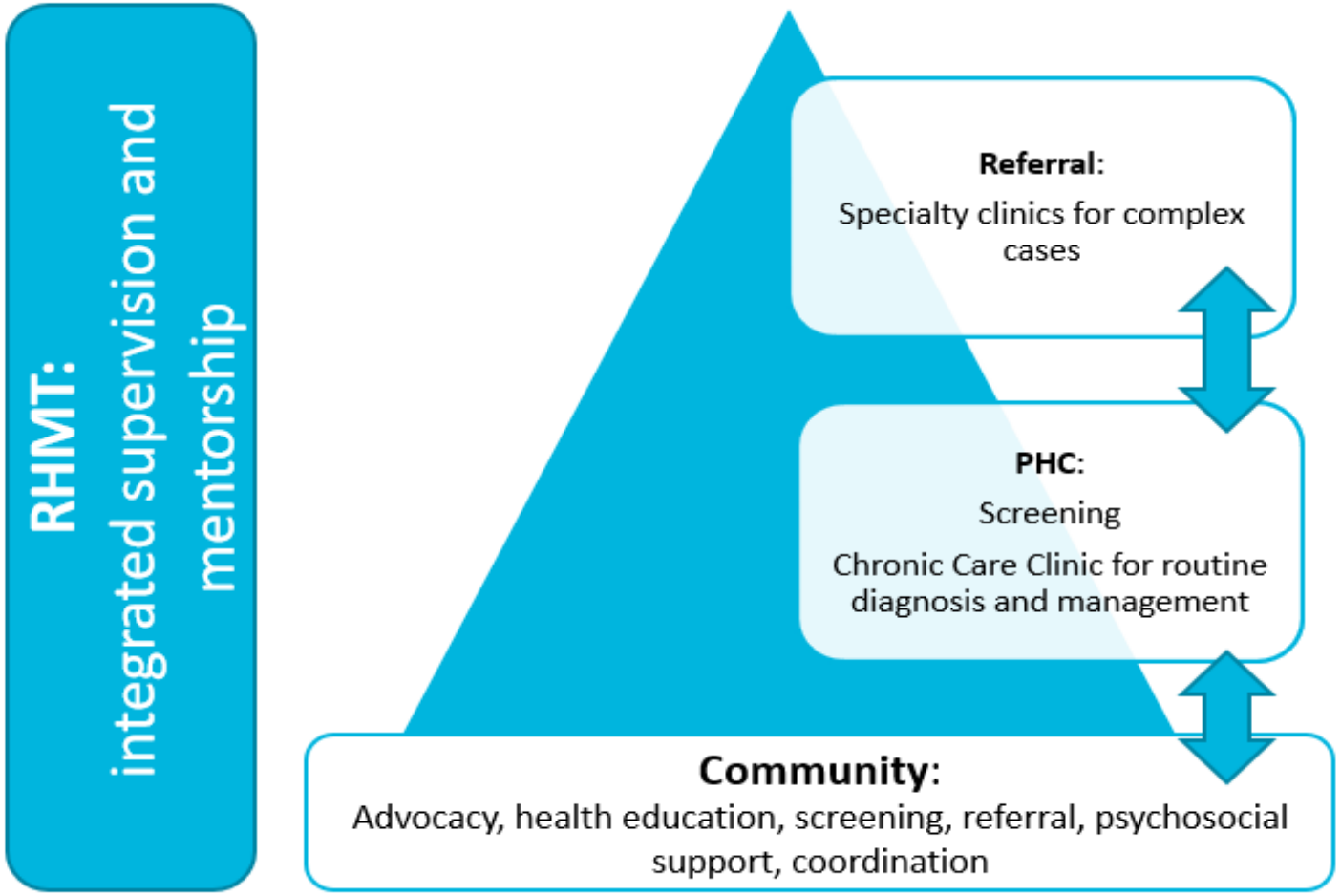
Step 2 — **Baseline assessment and analysis**

Step 3 — **ICDM implementation consisting of 4 phases:**
Phase 1: Facility re-organization
Phase 2: Clinical management support
Phase 3: "assisted" self-management through the down referral of patients to the outreach team
Phase 4: Health system support & strengthening

Step 4 — **Quarterly monitoring & review of progress**



Chronic care requires strong PHC with referral and support structures



Priority Chronic Conditions:

- HIV
- Hypertension
- Cervical dysplasia
- Diabetes
- Mental illness

Primary health care level: ART clinic → "Chronic care clinic"

Rationale:

- ART clinics are already almost fully decentralized
- Currently 50% of 45–49-year-olds are living with HIV; HIV will become increasingly prevalent among the aging population as this cohort ages up, increasing the likelihood of NCD comorbidities
- HIV treatment has already shifted to a chronic care model; same approach can be utilized as a foundation for other chronic conditions, even for those not living with HIV

Potential benefits and risks

Potential Benefits

- Structures (physical and organizational) already in place
- Destigmatization over time – all individuals with a chronic condition would attend, regardless of HIV status
- Efficient use of HRH
- Merged mentorship approach

Potential Risks

- Overcrowding, especially in high-volume sites
- In initial stages, stigma may hinder attendance of HIV-neg NCD clients due to site being known as an “ART clinic”
- Concern from HCW on increased workload

Referral level: maintain specialty clinics for complex cases

- As NCD care becomes decentralized, higher-level hospitals and referral centers should be able to decongest their facilities.
- A need will remain for specialty clinics to attend to more complex patients.
- Referral centers can also serve as a technical backstop for PHCs
- Innovations
  - DSD including multi-month scripting
  - Drug distribution points

References

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Thank You!