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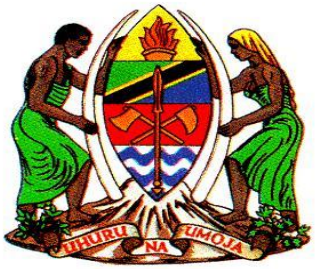

MINISTRY OF HEALTH

ANNUAL HEALTH SECTOR PERFORMANCE PROFILE 2023

June,2024

FOREWORD

The Annual Health Sector Performance Profile Report (AHSPPR) continues to offer a summary of progress made in the Health Sector based on the evaluation of indicators identified in the Fifth Health Sector Strategic Plan 2021-2026 (HSSP V). The report also provides updates on the implementation status of health services within the framework of Sustainable Development Goals (SDGs).

This report provides highlights on the progress, status and gaps in the provision of quality and acceptable standard health care services for all for the year 2023. Based on the identified gaps, a summary of recommendations is set forth for policy improvement and action. The report covers six health building blocks as stipulated in the World Health Organization (WHO) framework and translated in the HSSP V that enabled a comprehensive monitoring of key health sector indicators. The report is thus informed with data generated from multiple sources including DHIS2, program data and surveys as the primary sources.

This report calls for key health sector stakeholders to support the government in realizing the health sector goal as stipulated in the HSSP V and consequently contribute to the overall attainment of the Sustainable Development Goals (SDGs 2030) and Tanzania's Development Vision 2025. The recommendations set out in this report will serve as a framework for development of evidence-based interventions to address the existing Health Sector problems and challenges.

Dr. John A.K. Jingu
PERMANENT SECRETARY

ACKNOWLEDGMENT

This Annual Health Sector Performance Profile Report (AHSPPR) 2023 was developed through a collaborative and inclusive process. We extend our sincere gratitude to the Monitoring and Evaluation (M&E) team for their coordination in report development. Special thanks to the M&E/ICT Technical Working Group (TWG), Ministry of Health (MoH) Management and the Technical Committee of Sector-Wide Approach (TC-SWAP) for their active engagement and participation.

We appreciate the commitment and valuable contributions of officials from the Ministry of Health (MoH) and the President's Office - Regional Administration and Local Government (PO-RALG). Our heartfelt thanks also go to our development partners, implementing partners, faith-based organizations, private sector entities, civil society organizations, and other institutions for their steadfast support in enhancing the health sector.

We would also like to acknowledge the guidance and support provided by the Minister, Deputy Minister, Permanent Secretary, and Deputy Permanent Secretary throughout the report development process.

Prof. Tumaini J. Nagu
CHIEF MEDICAL OFFICER

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EXECUTIVE SUMMARY

This report is intended to provide an evaluation of the annual implementation of the Health Sector Strategic Plan (HSSP V 2021/22 to 2025/26) for the year 2023. The evaluation is based on a set of selected 46 Health Sector indicators agreed among Sector Wide Approach (SWAp) members. These indicators are impact; Health coverage; Risk factor; Health system output including access and quality; and Health system inputs.

Generally, good progress is observed across implemented health interventions, some indicator targets has been achieved while some are on good progress to be attained though few lag behind where collective efforts are required to realize those indicators. Majority of evaluated indicators are generated from the routine Health Information Systems, Population and Housing Census, Health Surveys and from UN estimates. However, some key indicators which rely on surevys were not available during this report writing period. The Ministry of Health is committed to continue allocating funds to conduct surveys to evaluate progress of all HSSP V selected indicators.

For each particular indicator a thorough analysis and detailed report is provided to elaborate achievement, gaps and policy recommendations that are required to accelerate progress towards the set targets. The Table below presents a summary of key achievements for year 2023.

Health indicators status for the HSSP V and SDGs set targets year 2023

No.	Key Selected Indicators	End of HSSP II 2009	End of HSSP III 2015	End of HSSP IV 2020	Status as of 2021	Status as of 2022	Status as of 2023	HSSP V Target 2025/26	Source of data
	Impact Indicators								
1	Life expectancy at birth (years)	51.5	61.8	66	66.9	67.8	67.8	68	Census 2022
2	Total fertility rate	5.7	5.2	4.9	4.9	4.8	4.8	4.2	TDHS - MIS 2022
3	Maternal Mortality Ratio/ 100,000 live births	578	454	556	556	104	104	232	TDHS - MIS 2022
4	Under-five Motality/1,000 live births	112	81	67	67	43	43	38	TDHS - MIS 2022
5	Neonatal Mortality Rate/1,000	45	32	25	25	24	24	15	TDHS - MIS 2022
6	Teenage girls (15-19) who are pregnant or have born a child (%)	22	19	16.5	16	16	16	12	HMIS/TDHS 2022
7		ND	1.00%	0.60%	ND	ND	0.18	0.30%	THIS-2022/23

No.	Key Selected Indicators	End of HSSP II 2009	End of HSSP III 2015	End of HSSP IV 2020	Status as of 2021	Status as of 2022	Status as of 2023	HSSP V Target 2025/26	Source of data
	HIV incidence per 100 adults and young people (15-24)	ND	3.20%	2.40%	ND	ND	0.17	0%	THIS-2022/23
8	PMTCT: Newborns with HIV infection	ND	ND	11.1%	10.89%	6.9%	8.1%	3%	HMIS 2023
9	Malaria parasite prevalence among children 6-59 months (%)	15%	7.5%	7.5%	7.5 %	8%	8%	<3.5 %	TDHS-MIS 2022
10	TB incidence per 100,000 population	452	306	222	208	195	195	162	HMIS 2023
11	Mortality due to NCD (cardiovascular, cancer, chronic respiratory disease and diabetes) at 30-70 years (%)	ND	ND	18%	ND	ND	37.8 %	16.20 %	DHIS2
	Health Coverage indicators								
1	Early antenatal care coverage among pregnant women< 12 weeks	14%	15%	27%	37%	38%	42.9 %	60%	HMIS 2023
2	Demand satisfied with modern FP methods among currently married women 15-49	54%	61%	53%	ND	53%	53%	62%	TDHS - MIS 2022
3	Institutional deliveries (complemented by SBA rate)	51%	54.70 %	83%	81%	81%	85.8 %	85%	HMIS 20122
4	Full immunization coverage among infants	71%	75%	88%	96 (PENTA 3)	53%	53%	85%	2022 TDHS-MIS
5	Use of ITN among children under 5 / among pregnant women	64%/57%	54%/55%	56%/51%	ND	64%/66 %	64% /66 %	80%/ 80%	2022 TDHS-MISS
6	IPTp2 doses among pregnant women	57%	33%	79%	78%	60.1%	89.3 %	85%	2022 TDHS-MIS
7	ART coverage among people living with HIV, with viral load suppression	(-)	60%	85%	95.10%	94.3%	94.3 %	95%	2022-23 THIS
8	TB treatment coverage	-	37%	64%	65%	78%	78%	90%	WHO TB Global report 2023

No.	Key Selected Indicators	End of HSSP II 2009	End of HSSP III 2015	End of HSSP IV 2020	Status as of 2021	Status as of 2022	Status as of 2023	HSSP V Target 2025/26	Source of data
9	Cervical cancer screening coverage among women 30-50 yrs. in last 3 years	ND	65%	79%	70 %	85%	72.5 %	60%	HMIS 2023
10	Adults 15-59 years with hypertension who are on (successful) treatment	37% (2007)	ND	7.3% (2012)	ND	ND	ND	>25%	
11	Adults 15-59 years with diabetes who are on (successful) treatment	ND	ND	9.10%	ND	ND	ND	>25%	
12	Viral hepatitis treatment coverage (B and C)	ND	ND	5% (for each)	ND	ND	ND	50%	
13	Prevalence of blindness	ND	ND	2.80%	ND	ND	ND	1%	
	Risk factor Indicators								
1	Early initiation of breastfeeding among all newborn children	50.80%	53.50 %	91.50 %	90%	70%	92.8 %	65%	2022 TDHS-MIS
2	Children under 5 years who are stunted	34.70%	31.80 %	32%	ND	30%	30%	20%	TDHS - MIS 2022
3	Anaemia prevalence in women 15-49 years/ adolescents 15-19 / under-fives	ND	28.80 %	58% (6-59 months)	ND	ND	59% (6-59 months)	25% reduction for all groups	TDHS-MIS 2022
				45% (15-49 yrs.)	ND	ND	42% (15-49 years)		TDHS-MIS 2022
4	Overweight among adults 15-59 years	29.70%		31.7% women	ND	ND	ND	≤31.7 %	TDHS-MIS 2022
	Obesity among adults 15-59 years	29.70%		11.5% women	ND	ND	ND	≤11.5 %	TDHS-MIS 2022
5	Relative Reduction of Tobacco use among persons aged 15-49 years	ND	ND	14% men	ND	ND	ND	30%	
		ND	ND	1% women	ND	ND	ND	30%	
6	Households with adequate sanitation facilities	ND	ND	24% TMIS 2017	ND	66.5%	72.3 %	>50%	NPS 2022

No.	Key Selected Indicators	End of HSSP II 2009	End of HSSP III 2015	End of HSSP IV 2020	Status as of 2021	Status as of 2022	Status as of 2023	HSSP V Target 2025/26	Source of data
7	Household with safe drinking water source	ND	ND	60% (TMIS 2017)	ND	78.8%	86(Urban) 72.3 (Rural)	>80%	NPS 2022
	Health system outputs indicators including access and quality								
1	OPD utilization per person per year	0.85	0.9	0.85	0.67	0.67	0.78	1	HMIS 2023
2	Number and distribution of health facilities per 10,000 population	1.6	1.8	2.1	1.4	1.5	1.97	2.5	HMIS 2023
3	Hospital admissions per 100 persons per year	0.03	0.05	3.2 (AARC - 0.2%)	2.68	2.74	2.98	4.2	HMIS 2021
4	Essential medicines (tracers) availability	28%	76%	96%	90.5 %	94.5%	92.7 %	>95%	HMIS 2023
5	Percent of hospitals providing essential /comprehensive surgical services with tracer items on the day of the assessment	ND	ND	5% (SARA 2017)	ND	ND	66%	>75%	SARA 2023
6	Caesarean Section Delivery 100 live births	10%	10%	8.00%	11	11.6%	11.6 %	10%	HMIS 2023
7	Percentage of adults and children with HIV known to be on treatment 12 (24; 60) months after initiation of ART	13%	50%	84%	95%	96%	96%	95%	HMIS 2023
8	Emergency preparedness average of 13 core capacities defined by IHR)	ND	ND	Level 3 (average)	Score of 48%	Score of 48%	Level 3-5(41 out 56 indicators , score of 60%)	Level 5 (score of 80%+)	JEE Report 2016 & 2023
9	Quality of care: primary health facilities with 3+ stars (% of all facilities)	ND	18%	21%	14 %	14%	ND	80%	DQA 2022

No.	Key Selected Indicators	End of HSSP II 2009	End of HSSP III 2015	End of HSSP IV 2020	Status as of 2021	Status as of 2022	Status as of 2023	HSSP V Target 2025/26	Source of data
	Health System Inputs indicators								
1	Domestic General Government Health Expenditure (GGHE-D) as percentage of Gross Domestic Product (GDP)	ND	ND	2.60%	2%	2%	2%	5%	PER 2023
2	Government share of the total health budget from all sources (%)	12	12	10%	9.00 %	9.1%	10.3 %	12%	PER 2021
3	Health insurance coverage as % of total population (all schemes)	4%	9%	14%	14.7 %	15.3%	15.3 %	58%	NHIF 2022
4	Health workforce density per 10,000 population and distribution by major cadre (details in HRH plan)	5	5.1	6	6.8	8.9	20%	22%	HRHIS 2023
5	Data accuracy for tracer indicators (Data agreement between source and report documents)	ND	45%	81%	81%	82%	88%	85%	AIG Report (2023)
6	Birth registration: percent of newborns / under fives	3%	26%	47%	65%	65%	68%	90%	RITA 2023/2022 TDHS-MIS

	Key		
1			Target Achieved
2			Good progress likely to be achieved
3			Far from the target

CHAPTER ONE
1. INTRODUCTION

1.1 Background

The Government of Tanzania Mainland is committed to improve health of all Tanzanians and increase life expectancy by providing quality health services that meet the needs of the population. This is guided mainly by two principal documents, the health Policy 2007 and the Health Sector Strategic Plan(s) (HSSP). The health Policy sets a framework of the government commitment for the health sector as well as guidance for several programs and strategies. Strategies are developed to plan realistic targets, prioritize evidence-based interventions and efficient use of available resources. On the other hand, the Health Sector Strategic Plan(s) provides guidance in monitoring and evaluation of health sector achievements against targets over the stated timeframe. The role of the Ministry of Health (MoH) is to provide guidance and leadership for the whole process of assessing the health sector performance, while the President's Office-Regional Administration and Local Government (PO-RALG) is a key implementer of HSSPs and other health programs.

1.2 Health Sector Strategic Plan V (HSSP V) Context

The Health Sector Strategic Plan V (HSSP V) is the guiding reference document for the preparation of the five-year national, regional, council and hospital health strategic plans. It guides the formulation of specific plans and programmes including annual plans at all levels. The document describes types of services which are provided in the health sector as well as roles and responsibilities of each level. It provides strategies which focuses on specific priority areas and also cross-cutting issues which elaborate on approaches towards quality, equity, gender and governance. Consequently, it is an important document in achieving the following vision and mission:

1.2.1 Vision

To have a healthy and prosperous society that contributes fully to to the development of individuals and the nation.

1.2.2 Mission

To provide sustainable health services with standards that are acceptable to all citizens without financial constraints, based on geographical and gender equity.

1.2.3 Goal

According to the Tanzania Vision 2025, health is identified as one of the priority sectors contributing to high quality livelihoods for all Tanzanians. This will be achieved through realization of the following health services goals:

- Access to quality health care for all individuals of appropriate ages;
- Access to quality reproductive health services for all individuals of appropriate ages;
- Reduction in infant and maternal mortality rates by three quarters of baseline levels;
- Universal access to clean and safe water;
- Life expectancy comparable to the level attained by typical middle-income countries;
- Food self sufficiency and food security; and
- Gender equality and empowerment of women in all health parameters.

1.3 Data sources

The information used in compiling the 2022/2023 AHSPPR is from routine activities and surveys. For routine activities, the DHIS2 under the M&E Unit is the main source of statistical data. Population figures were based on the 2022 population census from the National Bureau of Statistics. However, few indicators do not have new data as they rely on household surveys especially the Tanzania Demographic Health Survey (TDHS).

Components of the DHIS2 are the health facility monthly and annual reports. These reports are, like any sources of data, prone to errors associated with incomplete or inaccurate reporting. Other key sources of information include:

i. Sentinel Panel of Districts (SPD)
ii. Human Resources Information System
iii. MoH sections and disease specific programmes
iv. Previous AHPP reports 2021 and 2022
v. NBS population projections 2022
vi. 2016/17 Tanzania HIV Impact Survey
vii. Tanzania Demographic and Health Survey reports

1.4 Population Health Groups in Tanzania

A substantial number of indicators in this report use Population values as their denominators, whereby the major population groups for this report includes Under 1 year, Under 5-years, Adolescents (age 10 – 19 years), Young population (age 15-24 years) as per WHO, Women of Reproductive Age (15 – 49 years), and Elderly (60+ years) population (Table 1.1). The Tanzania's Population size was reported to reach 59.8 million people by the year 2022 (NBS-PHC 2022). The under-five years population constitute 15.4 percent of the all population of Tanzania mainland, while the under one-year population is 3.2 percent of the all population.

On the other hand, the woman of reproductive age (15-49 years) was 47.2 percent of the female population and constitutes 24.2 percent of the total population of Tanzania Mainland.

Table 1: Population Age Groups, 2023

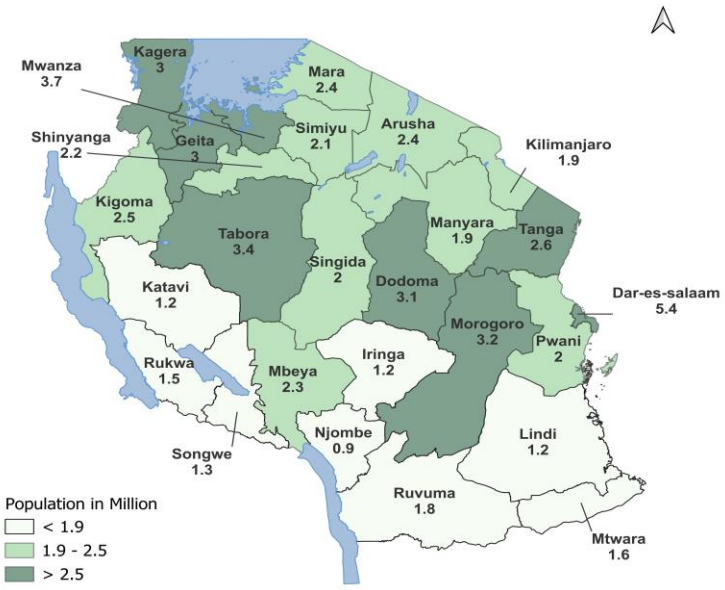
Selected Age Group	Both Sexes	Male	Female	Percentage
Under 1 year	1,910,218	947,649	962,569	3.2
Under 5 year	9,207,432	4,584,972	4,622,460	15.4
Adolescents (10 - 19)	13,849,707	6,920,158	6,929,549	23.1
Young Population WHO (15- 24)	11,463,718	5,474,799	5,988,919	19.2
Women of Reproductive Age (15 - 49) *			14,501,431	47.2
Elderly (60+)	3,406,465	1,546,222	1,860,243	5.7
Total Population	**59,851,347**	**29,137,638**	**30,713,709**	

Source **:** *Population and Housing Census 2022*

1.4.1 Population Distribution by Region

Planning in health sector uses population projections to allocate resources for various interventions including infrastructure development, medical supplies forecasting and human resource for Health. It is important to note that the following criteria are critical for allocation of resources; (i) population size – a greater number of people will present with a greater health needs; (ii) age and sex profiles of populations – the very young and very old have greater health needs than the general population, women have greater health needs than men; (iii) degree of relative/absolute poverty – poverty causes ill health and vice versa; and a 'health-related need' which constitutes a gap between actual and desirable health states. In this view, regions with highest Population such as Dar es Salaam, Mwanza and Tabora (Figure 1 and 2) will require more resources compared to Njombe which has the least population.

Figure 1:Distribution of Population by Region(x1,000,000), Tanzania Mainland 2023



Source: *NBS-PHC 2022*

1.4.2 Health Status of the Population

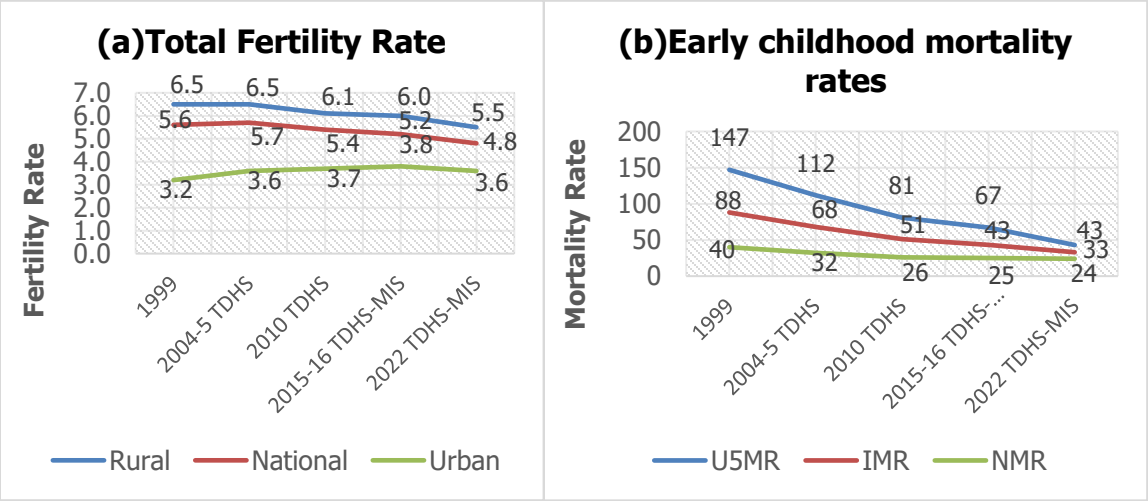
The overall goal of the health sector is to improve the health status of the population which is assessed using demographic indicators. Table 2 shows a health status based on selected indicastors.

Table 2:Demographic Indicators, Tanzania Mainland 2022

Indicators	2021	**2022**	**2023**
Mortality			
Male Life Expectancy	57.9	64.7	64.7
Female Life Expectancy	65.8	68.9	68.9
Total Life Expectancy	66.9	67.8	66.4
Infant Mortality Ratio	25	24	24
Total fertility rate	4.9	4.8	4.8

Source: *TDHS-MIS 2022*

Figure 2:Trend of Fertility and Mortality Rate; 1999 – 2022



Source: *TDHS-MIS 2022*

CHAPTER TWO

2. HEALTH INFRASTRUCTURE AND HEALTH SERVICES

Infrastructure is a crucial element of an effective healthcare system. Within the healthcare context, it encompasses everything from physical buildings and information systems to medical devices. It serves as a vital pillar that upholds the primary goal of enhancing care standards and, consequently, the quality of healthcare services. Providing high-quality health services, along with ensuring equitable geographic access and effective service delivery, are key components of achieving Universal Health Coverage within the country.

2.1. Health Facilities, Hospital Beds and Equipment

2.1.1. Health Facilities

Health facility numbers increased by 6.9% from 11,041 in 2022 to 11,805 in 2023. This comprised 436 hospitals, 11,126 health centres, 7,804 dispensaries, 936 health clinics (inclusive of all types), 1,419 diagnostic services, and 84 other health facilities. Ownership breakdown: 7,008 (59%) government-owned, 1,076 (9%) by Faith Based Organizations, 88 (1%) by Parastatal, and 3,632 (31%) by the Private sector.

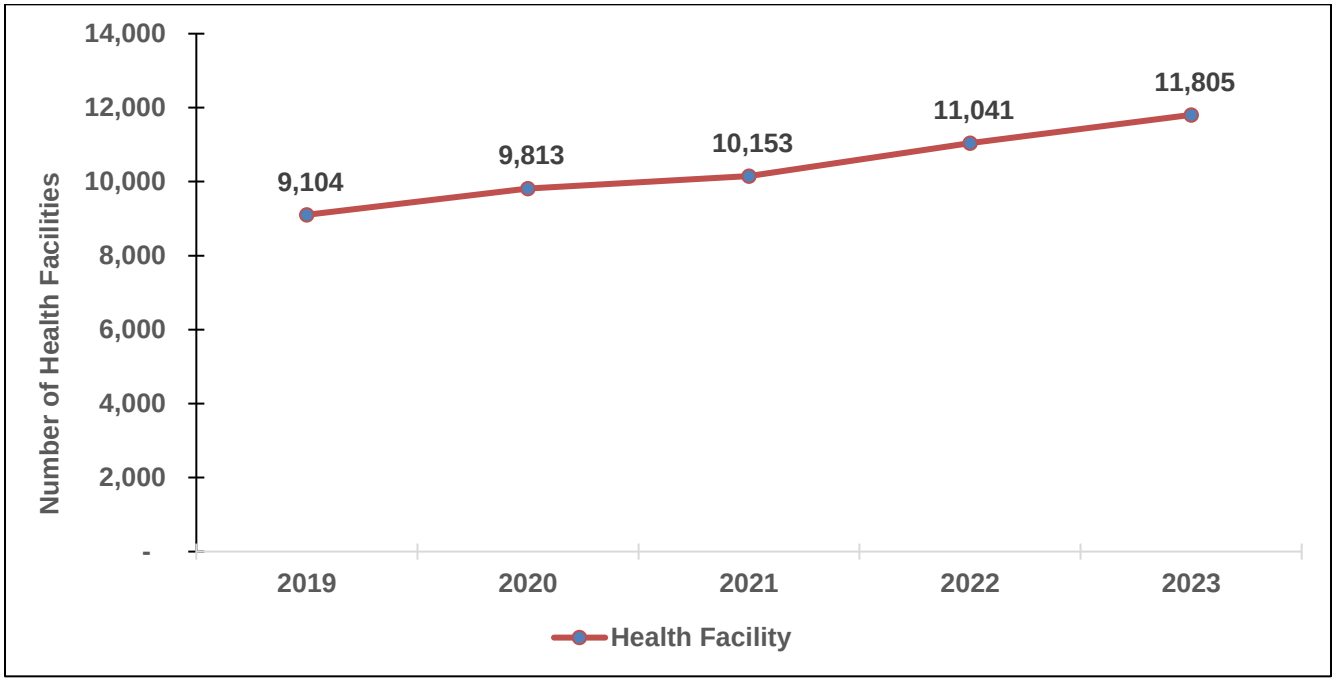
Table 3:Number of Health Facilities, Tanzania mainland; 2023

Functional Health Facilities	Govt	FBOs	Private	Total
National Hospital	1	0	0	1
National Specialized Hospital	6	0	0	6
Zonal Referral Hospital	5	0	0	5
Hospital at Zonal level	1	4	6	11
Regional Referral Hospital	28	0	0	28
Hospital at Regional Level	0	16	18	34
District Hospital	171	0	0	171
Hospital at District level	16	101	63	180
Total Hospital	**228**	**121**	**87**	**436**
Health Centres	831	163	132	1,126
Dispensaries	6,010	714	1,080	7,804
Total Health Facility (Hospital, Health Centre and Dispensary)	**7,069**	**998**	**1,299**	**9,366**
Health clinics	16	73	847	936
Diagnostics (with stand alone Laboratory)	1	5	1,413	1,419
Other Facilities	8	0	76	84
Total all health Facilities	**7,094**	**1,076**	**3,635**	**11,805**

Source: *Health Facility Registry (HFR)*

The number of Health Facilities has increased from 9,104 in 20 to 11,805 in 2023 **(Figure 3)**

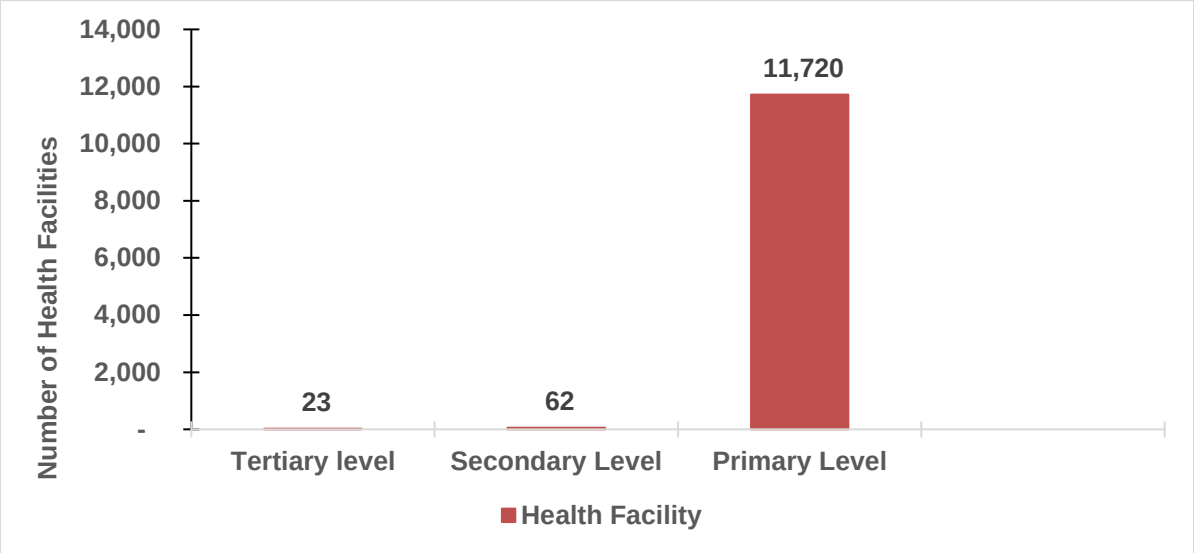
Figure 3:Trend of Health Facilities, in Tanzania mainland; 2019 – 2023



***Source**: Health Facility Registry (HFR)*

Distribution of functional health facilities in Tanzania Mainland for the year 2023 indicates that Tertiary level (National Hospital, National Specialized Hospital, Zonal Referral Hospital, Hospital at Zonal level) constituted 0.2 percent, Secondary level (Regional Referral Hospitals and Hospital at Regional Level) constituted 0.5 percent and Primary level (District Hospital, Health Centres, Dispensaries, Clinics and Others) 99.3 percent **(Figure 4)**

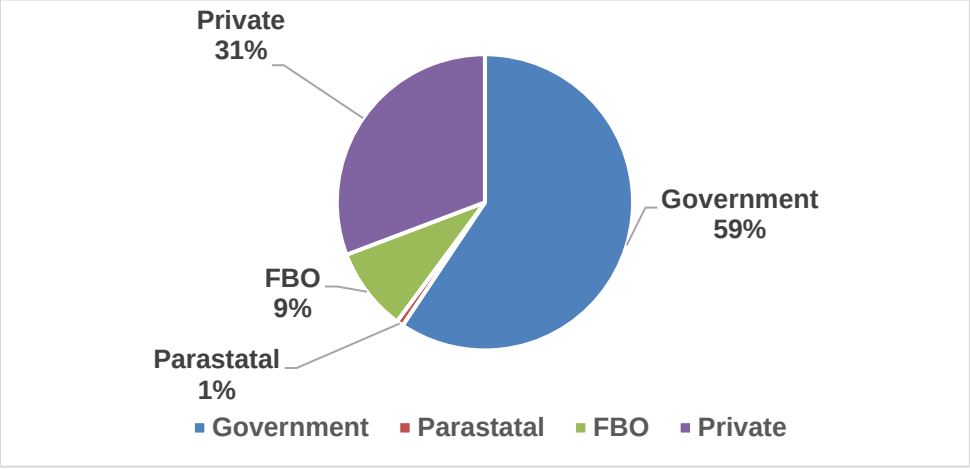
Figure 4:Distribution of functional Health Facilities by Level Tanzania Mainland 2023



Source: *Health Facility Registry (HFR)*

Distribution of functional health facilities year 2023 by ownership it revealed that most of the facilities owned by the government, 7,009 facilities, accounting for 59% are public owned by the government, while 3,631 (31%) are Privately owned, 1,076 (9%) are owned by Faith-Based Organizations (FBOs), and 89 (1%) are Parastatals **(Figure 5)**

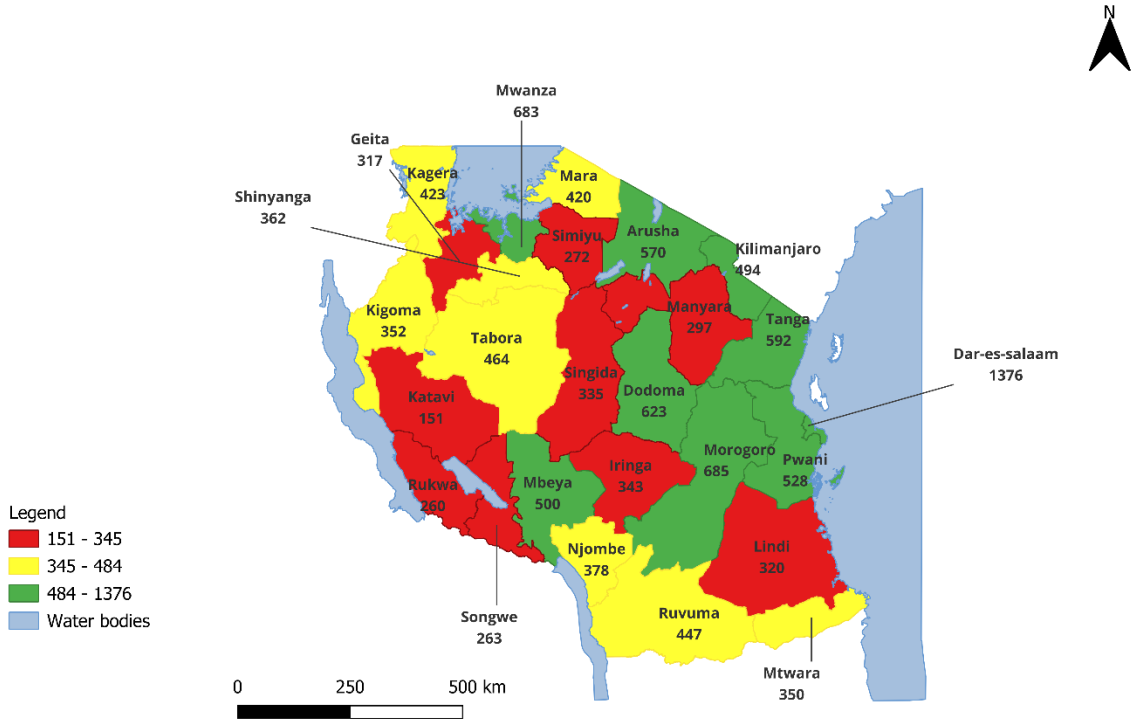
Figure 5:Number of Facilities by Ownership Tanzania Mainland, 2023



***Source**: Health Facility Registry (HFR)*

Distribution of Functional health facilities year 2023 by regions it shows that Dar es salaam is the region with the largest number of health facilities 1376 (11.7%) followed by Morogoro 685 (5.8%) and Mwanza 683 (5.8%) facilities. It also shows that Katavi is the region with the least number of health facilities 151 (1.3%) followed by Rukwa 260 (2.2%) and Songwe 263 (2.2%) facilties as shown in Figure 6.

Figure 6:Distribution of Health Facilities by Regions Tanzania Mainland, 2023



2.1.2. Health Facilities Medical Equipment

Medical equipment is used for the specific purposes of diagnosis and treatment of disease or rehabilitation following disease or injury. Use of medical equipment in hospitals is of greatest importance. They can be used alone or in combination with any accessory, consumable or other piece of medical equipment. The use of equipment allows the medical professions using medical equipment to assess a patient's medical needs.

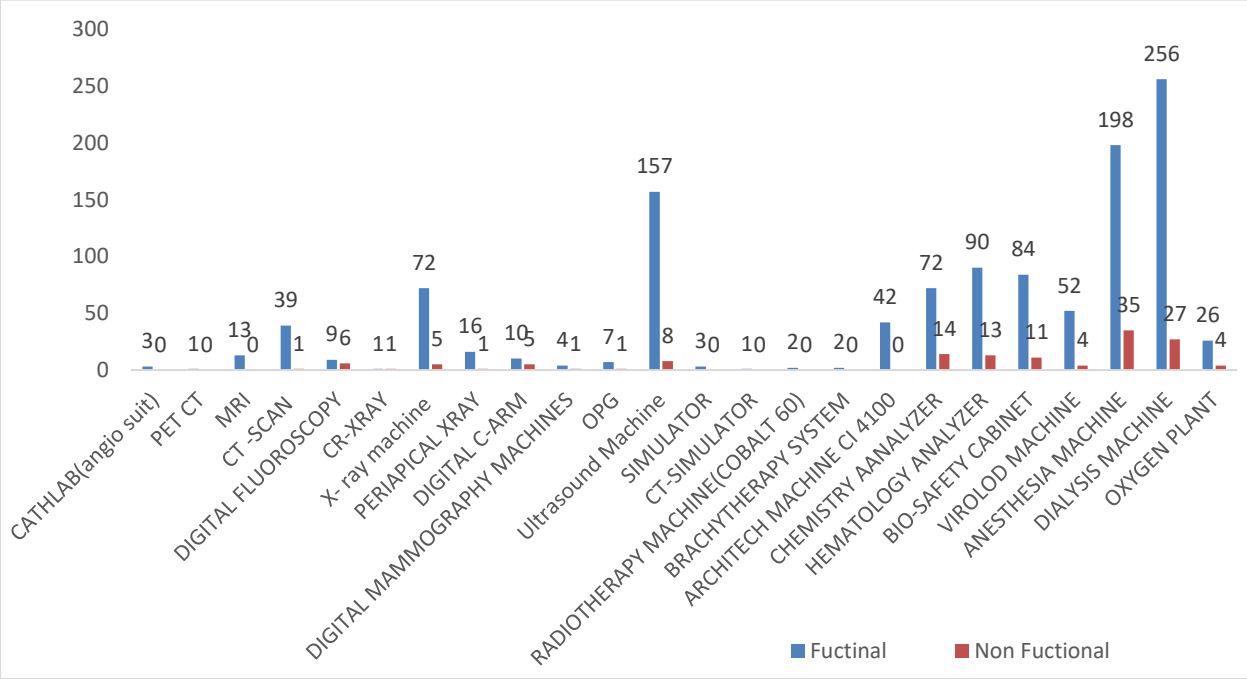
The total of 1,297 medical equipment across National and National Specialized Hospital, Zonal Hospital and Regional Referral Hospital, of which 1,160 are functional and 137 are non-functional (Table 2.2) and (Figure 2.5) shows that there is 283 Dialysis Machines of which 9.5% are not functional, 39 functional CT scan machine while 2.5 % not function, there is 26 functional of oxygen plant in the country, Regional Referral Hospital which have no oxygen plants are Tumbi, Temeke, Singida, Mwananyamara, Mawenzi, Iringa, Bukoba, Arusha and Bombo have 2 plants but not Functional, also there is one PET CT in the Ocean Road Cancer Institute.

Table 4 :Health Facilities Medical Equipment

SN	Medical Equipment name	National & Super specialized Hospital			Zonal Hospital			Regional Referral Hospital			**Grand Total**		
		Functional	Non-Functional	Sub Total	Functional	Non-Functional	Sub Total	Functional	Non-Functional	Sub Total	**Functional**	**Non-Functional**	**Sub Total**
1	CATHLAB (Angio suit)	2	0	2	1	0	1	0	0	0	**3**	**0**	**3**
2	PET CT	1	0	1	0	0	0	0	0	0	**1**	**0**	**1**
3	MRI	6	0	6	7	0	7	0	0	0	13	0	13
4	CT -SCAN	5	1	6	7	0	7	27	0	27	39	1	40
5	DIGITAL FLUOROSCOPY	0	1	1	3	0	3	6	5	11	**9**	**6**	**15**
6	CR-XRAY	1	1	2	0	0	0	0	0	0	**1**	**1**	**2**
7	X- RAY MACHINE	13	3	16	19	0	19	40	2	42	72	5	77
8	PERIAPICAL XRAY	2	0	2	4	0	4	10	1	11	16	1	17
9	DIGITAL C-ARM	5	3	8	4	0	4	1	2	3	**10**	**5**	**15**
10	DIGITAL MAMMOGRAPHY MACHINES	1	1	2	3	0	3	0	0	0	**4**	**1**	**5**
11	OPG	2	0	2	4	0	4	1	1	2	**7**	**1**	**8**
12	ULTRASOUND MACHINE	28	0	28	16	2	18	113	6	119	157	8	165
13	SIMULATOR	3	0	3	0	0	0	0	0	0	**3**	**0**	**3**
14	CT-SIMULATOR	1	0	1	0	0	0	0	0	0	**1**	**0**	**1**
15	RADIOTHERAPY MACHINE (COBALT 60)	2	0	2	0	0	0	0	0	0	**2**	**0**	**2**
16	BRACHYTHERAPY SYSTEM	2	0	2	0	0	0	0	0	0	**2**	**0**	**2**
17	ARCHITECH MACHINE CI 4100	8	0	8	4	0	4	30	0	30	**42**	**0**	**42**
18	CHEMISTRY ANALYZER	16	2	18	15	3	18	41	9	50	**72**	**14**	**86**
19	HEMATOLOGY ANALYZER	12	2	14	21	3	24	57	8	65	**90**	**13**	**103**
20	BIO-SAFETY CABINET	25	3	28	19	3	22	40	5	45	**84**	**11**	**95**

SN	Medical Equipment name	National & Super specialized Hospital			Zonal Hospital			Regional Referral Hospital			**Grand Total**		
		Functional	Non-Functional	Sub Total	Functional	Non-Functional	Sub Total	Functional	Non-Functional	Sub Total	**Functional**	**Non-Functional**	**Sub Total**
21	VIRAL LOAD MACHINE	9	0	9	16	1	17	27	3	30	**52**	**4**	**56**
22	ANESTHESIA MACHINE	44	2	46	52	8	60	102	25	127	**198**	**35**	**233**
23	DIALYSIS MACHINE	54	0	54	78	5	83	124	22	146	**256**	**27**	**283**
26	OXYGEN PLANT	0	2	2	7	0	7	19	2	21	**26**	**4**	**30**
Total		**242**	**21**	263	280	25	305	638	91	729	**1160**	**137**	**1297**

Figure 7:Health Facilities Medical Equipment



2.1.3. Bed Availability in Healthcare Institutions 2023

In Tanzania Mainland, each healthcare facility has a bed capacity that aligns with its designated level and structural design. Bed capacity refers to the total number of beds that a facility can accommodate. The count of accessible beds in both public and private healthcare establishments is used to reflect the provision of inpatient services. The Ministry of Health holds full responsibility for overseeing, inspecting, and ensuring that all health facilities have beds that are robust, secure, and suitable for their intended use.

In 2023 bed capacity was 145,224 while available beds were 129, 284 making a deficit of 15,940 beds. Distribution of the available beds in general and maternity wards 98,170, examination beds 19,722 and delivery beds are 11,392. Dispensaries had more delivery beds and Examination beds than other health facilities (Table 5)

Table 5:Distribution of Facilities Beds by Type of Health Facility – 2023

Type of health facility	Bed Capacity	Available Beds				
		IPD general ward	IPD maternity ward	Examination Beds	Delivery Beds	Total
National, Specialized and Zonal Hospital	9,787	6,767	582	514	120	7,983
Regional Referral Hospital and Hospital at reginal level	19,683	13,472	2,936	1,260	382	18,050
District Hospital and Hospital at District level	42,901	22,145	7,634	2,721	1,218	33,718
Health Centre	33,788	15,150	9,259	3,882	2,489	30,780
Dispensary	37,035	7,595	11,419	10,309	7,071	36,394
Clinics	2,030	904	307	1,036	112	2,359
Total	**145,224**	**66,033**	**32,137**	**19,722**	**11,392**	**129,284**

Table 6 indicate distribution of facilities beds by type and ownership 2023, where by out of 129,284 available beds 88,170 are government ownership 27,946 are faith based organization and 13,168 private ownerships.

Table 6:Distribution of Facilities Beds by Type and ownership of Health Facility – 2023

Type of Facilities	Government	FBO	Private	Total
National Hospital	1,731	0	0	1,731
National Specialized Hospital	1,305	0	0	1,305
Zonal Referral Hospital	1,446	0	0	1,446
Hospital at Zonal Level	581	2,122	798	3,501
Regional Referral Hospital	14,226	0	0	14,226
Hospital at Regional Level	0	2,029	1,795	3,824
District Hospital	16,541	0	0	16,541
Hospital at District Level	1,524	13,245	2,408	17,177
Health Centre	23,066	5,380	2,334	30,780
Dispensary	27,750	4,896	3,748	36,394
Clinics	0	274	2,085	2,359
Total	**88,170**	**27,946**	**13,168**	**129,284**

2.2. Healthcare Facility Services

The responsibility of the government is to ensure the provision of excellent and high-quality healthcare services to its citizens. By doing so, it aims to promote the overall health of the population, enabling them to contribute positively to both individual well-being and the national development. This section outlines the reported cases among outpatients, inpatients, and frequently diagnosed conditions. Table 2.5 indicate health system outputs including accessibility and utilization that Distribution of health facilities per 10,000 population, OPD utilization per person per year and Hospital admissions per 100 person per year.

Table 7:Health system outputs including accessibility and Utilization

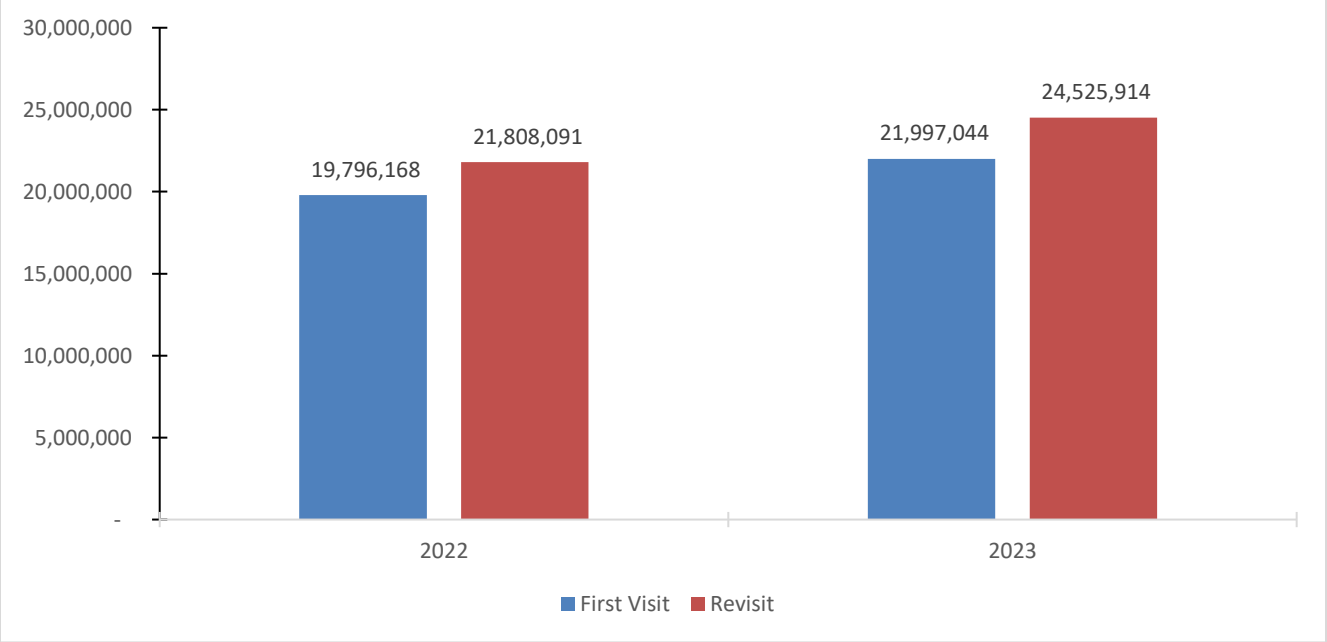
Indicator	Baseline 2020	2022	2023	Target 2025
Distribution of health facilities per 10,000 population	2.1	1.5	1.97	2.5
OPD utilization per person per year	0.85	0.7	0.78	1.2

Hospital admissions per 100 person per year	3.2	2.74	2.98	4.2

2.2.1. Outpatient Attendance (OPD)

The term 'outpatient' denotes an individual who needs medical attention without the necessity of an overnight stay in a hospital. Outpatients are those who receive medical services or treatment at a healthcare facility and then return to their homes on the same day. The attendance of outpatients in the year 2022 was total visits 41,347,690; of which 19,701,496 (47.6%) for first Visit and 21,646,194 (52.4%) for revisit. In year 2023 there were 46,522,958 total visits; of which 21,997,044 (47.3%) were first Visit and 24,525,914 (52.7%) were revisit as shown in (figure 2.6).

Figure 8:Attendance of Outpatients for Tanzania Mainland 2022 – 2023



Source: DHIS2

Additionally, the number of outpatients attending healthcare facilities differed among various age categories. Table 2.6 indicates that the highest attendance was recorded in the age group of 5 years - <60 years, followed by individuals in the age range of 1 year – <5 years.

Table 8:Distribution of Outpatients by Age Groups, 2022-2023

	2022			2023		
Age Group	First visit	Re-Visit	Total	First visit	Re-Visit	Total
Under 1 month	260,230	174,677	434,907	325,006	221,065	546,071
1 month - < 1year	2,162,055	2,186,756	4,348,811	2,558,249	2,653,615	5,211,864
1 year – <5 years	4,593,203	4,886,784	9,479,987	5,073,358	5,662,199	10,735,557
5 years - <60 years	10,468,362	11,589,906	22,058,268	11,673,898	12,810,340	24,484,238
60 years and above	2,310,372	2,969,484	5,279,856	2,366,533	3,178,695	5,545,228
Total	**19,794,222**	**21,807,607**	**41,601,829**	**21,997,044**	**24,525,914**	**46,522,958**

Source: *DHIS2*

2.2.2. Inpatients Attendances (IPDs)

In the year 2023, the number of patients who were hospitalized increased from 1,630,722 in 2022 to 1,782,466 in 2023 as shown in Table 8.

Table 9:Number of new patients who were hospitalized in year 2021- 2023

Age	2021	2022	2023
Under 1 month	67,438	74,992	89,683
1 month - less than 1year	120,475	123,536	152,209
1 year - Less than 5 years	256,279	248,752	287,109
5 years - Less than 60 years	991,892	974,280	1,046,356
60 years and above	226,244	209,162	207,109
Total	**1,662,328**	**1,630,722**	**1,782,466**

Source: *DHIS2*

2.2.3. Most Commonly Diagnosed Diseases

The diagnoses most frequently recorded in healthcare facilities are crucial for recognizing and addressing the medical needs of the community. This part highlights the top 10 diagnoses for both outpatients and inpatients showing the range of conditions managed in medical centers. Understanding these trends is vital for ensuring the efficient and effective use of healthcare resources.

2.2.4. Top Ten Leading Outpatient Diagnoses

Table 10 shows that, the top ten leading outpatient diagnoses (All ages) for the two consecutive years, 2022 and 2023 were Upper Respiratory Infections, Urinary Tract Infections, Malaria, Severe & Non-Severe Pneumonia, Diarrhea with No Dehydration, Hypertension, Intestinal Worms, and Non-Fungal Skin Infections.

Table 10:Top Ten causes of Outpatient Attendance 2022-2023

Rank	Diagnosis	2022	%	Diagnosis	2023	%
1	Upper Respiratory Infections	9,520,350	24.17	Upper Respiratory Infections	11,250,421	25.23
2	Urinary Tract Infections	5,173,902	13.14	Urinary Tract Infections	5,652,295	12.67
3	Malaria (BS +Ve, mRDT +Ve & Clínica)	3,467,786	8.81	Malaria (BS +Ve, mRDT +Ve & Clínica)	3,537,132	7.93
4	Pneumonia, Severe & Non-Severe	1,752,006	4.45	Pneumonia, Severe & Non-Severe	1,889,286	4.24
5	Diarrhea With No Dehydration	1,456,723	3.7	Diarrhea With No Dehydration	1,750,798	3.93
6	Hypertension	1,383,013	3.51	Hypertension	1,602,774	3.59
7	Other Non-Infectious GIT Diseases	1,208,166	3.07	Other Non-Infectious GIT Diseases	1,490,933	3.34
8	Intestinal Worms	1,031,617	2.62	Intestinal Worms	1,108,629	2.49
9	Dental Caries	864,740	2.2	Peptic Ulcers	1,056,298	2.37
10	Skin Infection, Non-Fungal	857,955	2.18	Skin Infection, Non-Fungal	1,022,583	2.29

Source: *DHIS2*

Regional distribution of Upper Respiratory Infection, which remained the most common condition in both 2022 and 2023.

Table 11. illustrates that Upper Respiratory Infections, Malaria (Blood Smear Positive, mRDT Positive, and Clinical), consistently ranked as the top outpatient diagnoses among children under five ages for both 2022 and 2023 years.

Table 11:Top Ten Leading Opd Diseases Among Under Fives 2022 - 2023

No.	Diagnoses	2022 (% out of all diagnoses)	Diagnoses	2023 (% out of all diagnoses)
1	Upper Respiratory Infections	36.5	Upper Respiratory Infections	38.7
2	Malaria (BS +Ve, mRDT +Ve & Clinical)	12.1	Malaria (BS +Ve, mRDT +Ve & Clinical)	10.6
3	Urinary Tract Infections	8.5	Diarrhea with No Dehydration	8.5
4	Diarrhea with No Dehydration	7.9	Urinary Tract Infections	7.6
5	Pneumonia, Severe & Non-Severe	7.6	Pneumonia, Severe & Non-Severe	7.3
6	Skin Infection, Non-Fungal	3.7	Skin Infection, Non-Fungal	3.9
7	Other Non-Infectious GIT Diseases	3.5	Other Non-Infectious GIT Diseases	3.8
8	Intestinal Worms	3.0	Intestinal Worms	2.9
9	Skin Infection – Fungal	2.2	Diarrhea with Some Dehydration	2.3
10	Diarrhea With Some Dehydration	2.1	Skin Infection - Fungal	2.2

Source: *DHIS2*

Table 12. illustrates that Upper Respiratory Infections and Urinary Tract Infections consistently ranked as the top outpatient diagnoses among children among five age and above for both 2022 and 2023 years.

Table 12:Top Ten Leading Opd Causes Of Diseases Among Five Years And Above 2022 - 2023

No.	Diagnoses	2022 (% out of all diagnoses)	Diagnoses	2023 (% out of all diagnoses)
1	Upper Respiratory Infections	18.9	Upper Respiratory Infections	18.9
2	Urinary Tract Infections	16.0	Urinary Tract Infections	15.9
3	Malaria (BS +Ve, mRDT +Ve & Clinical)	7.5	Malaria (BS +Ve, mRDT +Ve & Clinical)	6.8
4	Hypertension	5.4	Hypertension	5.6
5	Peptic Ulcers	3.3	Peptic Ulcers	3.7
6	Pneumonia, Severe & Non-Severe	3.0	Other Non-Infectious GIT Diseases	3.2
7	Other Non-Infectious GIT Diseases	3.0	Pneumonia, Severe & Non-Severe	2.7
8	Diabetes Mellitus	2.6	Diabetes Mellitus	2.6

9	Intestinal Worms	2.5	Intestinal Worms	2.4
10	Other Surgical Condition	2.1	Rheumatoid and Joint Diseases	2.1

Source: *DHIS2*

2.2.5. Top Ten Leading Admission Diagnoses

Table 13 shows that, Malaria, Severe and non-severe Pneumonia and Severe & Mild/Moderate Anemia persistently remained the top leading causes of admissions for the two consecutive years (2022 and 2023).

Table 13:Top Ten Leading Causes of Admission, 2022-2023

Rank	Diagnosis	2022	%	Diagnosis	2023	%
1	Malaria (BS +Ve, mRDT +Ve & Clinical)	177,491	16.69	Malaria (BS +Ve, mRDT +Ve & Clínica)	204,347	16.57
2	Pneumonia, Severe & Non-Severe	157,473	14.81	Pneumonia, Severe & Non-Severe	180,282	14.62
3	Anemia, Severe & Mild/Moderate	96,297	9.05	Anemia, Severe & Mild/Moderate	101,442	8.23
4	Urinary Tract Infections	82,276	7.74	Urinary Tract Infections	86,625	7.03
5	Acute Diarrhoea (<14 Days)	63,386	5.96	Acute Diarrhoea (<14 Days)	76,614	6.21
6	Hypertension	61,117	5.75	Hypertension	65,272	5.29
7	Upper Respiratory Infections	44,394	4.17	Upper Respiratory Infections	54,140	4.39
8	Peptic Ulcers	41,703	3.92	Peptic Ulcers	50,539	4.1
9	Gynecological Diseases	37,860	3.56	Gynecological Diseases	43,026	3.49
10	Diabetes Mellitus	33,803	3.18	Diabetes Mellitus	36,156	2.93

Source: *DHIS2*

Table 14 show that Pneumonia, Severe & Non-Severe and Malaria (BS +Ve, mRDT +Ve & Clinical) consistently ranked as the top admission diagnoses among children under five years for both 2022 and 2023 years.

Table 14:Top Ten Leading Causes Of Admission Among Under Fives 2022 - 2023

S/N	Diagnoses	2022 (% out of all diagnoses)	Diagnoses	2023 (% out of all diagnoses)
1	Pneumonia, Severe & Non-Severe	26.98	Pneumonia, Severe & Non-Severe	28.15
2	Malaria (BS +Ve, mRDT +Ve & Clinical)	19.88	Malaria (BS +Ve, mRDT +Ve & Clinical)	19.75
3	Acute Diarrhoea (<14 Days)	12.46	Acute Diarrhoea (<14 Days)	13.33

4	Anaemia, Severe & Mild/Moderate	9.1	Anaemia, Severe & Mild/Moderate	8.32
5	Upper Respiratory Infections	5.26	Upper Respiratory Infections	5.68
6	Low Birth Weight and Prematurity Complication	5.14	Low Birth Weight and Prematurity Complication	5.34
7	Urinary Tract Infections	4.32	Birth Asphyxia	3.35
8	Birth Asphyxia	3.53	Urinary Tract Infections	3.26
9	Burn	1.4	Burn	1.28
10	Sickle Cell Disease	1.23	Sickle Cell Disease	1.24

Source: *DHIS2*

Table 15 Malaria (BS +Ve, mRDT +Ve & Clinical) and Urinary Tract Infections consistently ranked as the top admission diagnoses among children five years and above for both 2022 and 2023 years.

Table 15:Top Ten Leading Causes Of Admission Among Five Years And Above 2022 - 2023

No.	Diagnoses	2022 (% out of all diagnoses)	Diagnoses	2023 (% out of all diagnoses)
1	Malaria (BS +Ve, mRDT +Ve & Clinical)	15.04	Malaria (BS +Ve, mRDT +Ve & Clinical)	14.93
2	Urinary Tract Infections	9.55	Urinary Tract Infections	8.98
3	Anaemia, Severe & Mild/Moderate	9.05	Anaemia, Severe & Mild/Moderate	8.18
4	Hypertension	8.6	Hypertension	7.93
5	Pneumonia, Severe & Non-Severe	8.39	Pneumonia, Severe & Non-Severe	7.61
6	Peptic Ulcers	5.71	Peptic Ulcers	5.99
7	Gynaecological Diseases	5.19	Gynaecological Diseases	5.11
8	Diabetes Mellitus	4.74	Diabetes Mellitus	4.36
9	Fractures	3.87	Fractures	3.76
10	Road Traffic Accidents	3.63	Upper Respiratory Infections	3.72

Source: *DHIS2*

Challenges

i. Along with ongoing efforts, Upper Respiratory Infections, Malaria (BS +Ve, mRDT +Ve & Clínica) continues to rank high among the most common reasons for outpatient visits and hospital admission.
ii. Prevalence of hypertention, diabetis mellitus and injury are still high

Policy Recommendations

i. More attention and investments be directed to prevent and control infectious diseases NCDs and injuries to address the growing trends
ii. Strengthening technical and clinical supportive supervision in all areas of interventions and health facility levels to speed up prevention and control of all diseases.

CHAPTER THREE
3. REPRODUCTIVE, MATERNAL, NEONATAL CHILD AND ADOLESCENT HEALTH (RMNCAH)

3.1. Introduction

The Government of Tanzania has been strengthening and improving access and quality of Reproductive, Maternal, Neonatal Child and Adolescent Health (RMNCAH) services that appeal to women, men and young people. This is demonstrated by the positive changes in service utilization along the continuum of care especially in Antenatal fourth visits, institution delivery, PMTCT, postnatal, immunization and family planning services.

3.2. Reproductive Health for Cancer (RHCA)

Reproductive cancers are among the commonest cancers in the country. Table 16 shows decrease in the percentage of women aged 30 – 49 years screened for cervical cancer from 57.8% in 2022 to 53.2% in 2023. The decrease is attribute to stock out of acetic acid and breakdown of machines used for treatment. Furthermore, the percentage of women treated for precancerous lesions increased from 68.2% in 2022 to 75.6% in 2023. Number of facilities with trained provider and equipment for cervical cancer screening increased from 750 in 2022 to 997 in 2023.

Table 16:Indicators of Reproductive Health for Cervical Cancer

S/N	INDICATOR	2022	2023
1	Number of women screened (total)	669,755	601,922
2	Number of women aged 30-49 years screened for cervical cancer for the first time	387,283	320,545
3	Percentage of women aged 30 – 49 years screened for cervical cancer for the first time	57.8%	53.2%
4	Percentage CECAP First visit clients with VIA positive results	2.3%	2.1%
5	Percentage of all VIA positive clients treated	68.2%	75.6%
6	Percentage of all screened clients with suspected cervical cancer	0.83%	0.89%

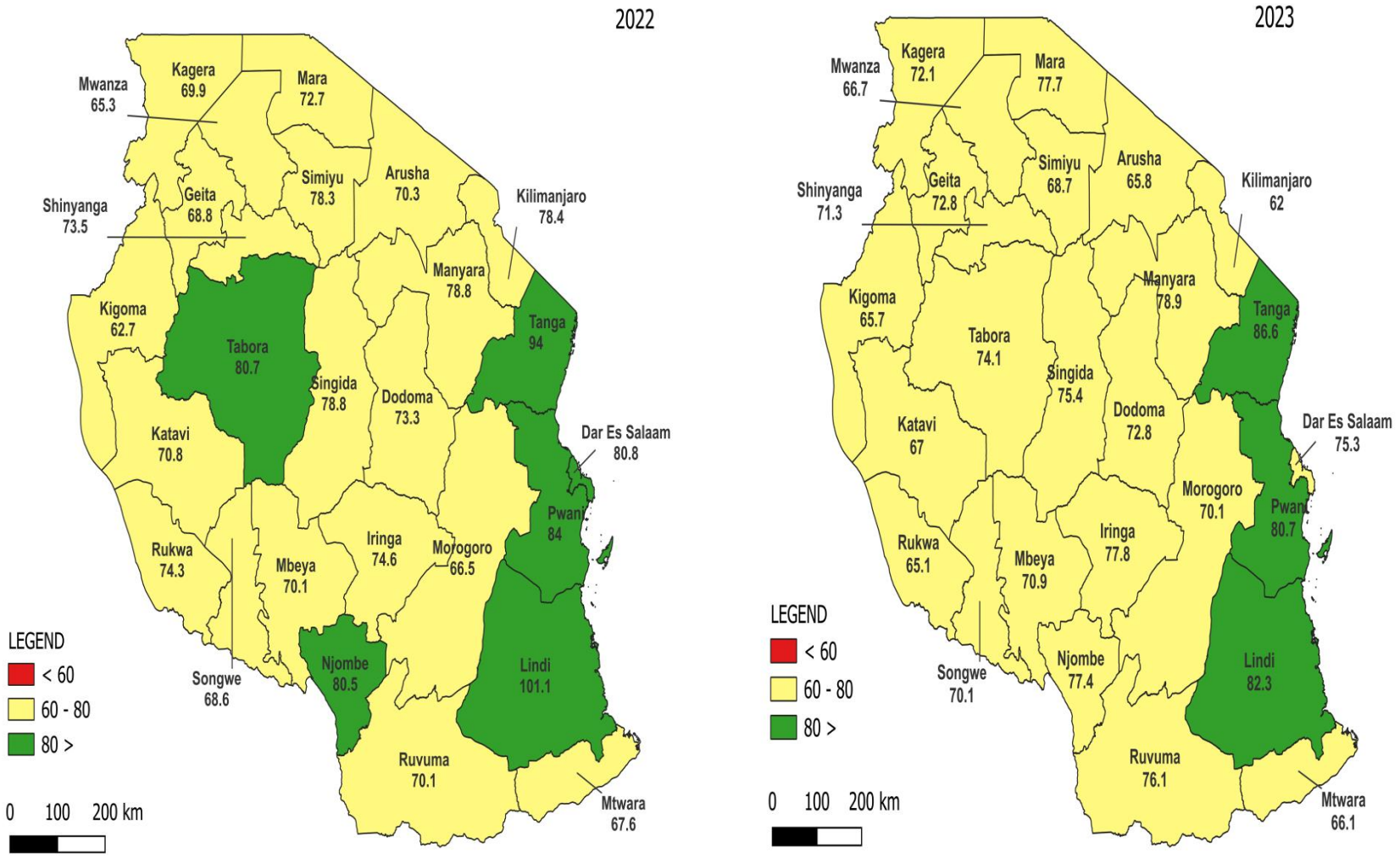
7	Number of facilities with trained provider and equipment for cervical cancer screening	750	997

Source: *HMIS/DHIS2*

Figure 16 indicates that screening for cervical cancer increased across regions with three regions of Lindi, Tanga and Pwani reporting coverage of 80% and above. In addition, eight regions reported coverage of less than 70%, these were Kigoma, Mwanza, Simiyu, Mtwara, Katavi, Arusha, Rukwa and Kilimanjaro. Overreporting was observed on percentage of clients using both cryotherapy and LEEP thus calling in the need to strengthen data quality in the CECAP programme.

In 2022, six regions; Tanga, Dar es Salaam, Pwani, Tabora, Lindi, and Njombe achieved cervical cancer screening rates above 80%. However, in 2023, only three regions; Tanga, Pwani, and Lindi maintained this level of performance. The decline in screening rates was attributed by the factors outlined in Section 3.1. Most regions recorded performance between 60% and 80%, and no region perform below 60% in either year, as illustrated in Figure 3.1.

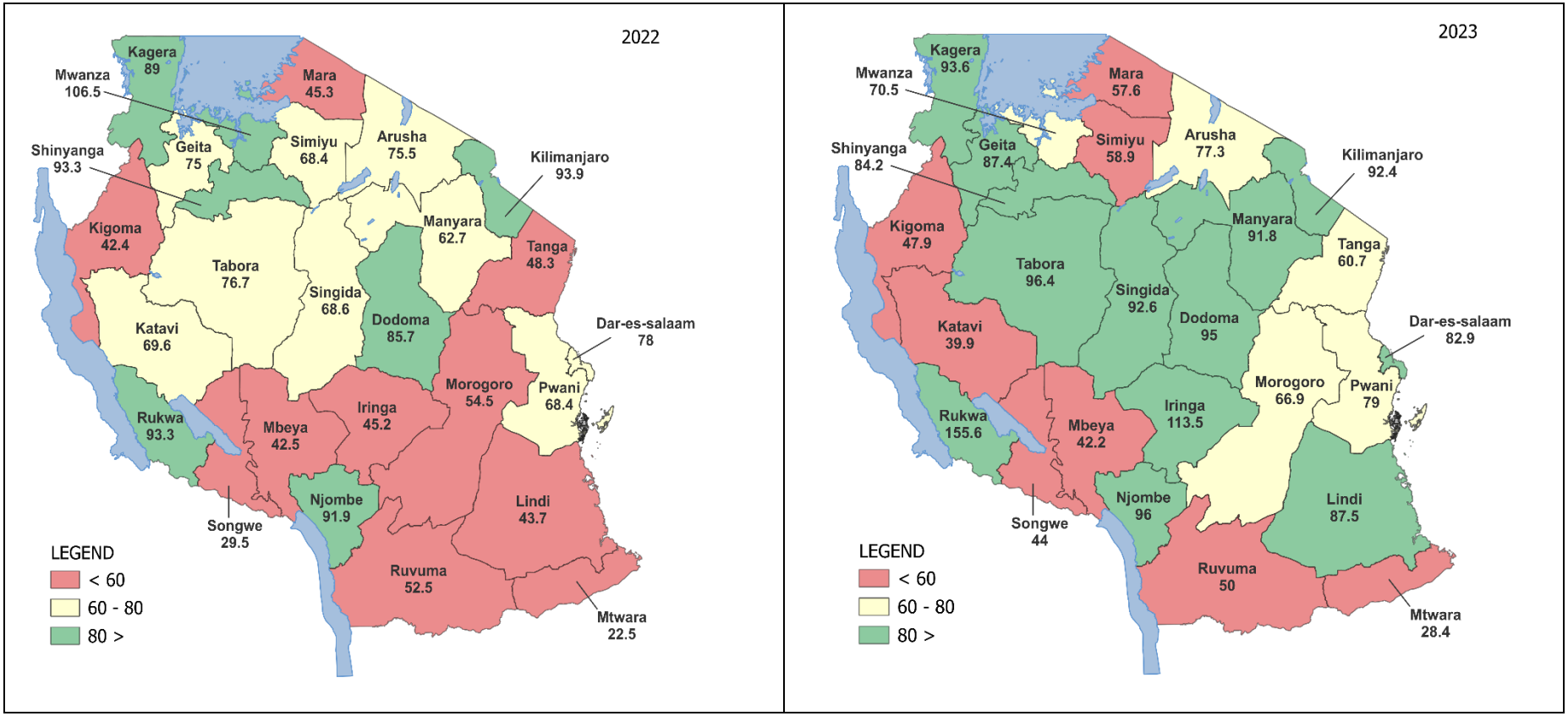
Figure 9:Percentage of women aged 30-50 years screened for cervical cancer for the first time



Source: *DHIS2*

On the other hand, there was an increase in regions with coverage of 80% and above of all VIA positive clients treated (both cryotherapy and LEEP). In 2022 regions with a coverage of 80% and above were seven (Kagera, Mwanza, Shinyanga, Kiliamanjaro, Dodoma, Njombe and Rukwa) while in 2023 regions the same coverage were thirteen (Kagera, Mwanza, Shinyanga, Kiliamanjaro, Dodoma, Njombe, Rukwa, Geita, Singida, Manyara, Lindi,Tabora and Dar es Salaam) in 2023 as shown in figure 3.2.

Figure 10:Percentage of all VIA positive clients treated (both cryotherapy and LEEP)

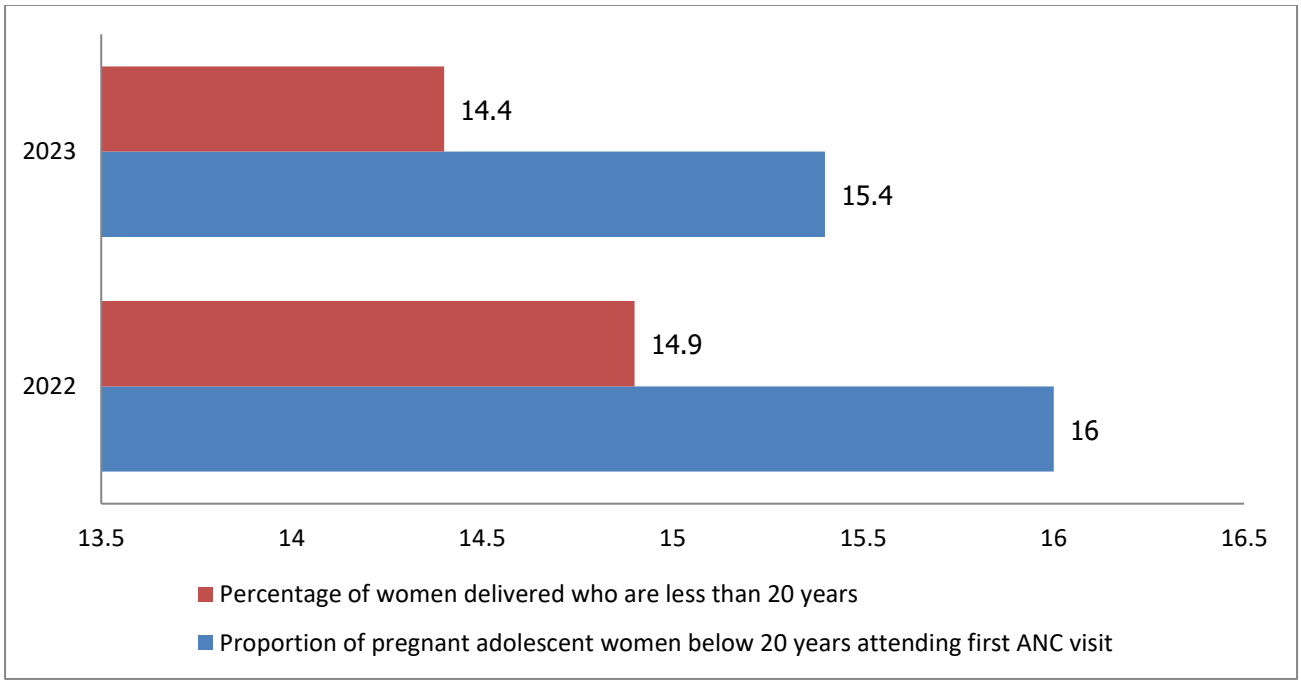


Source: *DHIS2*

3.3. Adolescent Reproductive Health (ARH)

Figure 11 shows that, the percentage of pregnant adolescent women attending first ANC visit there was a slight decrease (16% and 15.4% respectively) between 2022 and 2023. A slight decrease of 0.5% was observed on the adolescent deliveries in 2023.

Figure 11:Percentage of women delivered who were 10 - 19 years of age and adolescents who were pregnant or started childbearing in Tanzania, 2022 and 2023



Prevalence of teenage pregnancies by region for the year 2022 - 2023

Table 3.2 shows that the leading regions of teenage pregnancy in 2022 were Tabora, Rukwa and Songwe, while the lowest prevalence rate was observed in Dar es Salaam and Kilimanjaro regions. Generally, there was a slight change in the prevalence of teenage pregnancies in the year 2023 compared to the year 2022.

Table 17:Percent of pregnant adolescent women attending ANC 1 and those delivering at health facilities by regions; 2022-2023

	2022		2023	
Region	**Percentage of pregnant adolescent women attending first ANC visit**	**Proportion of women delivered who are less than 20 years**	**Percentage of pregnant adolescent women below 20 years attending first ANC visit**	**Proportion of women delivered who are less than 20 years**
Arusha	11.8	9.6	11.1	9.1
Dar Es Salaam	7.5	6.5	7.8	6.1
Dodoma	18.5	16.8	18.0	17.1
Geita	17.2	16.7	17.1	16.2
Iringa	11.2	10.7	11.4	10.4
Kagera	14.5	13.7	14.4	13.5
Katavi	19.4	18.9	19.5	19.5
Kigoma	15.4	14.0	10.0	11.6
Kilimanjaro	9.5	8.6	6.2	5.7
Lindi	18.9	19.2	18.4	18.7
Manyara	14.6	12.6	15.1	13.0
Mara	17.8	17.1	17.7	16.7
Mbeya	16.8	16.3	16.8	15.7
Morogoro	17.4	16.4	17.2	16.3
Mtwara	19.4	19.3	18.7	19.0
Mwanza	15.1	13.9	15.3	14.2
Njombe	12.1	11.7	11.5	11.9
Pwani	13.2	12.1	13.1	12.0
Rukwa	20.7	20.2	20.9	19.7
Ruvuma	19.9	19.1	20.2	19.8
Shinyanga	18.8	17.9	18.5	17.5
Simiyu	17.0	15.7	16.5	15.2
Singida	15.6	13.4	15.2	13.1
Songwe	20.4	20.9	20.9	20.7
Tabora	20.9	19.6	20.0	19.0
Tanga	13.5	12.6	13.1	12.1

Challenges

i. Inadequate integration of Adolescent and Youth Friendly Reproductive Health into other services.

ii. Inadequate multisectral approach towards health for adolescents including those with special needs
iii. Inadequate education and health promotion activities to empower community to understand health impact of community social-cultural norms and practices that hinder adolescents' access to quality Adolescent Development Health Services (ADH)

Policy recommendation

i. To strengthen the integration of Adolescent Sexual Reproductive Health interventions into school, college, and University curricular
ii. To improve multisectral approach towards health for adolescents including those with special needs
iii. To reinforce eradication of undesirable community social-cultural norms and practices that hinder adolescents' access to quality Adolescent Development Health Services (ADH)

3.4. Safe Motherhood Initiatives (SMI)

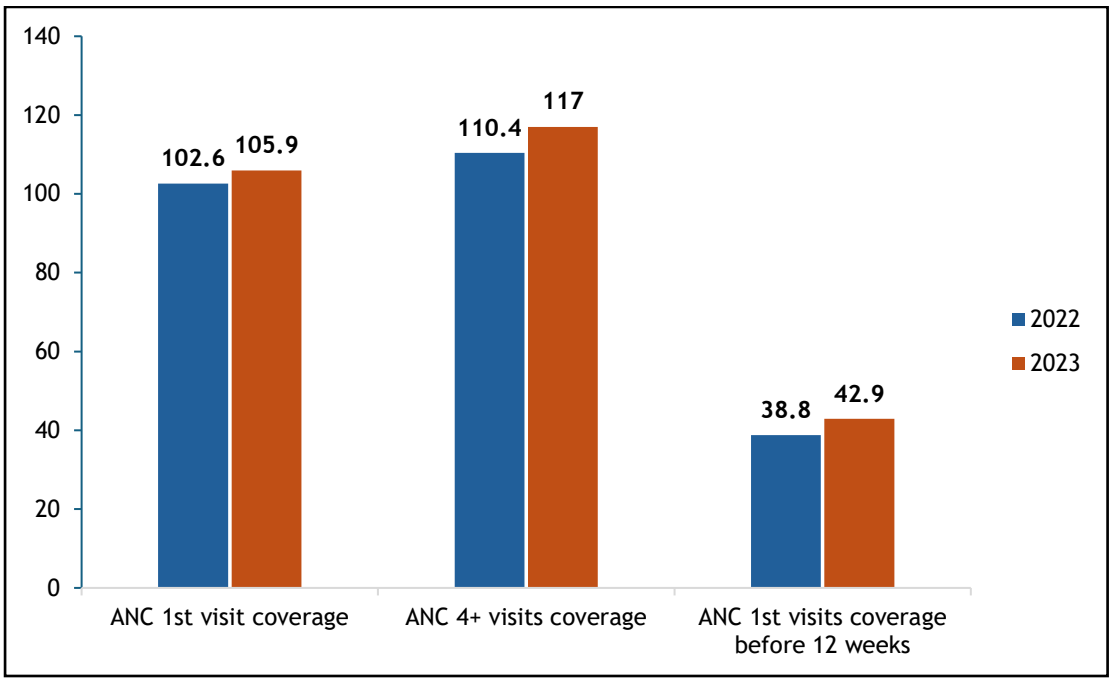
Timely postnatal care can treat complications arising from delivery and teach mothers how to care for themselves and their infants.

3.5. Antenatal Care Services (ANC)

Antenatal care attendance at least once has been sustained at 100% over the two-year period (2022- 2023). The number of pregnant women attending the first ANC visit was observed to be higher than the estimated population of pregnant women. This might be due to the factor (0.04) used to obtain the estimated population of pregnant women which may underestimate the true value.

Figure 12 shows that the percent coverage of ANC 4 plus in 2023 was 117 percent, which is above the National target of 80%. This might have been attributed to adopting the monthly ANC visit strategy and moving away from the focused antenatal care (FANC) strategy. The results show that the percentage of pregnant women attending the first Antenatal Care visit before 12 weeks of gestation had increased from 38.8% in 2022 to 42.9% in 2023.

Figure 12:Percentage of ANC first visit, ANC 4 Plus visit coverage and ANC 1st visit before 12 weeks 2022-2023



Source: *DHIS2*

3.5.1. ANC 4+ visits coverage by regions

Table 3.3 shows the regional performance of first, four or more Antenatal Care Visits and early ANC booking. More than 50% (16) regions had more than 100 percent coverage of ANC 4-plus visits in 2023, as it was observed in 2022. This might have been attributed by population immigration and health education provided into some regions.

3.5.2. Coverage of Early Antenatal Care attendance by regions

Many regions (about 80.8%) recorded an increase in the percentage of pregnant women attending the first ANC visit within the first 12-weeks of gestation in year 2023 compared to year 2022. In 2023, six regions reported coverage of 50% and above, these were Kagera, Rukwa, Kigoma and Ruvuma, Simiyu and Kilimanjaro were the best performers in terms of early ANC attendance. Tanga, Lindi and Tabora had coverage below 30%.

Table 18:Percent of Pregnant Women Attending ANC 1st and 4+ Visits and ANC visit before 12 Weeks of Gestation by Region, 2022 – 2023

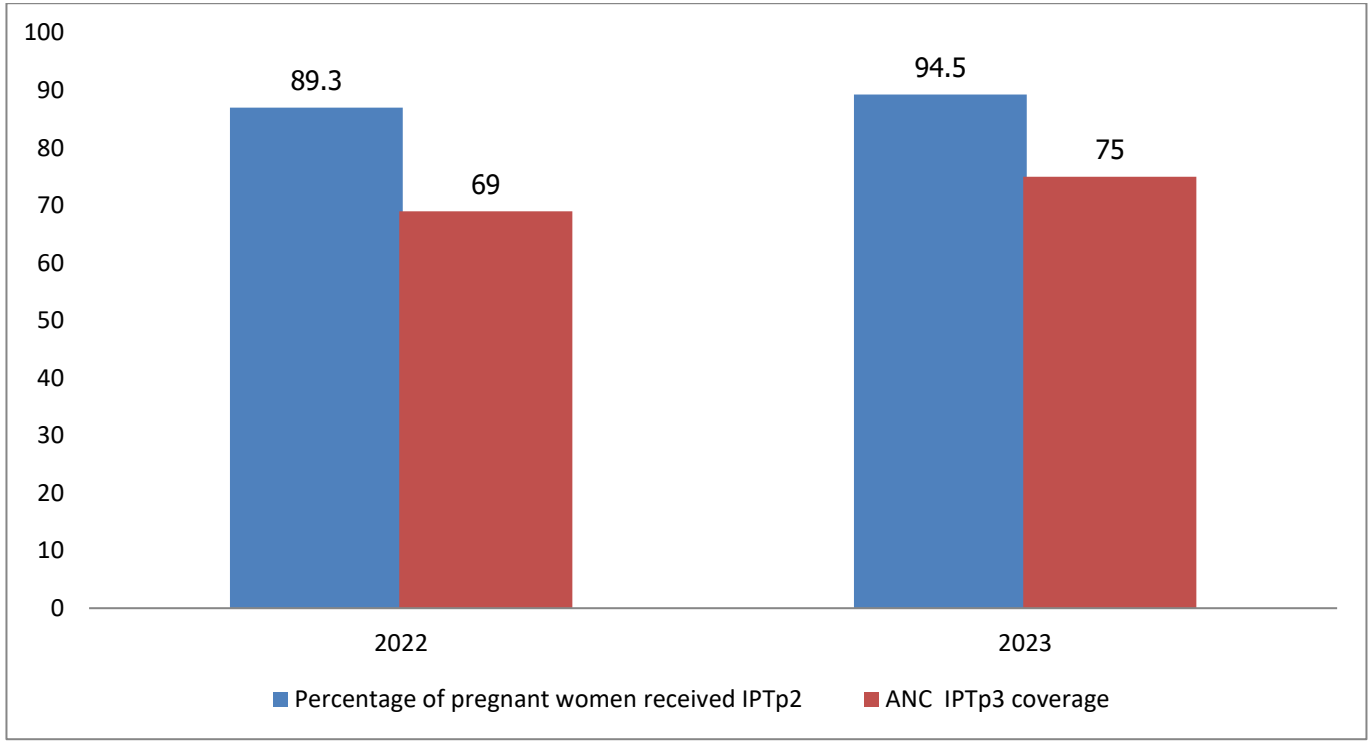
	2022			2023		
Region	ANC 1st visit coverage	ANC 4+ visits Coverage	ANC 1st visits coverage before 12 weeks	ANC 1st visit coverage	ANC 4+ visits Coverage	ANC 1st visits coverage before 12 weeks
Arusha	67.5	95.8	40.2	106.4	116.7	37.8
Dar Es Salaam	101.5	120.6	58.1	86.2	158.5	31.6
Dodoma	130.0	145.7	64.1	100.2	115.5	49.4
Geita	94.3	131.3	65.8	133.0	103.9	38.1
Iringa	114.3	116.4	47.0	78.9	102.5	47.1
Kagera	94.8	91.7	54.4	94.4	145.7	63.5
Katavi	97.3	108.2	46.3	187.9	139.8	48.3
Kigoma	74.0	88.0	44.1	100.3	117.6	65.0
Kilimanjaro	172.0	121.7	45.2	84.0	111.3	66.3
Lindi	78.0	105.5	47.1	95.0	128.1	28.7
Manyara	117.0	126.1	39.0	100.9	108.2	33.2
Mara	109.1	116.4	38.4	113.3	117.1	46.4
Mbeya	102.6	110.4	38.8	98.3	107.7	42.0
Morogoro	111.6	90.6	37.6	105.8	118.5	35.6
Mtwara	132.8	93.2	34.1	71.0	112.9	36.4
Mwanza	105.6	120.4	37.2	103.7	106.0	32.2
Njombe	104.7	92.1	38.0	75.5	93.3	48.6
Pwani	72.3	108.1	38.3	130.2	144.1	46.4
Rukwa	99.6	103.7	30.9	133.2	144.0	64.6
Ruvuma	97.2	105.8	27.9	100.0	103.1	55.7
Shinyanga	124.9	90.8	31.4	126.6	96.8	33.1
Simiyu	103.3	99.3	29.7	116.7	135.3	59.7

Singida	81.2	151.5	24.6	114.6	91.4	40.7
Songwe	85.0	113.7	23.3	105.4	88.1	36.5
Tabora	140.0	87.0	32.7	142.3	90.3	28.0
Tanga	86.8	87.6	20.1	87.4	88.5	26.1
National Average	102.6	110.4	38.8	105.9	117	42.9

Antenatal Care Interventions

Figure 13 shows an increase in uptake of both IPTp2 and IPTp3 in 2023 (94.5% and 75.0%) compared to 2022 (89.3% and 69.0%).

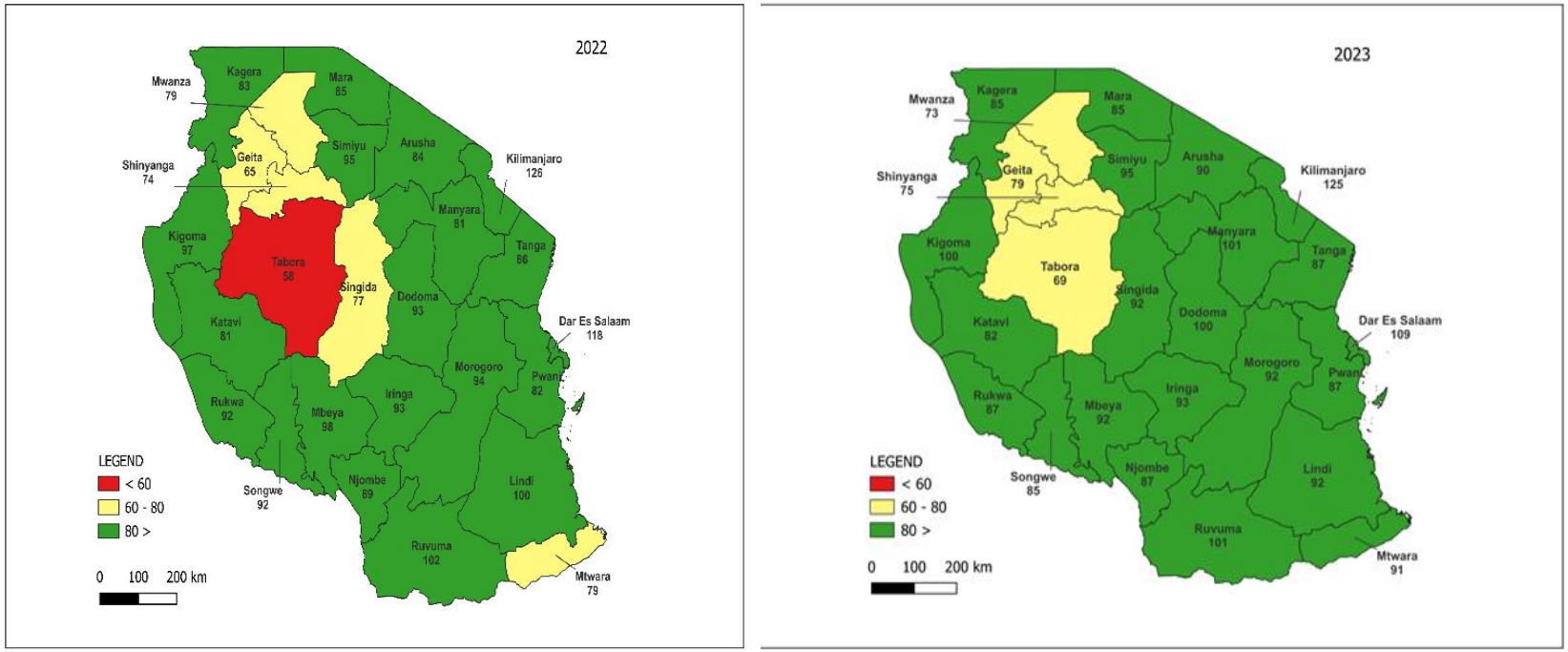
Figure 13:Percentage Uptake of IPTp2 and IPTp3 doses for Prevention of Malaria in Pregnancy



Source: *DHIS2*

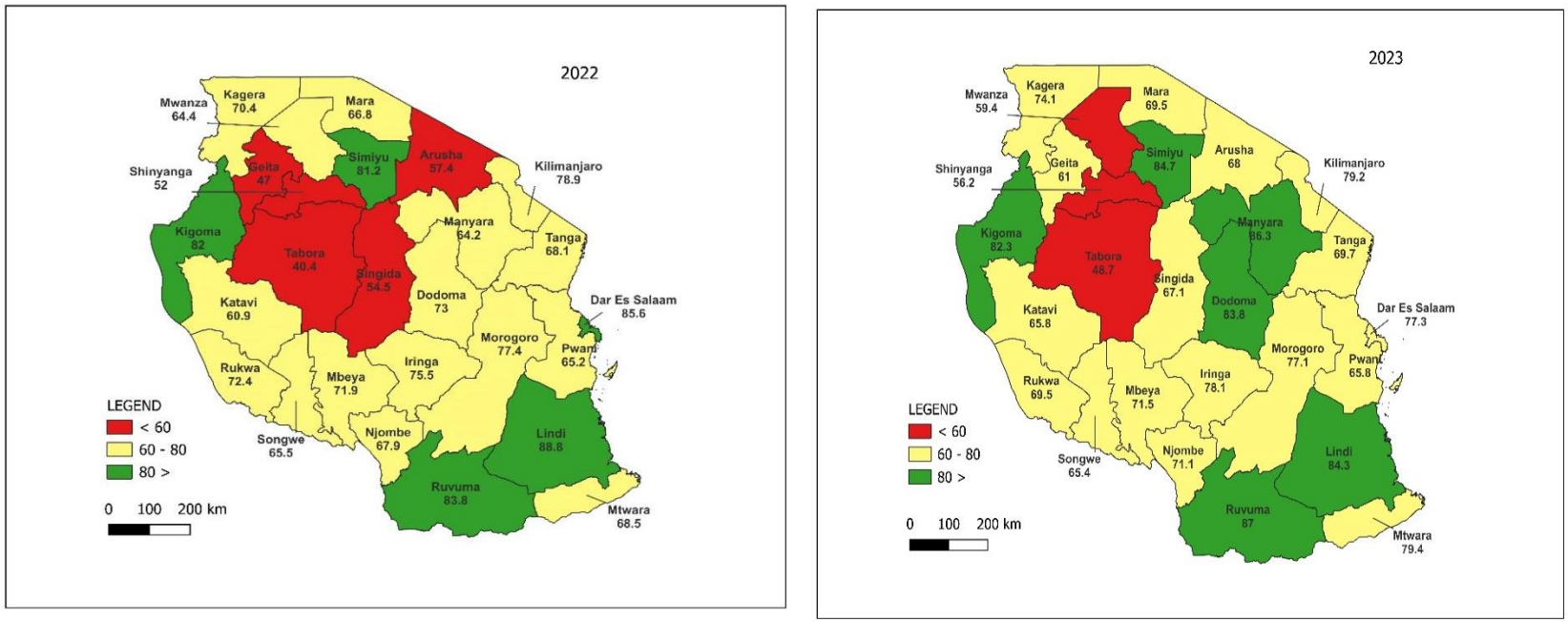
Regional coverage of IPTp2 and IPTp3 in 2022 and 2023 is presented in figure 14 and 15 below. As shown, a significant increase from 89.3% to 94.5%, 69% to 75% for IPTp2 and IPTp3 in 2022 and 2023 respectively. An overall increase in number of regions with desirable coverage (>=80%) and decrease in number of regons with poor coverage (<60%) is clearly shown.

Figure 14:Percentage of pregnant women who received IPTp2



Source: *DHIS2*

Figure 15:Percentage of pregnant women received IPTp3

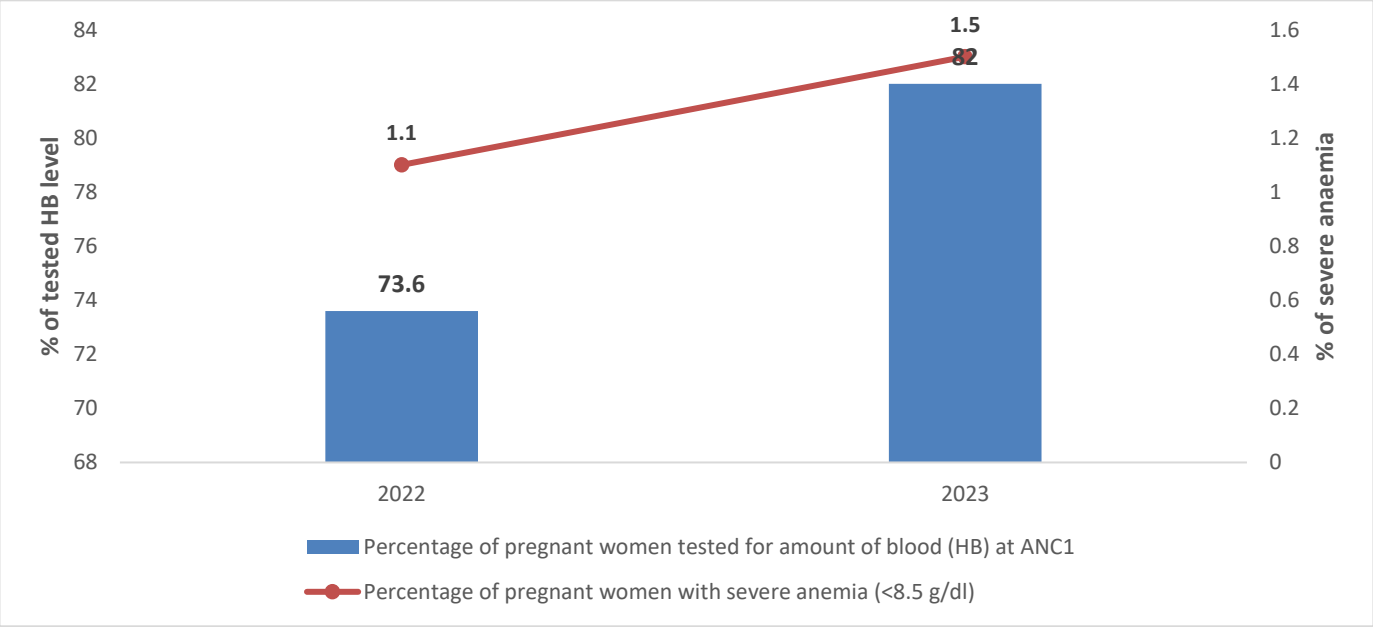


Source: *DHIS2*

3.6. Anaemia Prevalence in Pregnancy

Figure 16. shows that the percentage of pregnant women tested for anaemia in 2023 increased from 73.6%% to 82.0% in 2022.

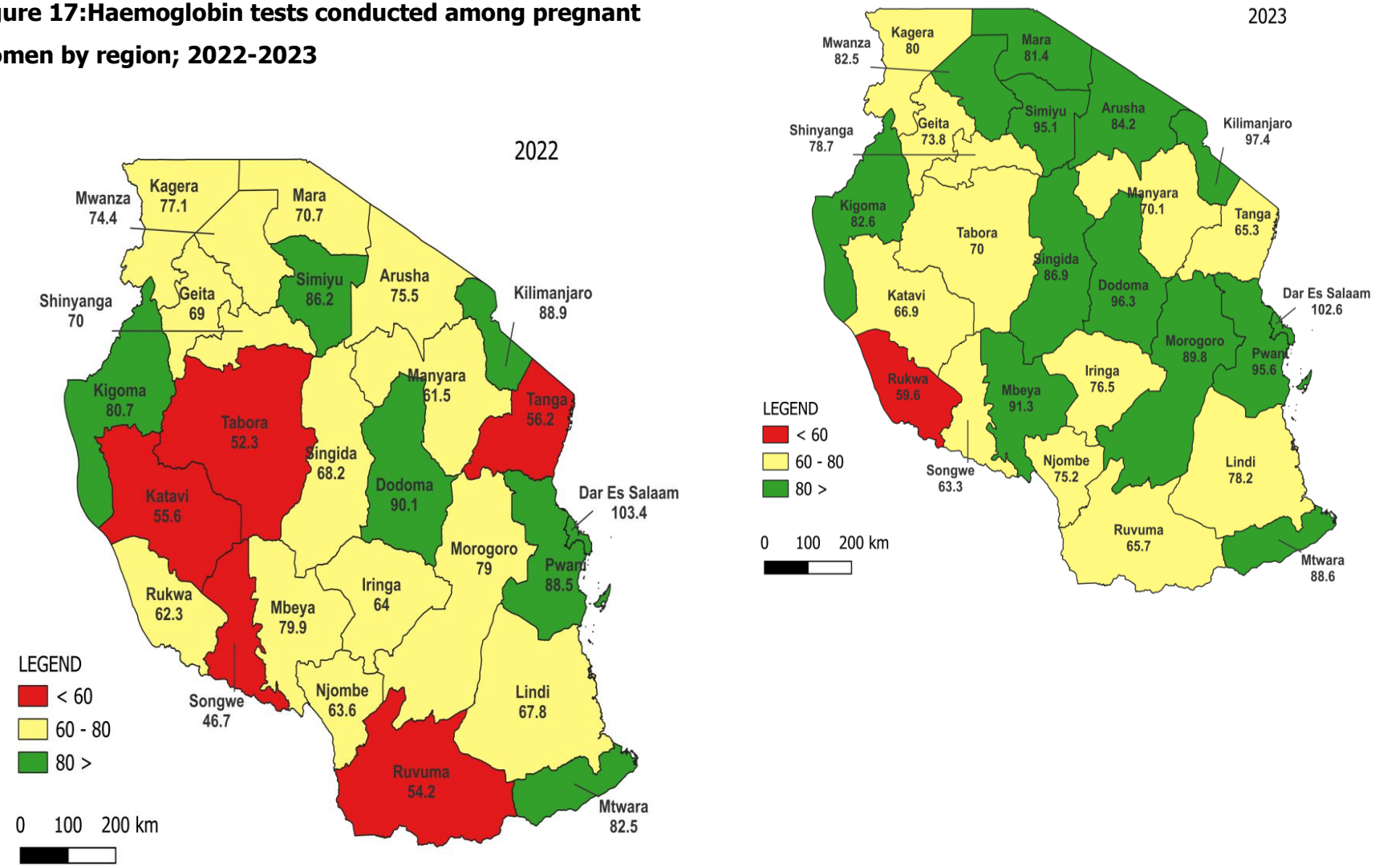
Figure 16:Haemoglobin tests conducted and anaemia prevalence among pregnant women; 2022-2023



Source: *DHIS2*

Figure 17. shows that Haemoglobin tests conducted among pregnant women by region have improved from 2022 to 2023, about 5 regions tested for pregnant women below 60% of all women who attended ANC, and in 2023 the figure indicates that only one region, Rukwa had low Hb testing which was 59.6% of all pregnant women attended first ANC visit.

Figure 17:Haemoglobin tests conducted among pregnant women by region; 2022-2023



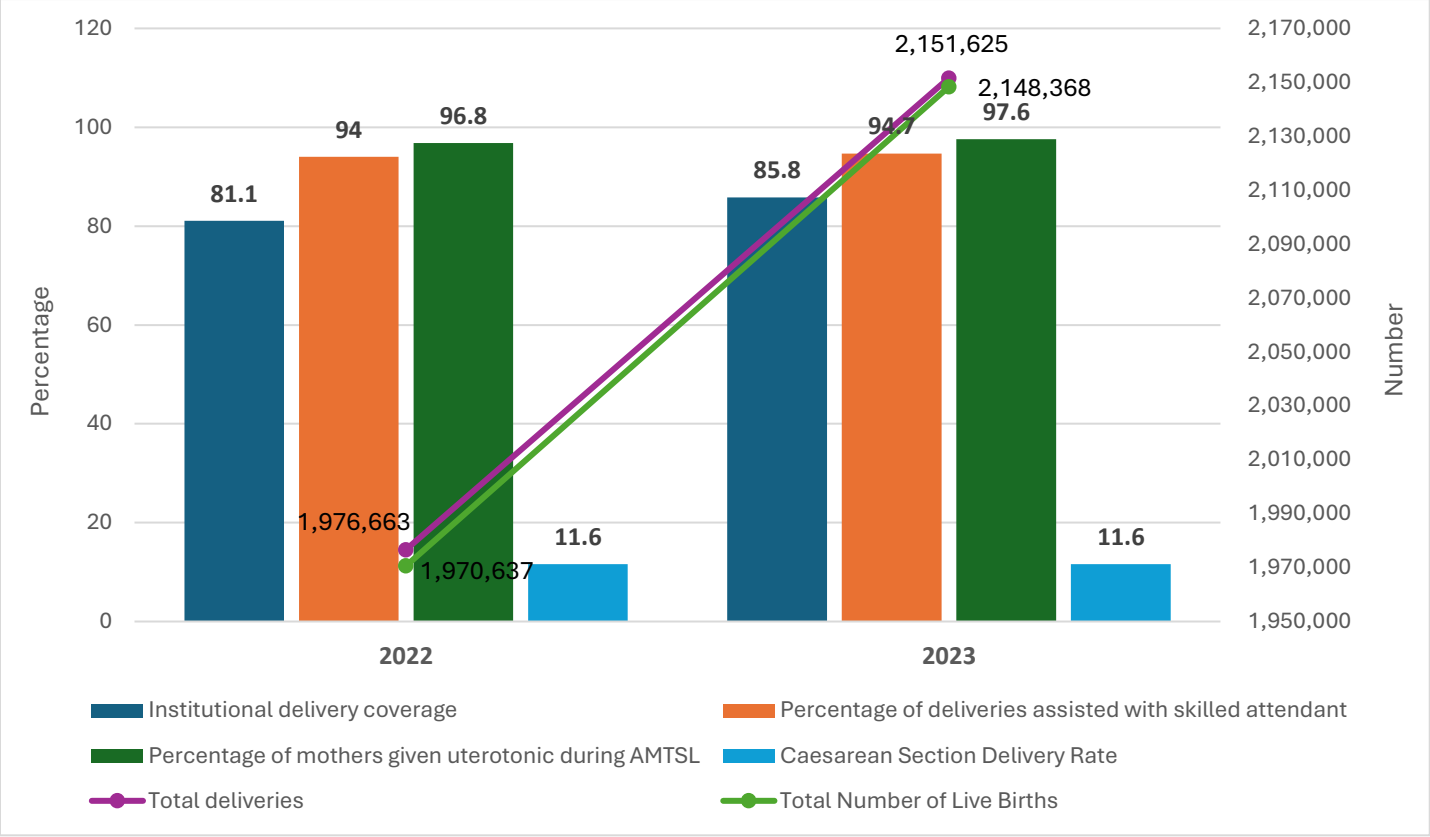
3.7. Delivery Services

This section presents information on utilization of health facilities for child-birth by pregnant women, extent of child-delivery by skilled human resources for health, child-birth by adolescents and magnitude of low birth weights in Tanzania. It highlights percentages of geographical and effective coverage of labour and delivery services at national and regional level.

Institutional delivery, Skilled birth attendant, uterotonics use and caesarean section

Figure 18. show that, institutional delivery has increased from 81.1% in 2022 to 85.8 in 2023 while skilled birth attendants have increased from 94% in 2022 to 94.7% in 2023. The use of uterotonics also increased from 96.8% in 2022 to 97.6% in 2023. The high performance displayed by these labour and delivery indicators is an indication of an increased trust in the health system by the population and good progress towards maternal mortality reduction.

Figure 18:Percentage of Institutional delivery, Skilled Birth attendant, and Uterotonics use and total deliveries in Tanzania Mainland; Year 2022 – 2023

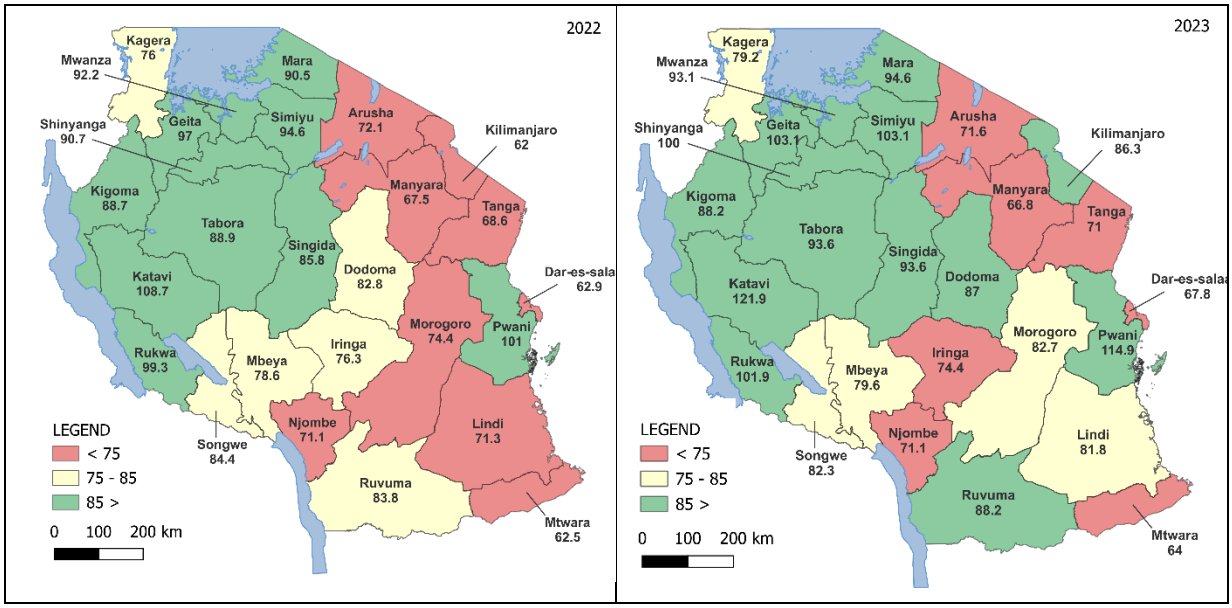


Source: *DHIS2*

Coverage of Institutional Delivery and Deliveries by Skilled Birth Attendants

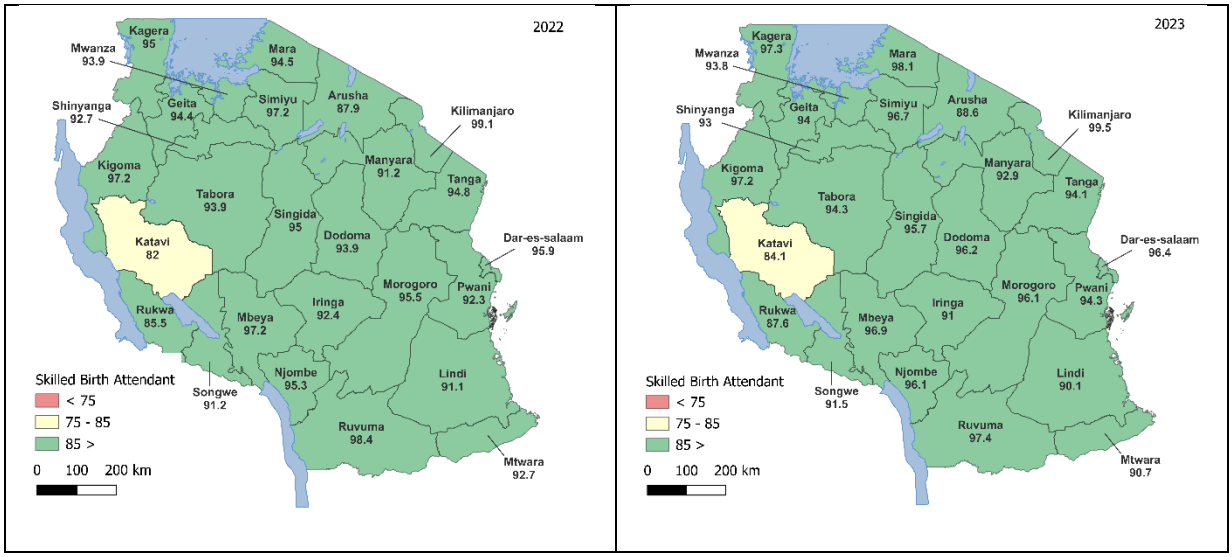
Figure 19. displays the regional performance of institutional deliveries and deliveries by skilled attendants and mothers given uterotonic within 1 hour after delivery in 2022 and 2023. Pwani, Rukwa, Katavi, Simiyu, Geita and Shinyanga had reported 100% or more institutional delivery. Skilled birth attendants in these regions were also high. Arusha, Rukwa and Katavi regions had the lowest performance in institutional delivery in 2023.

Figure 19:Percentage Coverage of Institutional Delivery by Region 2022 and 2023



Source: *DHIS2*

Figure 20:Percentage Coverage of Delivery by Skilled Birth Attendants by Region, 2022 and 2023



Source: *DHIS2*

Challenges

i. Despite the improved health facility delivery, there is inadequate provision of quality of care in the new CEmONC facilities. This is caused by among other factors as follows:

- Insufficient number and skills of Health Care Workers
- Inadequate Infrastructures to fully support CEmONC services
- Gap in the community linkage on Maternal Health.
- Lack of follow-up actions after conducting regular maternal and perinatal death reviews.at regional, district and facility level.

ii. Insufficient uptake of LLINs to Pregnant women and infants during first antenatal care visit and MR1 immunization following limited availability of LLINs in Private Health Facilities due to lack of MSD account code.

iii. Low uptake of IPTp2 and IPTp3 to pregnant women as a measure to ensure early booking among pregnant women and availability & provision of SP at ANC.

Policy recommendation

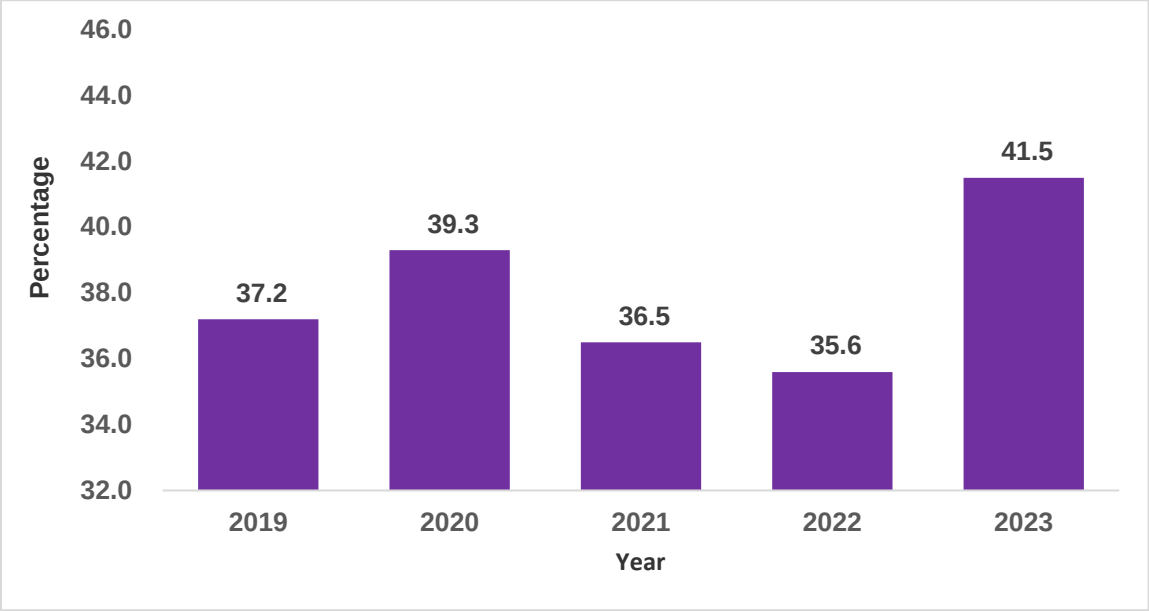
i. There is a need to mobilize resources to expand CEmONC services to cover all Health Centers
ii. Some efforts to equip CEmONC facilities with equipments and skilled personnel as required.
iii. There is a need for arrangements to refurbish and provide essential BEmONC equipment to dispensaries.
iv. To strengthen community health services

3.8. Family planning uptake

There has been an increase in the annual utilization of modern family planning methods from 2019 to 2023. In 2023, the estimated population of women aged 15-49 years was 15,113,671, of whom 8,725,838 (59.2%) were utilizing family planning services. Out of these, 3,467,164 (39.7%) were continuing clients, while 5,258,674 (60.3%) were newly registered during the year. The average national utilization rate for new acceptors of modern family planning was 41.5% in 2023, slightly below the national target of 42% set for 2025 (as outlined in One Plan III), as depicted in Figure 21.

Family planning outreach services continued to be provided across all regions in Tanzania to reach clients in underserved and marginalized areas. The national coverage of family planning services through outreach was 19.9% in 2023, indicating an increase from 19.2% in 2022.

Figure 21:Trend Coverage of Family Planning New Acceptors Tanzania Mainland 2019 To 2023



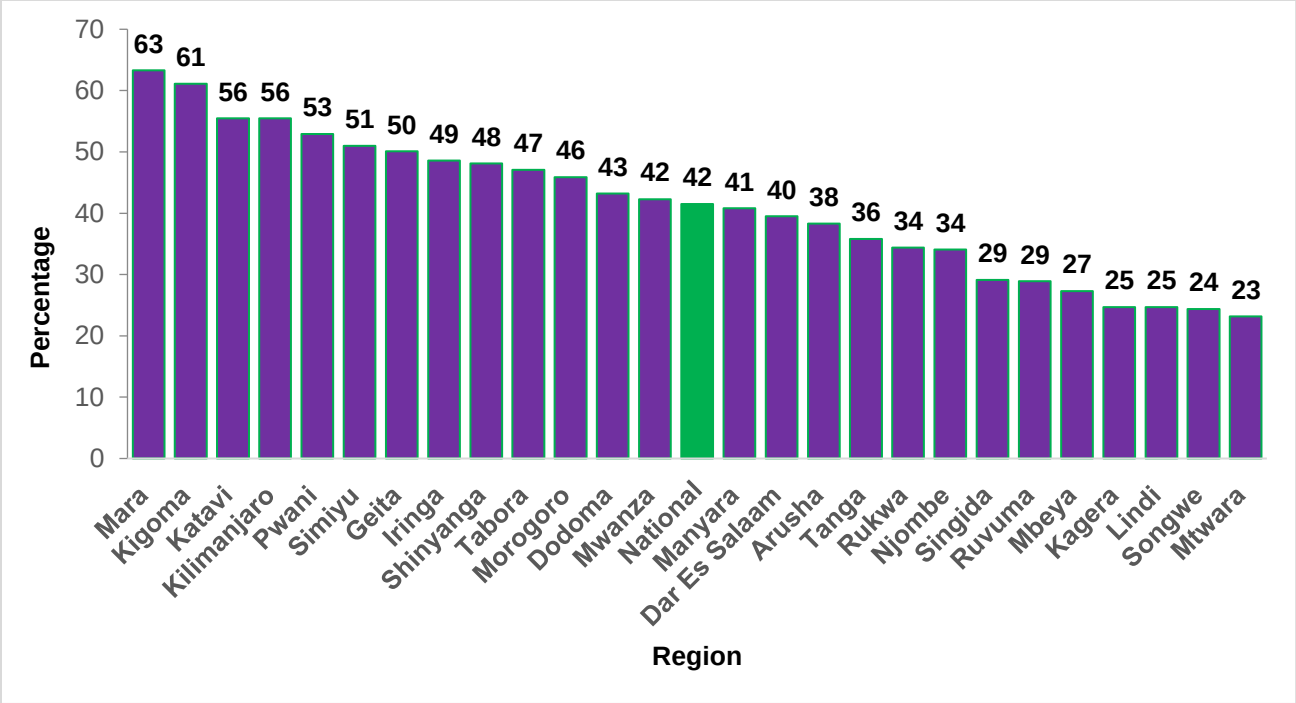
Source: *DHIS2*

3.9. Coverage Of New Acceptors For Modern Family Planning

The trend in modern family planning coverage for new acceptors has been fluctuating over the past five years. It increased from 37.2% in 2019 to 39.3% in 2020, then declined to 36.5% and 35.6%, before rising again to 41.5% in 2023, as depicted in Figure 22.

Regions with higher coverage of modern contraception for new acceptors included Mara (63%), Kigoma (61%), Katavi (56%), and Kilimanjaro (56%). Thirteen regions reported utilization of modern family planning services above the national average of 41.5%, while thirteen regions had less coverage. The regions with the lowest coverage were Kagera (24.7%), Lindi (24.7%), Songwe (24.4%), and Mtwara (23.2%).

Figure 22:Coverage Of New Acceptors For Modern Family Planning



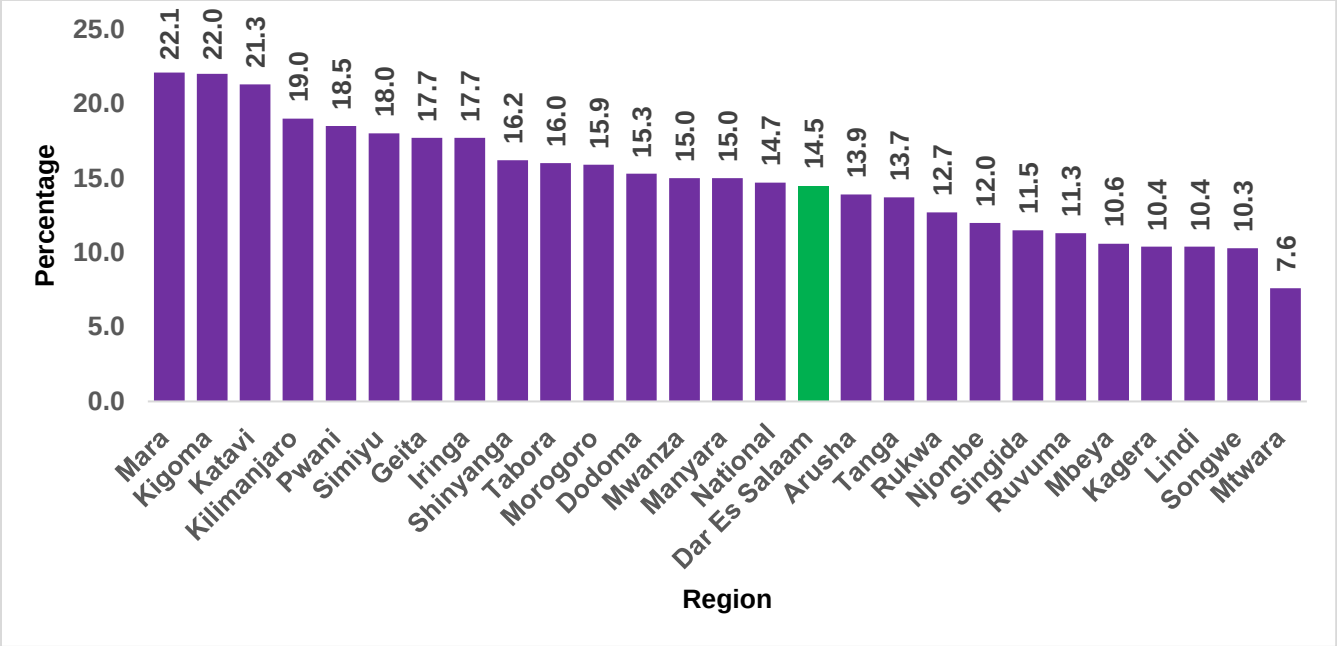
Source: *DHIS2 2023*

3.10. Adolescents Family Planning Coverage

Adolescents across all regions in Tanzania have access to family planning services, yet the overall coverage of these services for adolescents remains very low. Fourteen regions have higher coverage rates than the national average, while 12 regions fall below it. Regions with high coverage include Mara (22.1%), Kigoma (22.0%), Katavi (21.3%), and Kilimanjaro (19.0%). Conversely, regions with poor coverage are Mtwara (7.6%), Songwe (10.3%), Lindi (10.4%), and Kagera (10.6%) as portrayed in Figure 23.

Ninety-three (93) councils reported coverage rates for new family planning among adolescents above the national average of 14.5%, while 92 reported rates below this average.

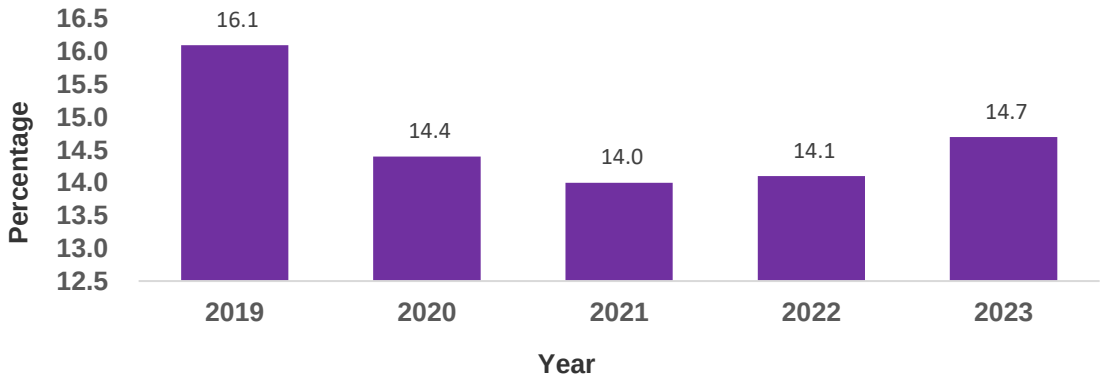
Figure 23:Adolescents Family Planning Coverage by Regions 2023



Source: *DHIS2 2023*

The trend in modern family planning coverage for adolescents remained consistently low over the five years from 2019 to 2023. In 2022 the coverage increased from 14.1% to 14.7% in 2023 as illustrated in Figure 24.

Figure 24:Trend of Adolescents Received Family Planning Methods Tanzania Mainland 2019 To 2023

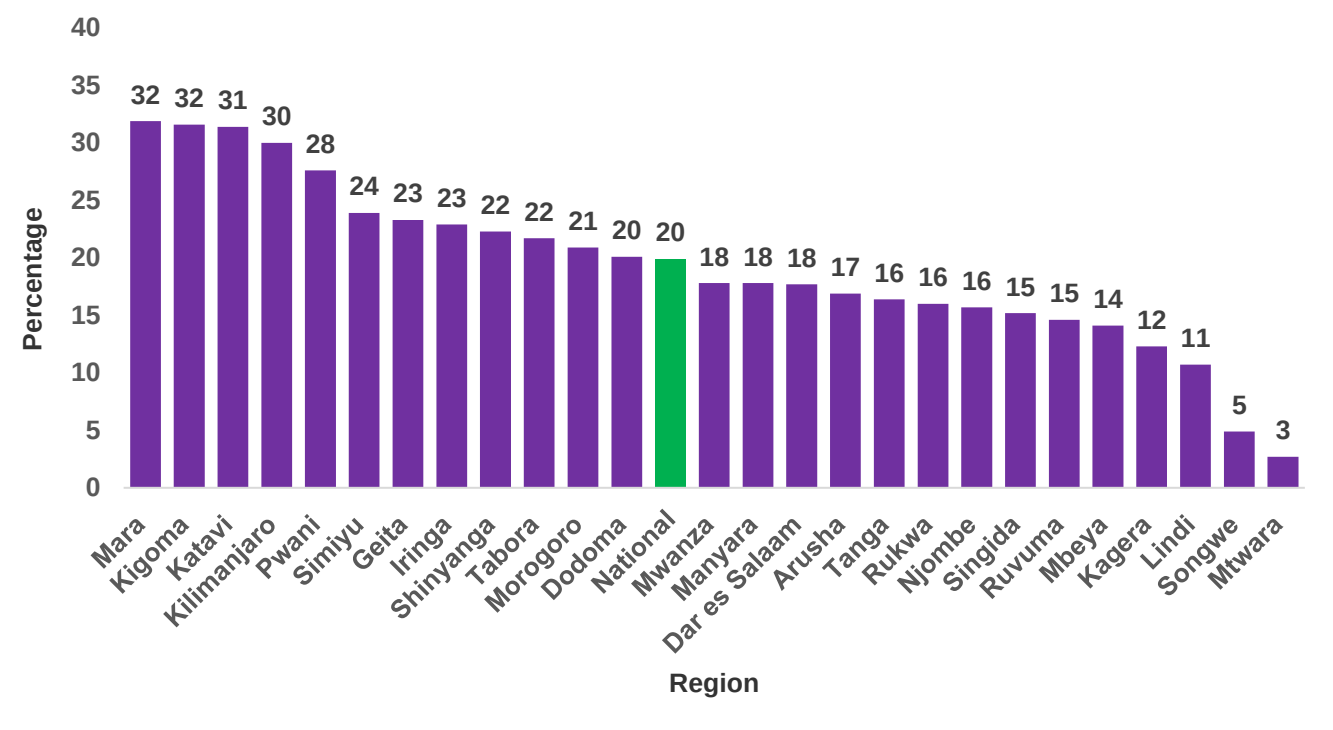


Source: *DHIS2 2023*

3.11. Family Planning Outreach Services

Family planning outreach services were consistently provided across all regions in Tanzania to extend services to underserved and marginalized areas. Twelve regions exceeded the national average of 20% for outreach family planning services, while 15 regions perform below it. Regions with a high proportion of clients receiving family planning services through outreach included Mara (32%), Kigoma (32%), Kagera (31%), and Kilimanjaro (30%). Conversely, the Mtwara region had the lowest proportion, serving only 3% of clients, followed by Songwe (5%), Lindi (11%), and Kagera (11%) as illustrated in Figure 25.

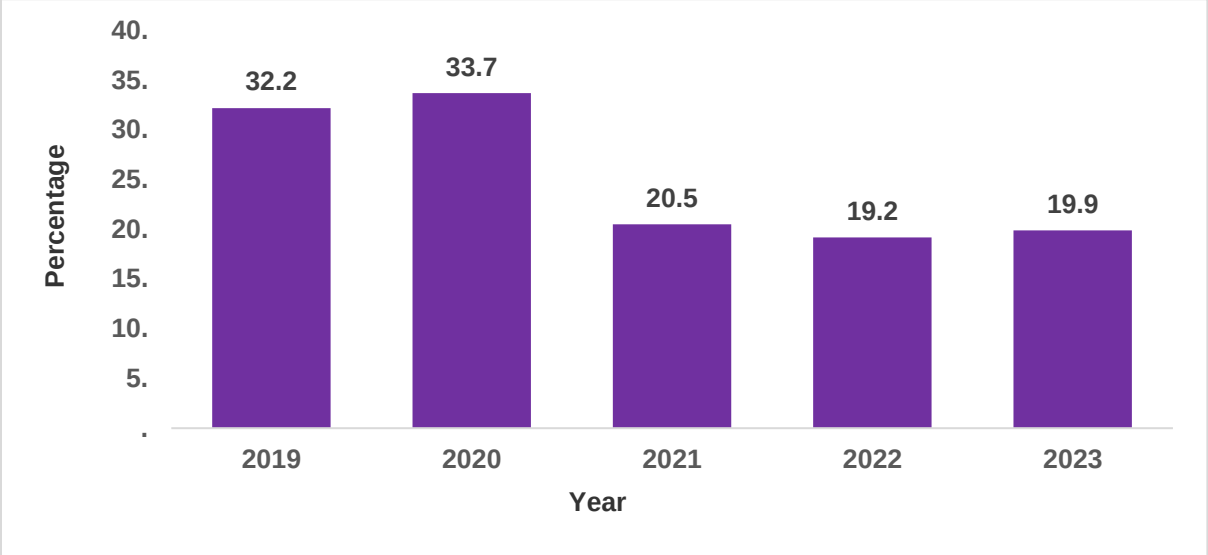
Figure 25:Family Planning Outreach Coverage by Regions 2023



Source: *DHIS2 2023*

The trend in outreach family planning coverage remained consistently low over the five years from 2019 to 2023. In 2019, the coverage stood at 31.2% and increased to 33.7% before dropping to 20.5% in 2022. It further declined to 19.9% in 2023, as depicted in Figure 26.

Figure 26:Outreach Family Planning Clients Tanzania Mainland 2019 To 2023

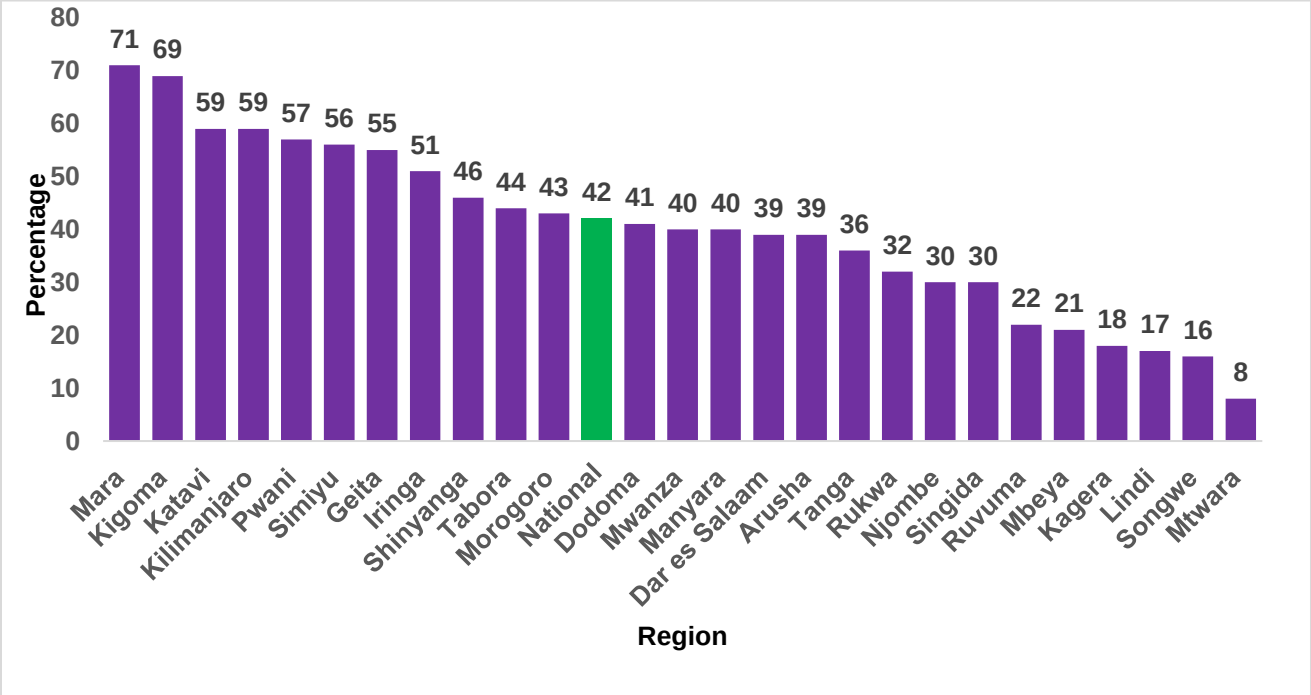


Source: *DHIS2 2023*

3.12. Post-Partum Family Planning Uptake

Postpartum Family Planning (PPFP) services continued to be provided across all regions in Tanzania, primarily in the labour wards. Eleven (11) regions exceeded the national average of 42% for PPFP coverage, while 15 regions performed below this standard. Regions with a high number of clients receiving PPFP services included Mara (79%), Kigoma (69%), Katavi (59%), and Kilimanjaro (59%). On the other hand, the Mtwara region had the lowest number of clients receiving family planning services through PPFP (8%), followed by Songwe (16%), Lindi (17%), and Kagera (18%) as shown in figure 27.

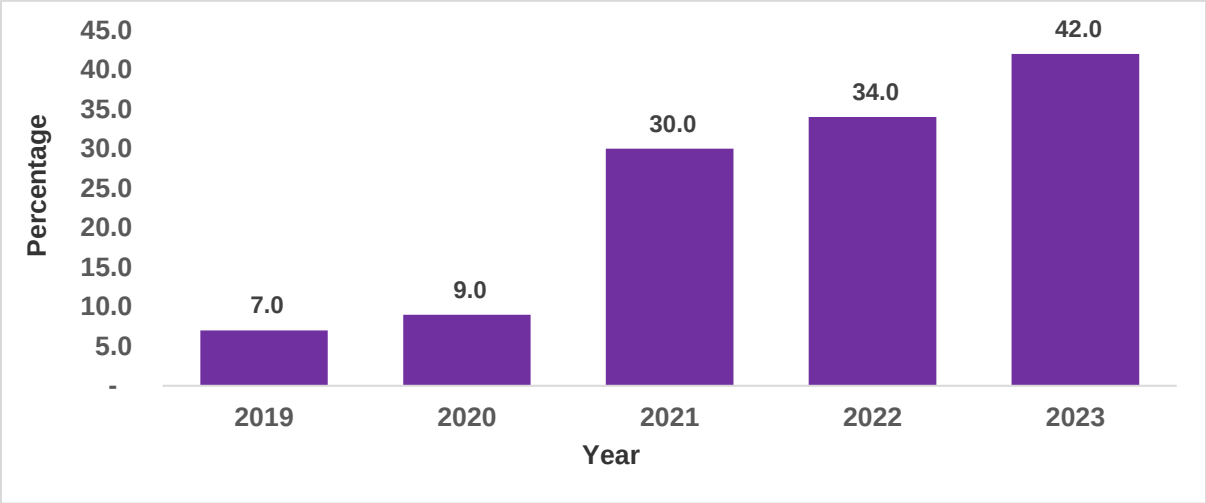
Figure 27:Postpartum Family Planning Coverage By Regions 2023



Source: *DHIS2 2023*

The trend in PPFP coverage shows a gradual increase from 2019 through 2023. It was notably low in 2019 (7%) and experienced a slight increase in 2020 (9%), followed by a significant rise to 30% in 2021. Thereafter, it gradually increased to 34% in 2022 and reached 42% in 2023, as depicted in Figure 3.20.

Figure 28:Coverage of Post-Partum Family Planning Tanzania Mainland 2019 To 2023



Source: *DHIS2 2023*

3.13. Gender Based Violence And Violence Against Children In Tanzania Mainland

Gender Based Violence (GBV) and Violence against Children (VAC) are common public health issues in Tanzania. TDHS 2022 showed that 27% of women aged 15-49 years has experienced physical violence and 12% experienced sexual violence. The reported gender violence cases have increased from 159,508 in year 2019 to 266,410 in year 2023 as shown in Table 20. The national target is 60% of GBV and VAC survivors experiencing violence to report within 72 hours after the event (One Plan III). There is an increase in GBV/VAC cases reported within 72 hours after the incident from 37,716 (23.4%) in year 2019 to 80,389(30.2%) in year 2023 as shown in Table 20. The trend for sexual violence among female remained increased from 6.0% to 7.0% in year 2023, likewise the trend for sexual violence among male increased from 6.0% in year 2019 to 7.0% in year 2023 as shown in Table 19.

Table 19:Proportions Of GBV/VAC Reported Cases Tanzania Mainland From 2019 To 2023

INDICATORS	2019	2020	2021	2022	2023
Percentage of female assaulted sexually clients amongst all females	6	8	8	7	7
Percentage of female assaulted physically clients amongst all females	28	39	37	37	37
Percentage of male physically assaulted clients amongst all males	39	35	36	38	38
Percentage of Male Sexually assaulted clients amongst all males	6	6	6	6	7
Number of neglected children	4,974	6,312	6,998	9,050	9,754
Number of children living in risk environment	5,935	8,499	7,857	8,771	8,857

Source: *DHIS2*

The number of GBV/VAC in year 2023 was observed to be high in Dar es Salaam 25,586, Shinyanga 20,986, and Geita 18,020, as seen in Table 3.4. Among the reported VAC cases, neglected children increased from 4,974 in year 2019 to 9,754 in year 2023 and children living in risk environment increased from 5,935 in year 2019 to 8,857 in year 2023 as shown in Table 19.

Table 20:Number of GBV/VAC Reported Cases And Cases Reported Within 72 Hours By Region From 2019 To 2023.

Region	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs
	2019		2020		2021		2022		2023	
Arusha	4,280	1,806	4,537	1,576	5,500	1,343	8983	2849	8542	3032
D' Salaam	14,376	4,457	14,267	4,573	19,612	6,046	28417	10221	25586	11426
Dodoma	3,884	1,560	4,226	1,547	5,922	1,970	6396	1995	10460	1980
Geita	1,164	513	1,101	433	9,887	2,761	18737	4993	18020	5887
Iringa	11,914	3,848	11,263	4,848	9,387	3,991	8158	3007	6978	2479
Kagera	16,940	1,575	6,872	1,519	10,530	2,369	14634	5229	13753	4565

Region	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs	GBV/VAC cases	Reported within 72hrs
	2019		2020		2021		2022		2023	
Katavi	1,979	678	1,441	277	877	213	2704	940	3902	1519
Kigoma	2,473	667	7,119	2,326	6,779	2,503	11932	6476	12152	6592
Kilimanjaro	3,100	1,296	3,878	1,250	3,475	1,043	13301	2404	9757	5550
Lindi	2,465	717	2,553	490	1,639	208	2605	618	2144	630
Manyara	2,204	946	5,203	2,049	9,269	1,572	6855	1249	11438	1704
Mara	5,180	2,048	13,461	4,559	18,619	4,511	17900	5560	17820	4662
Mbeya	7,788	1,565	5,812	1,098	7,382	1,867	9363	3146	12081	3279
Morogoro	6,732	2,818	7,574	2,279	5,237	1,513	4674	1103	5912	1621
Mtwara	1,574	534	2,804	572	2,928	281	2974	408	2231	295
Mwanza	6,069	1,835	12,446	2,902	11,410	2,345	16899	2325	16938	3076
Njombe	3,905	1,428	4,076	1,616	3,657	1,504	4632	1338	6689	2988
Pwani	1,242	321	6,468	2,075	7,156	2,817	8061	2839	9849	3060
Rukwa	12,373	374	5,728	402	3,527	745	7307	2317	4504	2273
Ruvuma	29,090	334	9,548	761	4,902	317	3941	575	10829	645
Shinyanga	8,107	2,272	13,731	2,066	15,060	2,191	19290	2972	20986	2275
Simiyu	4,813	2,145	3,627	1,678	5,786	2,578	5165	1317	4900	1220
Singida	2,190	1,148	2,499	912	2,887	1,261	4121	1594	5397	2292
Songwe	1,430	668	1,304	536	2,489	1,209	3066	1476	3268	1875
Tabora	3,095	1,772	9,013	1,623	19,215	3,735	19205	2809	14032	1802
Tanga	1,141	391	1,978	895	3,954	1,657	4121	1777	8242	3662
National	**159,508**	**37,716**	**162,529**	**44,862**	**197,086**	**52,550**	**253,441**	**71,537**	**266,410**	**80,389**

Source: *DHIS2*

3.14. **Tanzania Immunization Program**

Key Indicators and Status of Immunization

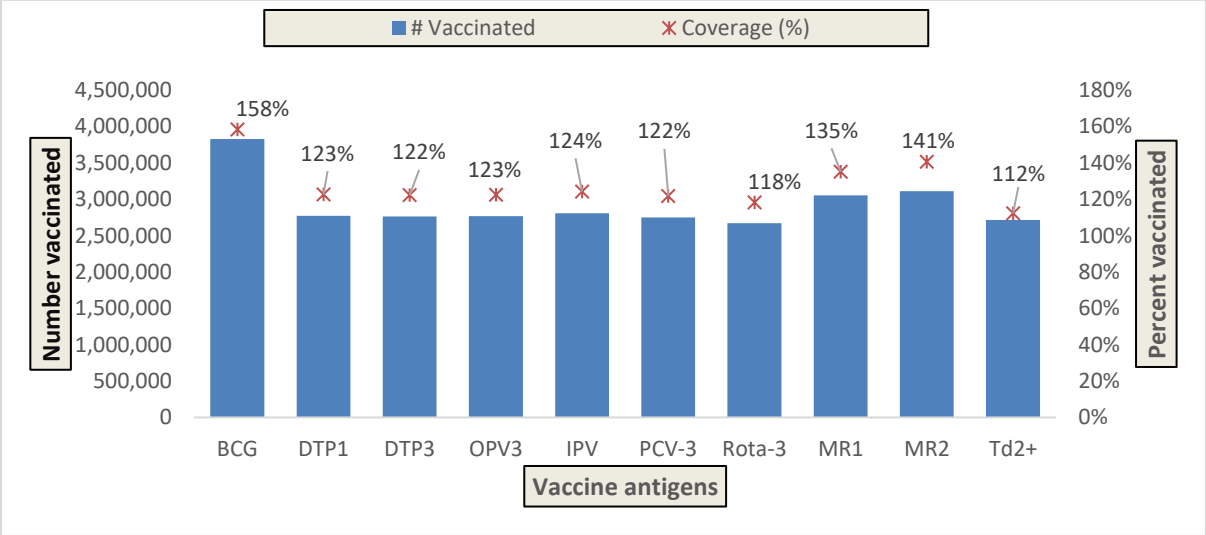
Tanzania continues to make significant strides towards achieving the goals outlined in the Immunization Agenda 2030 (IA, 2030). Notably, there has been substantial improvement in immunization performance across various antigens in 2023.

The National Immunization Program targeted to vaccinate 2,258,463 surviving infants, 2,213,094 children above 1 year and under the age of 2 years old with the second dose of measles-rubella vaccine, and 854,187 girls of 14 years old with the HPV vaccine. The number of children vaccinated with the DTP-HepB-Hib third dose was 2,762,053, giving a 122% coverage. Children who received the MR1 vaccine were 3,053,827 (135%) and those who received the MR2 vaccine were 3,112,870 (141%); HPV1 were 966,841 (113%), and HPV2 were 776,921 (91%).

Factors contributed to this improved immunization performance includes Identification of zero dose and under-vaccinated during polio campaigns and Measles outbreak response. This house-to-house campaigns used to identify zero dose and under vaccinated children and the parents/caregivers were encouraged to take their children to the health facilities for vaccination.

Catchup vaccination activities and Periodic intensification for routine immunization (PIRI), which were used in health facilities with a high percentage of zero dose and under-vaccinated children, helped to raise the number of vaccinated children in 2023.

Figure 29:National Immunization Coverage of selected antigens – 2023



Source: *EPI annual review 2022 and VIMS database*

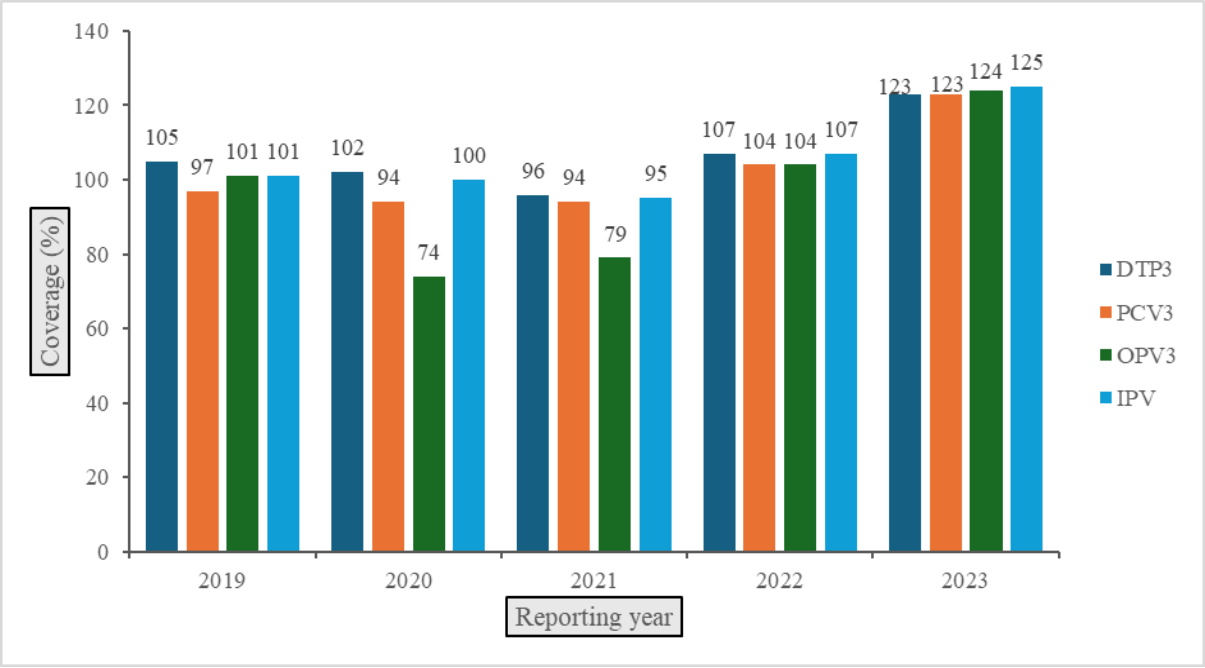
Trend of Immunization coverage of antigens given at the same time

Overall, the numbers of vaccines given to children has increase substantially for all antigen in 2023 due identification and vaccination of zero-dose and under-vaccinated

children during periodic intensification of routine immunization. However, the proportional of children given bOPV vaccine decreases from 101% in 2019 to 74% in 2020 and 79% in 2021 due to stock out of bOPV antigens at National level.

Furthermore, the country implemented a national catch-up plan in 2023 by conducting a series of periodic intensifications to reach all under vaccinated children below five years. In some regions missed children above one year in their vaccination records were included into routine data hence affecting numerator and coverage data going above 100%. Inadequate knowledge and skills in data management by some health care workers, especially in facilities not using electronic immunization registry resulted into over/under reporting due to data entry error during data compilation.

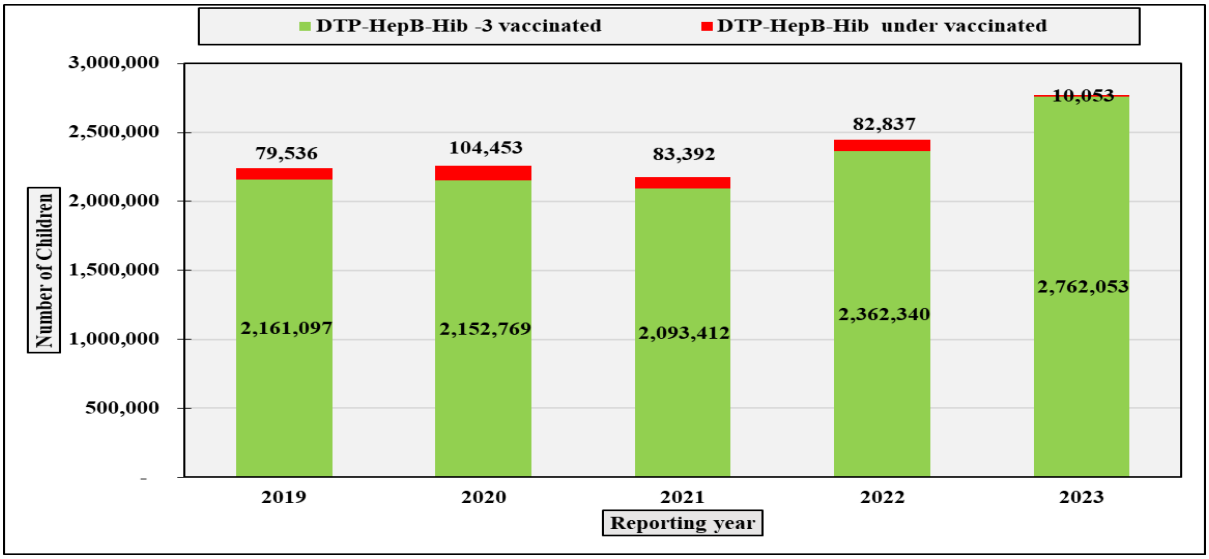
Figure 30:Trend of immunization coverage for vaccine antigens given at the same schedule (2019 - 2023)



Trend of vaccinated and under-vaccinated DTP-HepB-Hib Vaccine

The number of under-vaccinated children has been steadily decreasing from 104,453 in 2020 to 83,392 in 2021, 82,837 in 2022, and to 10,053 in 2023. Following program's continuous efforts in conducting periodic intensification of routine immunization activities, the number of under-vaccinated children continued to drop in 2023.

Figure 31:Vaccinated and under-vaccinated, DTP Vaccine from 2019 to 2023

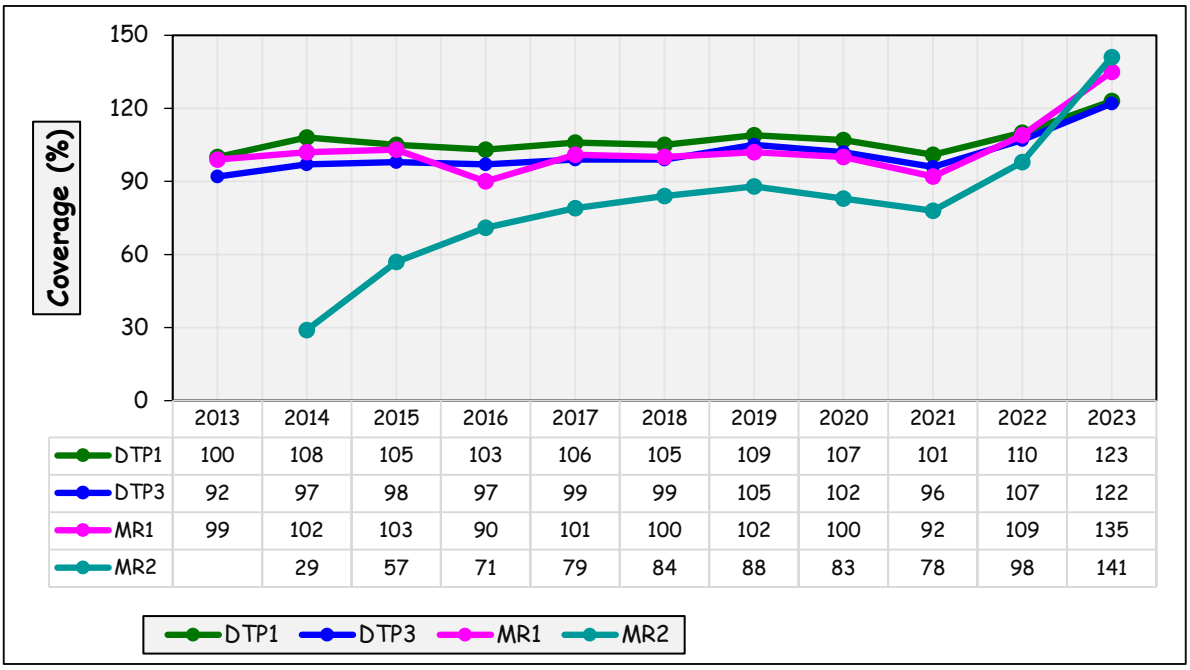


Trend of DTP1, DTP3, MR1 and MR2 Coverage for ten years

The DTP-HepB-Hib first dose, DTP-HepB-Hib third dose and MR1 were steadily performing well since 2013 with a slight drop in 2020 and 2021. This drop was mainly due to COVID -19 pandemic during which more effort and resources were drawn towards responding to COVID -19.

Since introduction of second dose of Measles containing vaccine (MR2) in 2014, MR2's performance has steadily improved. The COVID-19 pandemic resulted in a modest decline in coverage in 2020 and 2021. However, in 2022 and 2023 there has been a significant increase in MR2 coverage.

Figure 32:Trend of DTP1, DTP3, MR1 & MR2 Coverage – (2019 – 2023)

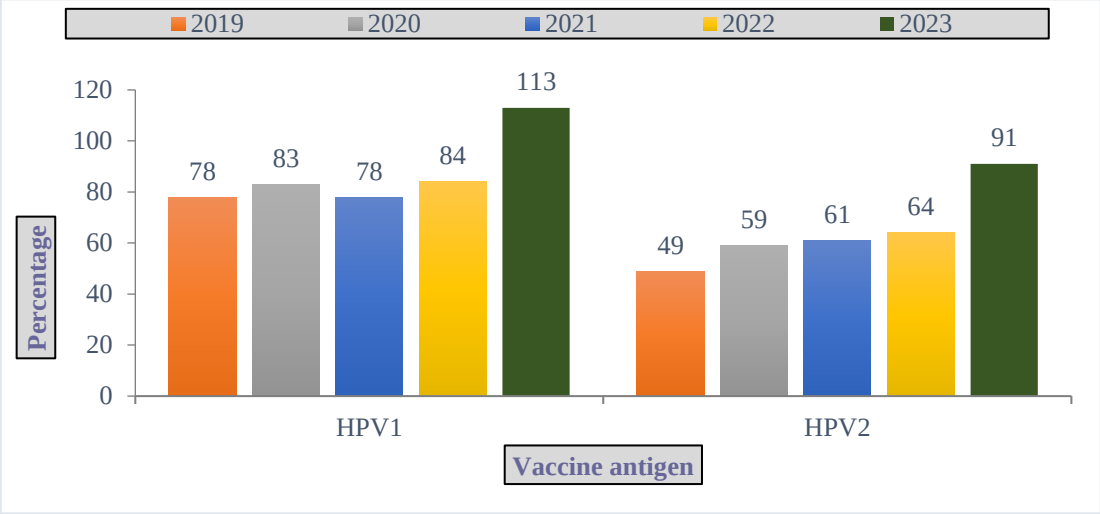


	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
DTP1	100	108	105	103	106	105	109	107	101	110	123
DTP3	92	97	98	97	99	99	105	102	96	107	122
MR1	99	102	103	90	101	100	102	100	92	109	135
MR2		29	57	71	79	84	88	83	78	98	141

HPV Vaccines coverage trends

From 2019 to 2022, the overall HPV1 coverage remained stable (between 78 and 84%). However, for 2023 the goal of 80% has been reached with a coverage of 113% for HPV1. From 2019 to 2022 HPV2 coverage was between 49% and 64% but there was a sharp increase for 2023 to 91% (see figure 17). The increment was contributed by the periodic intensification of routine immunizations.

Figure 33:HPV Vaccine Coverage Trend (2019 – 2023)



Challenges

i. There was out of stock of vaccine for 2019 – 2022 which led to high vaccination rate in year 2023.

Policy recommendations

i. Strengthen catch-up plan to target unvaccinated and under-vaccinated children, resulting in improved vaccination coverage.

ii. Ensure all stakeholders value, seek out, and actively support immunization services

iii. Ensure the availability and utilization of high-quality data to facilitate evidence-based decision making at all levels.

CHAPTER FOUR

4. COMMUNICABLE DISEASES

Communicable diseases remain a major global public health threat. In Tanzania, communicable diseases are a leading cause of death. For example, malaria and HIV/AIDS contribute to higher causes of death. In addition, rapidly developing microbial resistance has led to a new dimension of threat posed by infectious disease. Even though tuberculostearic medicines exist and multi-drug-resistant tuberculosis is treatable, tuberculosis continues to be a public health concern each year.

4.1. HIV/AIDS

Tanzania is one of the highest HIV burdened countries in Eastern and Southern Africa (EASA). The HIV prevalence is characterized by significant heterogeneity across age, gender, social-economic status, and geographical location. The country's HIV prevalence of 4.4% (THIS 2022/ 2023) among 15-49 years and the estimation of about 1,548,000 adults living with HIV, places Tanzania among the top five countries with the highest number of PLHIV in Africa (UNAID'S Global Report, 2021).

According to the 2022/23 Tanzania HIV Impact Survey the incidence rate for people aged 15-49 was 0.21 compared to 0.24 in 2016/17 (THIS) and for the ages 15+ the incidence rate was 0.18 (2022/23 THIS) compared to 0.29 (2016/17 THIS), this show that there was a decrease in HIV incidence rate.

National HIV Related Impact and Outcomes

The Government of Tanzania (GoT) has adopted and committed to fast-track the UNAIDS' three 95% targets by 2025, towards ending the epidemic by 2030 (UNAIDS, 2014). Ending the HIV epidemic involves three outcome measures illustrated in table below. Table 21. illustrates the country's progress as of 2023 for the three listed epidemiological impacts.

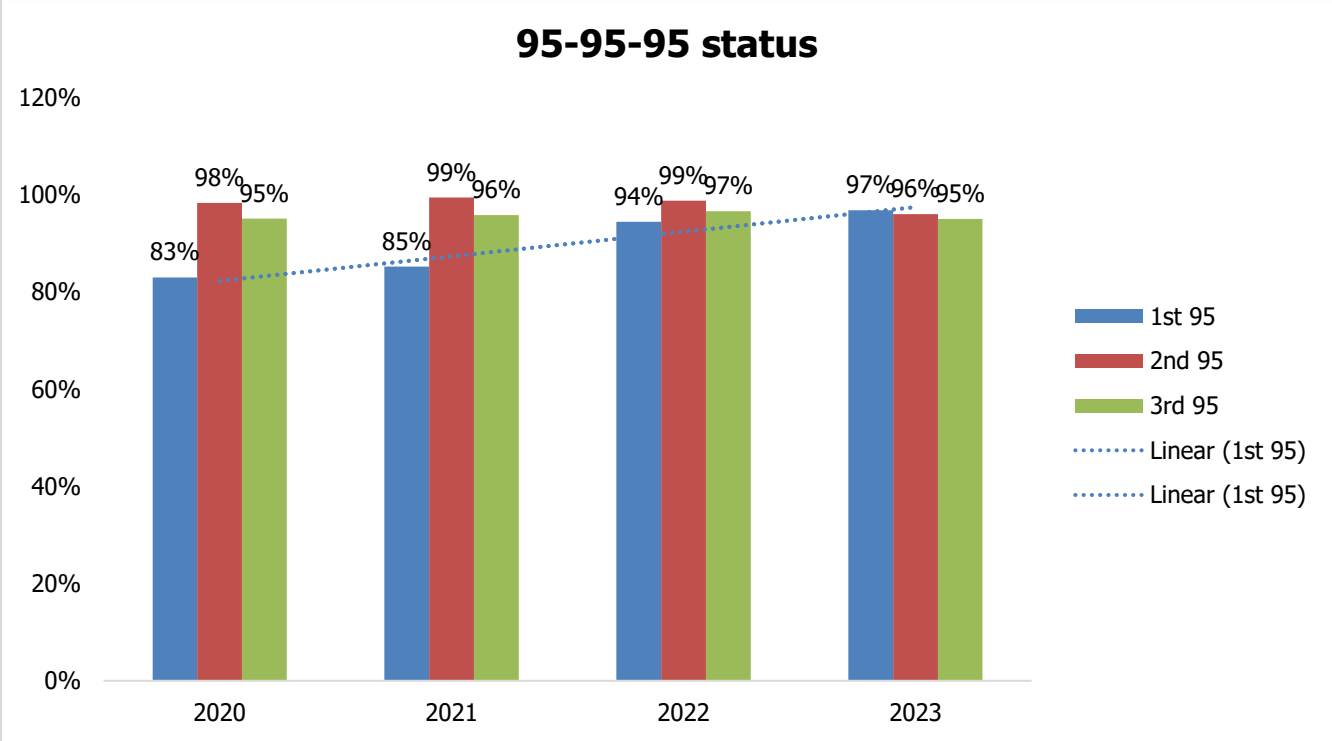
Table 21:Country's Standoff on HIV Impact Outcomes, 2023

2020 Target: NMSF IV 2018 - 2023	Status as of 2023
New HIV infections were reduced by 75% in 2020, and by 85% in 2023 from the 2010 baseline • Among children reduced to less than 5% by 2023 and below 2% by 2030	Approximately 60,000 people acquired HIV infection in 2023, 30% of the new infections are among young people, and 71% of the new infections among young people are AGYWs. • Equivalent to a 46% decline from the 2010 baseline of 110,000, 21% increment among young people • MTCT has dropped to 6.9% in 2023, down from 18% in 2010 and 11% in 2021, yet off a target of ≤4%
AIDS related death reduced by 50% in 2020, 70% in 2023, and 80% by 2030	Estimated 25,000 lives were lost to AIDS related illnesses, • A 61% decline from the 2010 (64,000) baseline. An 18% decrease among children from 22% in 2022.
HIV related stigma reduced to <5% by 2025 from the 2013 baseline of 28% and 20.5% for external and internal stigma respectively. Attain < 5% stigma and discrimination by 2030	5.5 % PLHIVs experienced external stigma (Stigma Index Survey 2.0, 2021)

UNAID'S Sustainable Development Goals

Through a strong determination to end the epidemic as highlighted in the Health Sector HIV Strategic Plan five (HSHSP V, 2022-2026); the country has promising progress towards three 95's and has surpassed all the three goals towards the elimination of HIV infection goal by 2030. Figure 34. depicts the overall country performance by the end of 2023.

Figure 34:Performance on UNAIDS SDG; PLHIV Identification, illustrating first 90 by 2020 and first 95% by 2023



Source: *HMIS-DHIS2, 2023*

Figure 35:95-95-95 Status According to This 2022-23

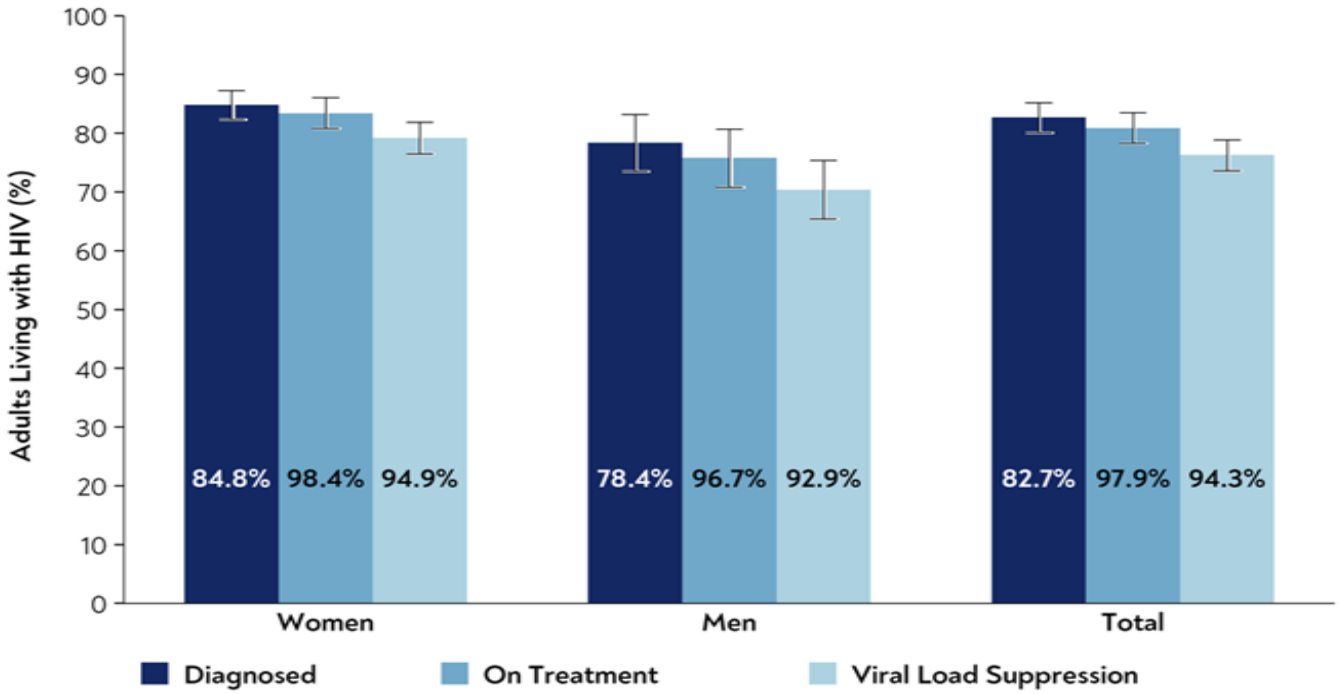
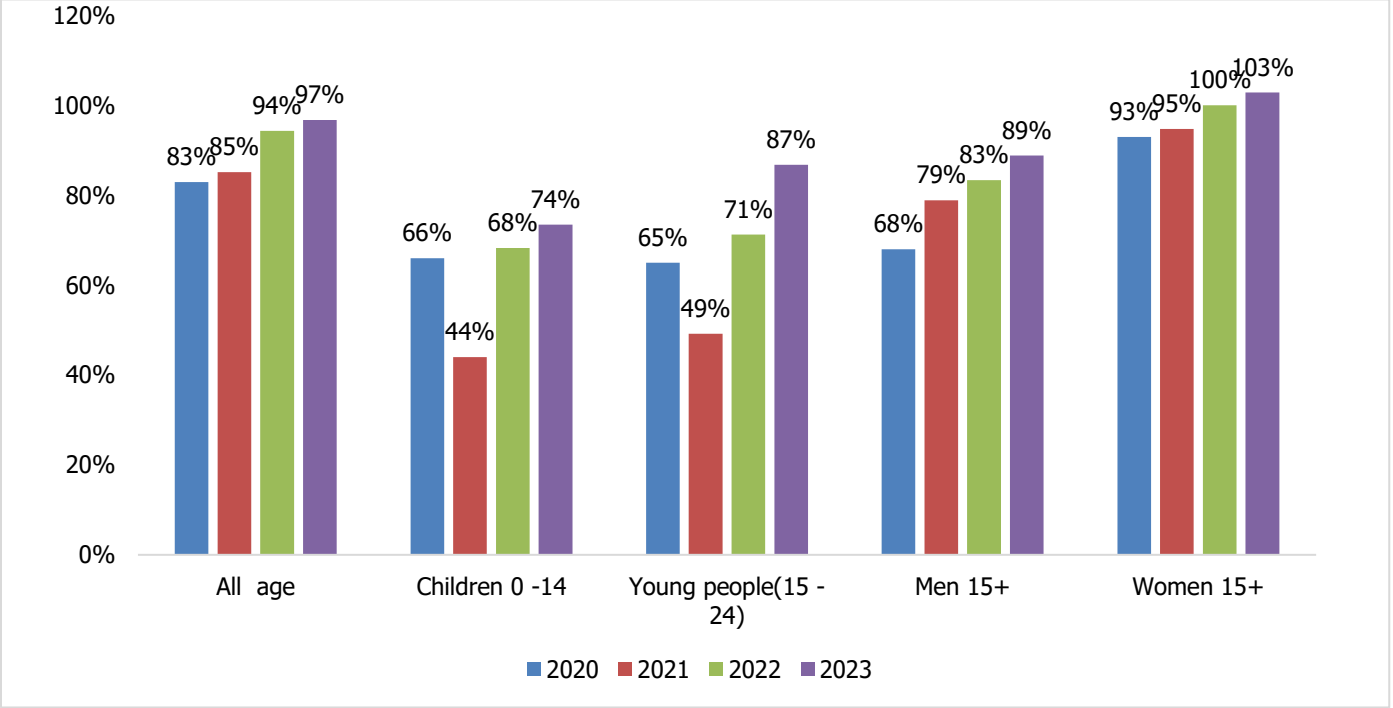


Figure above show that according to Tanzania HIV Impact Survey, 82.7% of people (adults aged 15yrs and older) living with HIV are aware of their HIV-positive status (diagnosed), among them 97.9% are on ART, among people on ART, 94.3% have viral load suppression.

PLHIV Identification

Besides the efforts made by the government to identify unknown PLHIV and link them into care, treatment and support services; as much co-existing challenges calls for similar determinations to counteract the unpredicted outcomes. Apparently, Children aged below 15 years are insufficiently reached through existing strategies, calling upon ground-breaking approaches across the hotspots.

Figure 36:Country performance on UNAIDS 95-95-95, PLHIV identification gaps highlighted across sub populations; 2020-2023

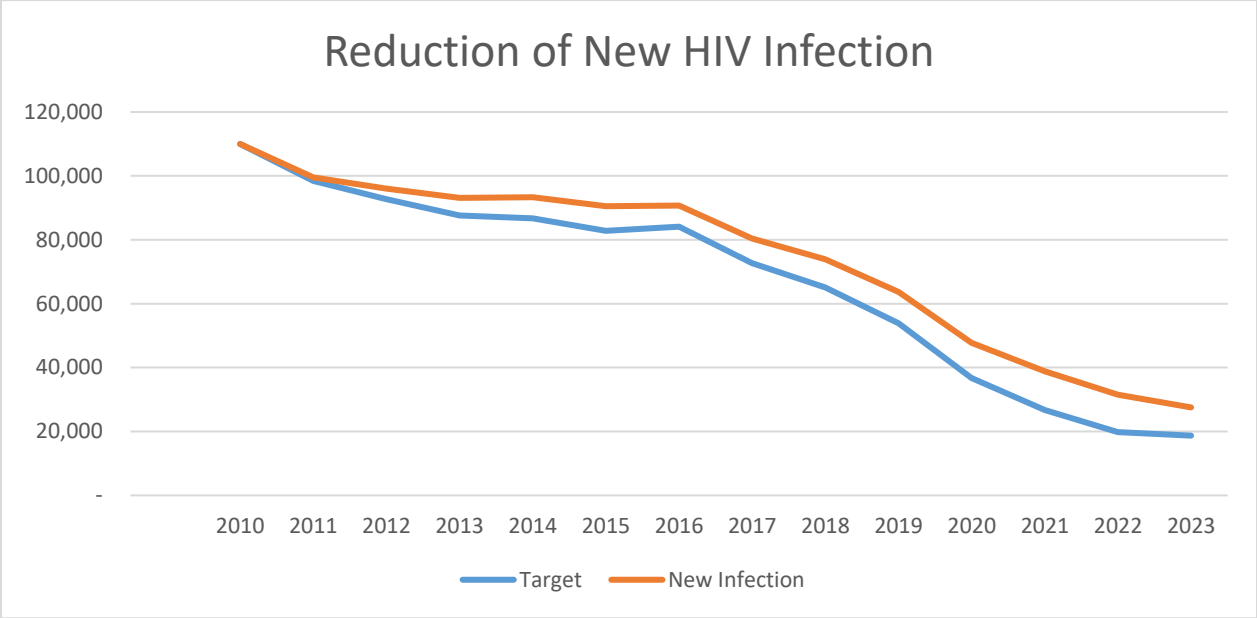


Source: *HMIS-DHIS2, 2023*

Reduction of New HIV Infections

It is estimated that about 6,500 new HIV infections occur among children below 15 years old. Moreover, about 50% all new infections are from the 15 – 29 years old age group. Although generally, new HIV infections have significantly dropped over the recent years (figure 37), program data has indicated existence of new HIV Infection pockets.

Figure 37:Slow reduction of new HIV infection far above the target,2010 -2023



Source: *Spectrum Estimate, 2023*

Coverage of HIV Early Infant Diagnosis (HEID)

Mother to Child transmission of HIV (MTCT) including final transmission during breastfeeding remains a challenge as it stands at 6.9%. The country lags through infants' subsequent testing at 9, 12 and 18 months and consequently targets to reach 95% of infants before age 2 months by 2025. The proportion of HEIs who received ARV prophylaxis has remained high over 95% for the years with sudden drop in 2022. The analysis shows a gap in EID services uptake and poses a risk of increasing MTCT among HIV exposed infants.

Table 22:Early infant diagnosis towards elimination of Mother to child transmission of HIV

Variable	Year			
	2020	2021	2022	2023
Number of pregnant women living with HIV at ANC (Proxy measure of total infants needing EID care)	78,122	77,102	69,250	64,977
Number of HIV exposed children tested at 6 – 8 weeks	53,514	47,826	58,247	50,085
Proportion of exposed children tested at 6 – 8 weeks	68.5%*	70%*	78.7%	80.3%

Variable	Year			
	2020	2021	2022	2023
Number of HIV exposed children tested at 18 Months	15,081	22,908	22,888	28,699
Number of HEI received ARV Prophylaxis	35,496	47,138	26,528	56,301
Number of HEI received CTX	35,316	40,788	38,257	58,849
The proportion of HEI received ARV prophylaxis	95.8	98.6	52.5	90.4
The proportion of HEI received CTX	95.4	85.3	75.7	94.5

** Denominator was adjusted by 25% to control for double reporting emanating from old and new PMTCT MC cohort reporting forms and overestimating denominator*

Viral Hepatitis Infections (HPV)

Despite the long history of viral hepatitis infections, and significant public health efforts to eliminate them, they persist as significant public health threats in Tanzania. The recent national survey data reported a prevalence of 3.5% for HBV and 0.2% for HCV. The prevalence is higher among at-risk subpopulations. Moreover, there is a high burden of untreated STIs (7.4%) which can enhance both the risk of acquisition and onward transmission of HIV and viral hepatitis.

By 2025 the country intends to reduce the annual incidence of hepatitis B and C by 40% (2022 baseline) and reduce hepatitis B and C-related deaths by 40%. The mortality rate will translate to < 7 per 100,000, and <3 per 100,000 population for viral hepatitis B and C respectively.

Sexually Transmitted Infections (STIs)

The burden of STIs in Tanzania is high with 5.3% of surveyed adult males aged 15 years and older, reporting abnormal discharge from the penis, and 7.4% had an ulcer or sore on or near the penis in the 12 months preceding the 2016/17 HIV impact survey; Presence of untreated sexually transmitted infections (STIs) can enhance both the risk of acquisition and onward transmission of HIV and viral hepatitis. Moreover, there is a high burden of untreated STIs (7.4%).

Challenges

PLHIV Identification

Program data indicate that substantial proportions of adult men, young people and children are inadequately reached for identification and therefore are left behind not knowing their HIV status. This gap is attributable to inadequate identification of key and vulnerable populations through their hotspots.

Policy Recommendations

i. Enhance sensitization and increased access to HIV testing services among most at risk populations (Adult Men, EID for children and AGYW) as the way of increasing the overall coverage.

ii. Improved community ART adherence and ART regimen optimization, especially for children, adolescents and young people for ultimate viral suppression (**U**ndetectable = **U**ntransmissible).

iii. Strengthen targeted prevention interventions to achieve last mile reduction and/or elimination of new infections in general population.

4.2. Tuberculosis And Leprosy Control

Tanzania is among the 30 high TB and TBHIV burden countries with estimated 128,000 TB incidence and 18,100 TB deaths both HIV negative and positive as per the WHO Global TB Report 2023. The report also shows that Tanzania has reduced the TB incidence rate by 36% from 306/100,000 per population in 2015 to 195/100,000 in 2022 and number of TB deaths reduced by 69% from 55,000 in 2015 to 18,100 in 2022. Based on the above data, Tanzania is on track to reach the 2025 End TB target milestone of reducing the TB incidence rate by 50% and number of TB deaths by 75%. In 2022, 78% of TB patients were diagnosed and received treatment, with 22% missed TB cases.

Tanzania achieved leprosy elimination target since 2006, thus mean less than 1 case of leprosy per 10,000 population. In 2023, 1,374 new cases were reported, translating to a leprosy detection rate of 22 per 1,000,000 population and the rate of children detected among newly leprosy cases was 0.6 per 1,000,000 population. Additionally, the Grade 2 Disability (G2D) rate was 1.4 per 1,000,000 population among new cases. While leprosy has been eliminated at the national level, new cases are still concentrated in specific councils with eight regions continue to have endemic councils that have not yet achieved leprosy elimination target.

Key indicators and status

As shown in Table 23 below, the country is progressing well in TB control; most key TB indicators such as TB Incidence rate and TB Treatment success rate are performing well. The TB treatment coverage for the year 2023 is not yet available, but the year 2022 treatment coverage of 78% which was above the 2022 target (75%). The leprosy indicators are performing well. The grade 2 disability was 6.3 % against the target of 7%. This necessitates the injection of more resources to burst Leprosy elimination initiatives in the country.

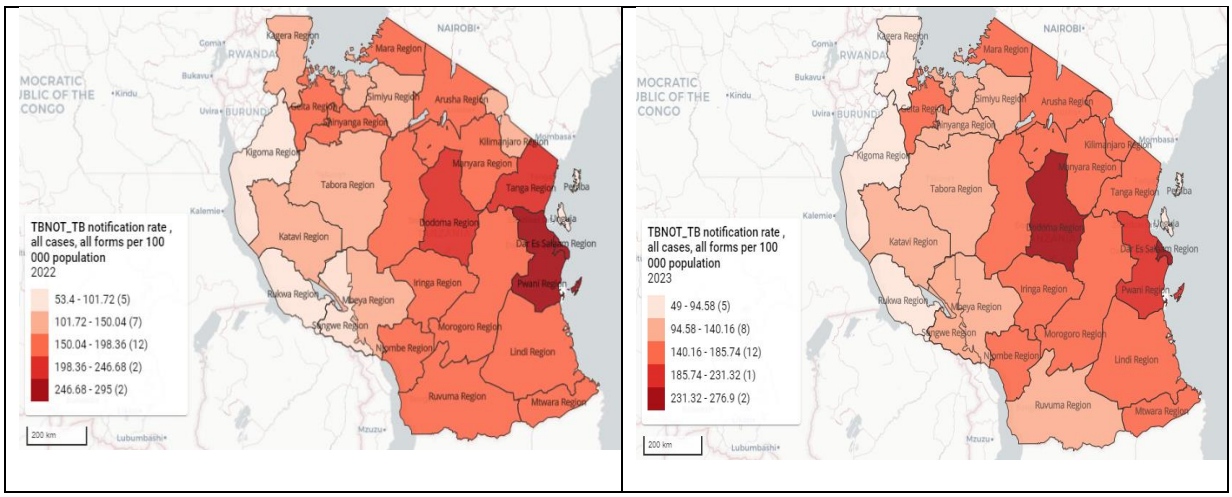
Table 23:HSSP Targets & Indicators

S/N	Indicators	Target (2023)	Achievement 2023	Baseline 2020	Target 2025	Comments	Data Source
1	TB treatment coverage	81%	78% (2022)	59%	90%	Progressing well, data for 2023 not available	WHO TB Global report 2023
2	TB incidence rate per 100,000 population	197	195 (2022)	273	150	Target achieved,	DHIS2 ETL & WHO TB Global report 2023
3	TB Treatment success rate	>90%	96%	93%	>90%	Target achieved	DHIS2-ETL
4	Grade 2 disability among newly diagnosed leprosy cases	7%	6.3%	7%	5%	Target achieved	DHIS2-ETL

Source: *DHIS2-ETL & WHO GTR 2023*

Figure 38. shows the performance in TB case notifications rate per 100,000 population in 2022 and 2023 by region. The top five regions with high TB notification rates are Dar es Salaam, Dodoma, Pwani, Njombe and Manyara in both years 2022 and 2023, Regions like Tabora, Songwe, Mwanza, Kagera and Kigoma had low TB case notification rate in 2023 while in 2022 Tabora, Songwe, Mwanza, Katavi and Kigoma had low TB notification rate. However, all regions except Njombe, Singida, Kilimanjaro, Songwe and Rukwa have their TB notification rate declined in 2023 compared to that of 2022.

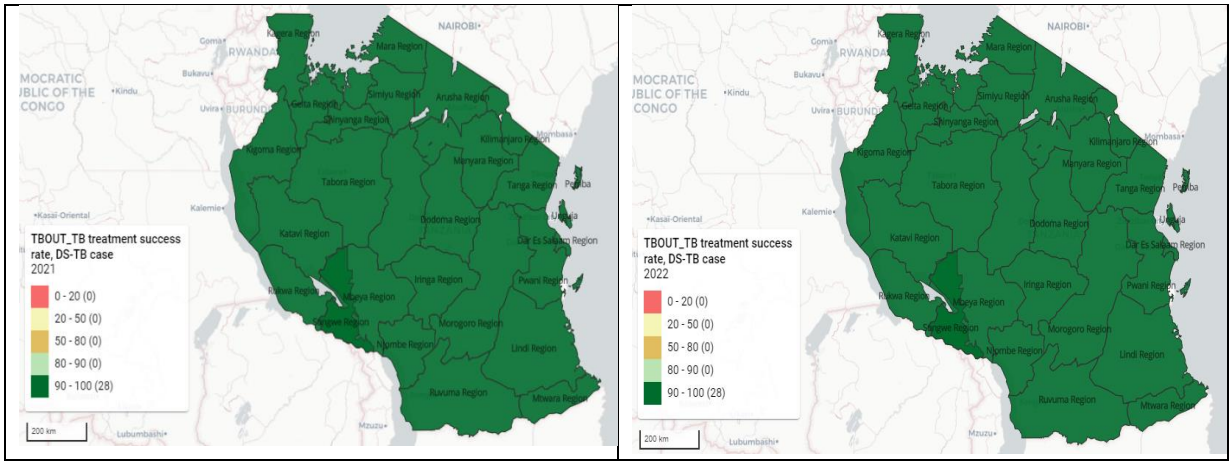
Figure 38:Performance in TB Notification rate per 100,000 population by region, 2022 and 2023



Source: *DHIS2-ETL*

Figure 39. shows TB treatment success rate by Region for TB patients started treatment in 2021 and 2022. At the national level, the treatment success rate has slightly increased to 96% in 2022 compared to 95% for TB cases notified in 2021. All regions surpassed national target of above 90%.

Figure 39:TB treatment Success Rate by Region



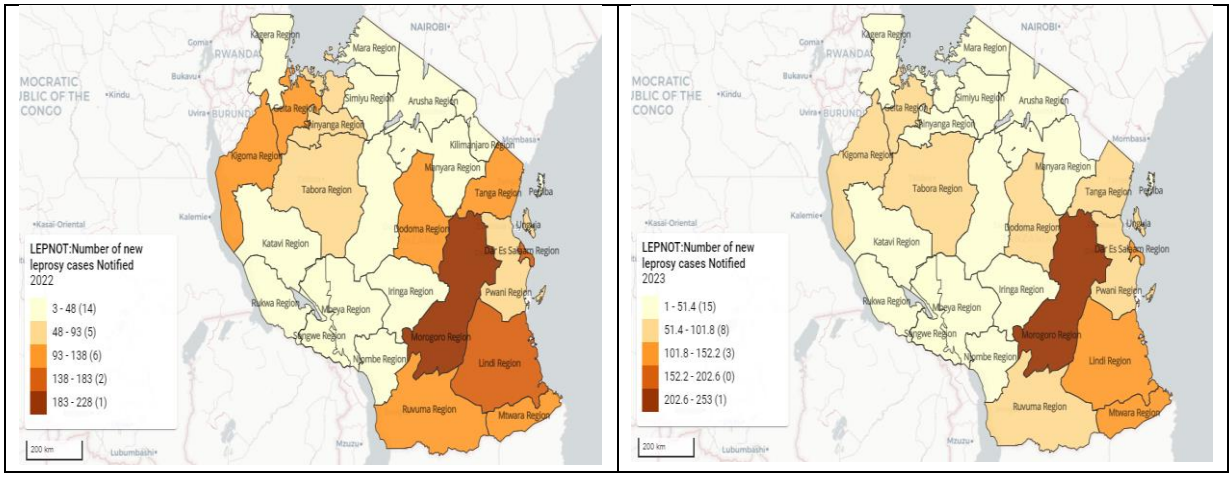
Source: *DHIS2-ETL*

Figure 40. illustrates the number of new leprosy cases diagnosed per region in 2022 and 2023. Morogoro region led in leprosy notifications, followed by Lindi, Dar es Salaam,

Mtwara, and Kigoma in both 2022 and 2023. The regions with the fewest leprosy cases in 2023 were Iringa, Mara, Njombe,

Arusha, Manyara and Kilimanjaro. In contrast, in 2022, the regions with the fewest cases were Iringa, Arusha, Simiyu, Manyara, and Kilimanjaro.

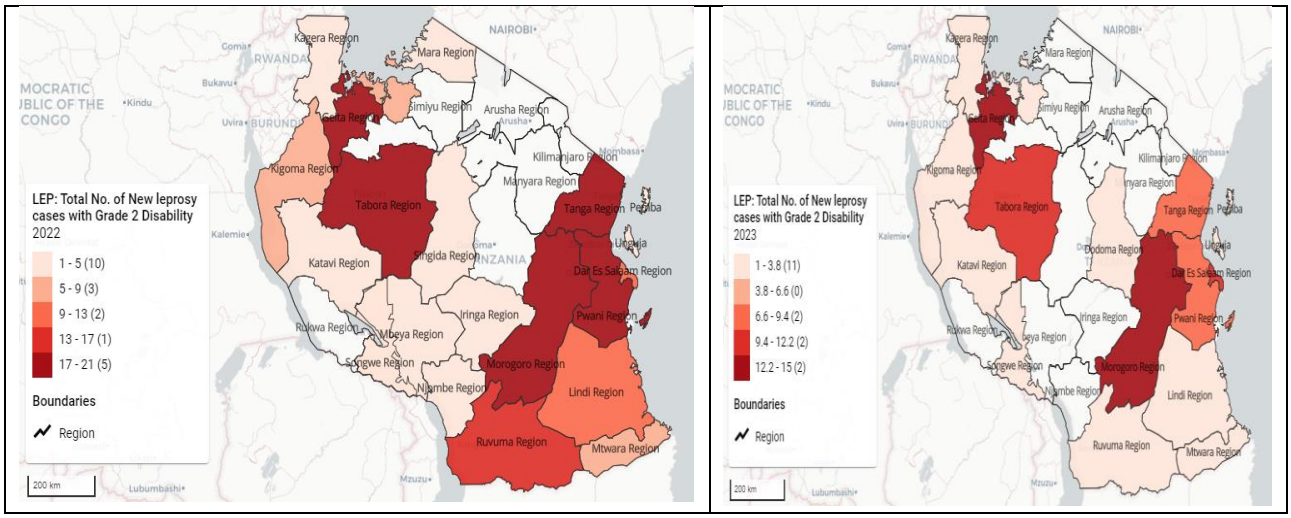
Figure 40:Number of new Leprosy cases diagnosed in 2022 and 2023



Source: *DHIS2-ETL*

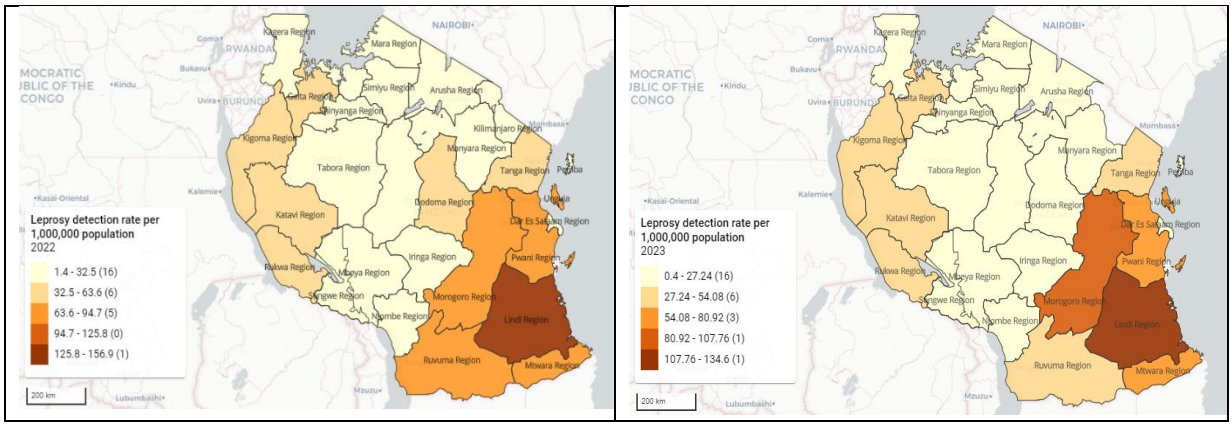
Figure 41. depicts the number of new leprosy cases with Grade 2 Disability (G2D) per region. The Morogoro region had the highest number of G2D cases, followed by Geita, Dar es Salaam, Tabora, and Tanga. This pattern was consistent in both 2022 and 2023. Regions of Singida, Simiyu, Shinyanga, Rukwa, Njombe, Mbeya, Mara, Manyara, Kilimanjaro, Iringa, and Arusha reported zero new leprosy cases with G2D.

Figure 41:Number of new leprosy cases with Grade 2 Disability



Source: *DHIS2-ETL*

Figure 42:Leprosy detection rate per 1,000,000 population by region, 2022 and 2023



Challenges

i. Low awareness and knowledge of community and health services providers on tuberculosis and leprosy diseases

ii. Inability to afford initial costs for services, including consultation fees and diagnostic investigations such as X-rays.

iii. Inadequate skills and knowledge in the management of Leprosy patients among the health care providers

iv. Inadequate financial resources to support community-based activities.

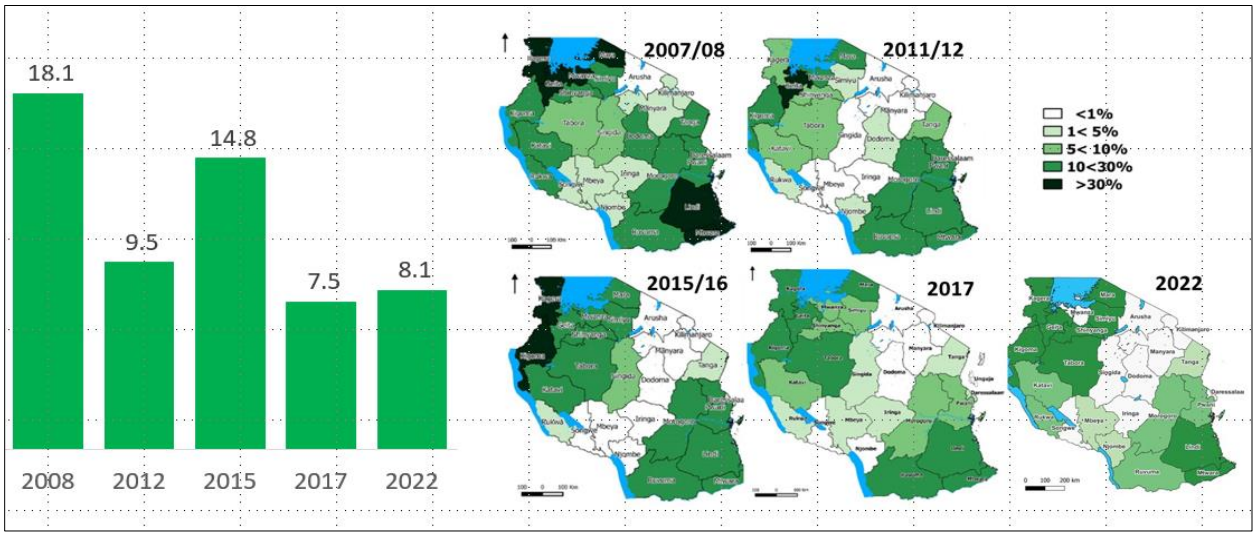
Policy recommendations

i. Expansion of TB and Leprosy services to reach more people through improving diagnostics services in health facilities and optimizing Integrated Sample Referral System
ii. To expand models of health financing and social protection to address barriers to TB services access, such as consultation fees and other indirect costs.
iii. Engage more Implementing partners (IPs) to support TB and Leprosy control interventions
iv. Enforce the use of National Operational Guideline for Community based Tuberculosis and Leprosy intervention.

4.3. Malaria

In the last 10 years, approximately one third of the country consistently showed a very low (<1%) Malaria prevalence and remained moderate to high (10% and above) prevalence in another one third of the country. The remaining third of the country had a low prevalence (1 - <10%) fluctuating between the two above extremes as depicted by Figure 4.8. The dynamics of the proportion of population living in the four endemicity levels are extrapolated from three successive Malaria Indicator Surveys (MIS) conducted between 2008 and 2017 (Figure 43). All MISs have demonstrated an increase in the proportion of people living in very low transmission areas and conversely a decrease of the population living in the highest transmission settings. Furthermore; the MIS conducted in 2017, revealed 59% decline in prevalence of Malaria in Tanzania Mainland from an average of 18.1% in 2008 to 8.1% in 2022.

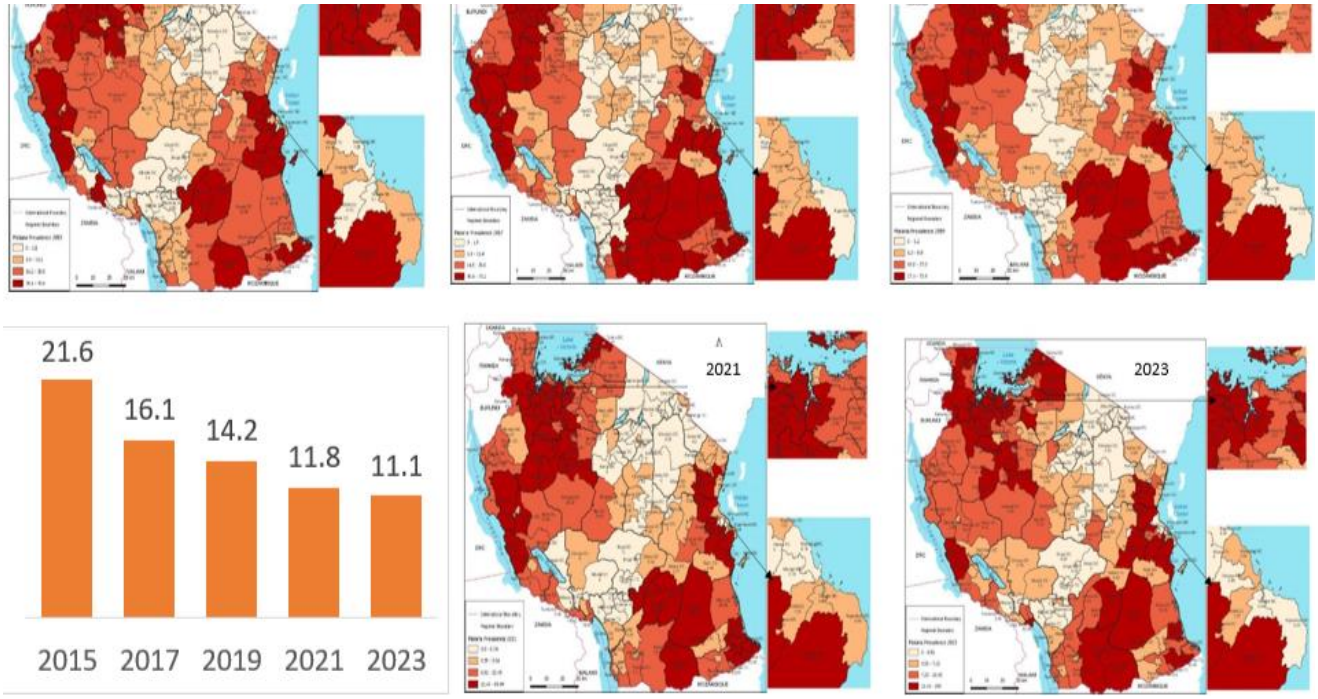
Figure 43:Trend in Malaria Prevalence among 2 – 59 months Children (MIS) from 2008 to 2022



Source: *TDHS-MIS*

The School Malaria Parasitological Survey (SMPS) though is higher than MIS, there was a decrease in malaria prevalence among school aged children of 5 – 16 years from 21.6% in 2015 to 11.1% in 2023 (Figure 4.9). The population of school children shows a progressive increase in number of Councils with very low endemicity (less 1%) from 45 in 2015 to 59 in 2019; decreasing to 50 councils in 2023. The population also shows a progressive decrease in number of Councils with highest endemicity class from 64 in 2015 to 22 in 2023 as depicted by table 44.

Figure 44:Trend in Malaria Prevalence among School Aged Children (5 – 16 years old), 2015 to 2023



Source: *The 2021 SMPS report*

Table 24:Trends in number of Councils by mean prevalence among school children in different strata (2015 - 2023)

Prevalence Rate	Number of Councils				
	2015	2017	2019	2021	2023
<1%	45	45	59	58	50
1-<5%	19	29	15	27	39
5-<10%	13	13	15	22	20
10-<30%	40	40	51	46	53
>30%	64	57	44	31	22
Total number of Councils	181	184	184	184	184

Malaria Incidence

The malaria case distribution among outpatient department (OPD) attendees across various age groups from 2022 to 2023, alongside the incidence of malaria per 1,000 individuals annually. The percentage of children under five years old among OPD malaria cases exhibits a downward trajectory, decreasing from 11.1% in 2022 to 9.8% in 2023. Similarly, the proportion of malaria cases across all age groups concerning total OPD attendance demonstrates a decline from 8.4% in 2022 to 7.6% in 2023. Overall, the incidence rate per 1,000 individuals at risk per year drops from 76.4 cases in 2021 to 57.7 cases in 2023, with minimal variance observed between 2022 and 2023 (Table 4.6)

Table 25:Trend of Malaria Incidence (2021 – 2023)

DATA PARAMENTERS		**2021**	**2022**	**2023**
OPD Attendance	All Age Group	41,475,952	41,347,499	46,517,000
OPD Malaria Cases		4,410,290	3,467,789	3,536,947
OPD Attendance	< 5 years of age	14,091,536	14,181,363	16,491,089
OPD Malaria Cases		1,960,528	1,574,627	1,610,704
Malaria Burden	All Age Group	10.6%	8.4%	7.6%
	< 5 years of age	13.9%	11.1%	9.8%
Malaria Incidence per 1000 (all age groups)		76.4	57.9	57.7

Source: *HMIS-DHIS2*

Challenges

i. Inadequate inventory management and control as a result of inadequate availability of the tools, inadequate documentation, irrational use of malaria

commodities as well as not adhering to the guides by health care workers in different levels of supply chain.

ii. Data quality: Inconsistence between DHIS2 and eLMIS data reported by the same health facilities which affect the quantification needs.

iii. Inadequate funding of the NMSP by 57%, mainly on implementation of the key priority vector control intervention; IRS in all 61 epidemiological recommended councils and country wide implementation of biolarvicide (LSM). No any council implemented IRS in year 2023.

Policy recommendations

i. To continue conduct population-based surveys to enrich routine health facility data for evidence-based planning and allocation of interventions.

ii. The MoH to Advocate for mobilization of domestic resources at the National and LGAs levels through the implementation of an End-Malaria Council (EMC) and the allocation of malaria interventions in CCHPs.

iii. To scale up chemo-preventive strategies; Intermittent preventive treatment of malaria in school-aged children (IPTsc) and Perennial malaria chemoprevention (PMC) as these have the potential to accelerate malaria burden reduction and as well as being able to improve access to care in hard-to-reach communities.

iv. To ensure intoperability of the available information systems (DHIS2/HMIS, GotHOMIS and AFYA Care) where a single digital reporting tool can be used to capture all data at the health facilities to increase efficiency and minimize transcription errors while documenting and reporting.

v. The Ministry of Health (MoH) and the PO-RALG should enhance the utilization of the micro-planning tool integrated into the plan-rep for both councils and health facilities. This tool should encompass malaria interventions within their comprehensive plans

vi. To accelerate implementation of integrated Community Case Management for Malaria (iCCM) in five (5) Regions of Kagera, Kigoma, Geita, Katavi and

Ruvuma to achieve burden reduction in areas with moderate and high malaria transmission risk.

4.4. Prevention And Control Of Other Communicable Diseases

Notifiable Diseases

Epidemiology and Diseases control plays important role of disease control and prevention using Integrated Disease Surveillance and Response (IDSR) approach for all programs. This can only be successful when detection of the targeted diseases is done as well as obtaining laboratory confirmation of the disease and using thresholds to initiate timely action at the Community, Facility, District, Regional and the National levels.

Integrated disease surveillance systems provide necessary technical support for strengthening national communicable disease surveillance systems through the implementation of the national strategy for Integrated Disease Surveillance and the International Health Regulations (IHI). In 2014, Tanzania started using mobile technology, known as eIDSR (electronic IDSR) to enhance early reporting of diseases and events. This system is linked to DHIS2 to improve reporting and sharing information among stakeholders.

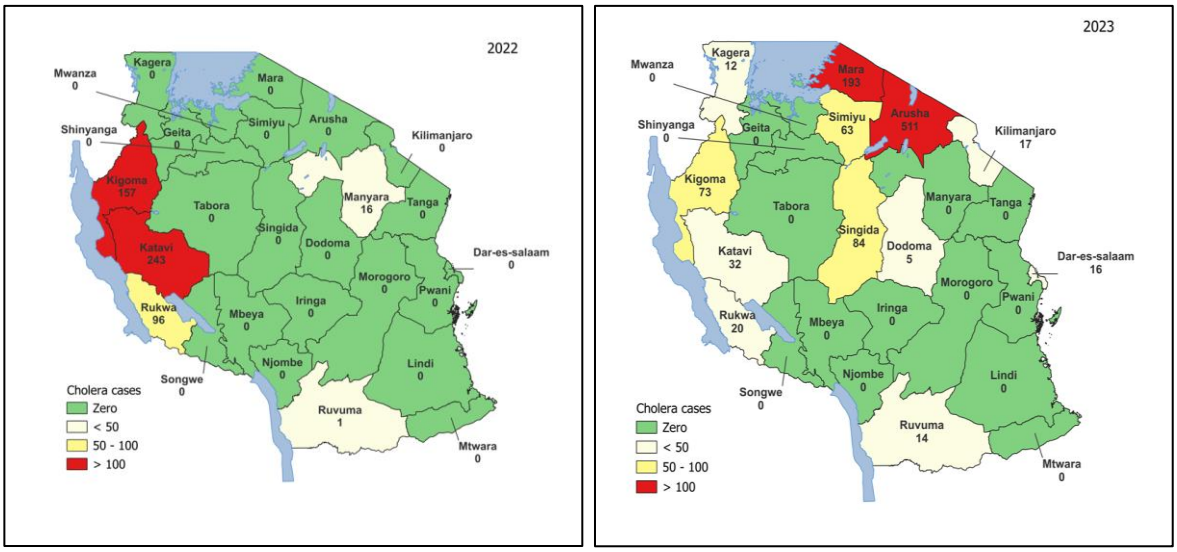
Indicators

i. To have 90% of facilities reporting accurate and complete information on notifiable diseases and events in a timely manner.
ii. To have less than 1 percent (<1) of case fatality rate of cholera
iii. To have zero cases of Influenza A H1N1, Rift Valley Fever and Dengue Fever

Cholera case fatality rate (CFR)

The cholera case fatality rate (CFR) has remained 0 percent in year 2022 while in 2023, CFR raised to 1.9 percent. A total of 1,040 cases with 20 deaths were reported from 12 regions in the year 2023 as compared to 513 cases that were reported from 3 regions in the year 2022 from Rukwa, Katavi and Kigoma regions. The Cholera incident cases were above the 1% CFR in 2023, that led to aggressive response to contain the disease.

Figure 45:Show the distribution of Cholera Cases by Regions in 2022 and 2023



Emerging and Re-Emerging Diseases.

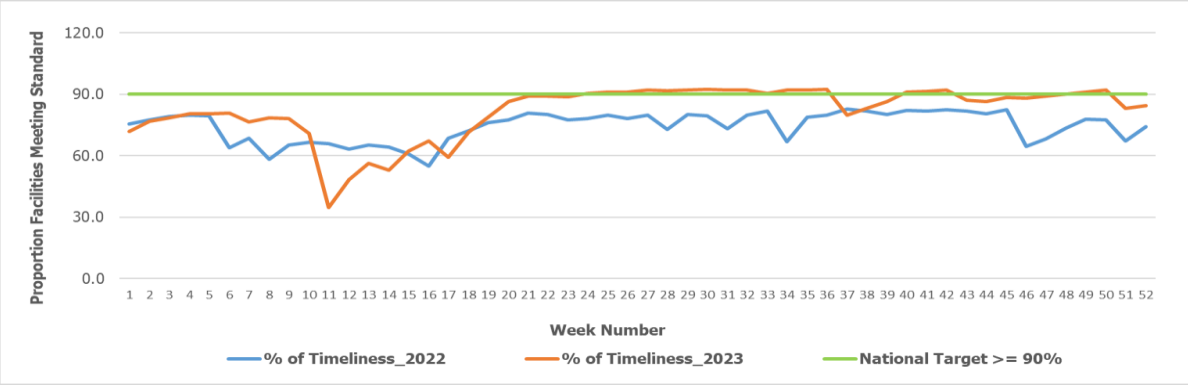
Emerging diseases are a global threat to human existence. Every country is exposed to the potential emergence of infectious diseases. Factors such as changes in ecology, climate and human demographics play different roles in a complex mechanism contributing to the occurrence of infectious diseases. Examples of diseases which have newly emerged in Tanzania are Rift Valley fever (2007), influenza A H1N1 (2009), and Dengue fever (2010). Important aspects of control in case of outbreaks are surveillance, preparedness and early response. The IDSR strategy and other stakeholders are key stakeholder spearheading the country's response and preparedness for emerging and re- emerging diseases.

Influenza A H1N1 (2009) and Rift Valley Fever

Despite of occurance of outbreak of AHIN1 in 2009, in 2023 there was no case but in 2021 and 2022 there were 1 and 3 cases respectively. In 2010, Rift Valley Fever occurred but in year 2021, 2022 and 2023 there were no cases

Percentages of Completeness and Timeliness of Reporting

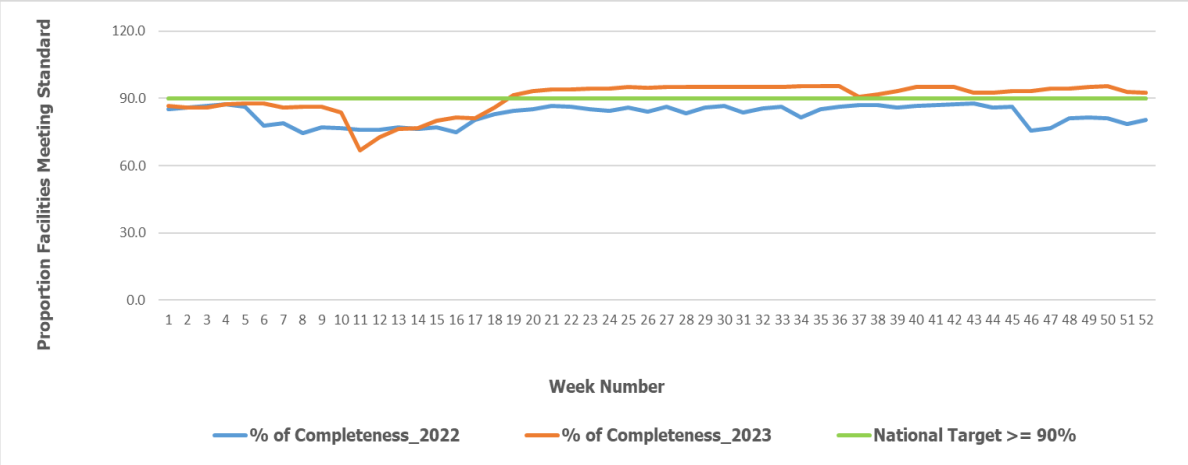
Figure 46:Percentage of Timeliness of Health Facilities reporting by week, from 1st to 52nd Week in 2022 and 2023



Source: *IDSR*

The overall timeliness of health facilities reporting from all 26 regions are presented in Figure 46. Only in year 2023 the timeliness from 19th week to 35th week and three weeks before the end of year reached the national Target. However, in 2022 timeliness was below the national target of >= 90%

Figure 47:Percentage of Completeness of Health Facilities reporting by week, from 1st to 52nd Week in 2022 and 2023



Source: *IDSR*

In 2022 and 2023, the overall completeness of health facilities reporting from all 26 regions as presented in Figure 47. Only in year 2023 the completeness met the national

target >= 90% from 18th week to the end of the year. Despite from 1st week to 17th week were below the target of >= 90%

Table 26:Summary of Key Indicators and their Achievements

Indicators (HSSP IV)	Set target	2021	2022	2023
Number of incident cholera cases notified	0	54	513	1040
Cholera case Fatality Rate (%)	<1	0%	0%	1.9%
Number of incident Dengue Fever cases notified	0	20	0	139
Number of incidents of Rift Valley fever notified	0	0	0	0
Number of influenza A H1N1 cases notified	0	1	3	0
Percentage of districts (N=184) submitting weekly on time to next level.	>90%	80.4%	74.4%	81.8%
Percentage of districts (N=184) submitting weekly on Complete to next level.	>90%	92%	82.8%	90.1%

Source: *DHIS2/IDSR*

Challenges

i. Limited accessibility of mobile network in some parts of the country which causes delay in submission of weekly report for eIDSR.
ii. Inadequate involvement of other sectors in the disease outbreak response.
iii. Lack of Standard Case Definition to some Health Facilities
iv. Inadequate funds to retrain data management of IDSR aspects

Policy Recommendations

i. Enforcement of Public Health Act 2009 on Communicable Diseases Prevention and Control
ii. Advocate installation of mobile networks towers all over the country to easy electronic communication

4.5. Neglected Tropical Diseases

Tanzania is endemic with five Preventive Chemotherapy Neglected Tropical Diseases (PC NTDs); Lymphatic Filariasis (LF), Onchocerciasis, Trachoma, Schistosomiasis (SCH) and Soil-Transmitted Helminths (STH) Table 4.9. Preventive Chemotherapy (PCT) against NTDs in the form of Mass Drug Administration (MDA) has reached all endemic districts countrywide from 2016. This means that, PCT is provided in all endemic councils requiring MDA for Lymphatic Filariasis, Onchocerciasis and Trachoma. There have been interrupted MDAs for Schistosomiasis and STH due to financial resources. Lymphatic Filariasis, Trachoma, Schistosomiasis and STH are targeted for elimination as Public Health Problem and Onchocerciasis is targeted for elimination (interruption of transmission), thus, striving to reach stop MDA implementation across all endemic councils.

Table 27:Number of councils endemic with 5 PC NTDs in year 2023

Preventive Chemotherapy NTDs	**Number of endemic councils**
Lymphatic Filariasis	7
Onchocerciasis	29
Trachoma	9
Soil-Transmitted Helminthiases	184
Schistosomiasis	184

Source: *MOH/NTDCP (2023)*

Two indicators for tracking performance of coverage of preventive chemotherapy are geographical and epidemiological coverage of MDAs. Despite of each ever-endemic district has been reached with PCT against 5 NTDs, inconsistence MDAs for Schistosomiasis and STH MDA is becoming a challenge to maintain geographical coverage.

Table 27. shows the Mass Drug Administration geographical coverage report for year 2023. The geographical coverage was maintained 100% for the LF, Onchocerciasis and

Trachoma MDA. There is declined of Schistosomiasis and STH geographical coverage for reason of MDA was implemented in 45 councils out of 179 councils.

Table 28:Trend in Geographical Coverage of Preventive Chemotherapy for selected NTDs year 2022 and 2023

Year	**2022**			**2023**		
	No of Councils		**Geographical Cov. %**	**No of Councils**		**Geographical Cov. %**
Diseases	**Planned**	**Reached**		**Planned**	**Reached**	
Lymphatic Filariasis	9	9	100%	7	7	100%
Onchocerciasis	29	29	100%	29	29	100%
Trachoma	9	9	100%	9	9	100%
Soil-Transmitted Helminthiases[+]	179	134	75%	179	45	25%
Schistosomiasis[+]	179	134	75%	179	45	25%

Source: *NTDCP Report (2023)*

[+]*The 5 urban councils in Dar es salaam region were excluded from MDA plan due to absence of recent disease prevalence data.*

Figure 48:Trend in Geographical Coverage of Preventive Chemotherapy for selected NTDs year 2022 and 2023

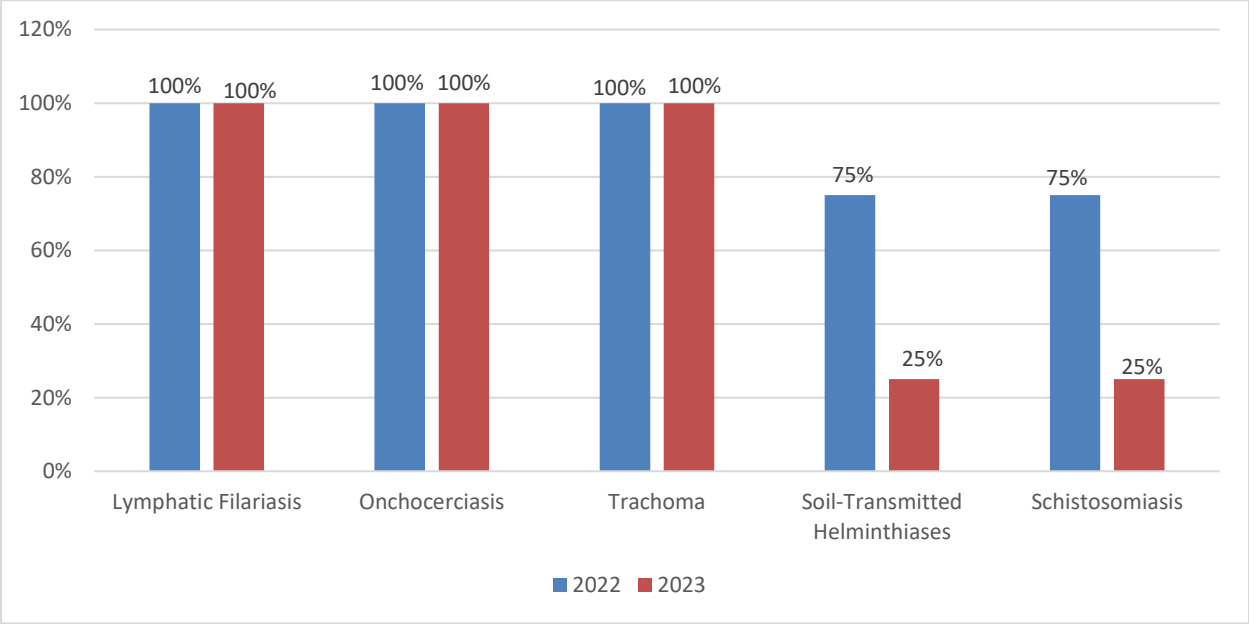


Table 48. shows the Mass Drug Administration epidemiological coverage report for year 2023. The epidemiological coverage in 2023 was highest as compared to 2022 in LF, Onchocerciasis, Schistosomiasis and STH MDA, except Trachoma although still is above minimum coverage threshold of 80%.

Table 29:Trend in Epidemiological Coverage of Preventive Chemotherapy for selected NTDs year 2022 and 2023

Year	2022			2023		
	No of people		Epi. Cov. %	No of people		Epi. Cov. %
Diseases	Population at risk	Treated		Population at risk	Treated	
Lymphatic Filariasis	4,862,641	4,325,413	88.95 %	962,687	909,569	94.5 %

Onchocerciasis	5,033,936	4,986,701	99.06%	5,409,586	5,250,194	97.1%
Trachoma	2,077,926	1,811,733	87.2%	2,251,842	1,838,142	81.6%
Soil-Transmitted Helminthiases*	8,643,095	7,063,867	81.7%	3,634,940	3,170,887	87.6%
Schistosomiasis*	4,085,114	3,443,025	84.2%	2,716,317	2,334,753	85.9%

***Source**: NTDCP Report (2023)*

**The Epi. Coverage of Soil-Transmitted Helminthiases and Schistosomiasis MDA was calculated based on targeted people in geographical area reached with annual MDA.*

Figure 49:Trend in Epidemiological Coverage of Preventive Chemotherapy year 2022 and 2023

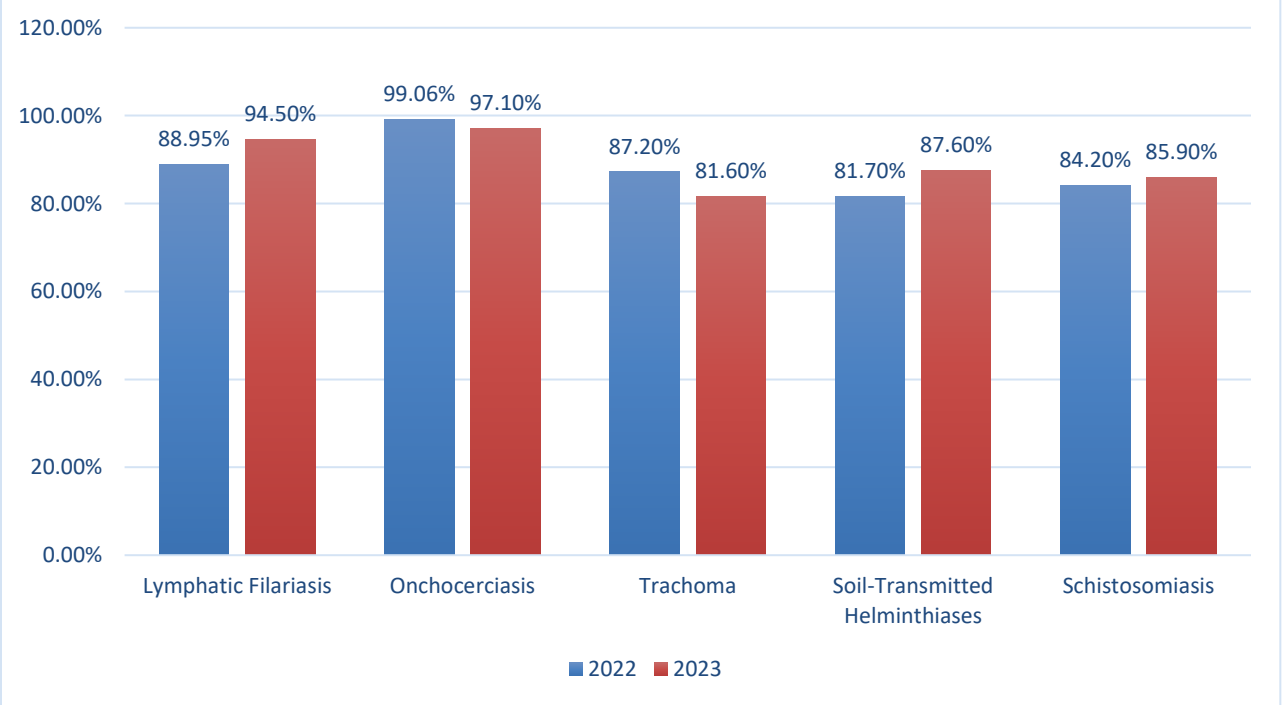


Table 4.12 shows the number of people who attended for NTDs morbidity management. There has been a decrease in the number of patients attended OPD for Onchocerciasis, and Trachoma TF; - from 3,094 and 2,916 in 2022 to 990 and 1,518 respectively in 2023 as well as decreased number of IPD patients for Schistosomiasis and STH in 2023 as compared to 2022. Number of OPD Schistosomiasis and STH (intestinal worms) patients has been increased from 22,068 and 918,404 in 2022 to 22,667 and 1,108,587 respectively in 2023. Performance for Hydrocele operated increased from 102% in 2022 to 113% in 2023, however, Lymphoedema management training for patients was performed less in 2023 as compared to 2022. Trachoma corrective surgeries coverage decreased from 96% in 2022 to 92% in 2023.

Table 30:Number of people required/received interventions against neglected tropical diseases year 2022 and 2023.

Diseases and Services	**2022**			**2023**		
	Target (No)	**Received (No)**	**%**	**Target (No)**	**Received (No)**	**%**
Lymphatic Filariasis (LF):						
Hydrocele operated	900	914	101.6 %	1,200	1,358	113.2 %
Patients training for Lymphoedema management	200	348	174%	400	32	8%
Community Health Workers training for lymphoedema management	0	93	NA	200	208	104%
IPD-LF	NA	439	NA	NA	145	NA
Trachoma:						
TT treatment camp (Surgeries)	3,964	3,823	96.4%	3,823	3,530	92.3 %

Trachoma TF (<5 yr, 5-15 yr and TF >15 yr)	NA	2916	NA	NA	1518	NA
Onchocerciasis (Oncho)						
OPD	NA	3,094	NA	NA	990	NA
Soil-Transmitted Helminthiases (STH)						
OPD (Intestinal worm)	NA	918,404	NA	NA	1,108,587	NA
IPD (Soil-Transmitted Helminthiases)	NA	3,097	NA	NA	2,772	
Schistosomiasis (SCH)						
Schistosomiasis (OPD)	NA	22,068	NA	NA	22,667	NA
Schistosomiasis (IPD)	NA	690	NA	NA	945	NA

***Source**: NTDCP report and DHIS2 (2023)*

Challenges

i. Limited resources for management of backlog of NTD related morbidity such as hydrocele.

ii. Inadequate resources for impact assessment for Schistosomiasis and STH

iii. Limited integration of NTD data in DHIS2

iv. Persistent and/or recrudescence of transmissions for LF and Trachoma

v. Limited access of lymphoedema management services for patients with lymphoedema

vi. Limited financial resources to achieve the targeted geographical coverage for Schistosomiasis and STH in consecutive years as recommended.

Policy Recommendations

i. Integration of NTDs in the Health Sector awareness and advocacy agenda to improve public awareness.

ii. Strengthen care for NTD morbidity through improvement of access to people already affected.
iii. Strengthening of NTD management systems, monitoring and evaluation.
iv. Plans for Operational research and post MDA surveillance for early detection of NTDs and any recrudescence.

Priority Indicators to be added

i. Percentage reduction in people requiring interventions against neglected tropical
    a. diseases
ii. Number of councils having eliminated at least one neglected tropical disease

CHAPTER FIVE
5. NON-COMMUNICABLE DISEASES

5.1. Chronic Non-Communicable Diseases

Non-communicable diseases (NCDs), also known as chronic diseases, are not transmitted from one person to another. These diseases are of long duration and generally slow progression. They take long to develop as they result from complex aetiology in combination with genetic, physiological, environmental and behaviours factors and require lifelong care. Non-communicable diseases are now a global growing problem including Africa and in low-income countries like Tanzania. NCD's burden constitutes one of the major challenges to socioeconomic development, it causes a big burden to both the economy and the health care systems. Furthermore, NCDs such as cardiovascular diseases, diabetes, cancer and chronic respiratory diseases are the world's biggest killers. NCD's also cause significant morbidity and subsequent functional impairment in the country.

Key Performance Indicators and Targets

i. Adult 15-59 years with Hypertension who are on (successful) treatment by 60% in 2025
ii. Adult 15-59 years with Diabetics who are on (successful) treatment by 25% and above by 2025
iii. Cervical Cancer Screening coverage among women 30-50 years by 25% and above in 2025
iv. Number of patients with SCD attended at OPD

There has been an increase of NCDs patients from 2019 to 2023. The community's efforts to become more informed about non-communicable diseases are the reason this number keeps rising. Table 5.1 shows the proportion of patients attended OPD for Hypertension has risen to 3.2% in 2023, while the proportion for Diabetes rose to 1.2% in the reporting period.

Table 31:Indicators

Data/Period	2019	2020	2021	2022	2023
Number of clients with High Blood Pressure/Hypertension in OPD	1,112,704	1,17,840	1,345,866	1,393,836	1,602,774
Proportion of cardiovascular clients in OPD	0.36	0.4	0.48	0.5	0.5
Proportion of hypertension in OPD	2.4	2.7	3.2	3.4	3.2
Number of patients with Rheumatic Fever <15 in OPD	31,408	27,289	25,489	34,222	29,160
Diabetes case detection rate in OPD	0.86	0.91	1.1	1.1	1.2
Number of Diabetic clients in OPD	464,110	513,526	644,583	679,090	734,310
Number of sickle cell diseases patients in OPD	50,637	55,965	61,257	74,124	87,953
Proportion of sickle cell diseases patients in OPD	0.11	0.13	0.15	0.18	0.2

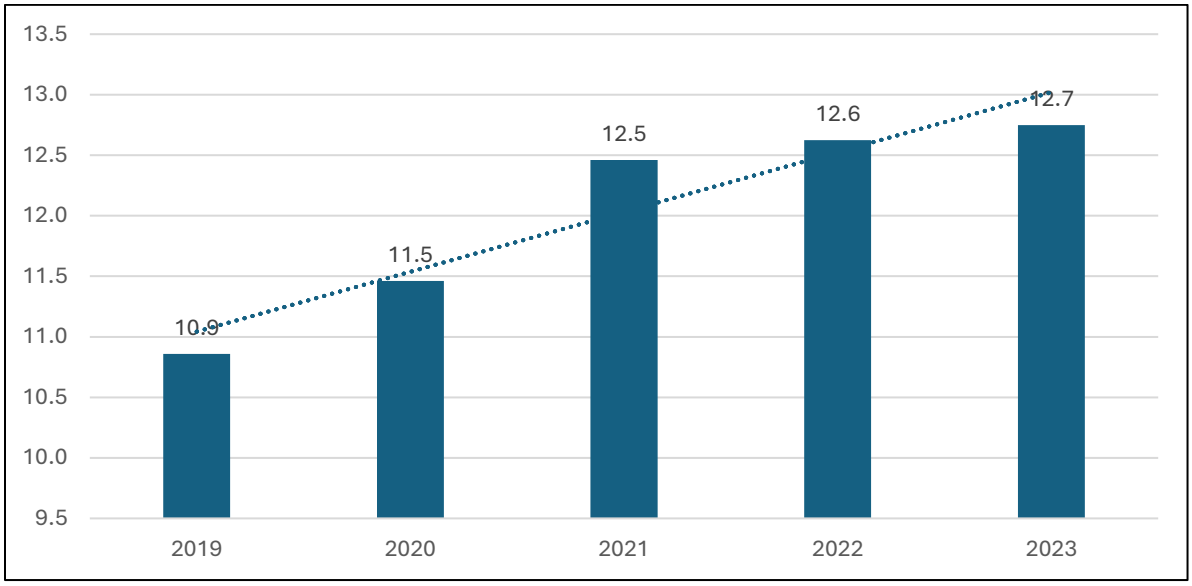
Indicators for tracking Performances

I. Number of patients with Bronchial Asthma attended at OPD who are on (successful) treatment
II. Number of patients with Cancer attended at OPD.
III. Number of patients with Diabetes attended at OPD who are on (successful) treatment
IV. Number of patients with Hypertension attended at OPD who are on (successful) treatment
V. Number of patients with SCD attended at OPD

Trend of proportion of NCD at OPD

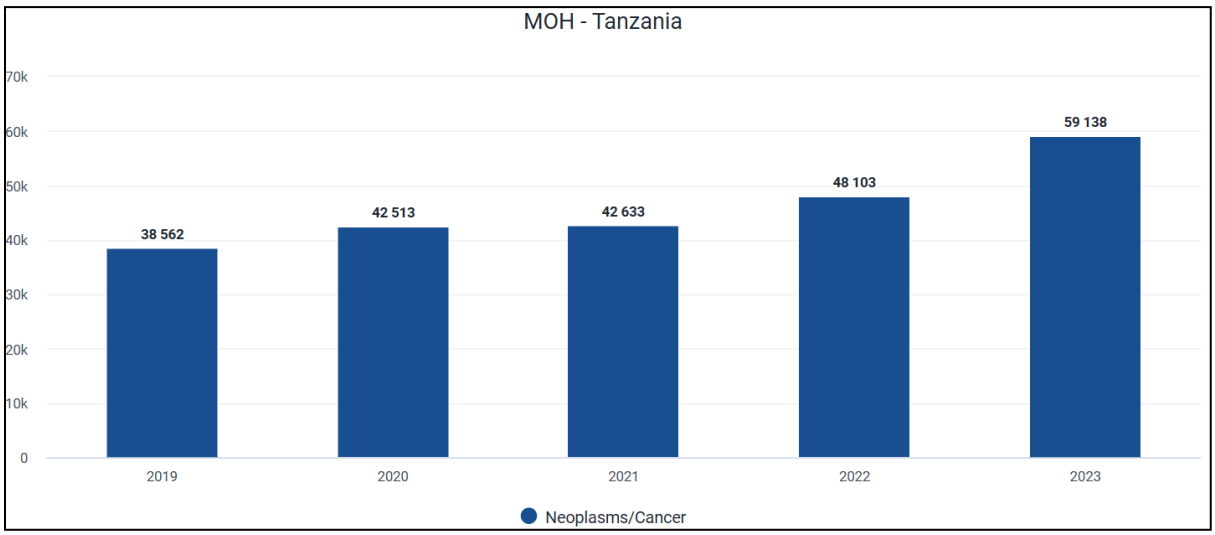
There has been an increasing trend in patients with NCDs over the years since 2019 where total patients with NCDs had 10.9% of all patients attended at OPD, the increase was up to 12.7% in year 2023 as shown in the Figure 5.1

Figure 50:Proportion of trend of all NCD patient at OPD, 2019 – 2023



As illustrated in Figure 50, there were substantially more cases of cancer in 2023 (59,138) than there were in previous years from 2019 (38,562). This could be explained by enhanced diagnostic screening methods and a rise in screening initiatives nationwide. Additionally, the rise can indicate that community knowledge has grown because of NCD awareness campaigns.

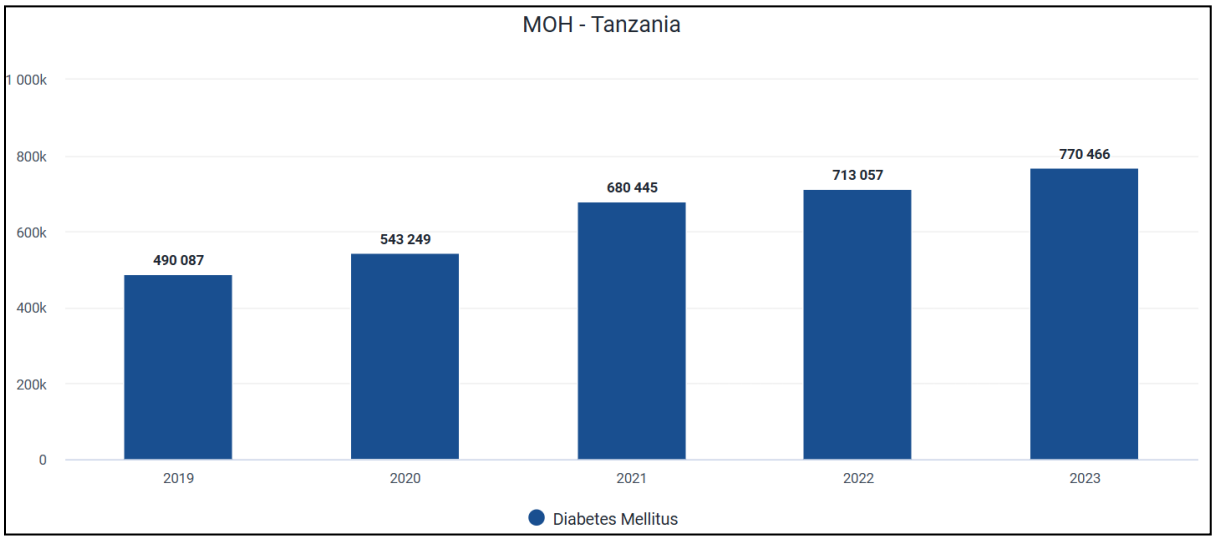
Figure 51:Trend of cases of Cancer in 2019-2023



***Source**: DHIS2*

Figure 52. illustrates the considerable increase in instances of Diabetes Mellitus from 490,087 in 2019 to 770,466 in 2023.

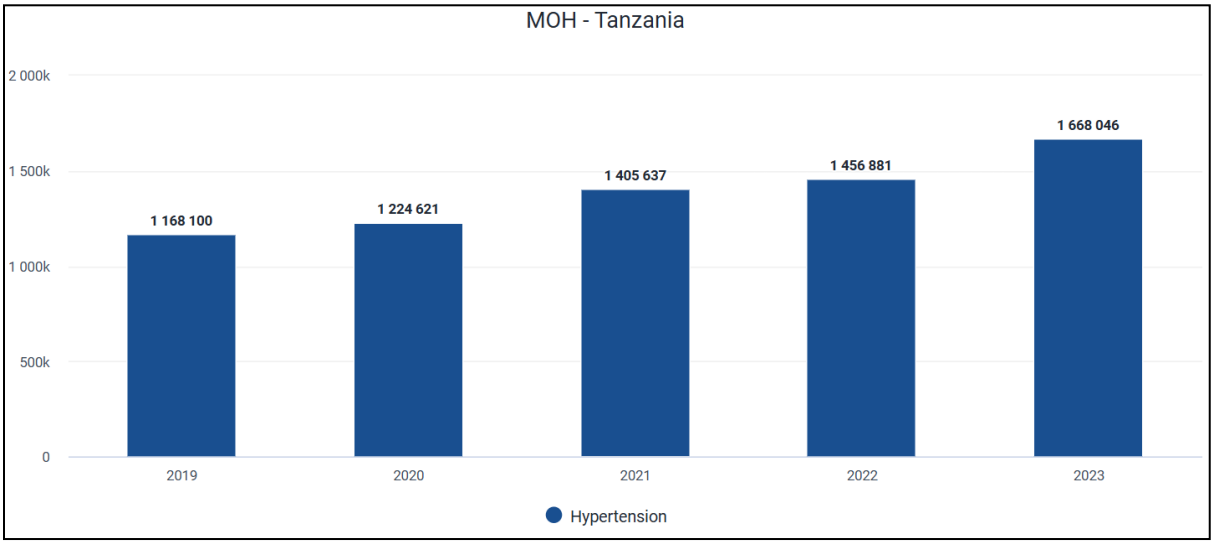
Figure 52:Trend of cases of diabetes mellitus in 2019-2023



***Source:** DHIS2*

Figure 53. shows an increase in the number of hypertension cases in 2023 where 1,668,046 were seen compared to 1,168,100 cases that were seen in 2019.

Figure 53:Trend of cases of hypertension in 2019-2023



CHAPTER SIX
6. EPIDEMICS AND DISASTER PREPAREDNESS AND RESPONSE

6.1. Introduction

The Ministry has been steadily putting various interventions in place to improve its capacity to prepare for, detect, respond to, and recover from epidemics and disasters in the country as well as to strengthen multisectoral connections and stakeholder participation in disaster preparedness and response. Key functions like preparedness, response, detection, recovery, linkage and disaster management are closely coordinated by the Emergency Preparedness and Response Unit (EPRU) in collaboration with the individual regional and district health departments.

6.2. Prepare

Tanzania continues to face a serious growing challenge of emerging and re-emerging diseases. This is Given its geographical location with Long porous international borders connecting Eight (8) countries. The interconnection facilitates the movements of people, animals and other commercial goods across the official and porous borders, level of sanitation and the interconnected world, all this increases the opportunities for infectious diseases to emerge and spread globally.

Building the IHR core capacities to enable the country to prepare, promptly detect and respond to public health events, Tanzania joined the GHSA agenda in 2015, and in February 2016, Tanzania was the first country globally to volunteer to do a joint external evaluation (JEE) and the first to use the recommendations for priority actions from the JEE to develop a National Action Plan for Health Security (NAPHS) in 2017. Five years of implementation of the NAPHS have elapsed and the country has conducted the second Joint External Evaluation on August 2023.

The country has done the second Joint External Evaluation in August 2023 which has recorded a remarkable improvement in many technical areas supported by the Global Health Security Project. A total of 56 indicators were assessed, 41 scored demonstrated capacity (level 3-4) while two indicators from immunization scored sustainable capacity (level 5). Among the overarching strengths include high political commitment, good governance and partnerships as shown in Table 32.

Table 32:Joint External Evaluation scores for Tanzania Mainland in 2023

Technical areas	Indicator number Indicator	Scores
Prevent		
P1. Legal instruments	P.1.1 Legal instruments	2
	P.1.2 Gender equity and equality in health emergencies	1
P2. Financing	P.2.1 Financing for IHR implementation	2
	P.2.2 Financing for public health emergency response	2
P3. IHR coordination, National IHR Focal Point functions and advocacy	P.3.1 National IHR Focal Point functions	3
	P.3.2 Multisectoral coordination mechanisms	4
	P.3.3 Strategic planning for IHR, preparedness or health security	4
P4. Antimicrobial resistance (AMR)	P.4.1 Multisectoral coordination on AMR	4
	P.4.2 Surveillance of AMR	4
	P.4.3 Prevention of MDRO	1
	P.4.4 Optimal use of antimicrobial medicines in human health	3
	P.4.5 Optimal use of antimicrobial medicines in animal health and agriculture	3
P5. Zoonotic disease	P.5.1 Surveillance of zoonotic diseases	2
	P.5.2 Response to zoonotic diseases	3
	P.5.3 Sanitary animal production practices	2

P6. Food safety	P.6.1 Surveillance of foodborne diseases and contamination	4
	P.6.2 Response and management of food safety emergencies	1
P7. Biosafety and biosecurity	P.7.1 Whole-of-government biosafety and biosecurity system is in place for human, animal, and agriculture facilities	2
	P.7.2 Biosafety and biosecurity training and practices in all relevant sectors (including human, animal, and agriculture)	3
P8. Immunization	P.8.1 Vaccine coverage (measles) as part of national program	5
	P.8.2 National vaccine access and delivery	4
	P.8.3 Mass vaccination for epidemics of VPDs	5
Detect		
D1. National laboratory systems laboratory	D.1.1 Specimen referral and transport system	4
	D.1.2 Laboratory quality system	3
	D.1.3 Laboratory testing capacity modalities	4
	D.1.4 Effective national diagnostic network	4
D2. Surveillance	D.2.1 Early warning surveillance function	4
	D.2.2 Event verification and investigation	3
	D.2.3 Analysis and information sharing	3
D3. Human resources	D.3.1 Multisectoral workforce strategy	2
	D.3.2 Human resources for implementation of IHR	3
	D.3.3 Workforce training	4

	D.3.4 Workforce surge during a public health event	1
Respond		
R1. Health emergency management	R.1.1 Emergency risk assessment and readiness	3
	R.1.2 Public health emergency operations centre (PHEOC)	3
	R.1.3 Management of health emergency response	4
	R.1.4 Activation and coordination of health personnel in a public health emergency	1
	R.1.5 Emergency logistic and supply chain management	4
	R.1.6 Research, development, and innovation	3
R2. Linking public health and security authorities	R.2.1 Public health and security authorities (e.g. law enforcement, border control, customs) are linked during a suspect or confirmed biological, chemical or radiological event	3
R3. Health services provision	R.3.1 Case management	4
	R.3.2 Utilization of health services	1
	R.3.3 Continuity of essential health services (EHS)	2
R4. Infection prevention and control (IPC)	R.4.1 IPC programs	3
	R.4.2 HCAI surveillance	3
	R.4.3 Safe environment in health facilities	3
	R.5.1 RCCE systems for emergencies	3

R5. Risk communication and community engagement (RCCE)	R.5.2 Risk communication	4
	R.5.3 Community engagement	3
IHR Related Hazards and Points of Entry and Border Health		
PoE: Points of entry and border health	PoE.1 Core capacity requirements at all times for PoEs (airports, ports and ground crossings)	3
	PoE.2 Public health response at PoEs	4
	PoE.3 Risk-based approach to international travel-related measures	4
CE. Chemical events	CE.1 Mechanisms established and functioning for detecting and responding to chemical events or emergencies	3
	CE.2 Enabling environment in place for management of chemical event	2
RE. Radiation emergencies	RE.1 Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies	3
	RE.2 Enabling environment in place for management of radiological and nuclear emergencies	3

Source: *JEE report 2023*

Country Health Risk Profile Assessment

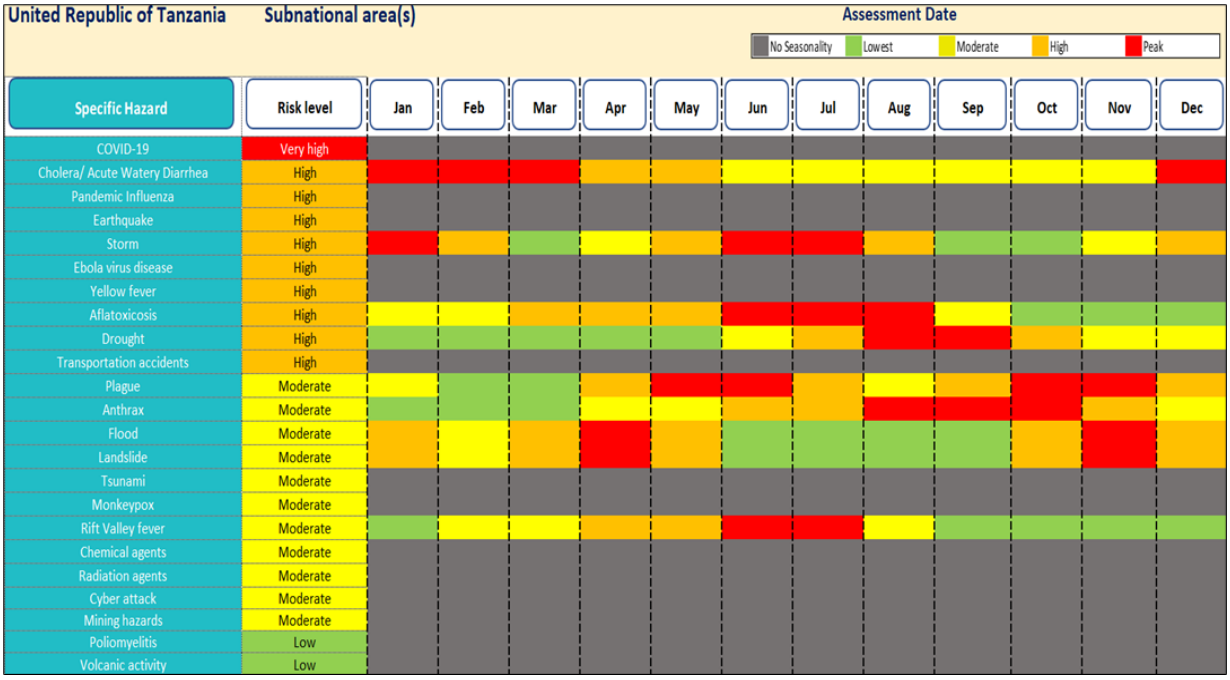
According to the Health Risk Profile Assessment conducted in September 2022, Tanzania was found to be prone to about 23 types of public health hazards and its associated health risks. Out of all 23 hazards, COVID-19 was ranked with very high risk and 9 hazards with high risk which are Cholera/ Acute Watery Diarrhea, Pandemic Influenza, Earthquake, Storm, Ebola virus disease, Yellow Fever, Aflatoxicosis, Drought and Transportation accidents as shown in Table 33 and Table 34. The Health Risk Profile and risk calendar need to be updated in every two years.

Table 33:Country risk profile result for assessment conducted in 2022

Impact						
	Critical					
	Severe		Tsunami	Pandemic Influenza; Earth Quake; Yellow Fever; Chemical agent; Transportation accidents	Cholera/Acute Watery Diarrhea; Storm; Ebola Virus disease	COVID-19
	Moderate		Volcanic activity	Flood; Landslide; Monkeypox; Rift Valley fever; Radiation agents; Cyber-attack; Mining hazards	Aflatoxicosis; Drought	
	Minor			Poliomyelitis	Plague; Anthrax	
	Negligible					
		Very Low	**Unlikely**	**Probable**	**Very Low**	**Almost sure**

Likehood

Table 34:Country risk calendar for assessment conucted in 2022

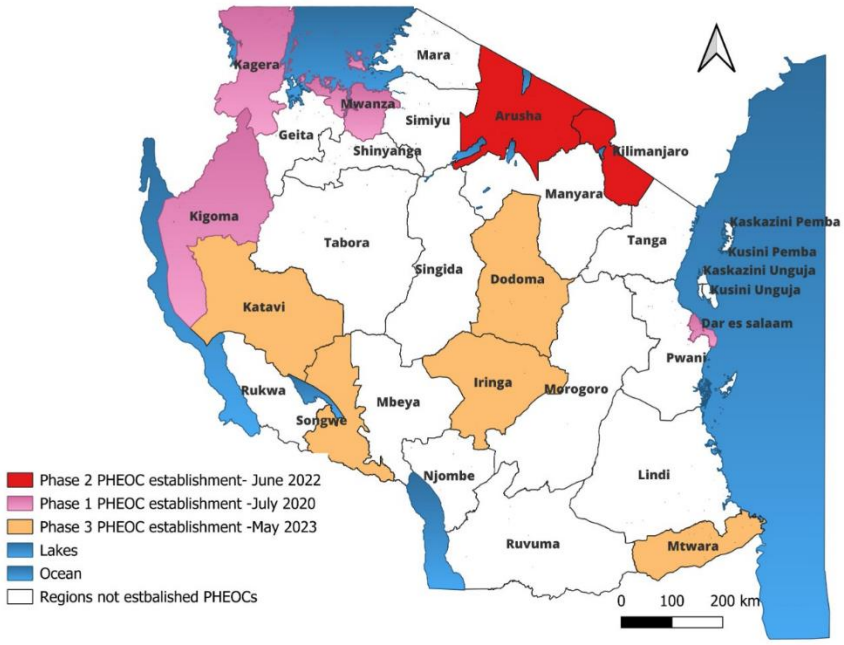


Source: *MoH. Strategic Risk Assessment Report, 2022*

Regional PHEOC Establishment Status in Tanzania Mainland 2023

Tanzania Mainland has one National Public Health Emergency Operation Centre (PHEOC) located at Ministry of Health headquarters. On-going efforts are to enhance preparedness by scaling up the establishment of Public Health Emergency Operation Centres at regional levels to coordinate response during any outbreak or epidemic on sub-national levels. By 2023 a total of eleven (11) Regional PHEOCs have been established in eleven (11) regions in Tanzania Mainland. Efforts started in 2020 when four (4) RPHEOCs were established in Kigoma, Kagera, Mwanza and Dar es Salaam. In 2022 two (2) RPHEOCs were established in Arusha and Kilimanjaro and in 2023, five (5) RPHEOCs were established in Iringa, Songwe, Katavi, Dodoma and Mtwara as shown in Figure 6.1. All the PHEOCs have been established under the support of US-CDC, WHO and Global Fund. There have also been ongoing PHEM and IMS training and refresher courses for regional core PHEOC staff of 16 regions together with Emergency exercises. However, this training needs to be cascaded to the council level. Intra-Action Reviews and After-Action Reviews are being done for Ebola, Anthrax, cholera and RVF. Guidelines for the establishment and operationalization of regional PHEOCs have also been developed.

Figure 54:Regional PHEOC Establishment Status by 2023 Tanzania Mainland



6.3. Detect

Tanzania is using the eIDSR system for all 26 regions and approximately 35 IDSR diseases including the selected Extremely Dangerous Pathogens (EDPs) are being monitored. This has led to a tremendous improvement in disease outbreak response from 72 hours to 24-48. The electronic Event-Based Surveillance has been developed to ensure alert reporting from all levels starting from the community level and being rolled out in 5 regions (Arusha (Ngorongoro), Mbeya, Katavi, Mara, Kagera). The eIDSR system has also been upgraded to accommodate the Outbreak Management and contact tracing module to facilitate response to outbreaks once they occur. There is a National Public Health Bulletin, which supplements the weekly and monthly bulletins that have enabled the sharing of disease surveillance, outbreak response, and feedback. Challenges remain in supporting outbreak investigations and roll out of event-based surveillance and operationalization of the National Alert Desk including deployment of volunteers to the National Alert Desk to work on triage and verification of alerts from different sources.

6.4. Linkages

To strengthen linkages and collaboration in disasters, The Ministry works with partners leveraging their technical capabilities, skills, and experience to enhance synergy and efficiency of implementation for better outcomes. On-going capacity-building activities with involvement of PORALG to TOTs at Sub national level ensure further implementation at lower levels. The Ministry collaborates with the One Health Coordination Desk (OHCD) at the Prime Minister's Office to convene multiple stakeholders to ensure a One Health approach in preparedness, detection and response to Public Health Events. Mapping all key stakeholders and their potential capacity is a priority where resource tracking tools could facilitate and update the status.

6.5. Emerging and Re-Emerging Diseases

Several diseases that have emerged in Tanzania include HIV/AIDS (the 1980s), Rift Valley fever (2007, 2008, 2009), dengue fever (2010), multi-drug resistant TB (2007–2010), COVID-19 (2020 – 2021) and Leptospirosis (2022), Marburg Virus Disease (MVD) (2023), Cholera (September 2023-Current), Hanang District Council in the Manyara Region of Northern Tanzania experienced devastating floods and landslides in December 2023 led to significant casualties. The casualties exhibited distinct patterns in age, sex distribution, and types of injuries. Nearly one-third (30.22%) of the casualties were within the 25-44 age group, with 23.02% comprising the school-aged population (5-14 years). Despite a smaller elderly population (60+), this skewed distribution highlighted the need for targeted services and support in education, healthcare, and social assistance. Females constituted a slightly higher proportion of casualties at 52%, compared to males at 48%. The types of injuries sustained were primarily soft tissue injuries, bruises, and lacerations, which made up over 60% of reported cases. Cut wounds followed at 19%, while spinal and head injuries each accounted for 4%. Fractures, including those of the femur, humerus, rib, and clavicle, were less common, at 0.72%, but still significant. Visceral and chest injuries, as well as dislocations and polytrauma, were also reported, albeit less frequently.

Key Indicators and Status

a) Timely detection of public health events within seven (7) days of occurrence, reporting within one (1) day and responding within seven (7) days.
b) Number of Highly Infectious Disease Treatment Units – HIDTU

c) Out-of-Hospital Emergency and Accident services (EMS)
d) Number of functional public health emergency operation centres in the country (Subnational PHEOCs).
e) Number of disasters and outbreaks responses efficiently coordinated
f) % of needed funds for preparedness and response secured

Implemented Interventions and Achievements Attained in 2023

i. Responded against deadly Marburg Virus Diseases in Bukoba District, Kagera Region (March 2023).
ii. Establishment of Public Health Emergency Operations Centres of Iringa, Songwe, Katavi, Dodoma and Mtwara.
iii. Advocacy sessions on PHEOC to Regional Administrative Secretaries (RAS), Regional Health Management Teams (RHMTs) and PHEOC staff in five (5) regions of Iringa, Songwe, Katavi, Mtwara and Dodoma.
iv. Orientation sessions on PHEOC and Incident Management System (IMS) to Incident Managers of 6 Regions (Kagera, Mwanza, Kigoma, Katavi, Songwe and Iringa).
v. Responding to Cholera Outbreak in 21 Regions (September 2023-Current)
vi. Establishment of Eleven (11) Public Health Emergency Operation centres (PHEOC) and training of staff who would be working in those centres in Kagera, Kigoma, Mwanza, Dar es Salaam, Arusha and Kilimanjaro regions, Songwe, Dodoma, Katavi, Mtwara and Iringa.
vii. Coordination of establishment of five (5) PHEOCs in Mbeya, Rukwa, Ruvuma, Mara and Tanga is in progress. Procurement of furniture and ICT equipment has been done waiting for distribution and then installation to the respective areas.
viii. Procurement of 603 special medical Emergency response bags for paramedics in all 26 regions with medical suppliers and medicines for trauma and other medical emergencies
ix. 100 community volunteers were trained including the police force on first aid
x. Training was conducted for 60 healthcare workers (including paramedics& dispatchers) on Emergency medical services for 1 week
xi. Procurement and installation of 100 first aid Kits for Ministry of Health vehicles to provide emergency medical services during medical emergency or trauma while travelling or during an event.
xii. Development of a plan for operationalization of EMS services.
xiii. Development of a Trauma Module and integration into a National Emergency Medical System (NEMS) by using 115 as a Toll-free number
xiv. Development of curriculum for Paramedics to train personnel who will be providing health services in the ambulances.

xv. Coordination of distribution of the procured ambulances across the country
xvi. Establishment of the skills training centre in Benjamin Mkapa Hospital (BMH) for emergency care training for both in-hospital and pre-hospital services especially emergency care departments (EMD) and Emergency Medical Services (EMS) (drivers, bodaboda, Police, Special community groups)
xvii. Establishment of a trauma registry to be used in all emergency departments and be incorporated into the hospital management systems.
xviii. Completed community driver's application to be used for emergency transportation of cases related to pregnant women and children from the community to the facility
xix. Distributed 368 ambulances in all regions at the level of Council levels and the distribution plan for the rest of the country is complete.

Interventions done in 2024

Coordination preparedness interventions in responding to emergency events:

i. Establishment of Regional Public Health Emergency Operations Centres of Rukwa, Ruvuma, Mbeya, Mara and Tanga Regions.

ii. Orientation sessions on PHEOC and Incident Management System (IMS) to 26 core PHEOC staff of Rukwa, Ruvuma, Mbeya, Mara, Lindi, Morogoro and Tanga Regions.

iii. Endorsement of guidelines for establishing a Public Health Emergency Operations Centre at Regional Levels and a National Multi-Hazard Public Health Emergency Response Plan.

Public Health Emergency Preparedness Resilience

Over the past decade, the importance of resilience public health emergency preparedness and response operations has gained significant attention in the global health community. In Tanzania, where public health emergencies have posed significant challenges, efforts have been made to establish structures like the Public Health Emergency Operating Center (PHEOC), EMDs, ICUs, and EMS. This also include strengthening health system to facilitate efficient response like establishment of Oxygen Plants to ensure accessibility of oxygen to all who need, improving diagnostic services through provision of MRI, CT Scan and digital X-Rays etc

1. State of Emergency and critical care in the country

In response to the COVID-19 outbreak, Tanzania's government built 102 new Emergency Medicine Department (EMD) buildings, with 81 in district hospitals and several in regional referral hospitals, bringing the total to 121 EMDs nationwide. Before 2022, only eight public ICUs were available, with 183 ICU beds, far below the WHO's recommendation of 8,500 beds for critically ill patients. The government then constructed 44 new ICU buildings, increasing the number of ICU beds to 988. This expansion, including new facilities at national, zonal, special, and regional referral hospitals, significantly boosted the country's capacity to manage medical emergencies, demonstrated effectively during the Katesh landslide and floods. Essential services like Emergency Medicine departments, led by emergency physicians, along with intensive care units, theaters, x-ray, CT scan, and a blood bank, underscored the hospital's capacity to handle various medical emergencies. X-ray and CT scans facilitated rapid diagnosis, while emergency departments with efficient triage systems, and staff training in emergency response protocols provided immediate care. Intensive care units and theatres were crucial for managing severe injuries, allowing timely surgical interventions and the presence of a blood bank ensured vital blood transfusions.

2. Ambulances for pre-hospital emergency medical services (EMS) and referrals

In 2022 a countrywide assessment of ambulances was conducted to determine the existing situation on the provision of the pre-hospital emergency medical services (EMS) and referrals based on the existing guidelines and standards. The assessment results showed that Tanzania Mainland had a total of 761 ambulances. Of the total ambulances

assessed, 221 (29%) were non-functional, leaving a total of 540 (39.7%) functional ambulances compared to a total need of 1,361 ambulances in the country. Of the functional ambulances, 81 (15%) were well equipped BLS, 12 (2%) were ALS and the rest, 447 (83%) were termed as transportation vans, because they were lacking some basic equipment including oxygen supply, medical lockers and other supplies according to the guidelines of basic ambulances.

In 2023 a total of 613 ambulances have been procured in collaboration with the President's Office, Regional Administration and Local Government (PORALG) through IMF (393), Global Fund (210), and a donation from the Indian Government (10) making a new total of 1,153 functional ambulances. The new ambulances have increased the ambulance availability from almost 40% to 84.7% of the total needs in the country. Basic Ambulance (BLS) ambulances have increased from 528 in 2022 to 1,071 in 2023, and Advance Ambulance (ALS) ambulances from 12 in 2022 to 82 in 2023 as shown in Table 6.3. The distribution of the ambulances is in progress whereby up to the end of 2023, 368 (60%) ambulances were distributed.

Table 35:Ambulance Status between 2022/23 and 2023/2024

Type of Ambulance	Functional during 2022 assessment	New in 2023	Total in 2023
Basic Ambulance (BLS)	528	543	1,071
Advance Ambulance (ALS)	12	70	82
Total	**540**	**613**	**1,153**

Developed National Guidelines for operating emergencies

- Trauma Module guideline was developed and integrated into a National Emergency Medical System (NEMS) by using 115 as a Toll-free number which aims to balance standards of provision of EMS to Health Care Workers from public and private health facilities in the country.
- Guidelines for establishing a Public Health Emergency Operations Centre at Regional Levels was developed together with a National Multi-Hazard Public Health Emergency Response Plan.

State of Human capital for Emergency preparedness and response

i. The Ministry has continued to provide training to the available HCWs at Health facilities to build capacity to be able to provide hospital out-of-hospital services (EMS). A total of 1,013 experts (Drivers 603, Clinicians and Nurses 310 and Dispatchers 100) were trained.

i. Training sessions on managing public health emergencies (PHEM) to 132 responders nationwide through the Africa Volunteer Health Corps – Strengthening and Utilizing Response Groups (AVOC-SURGE).

ii. Training sessions on the management of public health emergencies (PHEM) to 32 core PHEOC staff from the National PHEOC and 11 regions of Kagera, Mwanza, Kigoma, Katavi, Songwe, Iringa, Dodoma, Mtwara, Dar es salaam, Arusha and Kilimanjaro.

Challenges that hindered targets from being achieved

- Increase of Epidemics and Disasters in the country.
- Shortage of Human resources and medical equipment to cover all designated and new health facilities
- Inadequate skills and knowledge of HCW in managing critically ill patients and those who required oxygen therapy.
- Shortage of HIDU especially in high-risk regions
- Limited Financial support to establish PHEOC to the rest of the country

Policy recommendations:

- Emergency Preparedness and Disaster to have a budget allocated for preparedness and response.
- Number of HCWs to fit the increased number of health facilities for quality health care delivery.

CHAPTER SEVEN
7. CIVIL REGISTRATION AND VITAL STATISTICS

Introduction

This Civil Registration and Vital Statistics (CRVS) chapter provides a detailed analysis of the registration status of vital events (births and deaths) along with causes of death statistics for the year 2023, compared to the years 2020-2022. This section thoroughly examines three major areas: birth registration, death registration, and the quality of causes of death data.

7.1. Birth Registration

7.1.1. Summary Statistics of Births Registered

Table 36 summarizes registered births between 2020 and 2023 regardless of the age at which the registration took place. The registration trend reveals a sharp increase in recording of births from 1,443,273 in 2020 to 1,991,603 in 2021. However, in 2022 the number of registered births declined to 1,040,719 which might be attributed to the slow pace of uploading birth records into the CRVS systems. Also, the number of birth registrations increased to 1,279,946 in 2023. The majority of these registered births comprise children under age 5, the group targeted by Registration Insolvency Trusteeship Agency (RITA) Under-5 Birth Registration Initiative (U5BRI), implemented in 26 regions of Tanzania Mainland. The slight improvement in birth registration observed in 2023 was attributed in part to the linking of birth certificates with other citizen entitlements such as National ID, Higher education loans, passports.

Table 36:Summary of registered births by age group, 2020- 2023

Age group	Year of Registration				
	2020	2021	2022	2023	Total
All ages	1,443,273	1,991,603	1,040,719	1,279,946	5,755,541
0-4	1,134,869	1,647,608	610,674	801,798	4,194,949
5-17	147,780	168,874	156,445	138,358	611,457
18-25	103,175	122,758	184,172	238,304	648,409
26+	57,449	52,363	89,428	101,486	300,726
Expected** births	2,096,298	2,142,110	2,190,608	2,241,573	8,670,589

Source: CRVS system

***Estimates per Tanzania population and housing census report*

7.1.2. Birth registration completeness rate

Table 37. presents the number of registered births and completeness rates by regions in Tanzania Mainland from 2022 to 2023. It is observed that births registered within the year of occurrence were high in 2022 (about 14%) and low in 2023 (about 12%). The completeness rate would likely have been higher if not for challenges in accessing the data. Those included a backlog of registered events not yet uploaded into the CRVS systems, network issues, and problems with the mobile registration app in some registration centers. Findings show that, during the initial phases of decentralization, regions may experience an increase in completeness rates as registration services become more accessible at the registration centers.

Table 37:Estimated number of births registered region of occurrence and completeness by region, 2022-2023

Regions of Occurrence	2022			2023		
	Total number	Estimated number of births	Completeness rate (%)	Total number	Estimated number of births	Completeness rate (%)
Dodoma	10,263	87,461	11.7	5,065	90,090	5.6
Arusha	15,333	43,072	35.6	9,081	42,206	21.5
Kilimanjaro	10,752	46,963	22.9	4,314	47,418	9.1
Tanga	13,554	82,758	16.4	6,228	84,260	7.4
Morogoro	11,150	82,758	13.5	7,670	84,260	9.1
Pwani	8,573	35,144	24.4	4,450	34,960	12.7
Dar es Salaam	64,292	209,429	30.7	80,389	215,695	37.3
Lindi	3,933	24,522	16	536	24,518	2.2
Mtwara	5,403	33,823	16	2,475	33,711	7.3
Ruvuma	9,065	50,803	17.8	3,812	51,431	7.4
Iringa	2,423	28,517	8.5	1,939	28,502	6.8
Mbeya	19,612	85,349	23	11,499	87,006	13.2
Singida	9,276	76,295	12.2	1,589	78,926	2.0
Tabora	27789	138792	20	4,305	141,763	3.0
Rukwa	1,930	60,060	3.2	2,541	60,630	4.2
Kigoma	13,006	132,265	9.8	52,397	137,082	38.2
Shinyanga	7,260	58,131	12.5	1,640	57,891	2.8
Kagera	482	158,251	0.3	41,641	166,130	25.1
Mwanza	16,748	156,965	10.7	3,635	161,419	2.3
Mara	18,413	80,843	22.8	6,547	83,578	7.8

Manyara	12,793	79,485	16.1	3,644	80,491	4.5
Njombe	1,507	22,093	6.8	507	21,850	2.3
Katavi	1,433	58,027	2.5	529	60,256	0.9
Simiyu	4,992	133,855	3.7	1,083	136,607	0.8
Geita	10,411	176,240	5.9	4,385	180,661	2.4
Songwe	6,390	48,707	13.1	2,607	50,232	5.2
Tanzania Mainland	**306,783**	**2,190,608**	**14.004**	**264,508**	**2,241,573**	**11.8**

Source: CRVS system 2023

7.1.3. Timeliness of birth registration

Timeliness of birth registration and certification within 90 days decreased from 83.6% in 2022 to 54% in 2023 (Table 38 below). The decline for timeliness of birth registration in 2023 is attributed to the delay of uploading records in CRVS systems. In several cases, records were uploaded but the registration assistant recorded the entry date of uploads instead of the date of registration by default. These errors might be due to changes in the new version of the mobile registration app that were introduced in all regions in 2023. A new version of the app forced registration assistants to upload the information by the entry date instead of the registration date.

Table 38:Number of registered births and timeliness of birth registration by region, 2022-2023

Region of occurrence	2022				2023			
	Less than 90 days %	More than 90 days %	Total	Total number registered	Less than 90 days %	More than 90 days %	Total	Total number registered
Dodoma	83.9	16.1	100	10,263	26	74	100	5,066

Arusha	85.2	14.8	100	15,333	79.6	20.4	100	9,081
Kilimanjaro	84	16	100	10,752	48.9	51.1	100	4,314
Tanga	86.2	13.8	100	13,555	79.6	20.4	100	6,227
Morogoro	82	18	100	11,150	39.2	60.8	100	7,670
Pwani	83.6	16.4	100	8,573	56	44	100	4,450
Dar es Salaam	96.9	3.1	100	64,291	63.4	36.6	100	80,389
Lindi	75.6	24.4	100	3,934	55.5	44.5	100	535
Mtwara	84.6	15.4	100	5,404	32.6	67.4	100	2,474
Ruvuma	70.5	29.5	100	9,064	73.8	26.2	100	3,812
Iringa	93.9	6.1	100	2,423	77	23	100	1,939
Mbeya	89.4	10.6	100	19,612	78.5	21.5	100	11,499
Singida	81.6	18.4	100	9,275	29.2	70.8	100	1,589
Tabora	57.6	42.4	100	34,556	57.8	42.2	100	4,611
Rukwa	86.2	13.8	100	1,930	42.1	57.9	100	2,541
Kigoma	87.2	12.8	100	13,006	40.7	59.3	100	52,398
Shinyanga	67.5	32.5	100	493	46	54	100	1,334
Kagera	71.4	28.6	100	482	42.5	57.5	100	41,641
Mwanza	86.6	13.4	100	16,748	60.9	39.1	100	3,635
Mara	88	12	100	18,413	26.9	73.1	100	6,547
Manyara	81.5	18.5	100	12,793	73.8	26.2	100	3,644
Njombe	72.4	27.6	100	1,507	58.8	41.2	100	507
Katavi	86.1	13.9	100	1434	68.8	31.2	100	529
Simiyu	71.2	28.8	100	4,991	23.9	76.1	100	1,082
Geita	70	30	100	10,411	36.9	63.1	100	4,385
Songwe	90	10	100	6,390	86.3	13.7	100	2,607
Not stated	92.4	7.6	100	2978	86.2	13.8	100	1525

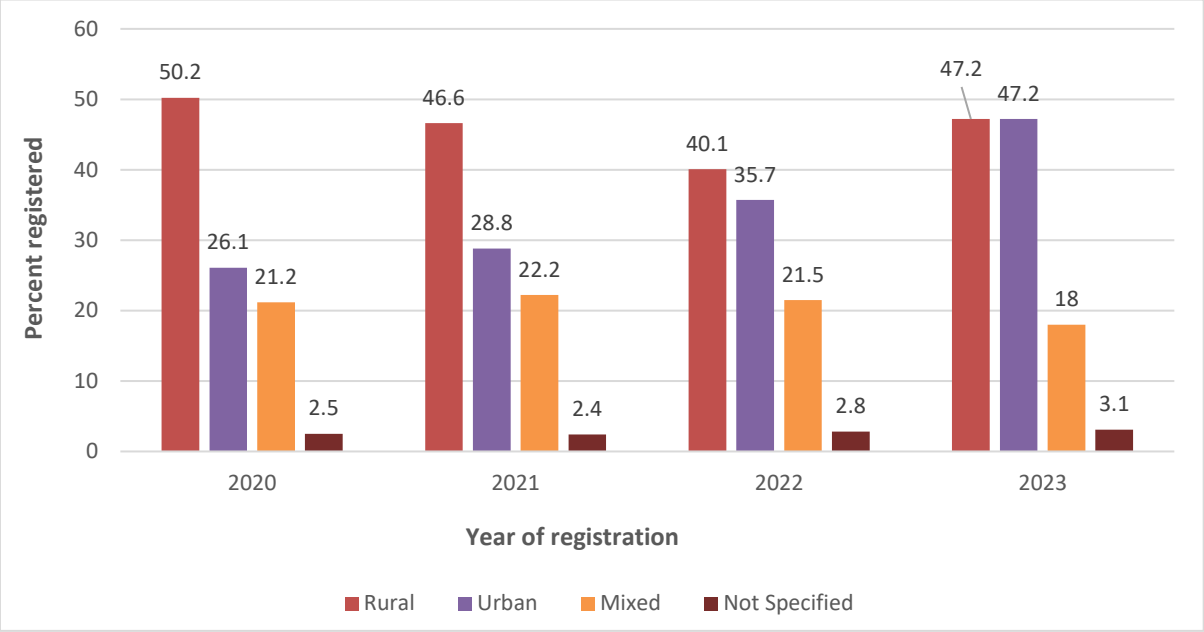
Total	**83.6**	**16.5**	**100**	**309,761**	**53.8**	**46.2**	**100**	**266,031**

Source: CRVS system 2023

7.1.4. Registered births by place of occurrence

Figure 55. presents the percentage of registered births by place of occurrence. The trend reveals that the percentage of birth registration in urban areas increased from 35.7% in 2022 to 42.7% in 2023, while that in rural areas increased from 40.1% in 2022 to 47.2% in 2023. The percentage of registered births from mixed settings decreased from 21.5% in 2022 to 18% in 2023.

Figure 55:Trend of percentage distribution of registered live births by place of occurrence and year, 2020-2023

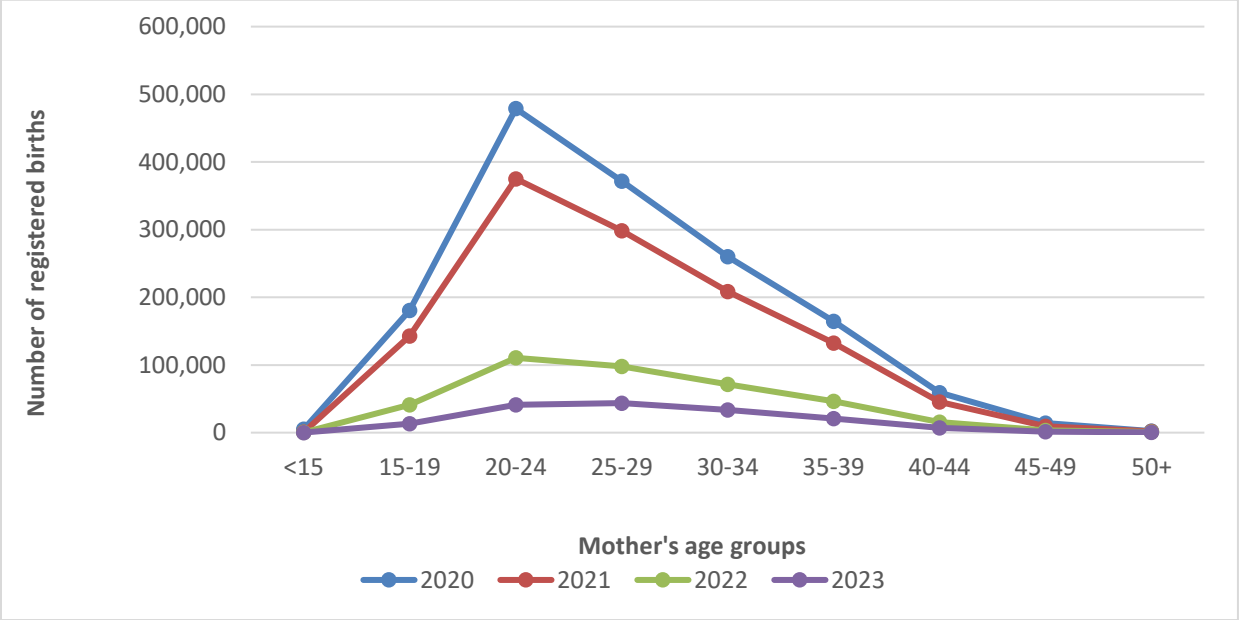


Source: CRVS system 2023

7.1.5. Live births by age and place of usual residence of mother

Tanzania has a relatively young population with a significant proportion of women in their reproductive years. This can influence the Age Specific Fertility Rate (ASFR) as younger women tend to have higher fertility rates compared to older age groups. The results in Figure 56. show that; the number of registered births from 2020 to 2023 is consistent with the ASFR of the women of reproductive age in Tanzania, where the small proportion of registered births is observed among those aged 15-19. Then it peaks among registered children born to mothers aged 20-24, subsequently declining to smaller proportions at older ages. However, the number of registered births for each specific age group declined from 2020 to 2023.

Figure 56:Number of registered live births by age of mother, 2020-2023

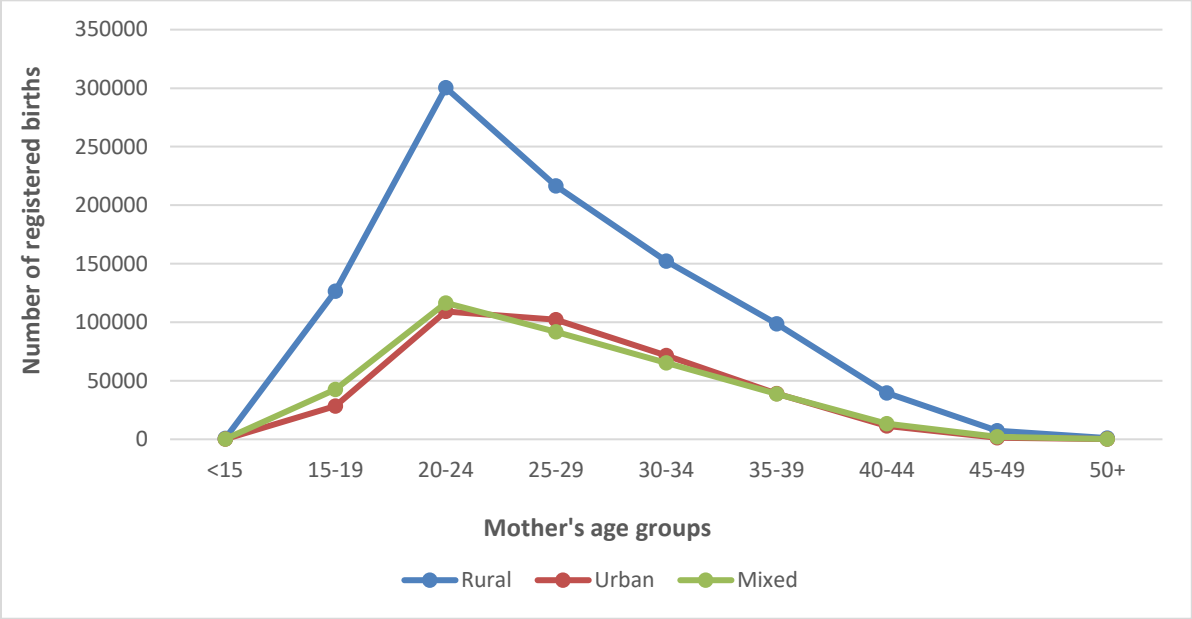


Source: CRVS system 2023

Disparities between urban and rural areas can affect ASFR. Rural areas in Tanzania have higher fertility rates due to factors such as limited access to education and health care, as well as cultural norms favoring larger families. Figure 7.3 illustrates that the number of registered births from 2020 to 2023 in Tanzania mainland was higher in rural areas

than in urban areas. This is consistent with the fertility differentials observed in the country. Additionally, there are no trend differences in age-specific birth registration between rural and urban areas from 2020 to 2023.

Figure 57:Number of registered births by age of mother and place of usual residence, 2020-2023



Source: CRVS system 2023

7.2 Death Registration

7.2.1. Death Registration

This section presents data on deaths registered in Tanzania Mainland covering 2022 to 2023. Just like births, death registration has been taking place since the German era and later British rule in 1921, where at that time the registration was guided and managed by the Births and Deaths Registration Act (Cap. 108 R.E 2002).

The government has been taking steps in improve death registration coverage by introducing the revised death registration form. That included adding statistical fields for generating vital statistics needed for monitoring SDGs, as well as national, regional and

continental frameworks to which Tanzania has subscribed. Until 2021, a decentralized death registration system was introduced in four regions of Tanzania mainland: Iringa, Njombe, Mbeya and Songwe. Table below presents summary statistics of the cumulative number of deaths registered at the national level from 2022 to 2023. The number of registered deaths increased from 33,508 in 2022 to 34,224 in 2023.

Table 39:Summary statistics on registered deaths, Tanzania mainland, 2022-2023

Indicators	2022	2023
Registered deaths by year (number)	33,508	34,224
Registered deaths within the year of occurrence*	22,918	14,744
Expected deaths (number)**	340,838	336,905
Registration completeness rate (%)	6.7	4.4

Source: Data from CRVS

***Estimates as per NBS. The expected number of deaths in a given year was obtained by multiplying the total population of that year by the crude mortality rate for that year, as estimated by the NBS. Estimated CDRs per 1,000 population for 2020, 2021, 2022 and 2023 were 6.1, 5.9, 5.6 and 5.4 respectively.*

7.2.2. Death registration completeness rate

The completeness rate of death registration was calculated in order to assess system improvements and enable the adjustments that are used when calculating mortality indicators. The computation of completeness is based on the number of registered deaths in a particular period divided by the expected number of deaths for that period, based on projections derived from analysis of data from the 2012 Tanzania Population and Housing Census. As presented in Table 7.4 above, completeness of death registration in 2023 was at 4.4%, lower than the 6.7% observed in 2022.

Table 7.5 below provides information about the total number of registered deaths and completeness of death registration by region of residence in Tanzania Mainland from 2022 to 2023. Over the two-year period, Dar es Salaam and the Arusha region led the top regions with relatively high completeness rates of registered deaths compared to

other regions in Tanzania Mainland. The Katavi and Geita regions showed very low completeness rates of death registration for those four years.

Table 40:Death registration by region of residence in Tanzania Mainland, 2022-2023

Region	2022			2023		
	**Expected number of deaths	*Total registered deaths	Completeness rate	**Expected number of deaths	*Total registered death	Completeness rate
Tanzania Mainland	**340,838**	**22,918**	**6.6**	**336,905**	**14,744**	**4.4**
Dodoma	12,895	1,111	8.6	12,671	730	5.8
Arusha	6,347	1,088	17.1	6,160	666	10.8
Kilimanjaro	10,935	1,610	14.7	10,903	934	8.6
Tanga	13,692	1,119	8.2	13,384	895	6.7
Morogoro	13,692	950	6.9	13,384	716	5.3
Pwani	8,237	752	9.1	7,920	583	7.4
Dar es Salaam	40,479	6,317	15.6	40,623	4,619	11.4
Lindi	6,481	328	5.1	6,250	258	4.1
Mtwara	9,335	509	5.5	9,069	408	4.5
Ruvuma	9,970	544	5.5	9,779	420	4.3
Iringa	9,811	744	7.6	9,752	132	1.4
Mbeya	15,468	667	4.3	15,451	180	1.2
Singida	9,711	474	4.9	9,673	282	2.9
Tabora	18,978	654	3.4	18,758	392	2.1
Rukwa	8,477	205	2.4	8,381	182	2.2
Kigoma	16,693	672	4	16,475	468	2.8
Shinyanga	9,063	536	5.9	8,758	390	4.5

Region	2022			2023		
	**Expected number of deaths	*Total registered deaths	Completeness rate	**Expected number of deaths	*Total registered death	Completeness rate
Kagera	24,903	915	3.7	24,769	251	1
Mwanza	18,484	1,595	8.6	18,221	848	4.7
Mara	14,613	640	4.4	14,374	485	3.4
Manyara	10,112	350	3.5	10,125	242	2.4
Njombe	7,171	324	4.5	6,940	120	1.7
Katavi	7,727	110	1.4	7,753	37	0.5
Simiyu	12,616	257	2	12,489	199	1.6
Geita	16,977	284	1.7	16,970	245	1.4
Songwe	7,971	163	2	7,873	62	0.8

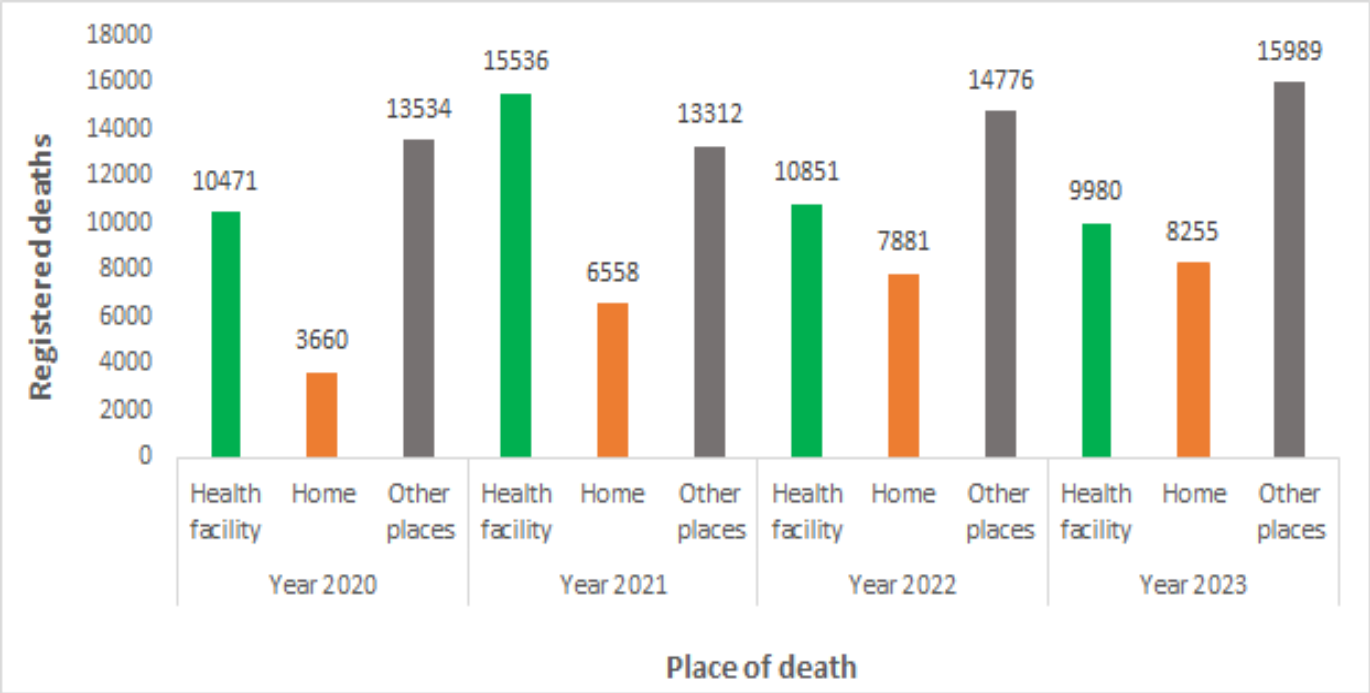
Source: Data from CRVS System 2023

***Estimates as per NBS. The expected number of deaths in a given year was obtained by multiplying the total population of that year by the crude mortality rate for that year, as estimated by the NBS. Estimated CDRs per 1,000 population for 2022 and 2023 were 5.6 and 5.4, respectively.*

7.2.3. Registered deaths by region and site of occurrence, 2022-2023

As presented in Figure 41. the general pattern shows that the majority of registered deaths in Tanzania Mainland occurred outside health facilities, either at home or in other places. This situation is common in low- and middle-income countries, where the majority of deaths occur outside health facilities, which helps explain why so often causes of death are not established.

Table 41:Number of registered deaths in Tanzania Mainland according to site of occurrence, 2022-2023



7.3. Causes of Death

7.3.1. Introduction

This section presents in detail the analysis of deaths that happen both in the community and in health facilities. It describes the top 20 individual causes of death of all ages. The list has been produced from individual causes of death by combining related causes to identify the leading underlying causes of death across various age groups. Broad group categories of causes of death and diseases of priority (Malaria, HIV and TB) are clearly described in this section. In addition, this section describes the initiatives that were taken to improve the quality and collection of data on the causes of deaths that occurred in communities in 2022 and 2023.

7.3.2. Leading causes of death

7.3.2.1. Top 20 Leading Causes of Death for All Age Groups

The top 20 causes of death contributed to more than 60% of all deaths reported in health facilities consistently over a four-year period. Figure 58 presents the top 20 causes of death in terms of the percentage of deaths recorded between 2020 and 2023. The graphs are sorted per the top 20 causes of death in 2023.

In 2023 lower respiratory infections emerged as a leading cause of death, followed by birth asphyxia and birth trauma, and by HIV with cause-specific mortality fractions (CSMF) of 8.9%, 7.2% and 5.7%, respectively. The CSMF of birth asphyxia and birth trauma varied across the years at 8.3%, 7.4%, and 8.6% from 2022 to 2020, respectively.

However, noncommunicable diseases such as hypertensive diseases, diabetes mellitus and other malignant neoplasms were also among the top 20 causes of death, though at lower proportions than the leading perinatal and infectious causes of death in the population.

Figure 58:Top 20 leading causes of death between 2020 and 2023

Disease/Condition	2020	2021	2022	2023
Lower respiratory infections	6.4%	15.1%	8.9%	8.9%
Birth asphyxia and birth trauma	8.6%	7.4%	8.3%	7.2%
HIV	4.6%	3.7%	5.6%	5.7%
Hypertensive disease	3.6%	3.2%	2.8%	4.2%
Malaria	5.8%	3.8%	3.5%	4.0%
Prematurity and low birth weight	3.8%	3.1%	4.1%	3.6%
Other Perinatal Conditions	9.2%	7.3%	10.7%	3.5%
Other cardiovascular diseases	7.3%	7.8%	3.5%	3.5%
Other infectious diseases	4.5%	4.6%	2.4%	3.3%
Road traffic accidents	1.3%	1.6%	1.2%	3.0%
Nephritis and nephrosis	2.0%	1.8%	2.7%	2.9%
Diabetes mellitus	2.7%	3.1%	2.9%	2.6%
Other digestive diseases	2.5%	2.4%	2.3%	2.4%
Tuberculosis	1.7%	1.7%	2.1%	2.2%
Other respiratory diseases	1.5%	1.6%	1.2%	1.7%
Protein-energy malnutrition	1.3%	1.0%	1.4%	1.6%
Endocrine disorders	1.2%	1.4%	1.3%	1.5%
Other malignant neoplasms	0.8%	0.8%	1.3%	1.2%
Diarrhoeal diseases	1.3%	1.0%	1.0%	1.2%
Iron deficiency Anaemia	4.5%	4.1%	0.3%	0.2%

Source: DHIS2 Database 2023

7.3.2.2. Leading causes of death in under-5

This section presents mortality fractions for children under age 5. The leading causes of death for those younger than 5 years are birth asphyxia and birth trauma, lower respiratory infection, and prematurity and low birth weight as presented in Figure 59.

Birth asphyxia and birth trauma consistently appeared among the top two causes of death among under-5 children, whereby they were reported to be increasing to 23.6% in 2023 from 22.7% in 2020, reflecting persistent challenges in perinatal care despite ongoing intervention. Deaths due to lower respiratory infections increased from 8.5% in 2020 to 13.6% in 2023. Deaths due to prematurity and low birth weight have consistently remained in the top five over the past four years, with a stagnant proportion of 11%. This highlights the need to evaluate the effectiveness of current interventions to determine the best approaches for improving maternal and newborn health outcomes.

Malaria continued to be a challenge for children under 5, appearing in the top five leading causes of death from 2020 to 2023 (Figure 59). Protein-energy malnutrition and communicable diseases, including HIV, other infectious diseases and diarrheal diseases, continued to be a threat to children under 5, consistently appearing in the top 20 for the past four years.

Figure 59:Top 20 leading causes of death for under-5 children, 2020-2023

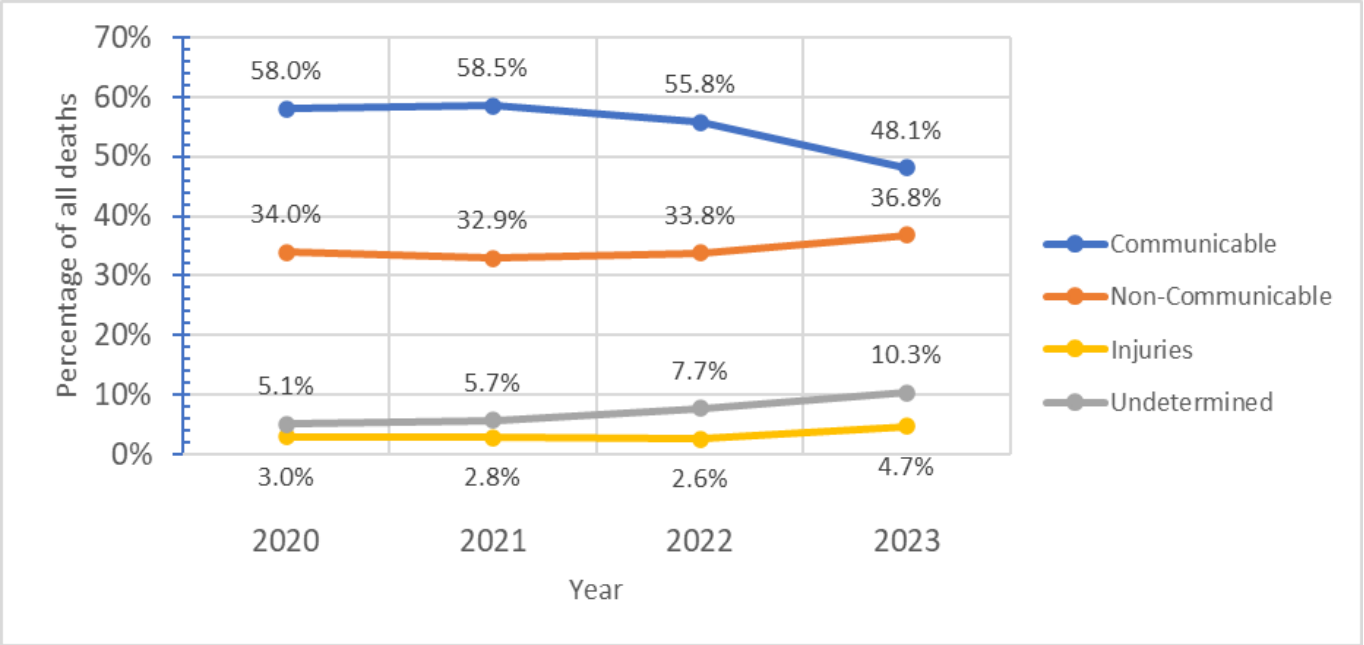
Disease/Condition	2020	2021	2022	2023
Birth asphyxia and birth trauma	22.7%	23.4%	22.8%	23.6%
Lower respiratory infections	8.5%	9.6%	9.6%	13.6%
Prematurity and low birth weight	10.0%	9.8%	11.3%	11.7%
Other conditions arising during the perinatal period	24.3%	23.1%	29.3%	11.3%
Malaria	7.3%	5.4%	4.3%	6.1%
Protein-energy malnutrition	3.0%	2.9%	3.4%	4.5%
Other infectious diseases	3.5%	4.2%	1.4%	2.8%
Other Congenital anomalies	1.7%	1.4%	2.5%	2.4%
Diarrhoeal diseases	1.4%	1.3%	1.4%	2.1%
Congenital heart anomalies	1.0%	0.9%	1.1%	1.8%
Other respiratory diseases	0.9%	0.5%	0.6%	1.4%
Meningitis	0.9%	0.7%	1.0%	1.3%
HIV	0.5%	0.3%	0.5%	1.2%
Endocrine disorders	0.7%	0.9%	0.7%	1.1%
Other digestive diseases	0.9%	0.9%	0.7%	1.1%
Upper respiratory infections	0.4%	0.4%	0.5%	0.9%
Nephritis and nephrosis	0.3%	0.3%	0.4%	0.6%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.5%
Other neuropsychiatric disorders	0.2%	0.2%	0.4%	0.5%
Anencephaly	0.1%	0.1%	0.1%	0.4%

Source: DHIS2 Database 2023

7.3.3. Broad group categories of causes of death

Figure 60 presents the trend of the total burden of disease in mainland Tanzania divided into three broad categories of causes from 2020 to 2023. Group I represents communicable, maternal and nutritional conditions; Group II represents noncommunicable diseases, and Group III contains external causes and injuries (i.e road traffic crashes, falls, self-inflicted, etc.). Group IV represents undetermined causes by available methods, which doubled during the four-year period. Communicable diseases accounted for more than 50% of all deaths between 2020 and 2022, and 48.1% in 2023, while noncommunicable diseases contributed to the total burden of mortality at an average of 35% in all years. Injuries increased from 2.8% in 2020 to 4.7% in 2023.

Figure 60: Broad group categories of causes of death, 2020-2023



Source: DHIS2 Database 2023

7.3.4. Completeness of medical certification of causes of death (MCCD) data

It is very important that all the people responsible for the documentation and registration of deaths provide accurate, comprehensive, reliable, complete and timely information, and that they record all deaths. This statistical data is used by the health sector to develop public health policies and goals for decision-making. In addition, mortality data is critical for measuring and comparing

health status at local, national and international levels, because they are regularly and extensively collected in every developed country and most developing ones.

A total of 190,544 deaths were medically certified and captured through the DHIS2 system, and through EMR systems from 2020 to 2023 in mainland Tanzania. In 2023 alone, 50,073 deaths were medically certified. Compared to the estimated total number of deaths in Tanzania in 2023, 15% received an MCCD. Of note, it's estimated that 30% of the deaths that occurred in mainland Tanzania in 2023 happened in health facilities, while 70% occurred in the community. This suggests that approximately half of the deaths in health facilities are getting an MCCD.

The proportion of certified deaths with defined causes (usable causes/quality of cause of death data) remained constant between 2020 and 2023 (Table 42). Furthermore, the completeness and quality of cause of death data from health facilities can be improved by providing refresher training to physicians, strengthening electronic data collection systems and increasing the number of supportive supervisions (e.g., by following up to ensure that every facility-reported death gets an MCCD).

Table 42: Completeness of MCCD data

Year	Population	CDR/ 1,000	Estimated Deaths Based CDR	Deaths with MCCD from DHIS2	Deaths with MCCD from Other Systems	Total Deaths with MCCD	Proportion of all Deaths with MCCD	Proportion of Deaths with MCCD with Usable Causes/Quality of Cause of Death
2020	55,966,030	6.1	341,393	34,505	11,673	46,178	13.5%	82.3%
2021	57,724,380	6.0	346,346	41,007	10,899	51,906	15.0%	81.2%
2022	59,851,347	5.6	335,168	31,597	10,788	42,385	12.7%	85.4%
2023	61,718,700	5.4	333,281	38,498	11,575	50,073	15.0%	82.0%

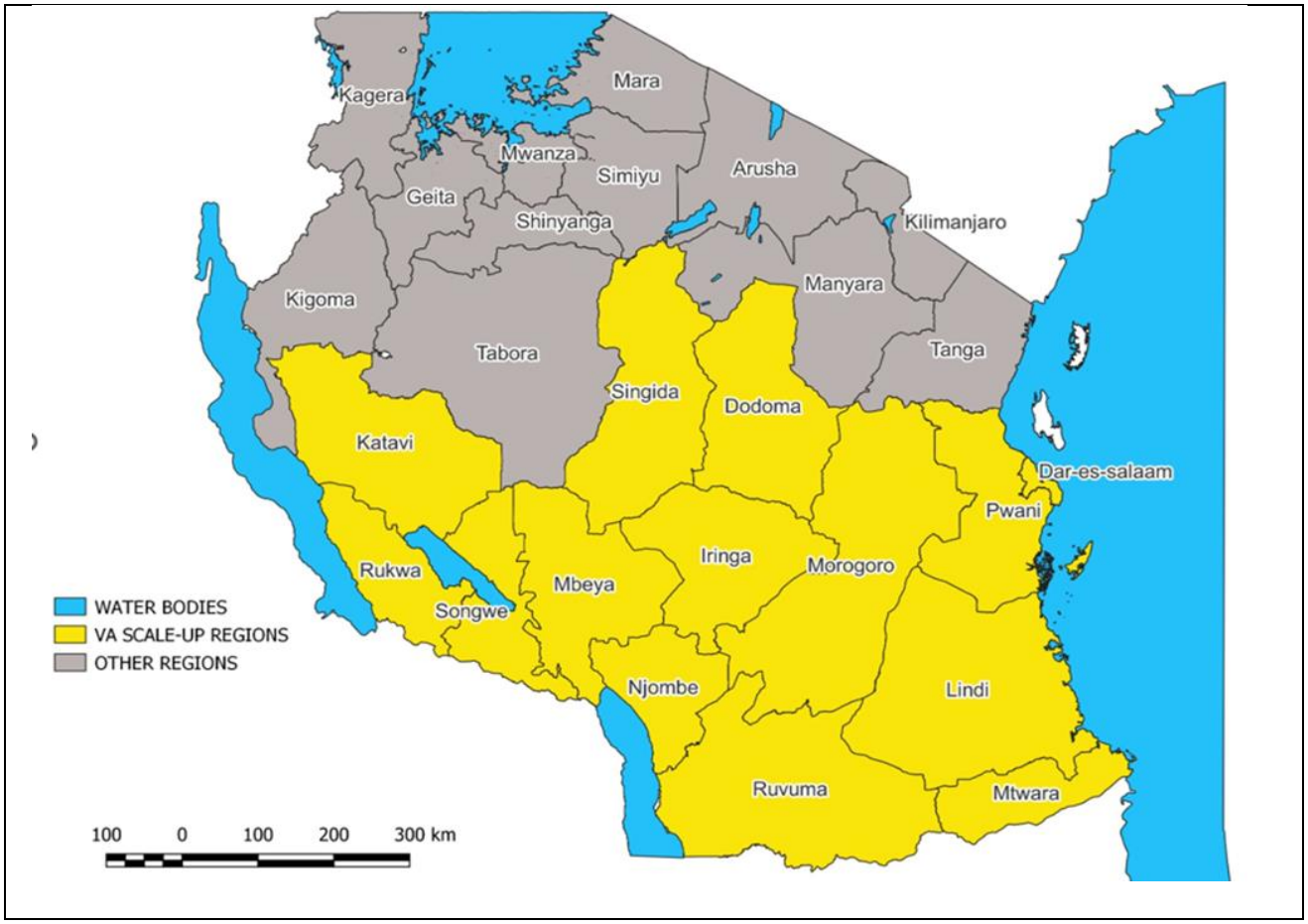
Source: DHIS2 Database and NBS Projections 2023

7.3.5. Verbal autopsy implementation

Figure 62. shows regions that are implementing verbal autopsy through the VA national representative sample. The government, through the Ministry of Health, aims to scale up the verbal autopsy intervention to all regions in the country, given the evaluation results obtained from the previous phases (pre-test, pilot and demonstration). Furthermore, the government has indicated its commitment to ensuring the institutionalization and sustainability of the VA program in settings that it reaches throughout the scale-up process. The ministry also aims at ensuring that the collected verbal autopsy information is linked with civil registration systems in different aspects (notification, registration and cause of death data). To that effect, the ministry, in collaboration with different implementing partners led by the National Bureau of Statistics, has established a national representative sample with 29 councils and 258 wards where scale-up started taking place in stages since 2022.

In 2022 and 2023 the Ministry of Health successfully trained verbal autopsy interviewers at the ward level, and supervisors at the regional level, and commissioned them with VA data collection tools. By December 2023, over 800 verbal autopsy events had been submitted to the system.

Figure 61:Current map showing regions that are implementing Verbal Autopsy



CHAPTER EIGHT
8. NUTRITION

This section presents progress of key indicators which measure the performance of nutritional interventions aimed at curbing all forms of malnutrition in the country as follows

Early initiation of Breastfeeding

Figure 63. shows the prevalence in new-borns breastfed within one hour increased from 90.8% in 2021 to 92.4% in 2023. This increase has been largely contributed by an increase in proportion of facility deliveries and good progress of other nutrition and related interventions such advocacy on Baby Friendly Hospital Initiative which has ten steps for successful breastfeeding.

Figure 62:Proportion of Children who were Breastfed within One Hour after Birth; 2021 - 2023

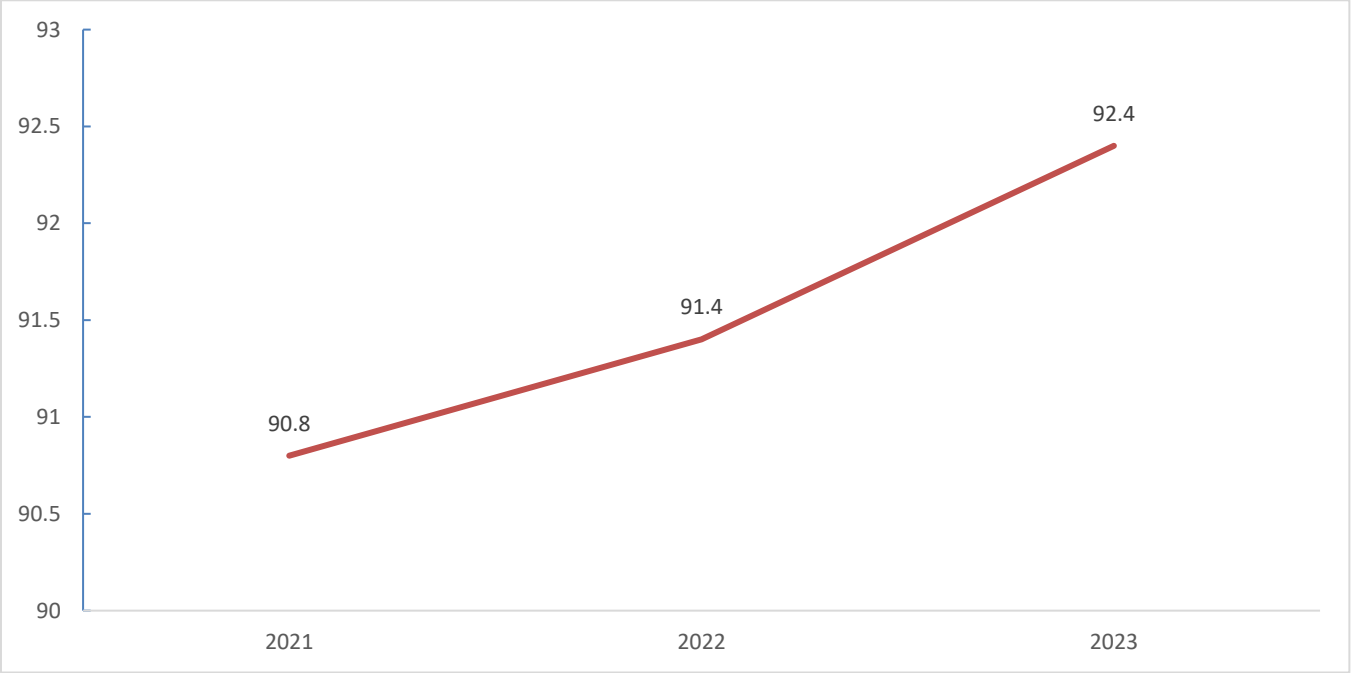
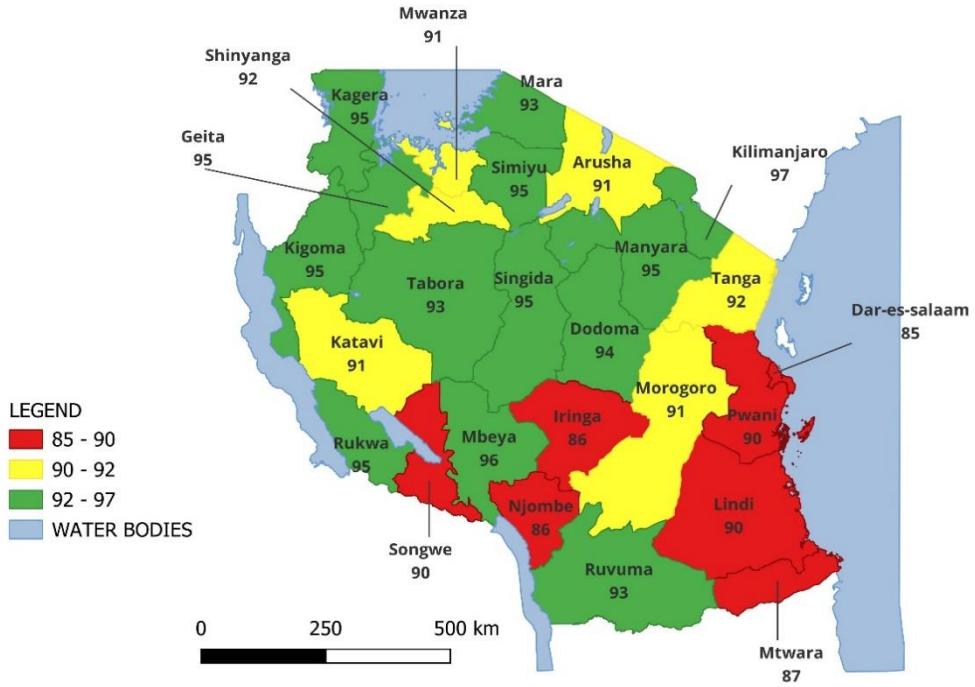


Figure 64. presents regional variation on proportion of children who were breastfed within one hour of birth in 2023. Among 26 regions, 13 had a higher proportion of children who were breastfed within one hour of birth compared to the national average which was 92 percent. Kilimanjaro region had the highest proportion of children who were breastfed within one hour of birth with 97 percent followed by Mbeya, Simiyu, Kigoma, Singida, Geita, Manyara and Rukwa Regions with 95 percent each. Iringa, Dar es Salaam and Njombe Regions showed the lowest proportion of children who were breastfed within one hour of birth each with less than 86 percent.

Figure 63 :Proportion of children who were breastfed within one hour after birth by region; 2023

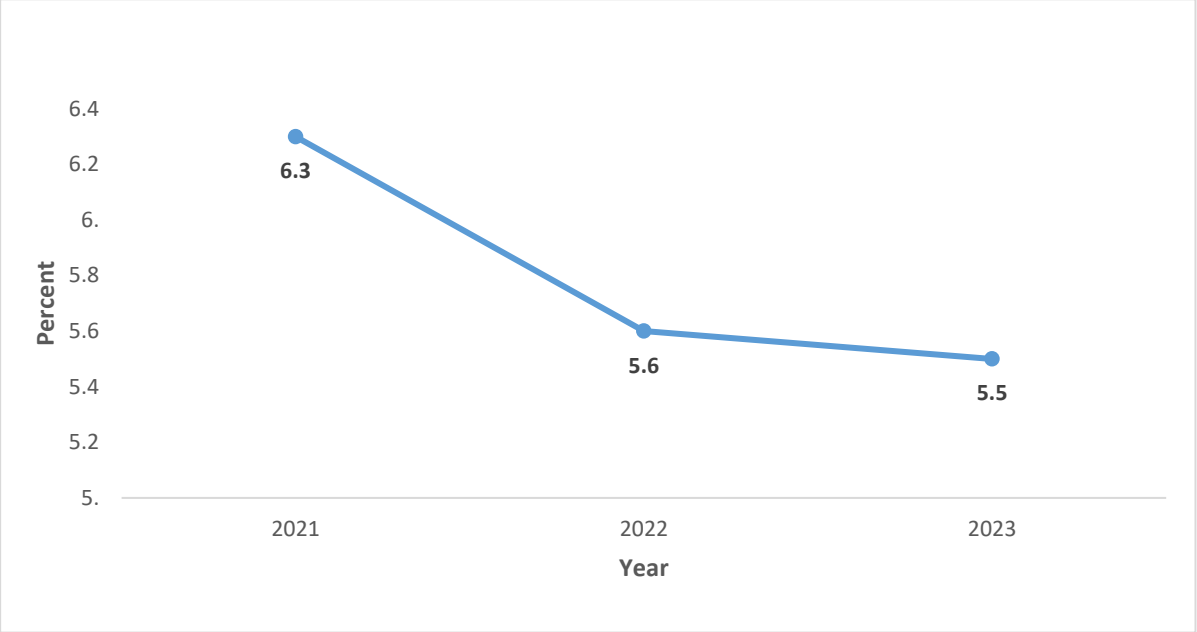


Source: *DHIS2*

Low birth weight

According to routine data collected in the health facilities from 2021 to 2023 (Figure 65); the indicator decreased from 6.3 percent in 2021 to 5.5 percent in 2023 similar to level which was attained in 2020.

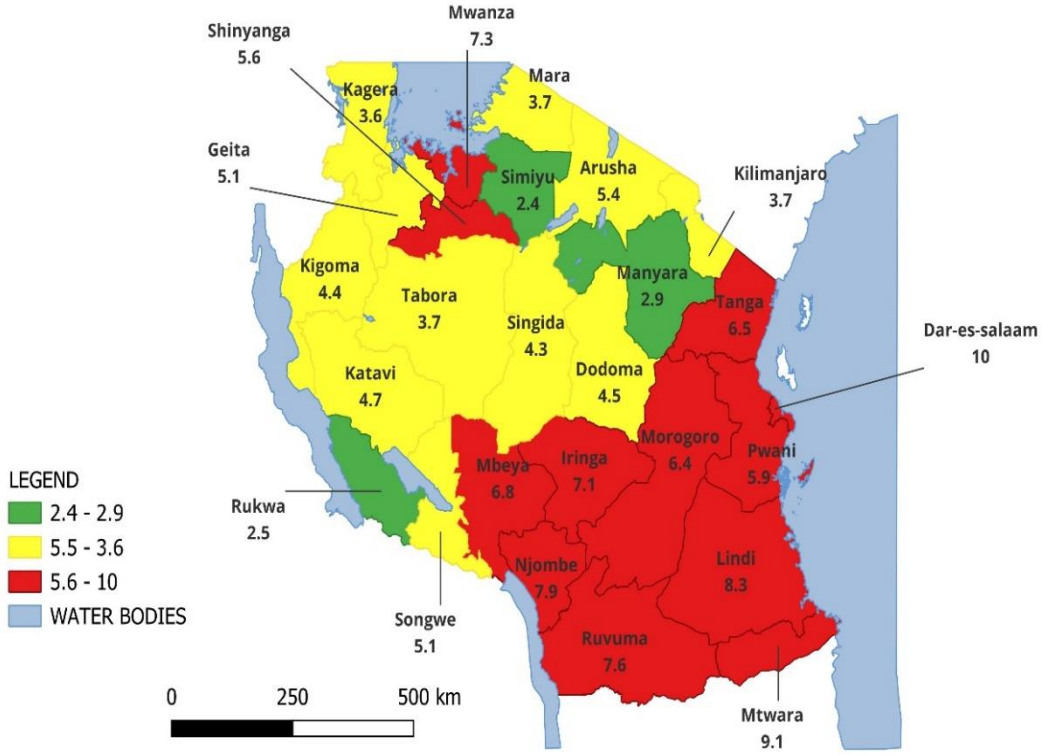
Figure 64:Percentage of New-born alive with Birth-weight Less than 2.5Kg; 2021-2023



Source: *DHIS2*

In the 2023 data, it was observed that the Dar es Salaam region had the highest percentage of low birth weight among newborns, standing at 10 percent, followed by Mtwara, Lindi and Njombe Regions, with percentages of 9.1, 8.3, and 7.9 respectively. Conversely, Simiyu, Rukwa, and Manyara Regions exhibited notably lower values compared to other regions, with proportions of 2.4, 2.5, and 2.9 percent respectively (Figure 66).

Figure 65:Percentage of New-born alive with Birth-weight Less than 2.5Kg

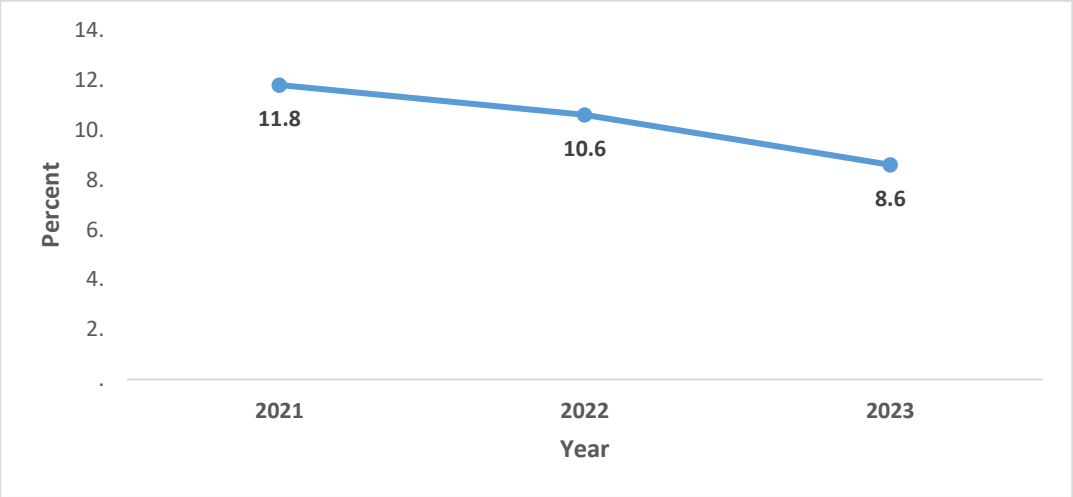


Source: *DHIS2*

Underweight among children aged 0 – 59 months

Figure 67. shows a trend in proportion of children aged 0-59 months who are underweight from 2021 to 2023. In 2021 the prevalence was 11.8 percent which slightly decreased to 10.6 percent in 2022 and 8.6 percent in 2023.

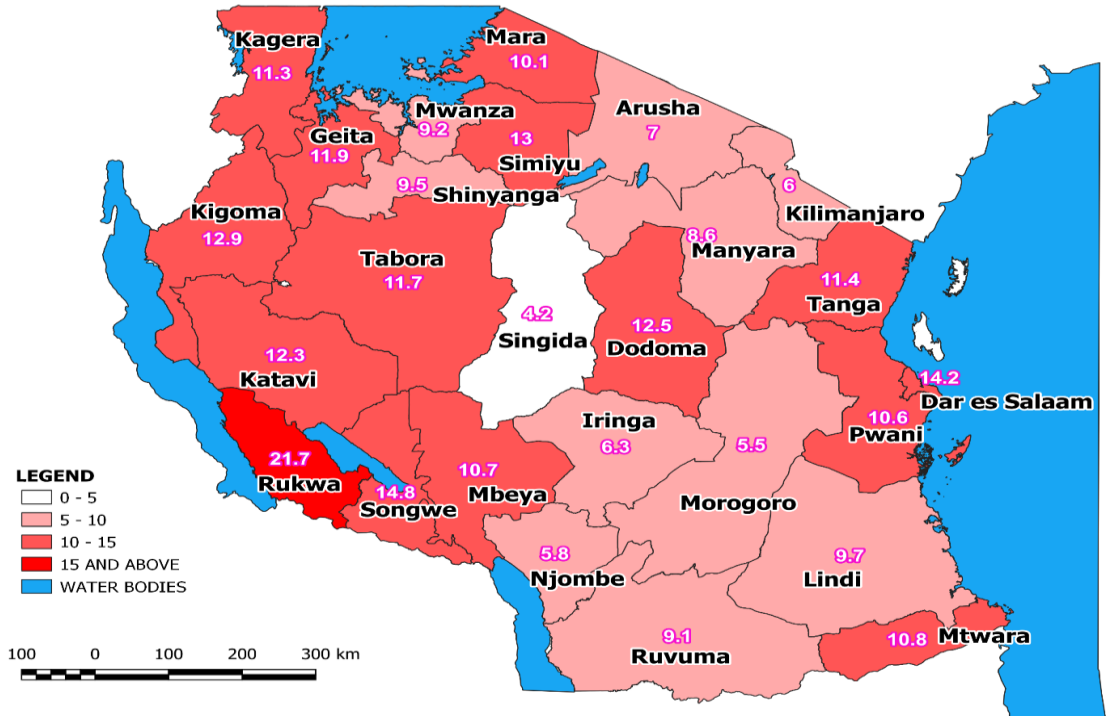
Figure 66:Percentage of children aged 0 - 59 months who are underweight



Source: *DHIS2/MNIS*

Figure 68 shows that in 2023 Rukwa region has the highest proportion with 21.7 percent, Singida region has the lowest proportion of 4.2 compared to other regions. Among the 26 regions, ten (10) regions had a higher percentage of low birth weight above a national average, and the remaining sixteen (16) regions had levels below the national average.

Figure 67:Percentage of Children aged 0-59 months who are underweight by region, 2023

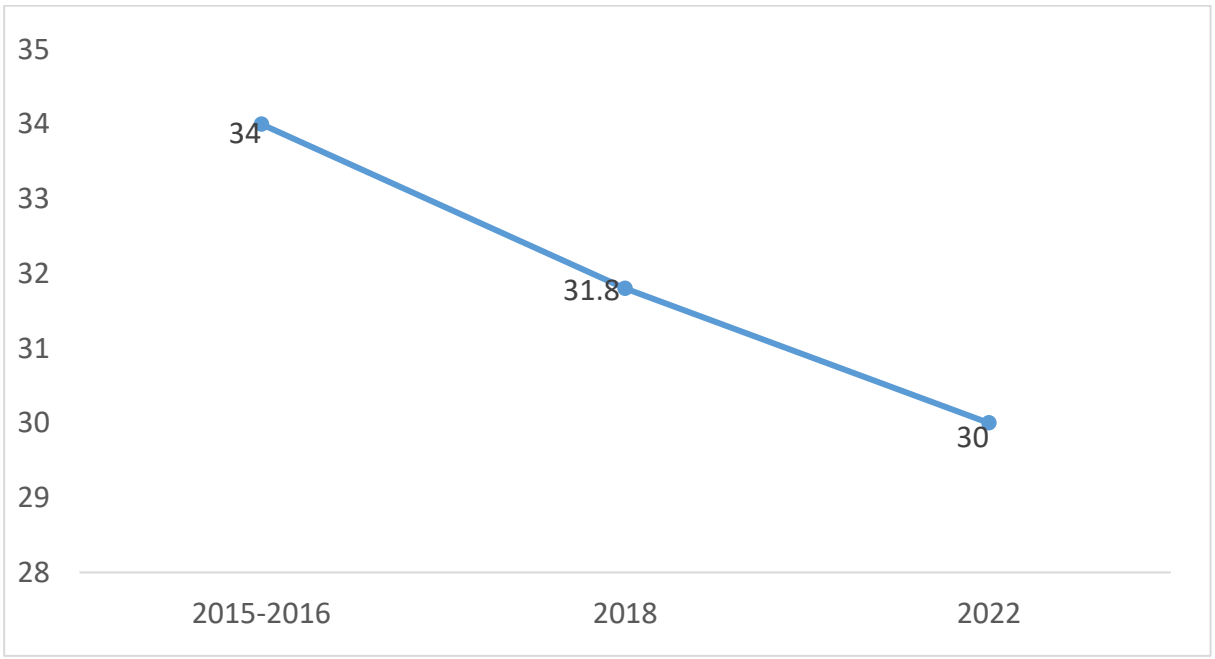


Source: *DHIS2*

Stunting

Figure 69. below illustrates a steady decline in the percentage of children under the age of 5 who are stunted (short for their age). This percentage decreased from 34 percent in 2015-2016 to 31.8 percent in 2018, and further to 30 percent in 2022. However, despite this decrease, the results indicate that the level of stunting among children under the age of 5 in Tanzania is still considered to be "very high" according to the new WHO-UNICEF prevalence thresholds for stunting, set at 30 percent and above.

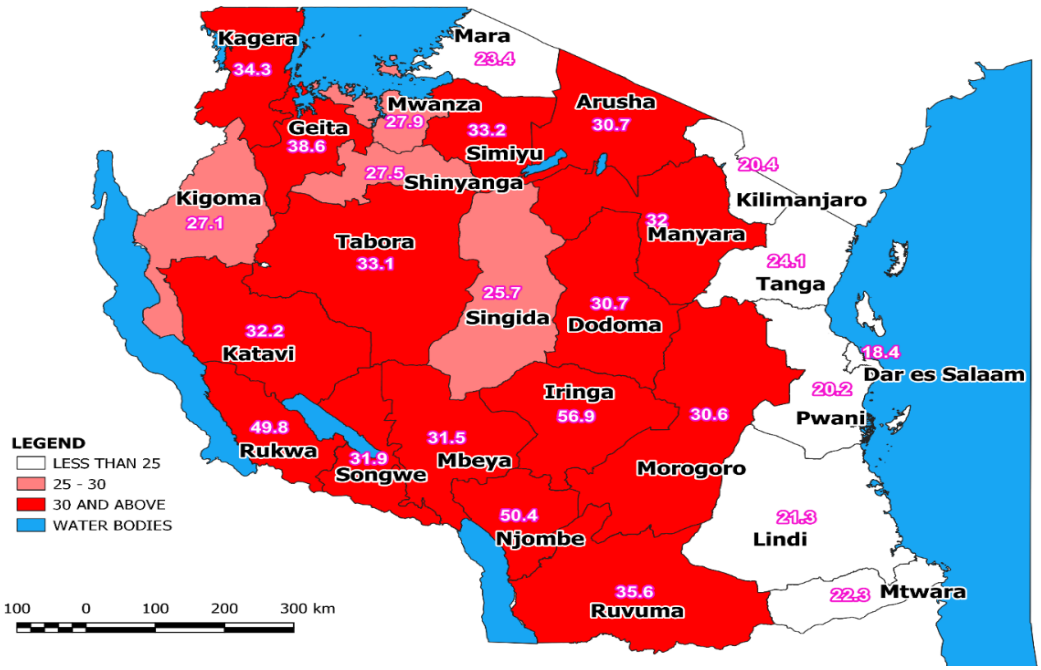
Figure 68:Percentage of children under age 5 who are stunted



Source: *TDHS 2015-16, TNNS 2018 & TDHS-MIS 2022*

According to the TDHS-MIS, 2022 the results showed that 15 out of 26 regions were having the levels of stunting above 30 percent which is considered to be "very high" based on the new WHO-UNICEF prevalence thresholds for stunting (see Figure 70). The survey also revealed great variations among regions, with some having very high stunting prevalence above national level of 30 percent including Iringa (56.9%) Njombe (50.4%) and Rukwa (49.8%) regions, while it was lowest in Dar es Salaam, Pwani and Kilimanjaro and regions (18.4%, 20.2 and 20.4%, respectively).

Figure 69:Percentage Variation of of children under age 5 who are stunted by Region in 2022



Source: *TDHS-MIS, 2022*

Implemented Interventions and Achievements

Tanzania has implemented various nutrition interventions aimed at improving the health and well-being of its population, particularly focusing on reducing the triple malnutrition (namely: under-nutrition, Micronutrient deficiency & Over-nutrition) and its associated consequences. Some of the key nutrition interventions and achievements in Tanzania include:

1. **Micro-nutrient Supplementation:** The government, in collaboration with development partners, has implemented programs to address micronutrient deficiencies, particularly vitamin A, iodine and iron & folic acid. These programs

include supplementation, food fortification, and promoting the consumption of nutrient-rich foods

In the year 2023, a total of 263 small scale millers were equipped with maize fortifier machines (dosifiers) and reached a total of 1,158 machines in the 26 regions of Tanzania Mainland. As well, the Government through Ministry of Health and PoRALG supplemented vitamin A to 9,460,369 under five children

2. **Community-based Nutrition Interventions:** Tanzania has employed community-based approaches to deliver nutrition interventions at the Community level.

Community sensitization on positive nutrition behaviours through Village Health and Nutrition Days (VHNDs), Nutrition Awareness Creation in the community using different platforms intention of raising media awareness and understanding as well as build capacity among media gatekeepers on reporting skills of nutrition issues in the community.

In the year 2023, a total number of 15,399 conducted Village Health and Nutrition Days to promote positive behaviours in the community.

School Feeding Programs: Tanzania has implemented school feeding programs to improve children's access to nutritious food and encourage school attendance. These

Challenges

i. Inadequate nutrition supplies and anthropometric equipment at health facility.

ii. Inadequate skilled human resource capacity affecting the quality of nutrition interventions

iii. Inadequate funding allocated for implementation of nutrition interventions

iv. Data gap, Data for nutrition are collected from different sectors and ministries with different systems some of them do not communicate

Policy recommendation

i. To increase Investment in Nutrition: Prioritize nutrition within national development agendas and allocate sufficient resources to nutrition-specific and nutrition-sensitive programs.

ii. To strengthen food environment system are essential for promoting healthy eating habits.

iii. To invest in strengthening healthcare infrastructure, including training and deploying more healthcare workers with expertise in nutrition to work at Primary Health Care level.

iv. To promote nutrition education and Behavior Change Communication.

v. To strengthen social protection programs targeting vulnerable populations.

vi. To promote local production of nutrition commodities such as Ready to Use Therapeutic Food and anthropometric equipment.

CHAPTER NINE
9. HEALTH CARE FINANCING

9.1. Health Financing

This chapter provides the overview of public health financing outlook in the country. It highlights on sources of funding for the health sector, budget and expenditure trends, distribution of funds and policy implications.

In 2022, the Total Health Expenditure (THE) reached Tsh 6.83 trillion (equivalent to USD 2.9 billion), showing an increase from Tsh 5.35 trillion (equivalent to USD 2.3 billion) in 2020—an increase of 26 percent. THE encompasses both Current Health Expenditure (CHE) and Capital Formation Expenditure (HK), with CHE representing 97 and 98 percent for the years 2021 and 2022, respectively.

In 2022, Total Health Expenditure (THE) accounted for 5 percent of GDP, greater than 4 percent recorded in 2020. The government's expenditure on health, as a percentage of total government expenditure, rose from 6 percent in 2020 to 8 percent in 2022. Per capita health spending riches 114,752 TZS (50 USD) in 2022, reflecting an increase from 95,292 TZS (40.9 USD) in 2020.

9.1.1. Health Financing in Service Provision

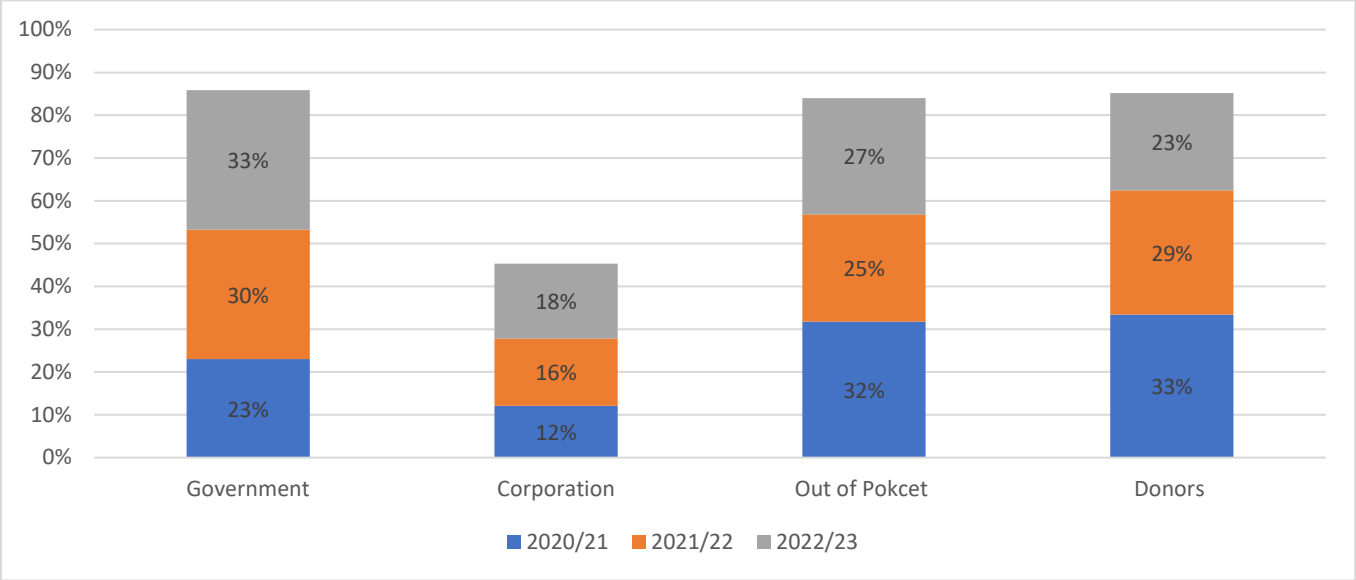
Expenditure at Referral Hospitals, covering from district hospitals to national facilities, increased to 40 percent in 2022, from 36 percent in 2020. However, spending on primary healthcare experienced a decline, partially due to challenges in accurately allocating salary expenses. A notable portion of spending comes from self-managed agents or managers of health resources, indicating their direct involvement in service provision. There has been a significant rise in health systems administrators, increasing to 14 percent in 2022 from 3 percent in 2020, due to improved methodologies for expenditure categorization. The primary inputs in service provision, including materials and services, accounted for 45 percent in 2022, a rise from 32 percent in 2020, with compensation witnessing a substantial 74 percent increase between 2020 and 2022.

9.1.2. Health Financing sources

Health financing stands as a critical resource, empowering the health system to effectively fulfil its functions and achieve its objectives. Health sector is financed by multiple stakeholders encompassing the government, health insurance schemes, households, and donors. Government's contribution to healthcare financing has experienced a substantial rise, increasing from 23 percent in 2020 to 33 percent in 2022. The role of health insurance in funding healthcare has also become more prominent, with an increase from 12 percent in 2020 to 18 percent in 2022. While donor financing remains significant, there is a noticeable declining trend, dropping from 33 percent in 2020 to 23 percent in 2022. Out-of-pocket contributes 28 percent on average between 2020 and 2022 while the share contributed by the government has increased from 23 to 33 percent. The increase in the share of health expenditure financed by the Government, coupled with a reduced share from households and donors, suggests diminished uncertainty and inequity. Government financing tends to be more predictable than other sources, signifying a positive stride towards narrowing the resource gap for universal health coverage (UHC) by

decreasing the share of health financing from households. Figure 71: shows Share of Health Expenditure by source of fund.

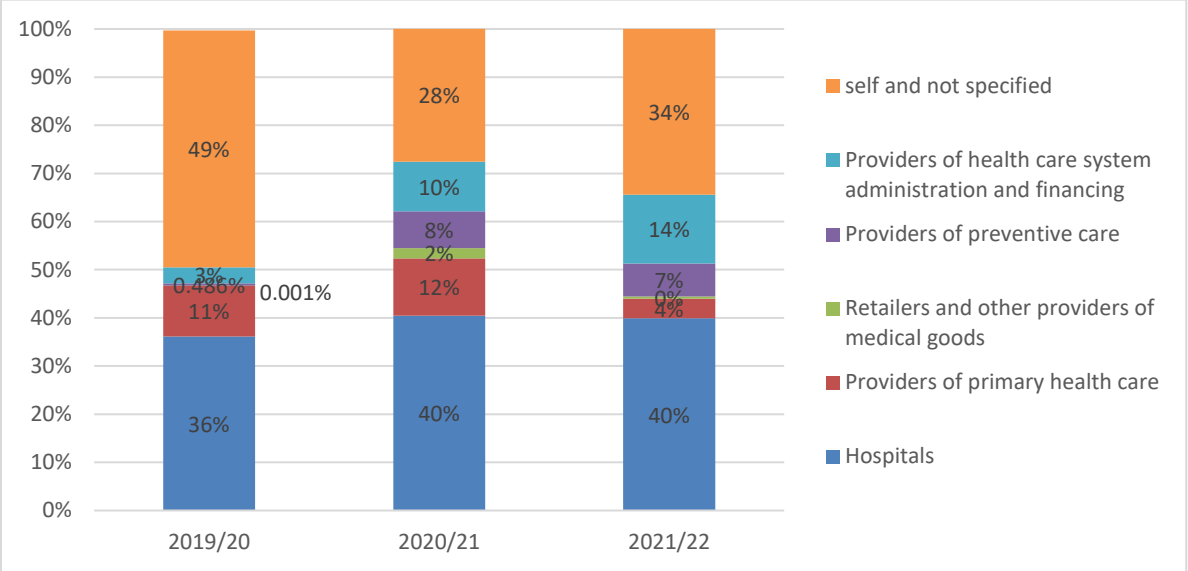
Figure 70:Trend of Share of Source of Funds



9.2. Expenditure by Health Care Providers

In Tanzania, healthcare providers comprise a range of facilities, including National Hospitals, Zonal Referral Hospitals and Regional Referral Hospitals. Additionally, the healthcare system incorporates primary healthcare facilities, such as District Hospitals, Health Centers and Dispensaries. The analysis of health expenditures by providers extends to include retailers of medical goods, providers of preventive care, institutions responsible for administering and financing healthcare systems, as well as funds managed directly by the respective agents themselves. Figure 72; show the shares of CHE by providers, respectively.

Figure 71:Share of Health Expenditure by Providers



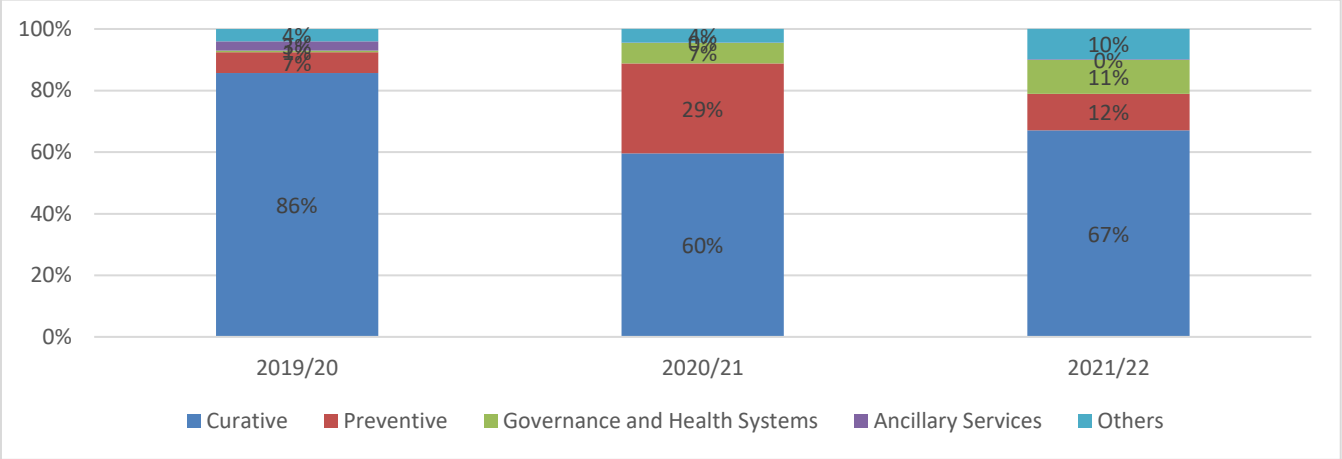
Hospitals, ranging from district to national levels, have been the main spenders of Tanzania's healthcare resources. The expenditure on hospital services increased to 40 percent in 2022, marking a rise from 36 percent in 2020. It is essential to note that while expenditure on primary health care demonstrated a decline, there was a challenge in accurately allocating salary expenses according to cost centers. This discrepancy arose due central data pulling of salary expenditure. Recognizing this, efforts are underway to enhance the reporting of expenditure by providers for improved accuracy.

A substantial portion of spending is spent by agents/managers of health resources (defined as self), signing that fund managers are directly involved in providing various services. Additionally, there has been a noteworthy increase in health systems administrators, accounting for 14 percent a rise from 3 percent in 2020. This improvement in expenditure categorization is attributed to an enhanced methodology, whereas administration departments at ministries, RHMTs, CHMTs, and NGOs, which do not directly offer services to citizens, are collectively considered as health systems administrators.

9.2.1. Expenditure by Health Care Functions

These functions include curative services, prevention services, governance, and administration, as well as other unclassified services. Figure 73. llustrates the distribution of the total healthcare expenditure.

Figure 72:Function by Share



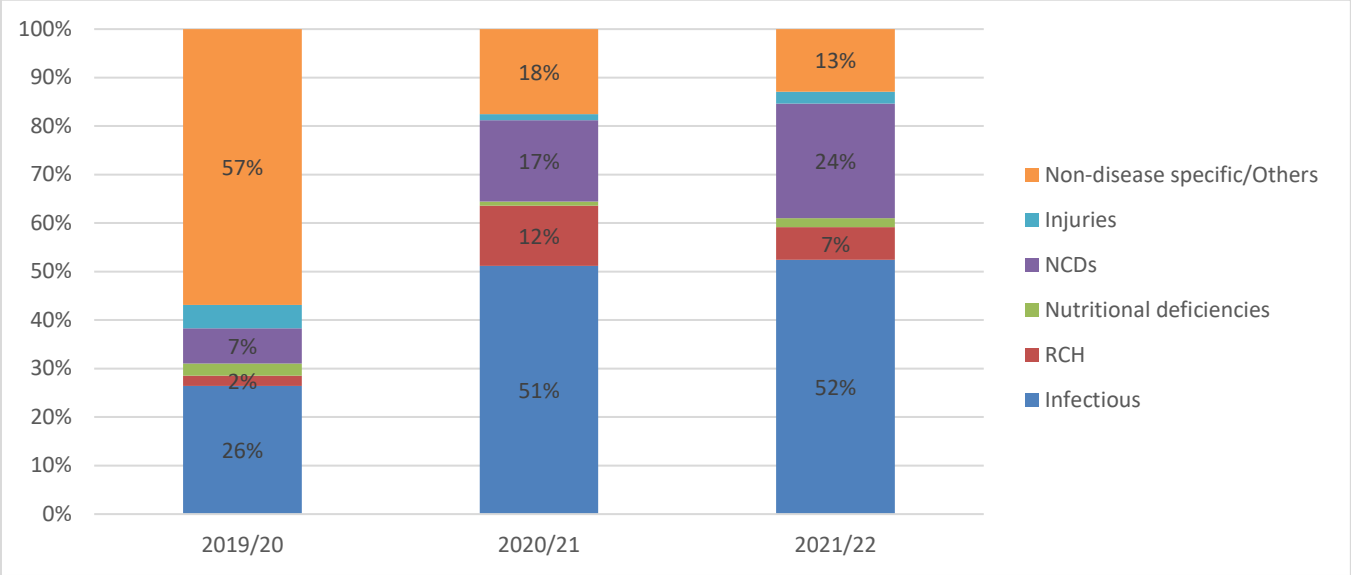
As is common in many developing countries, healthcare expenditure in Tanzania is primarily focused on curative services. However, spending on curative care decreased from 86 percent in 2020 to 67 percent in 2022. This reduction was accompanied by a significant increase in spending on preventive care during the same period, more than doubling in allocation of resources to preventive care between 2020 and 2022. Notably, there was a substantial rise in preventive care in 2021, reaching 17 percent, before declining again in 2022. This increase in 2021 may be attributed to preventive measures implemented during the COVID-19 pandemic, which necessitated additional investment. However, it is necessary to further analyze and develop measures for investing in preventive care to reduce the costs incurred during curative care.

Expenditure on health administration function has increased from 1 percent to 11 percent. It's worth noting that the methodology for capturing systems administration function has been improved to better reflect reality, hence the observed increasing trend.

9.2.2. Expenditures by Diseases

Diseases/conditions are typically classified into seven main groups, including infectious diseases, reproductive health issues, nutritional deficiencies, non-communicable diseases, injuries, non-disease-specific categories, and other and unspecified diseases/conditions. It's important to note that expenditure on diseases primarily reflects the burden of diseases at the facility level, due to the methodology used in estimating disease-specific expenditure. Figure 74; illustrates the distribution of CHE across disease categories.

Figure 73:Share of Disease in CHE



Expenditure on non-communicable diseases (NCDs) more than doubled between 2020 and 2022, with its share in total disease expenditure rising from 7 percent to 24 percent during that period. This significant increase reflects the growing burden of NCDs in the country, as evidenced by rising mortality rates from diseases such as diabetes, hypertension, and neoplasms, which incur high disease management costs.

Infectious diseases continue to accounts for the largest share of Current Health Expenditure (CHE). The share of infectious diseases in Current healthcare expenditure (CHE) allocated to diseases saw a notable increase from 26 percent to 52 percent between 2020 and 2022. This rise in spending on infectious diseases can also be attributed to government investments in preventing infectious diseases through vaccination programs and health promotion efforts.

Challenges

i) Insufficient Public health expenditure to achieve universal health coverage
ii) Dependency on foreign financing
iii) High levels of vulnerability to catastrophic and impoverished health spending
iv) Low level of financing for preventive interventions at LGAs level

Policy Recommendation

i) To fast tracking roll out of Universal Health Insurance Act
ii) To increase the share of domestic resource for health financing

iii) To promoting strategic purchasing in health sector

iv) To improve financing for preventive services/ community interventions

CHAPTER TEN
10. ENVIROMENTAL HEALTH AND SANITATION

10.1. Introduction

The state of our world affects our physical and mental health. example, the food we eat impacts our mental and physical health. Environmental health looks at various aspects of our environment, including pollution, access to safe drinking water, and infrastructure issues that impact people's health. Fresh air, clean water and sanitation, Chemicals and radiation, Air pollution, shelter, and a stable climate are just a few requirements for human health that link directly to the environment.

Example of a recently human interaction with the environment is the epidemic of COVID-19 that has awakened the global on importance of ensuring everyone has access to better hygiene and sanitation, others include the flooding and draught due to climate change crisis that threatens and undermine the sustainability of existing and future investments in the health sector. Weak Hygiene infrastructure globally affects the health of hundreds of millions of school-aged children who lack access to soap-based hand-washing facilities and about 673 million people defecate in the open environment thus promoting the spread of communicable diseases. In the low scarce resource countries, they are affected with environmental health related diseases like cholera, dengue and malaria etc and Tanzania being among of these countries

10.2. Indicators

The indicators presented in this part are drawn from the HSSP V (2022 -2026) and the National Environmental Health, Hygiene and Sanitation Strategy (2020–2025) for interest of the government and Development partners to reflects WASH interventions.

Figure 74:Summary of Indicators, Baseline and Targets for Year 2022-2023

No.	Key Indicator	Baseline 2022	Target 2023	Achievement 2023
1.	Percentage of households with toilets (all type)	98.6	100	98.6
2.	Percentage of households with improved toilets	72.9	100	77.5
3.	Percentage of household with access to improved sanitation	66.5	75	72.3
4.	The number of villages declared Open Defecation Free (ODF)	4,829	20,000	5,148
5.	Supported health facilities with WASH infrastructures	813	2,636	1902
6.	Percentage of people with access to improved water sources (Urban).	84	100	86
7.	Percentage of people with access to improved water sources (Rural)	70.1	85	72.3
8.	Percentage of household with functional Handwashing points	48.1	50	54.5
9.	Number of Points of Entry enhanced with Core capacities for implementation of IHR, 2005	5	40	28
10.	Number of healthcare facilities with workplace improvements program	16	100	73

No.	Key Indicator	Baseline 2022	Target 2023	Achievement 2023
11.	Number of Regional Referral Hospital with H-Tech incinerators	21	28	28
12.	Number of National, zonal and specialized hospital with Hi-Tech incinerators	11	11	11

10.3. Sanitation and hygiene at household level

In Tanzania sanitation and hygiene status, the households with any form of toilets slightly increased from 98.5% (2022) to 98.6% (2023), households with improved toilets increased from 72.9% (2022) to 77.5% (2023). Also, in 2022 there was a decrease in households without toilets from 1.44% to 1.41%. In case of coverage of hand washing, there is an increase in households with hand washing point from 48.1% in 2022 to 54.5% in 2023. The increase of handwashing points in the households was a result of adaptation from response to COVID 19.

The safely managed sanitation is the highest level of access to improved sanitation, in 2023, the proportion of households with access to safely managed sanitation was 34.8%, higher than the average compared to the reported 31.8% in 2022. Table 10.3 below shows the progress on indicators

Implementation of the Sustainable Rural Water Supply and Sanitation Program

The Government of Tanzania through the Ministry of Health; Ministry of Water; Ministry of Education, Science and Technology and PO-RALG is implementing a Sustainable Rural Water Supply and Sanitation (SRWSS) program for five-year 2020 - 2025. The program is designed to increase and sustain access to improved Water, Sanitation and Hygiene services in rural settings in 25 Regions of Tanzania Mainland except Dar es salaam and 137 councils. The program has managed to reach 6,610,198 new constructed improved latrines, 555 open defecation free villages, 1534 health care facilities constructed with water tanks, improved toilets, incinerators, hand washing facilities at point of use. Also, the program has increased households with hand washing point to the 42.2%.

As it is shown in the table below, the program has achieved remarkable achievement whereby out of five (5) indicators three (60%) of them were implemented beyond the target. Due to these achievement during this period, World Bank and Government increased the project coverage from 17 regions to 25 regions and 86 districts to 137 councils.

Table 43:SRWSS achievement for the 3 years of implementation (2019-2022)

Indicator	**First Year 2019/20**		**Second Year 2020/2021**		**Third Year 2021/22**		**Target for 4 years**
	Target	**Success**	Target	Success Cumm.	**Target**	**Success Cumm.**	
People with access to improved latrine	400,000	**2,602,308**	1,300,000	**4,669,918**	2,200,000	**6,610,198**	4,000,000
Open defecation free villages	50	**72**	350	**245**	650	**555**	1,250
Number of health facilities rehabilitate/constructed	100	**0**	450	**873**	800	**1,534**	1,500

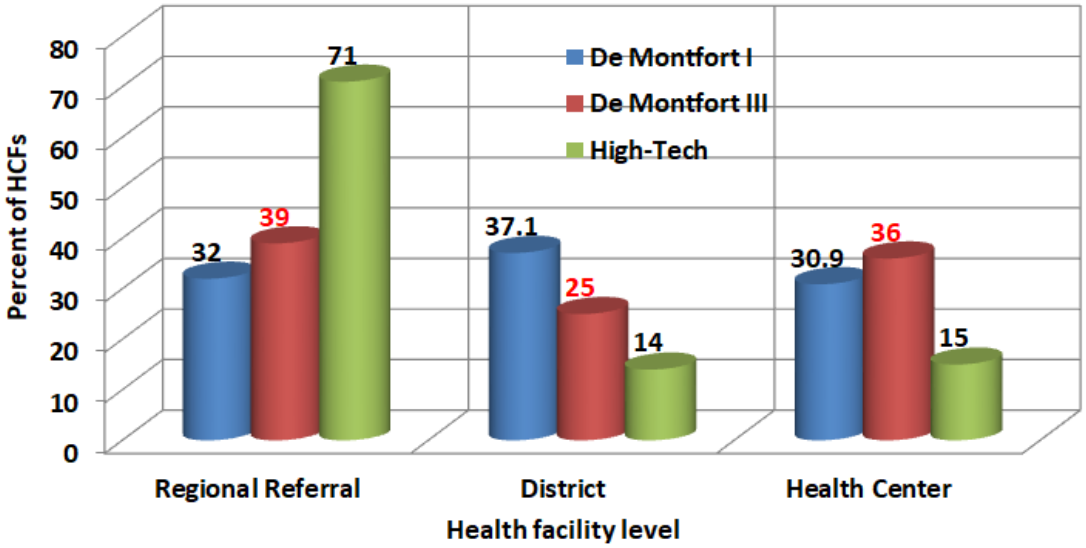
with WASH infrastructures							
Number of Districts with good quality sanitation and hygiene data	86	**0**	86	**5**	86	**62**	86
Percentage of households with hand washing points	10	**38.5**	15	**42.2**	20	**41.3**	30

Source: *SRWSS Program 2023 – MoH*

Environmental Protection and Pollution Control

The Government is struggling to maintain friendly environment and minimizing pollutions at health facilities so as to protect human health and environment against the adverse effects of hazardous wastes. To achieve that, measures of preventing and mitigate those factors in healthcare waste are highly considered. In 2023 the investment of incinerators was done at 100% to all 28 RRH from 21 RRH in the year 2022 while for Councils Hospital incinerators was 33 in the year 2022 and in the year 2023 the council hospitals reach 58 out of 184.

Figure 75:Available Incinerators in HCF's (Health Survey,2023)



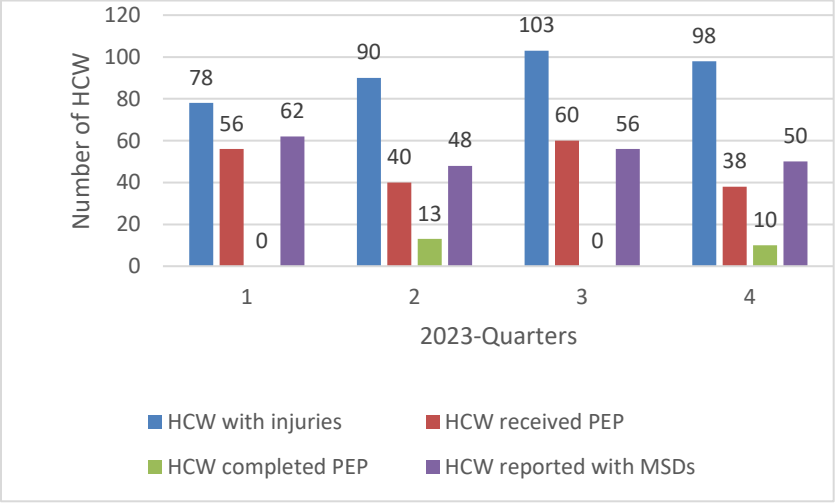
On the other hand, for the digestible health care waste, construction of Biodigester has increased from 9% in the year 2022 to 17% in 2023. The target is to reach 100% for all RRH in 5 years. At facilities, the Biodigester offers management of healthcare as well as the production of energy in HCFs. In strengthening infrastructures, the conditional survey to capture environmental risks and impacts was done in 25 regions targeted to cover 15 Hospitals, 75 Health centres and 76 Dispensaries, up to now 31 hospitals has already carried EIA.

In the year 2023, The Government developed a Climate Change Dashboard. This is a technology for forecasting climate change-related diseases e.g. malaria, dengue, cholera and other diarrhoea diseases. The dashboard provides early warning indicators for climate-related diseases and at this point it is pilot phase and finally, it will be operationalized in 184 councils for enhancing preparedness. A study for assessment of mercury exposure to Artisanal and Small-Scale Gold Mining (ASGM) was done in the year 2022 reaching 8 sites in 4 regions of Singida, Mara, Mbeya and Geita for implementing the Minamata convention on mercury article 7, towards phasing down the use of mercury among ASGM communities to protecting human health and the environment. Results shows that of a total of 361 participants (84.8%) provided urine specimens for laboratory analysis, 55 (15.2%) participants were found to have mercury levels above the threshold of 25µg/L.

Implementation of the Workplace programme for health care workers

Government has developed programme to support workplace improvements in health care facilities and the capacity of its workforce. In 2019 the guideline on health and safety of health workers and emergency responders was developed. Similarly, the capacity building to health work force and facilities to improve the working conditions at facilities was done to 73 District health facilities in 10 Regional Refferal Hospital for the year 2019 - 2023. The programme also did the advocacy to Health Management Teams at facilities 73, Districts 73 and 10 Regions. The aim of these advocacy is to facilitate allocation of resources to developed plans for workplace improvements.

Figure 76:Occupational Health Issues Reported in the year 2023



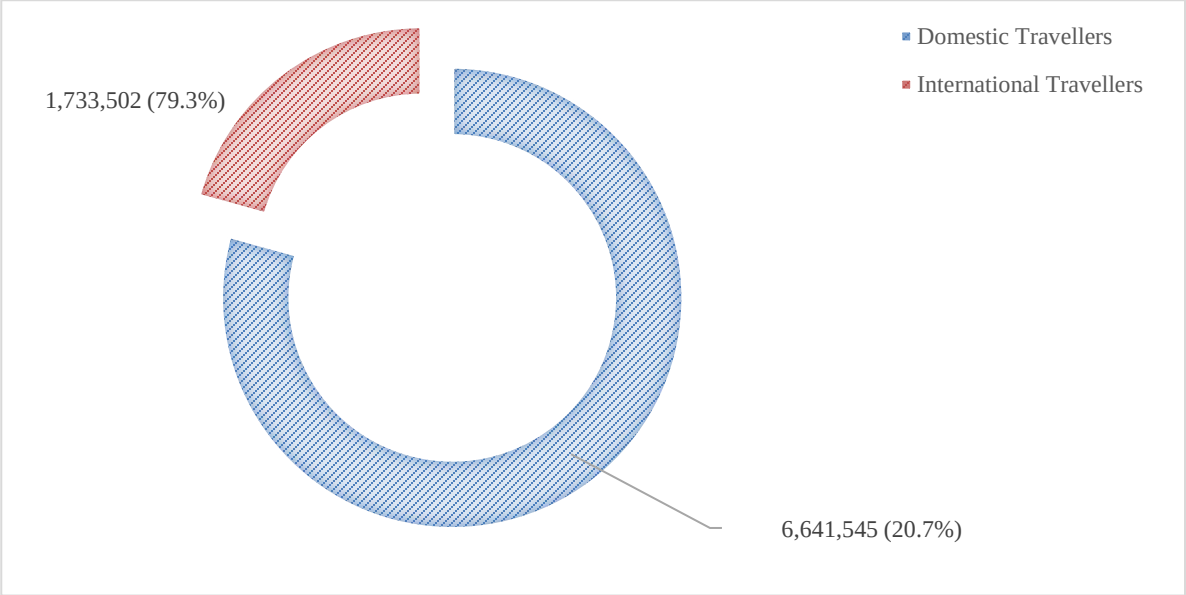
Implementations of Port Health Services

The port health services were established to operationalize International Health Regulation (IHR) 2005 and the Public Health Act (2009) that target control diseases in points of entry. To fully achieve control of disease at points of entry (PoE), the IHR 2005 requires countries to build and maintain capacity to prevent and respond to public health events. In this regard, in the year 2023 the following investment and achievement have been made.

Sixteen (16) points of entry were supplied with vehicles while 20 points of entry received motorcycles to support transportation and routine operations at ports. Furthermore, to enhance health screening of travellers, the Ministry has purchased and installed Walkthrough Thermoscanners in 10 points of entry of Horohoro One-Stop Border Post (OSBP) in Tanga, Kabanga (OSBP) in Kagera, Holili (OSBP) in Kilimanjaro, Kasumulu (OSBP) in Mbeya, Karema Port in Katavi, Namanga (OSBP) in Arusha, Sirari (OSBP) in Mara, Tunduma OSBP in Songwe, Mutukula OSBP in Kagera and Rusumo OSBP in Kagera. In addition, to further enhance infection prevention and disease control at borders, the Ministry has rehabilitated isolation unit at Mutukula OSBP and has constructed permanent facilities for mass hand washing at Kigoma Port and Rusumo OSBP.

Port Health Services has continued to control entry and exit of infectious diseases including Ebola, Murburg, Bird Flu (SARS), UVIKO-19, Yellow Fever, Monkey Fever (M-Pox) and others through Airports, ports and ground crossing by conducting a health screening of travellers incoming and exiting traveller. For the year 2022 to 2023, a total of 8,375,047 travelers were screened of which 1,733,502 (20.7%) were international travelers and domestic travelers were 6,641,545 (79.3%) (Figure 78). None of the travellers was found to have dangerous infectious diseases.

Figure 77:Number of travelers screened for the year 2022 and 2023



In endeavour to control Yellow Fever disease at points of entry, 5,642,611 travellers were screened of their vaccinated status against yellow fever disease and 11,747 travellers who lacked proof of vaccination were vaccinated against the disease. This number is high compared to 4,889,591 travellers who were screened and 10,583 travellers were vaccinated during the same period in 2022/23.

Results of the Joint External Evaluation (JEE) conducted in August 2023 found that, the overall capacity of points of entry to implement IHR has risen to 73.3%. This level is very high compared to the previous score of 40% obtained in 2016. With these results, Tanzania has made great strides in building the capacity for the provision of health services in the borders and the overall prevention of diseases in these areas.

Challenges

i). There are still some remained 1.4 percent of the community without toilets and less than 50% of households have handwashing points, the figures had not changed over three years now despite heavily investments in the National Sanitation Campaign programme with the "*Nyumba ni Choo*" implemented from 2019 to 2022.
ii). Only 14 regions (Tabora, Arusha, Mbeya, Tanga, Songwe, Shinyanga, Dodoma, Dar es Salaam, Morogoro, Mwanza, Moshi, Singida, Iringa and Mara) out of 26 in urban centres, have sewerage systems which are also old and dilapidated.
iii). Only about 33% of the generated solid waste is being collected countrywide. More than 90% of MSW in Tanzania is believed to be disposed in an unsatisfactory manner.
iv). Inadequate safe water supply made communities to rely on the unprotected water sources
v). Open defecation, low coverage of hand washing points, food contamination and inadequate management of wastes may contribute into outbreak of diseases like Cholera.
vi). Inadequacy of resources to facilitate the implementation of the workplace improvement program in healthcare facilities.
vii). Health workers suffer occupational health related diseases, injuries as health facilities have inadequate supplies for prevention and control of work-related injuries and diseases as well unsatisfactory working environment and inadequate human resource for health to support the largely demand of work.
viii). Inadequate enforcement of regulations made under the Public Health Act, 2009 that would facilitate implementation of various Public Health intervention in the country.
ix). Inadequate resources allocated to make routine maintenance of medical equipments such as incinerators.
x). Inadequate adherence of SoP for Health care waste management at health facilities.
xi). Inadequate office building and space as well as permanent facilities for isolation of suspected travelers with infectious diseases.

Policy recommendations

i). To review and strengthen enforcement of Public Health Regulations to support the implementation of Public Health Act 2009 to regulate various Public Health Issues and for the prevention and control of infectious diseases

ii). To strengthen port health services to prevent the importation and exportation of diseases of international concern.
iii). To improve health facilities management skills to optimize management responsibilities in improving workplace environment for workers in healthcare service delivery.
iv). To implement Social Behavioural Communication approaches, best practices and models for improving hygiene and sanitation gaps in the community.
v). To scale up safe water supply and waste water management infrastructures to all underserved rural areas and peri urbans.

CHAPTER ELEVEN
11. HUMAN RESOURCE FOR HEALTH

11.1. Introduction

Tanzania is one of the developing countries faced by critical shortage of Human Resources for Health (HRH). According to the Staffing levels guideline (2017-2022), the minimum number of health workers required to provide services in the Health Sector in financial year 2021/22 was 348,923. The actual number of health workers available was 119,925, which explains a shortage of 229,628 (66%) workforce.

For the year 2022/2023, the total Human Resources for Health requirement was 348,923 the number of Human Resources in the health service delivery facilities was 126,925 and the shortage was 221,998 (64%). Table 11.1 shows the trend for two years 2021/22 and 2022/2023. Among whom, 91,386 were in the local government facilities about 72% and 35,539 about 28% in Regional Referal, Zonal, Specialized, National Hospitals, training instutions and ministry headquarter and other institutions.

11.2. The HRH Indicators

The HRH indicators for Medical Officers, Assistance Medical Officers, Nurses of all categories, Laboratory Staff and pharmaceutical staff in the country for 2023 is as shown in the Table 44.

Table 44:Number of Health Workers (Specific Cadre) Per 10,000 Populations 2022-2023

	Performance Indicator	2019	2020	2021	2022	2023
1	Medical Specialists	-	-	-	-	0.39
2	Number of Medical Doctors (MD) per 10,000 population	0.75	1.03	1.03	0.74	1.09
3	Number of Assistant Medical Officers (AMO) per 10,000 population	0.32	0.31	0.31	0.34	0.54

4	Number of AMOs/MDs per 10,000 population	1.07	1.34	1.34	1.08	1.63
5	Number of Nurse/Midwives per 10,000 population	3.80	4.1	4.1	6.8	7.24
6	Number of Pharmaceutical Staff per 10,000 population	0.30	0.34	0.34	0.35	2.76
7	Number of Health Laboratory Staff per 10,000 population	0.84	0.96	0.96	0.8	1.19

***Source**: HRHIS population 2023*

Table 45:Number of Human Resources in the Health Service Delivery Facilities, 2021/22 - 2022/23

Financial Year	Total Requirement	Available	Shortage	% Shortage
2021/2022	348,923	119,728	229195	34
2022/2023	348,923	126,925	221,998	36

11.3. Human Resources for Health Distribution

11.3.1. HRH Distribution by Region

Table 46 and Figure 79 show the Human Resources for Health distribution by regions. The peripheral regions still face a critical shortage of Human Resources for Health compared to the regions like Mbeya, Kilimanjaro, Dar Es Salaam and Dodoma where the workforce shortage is below 33 percent.

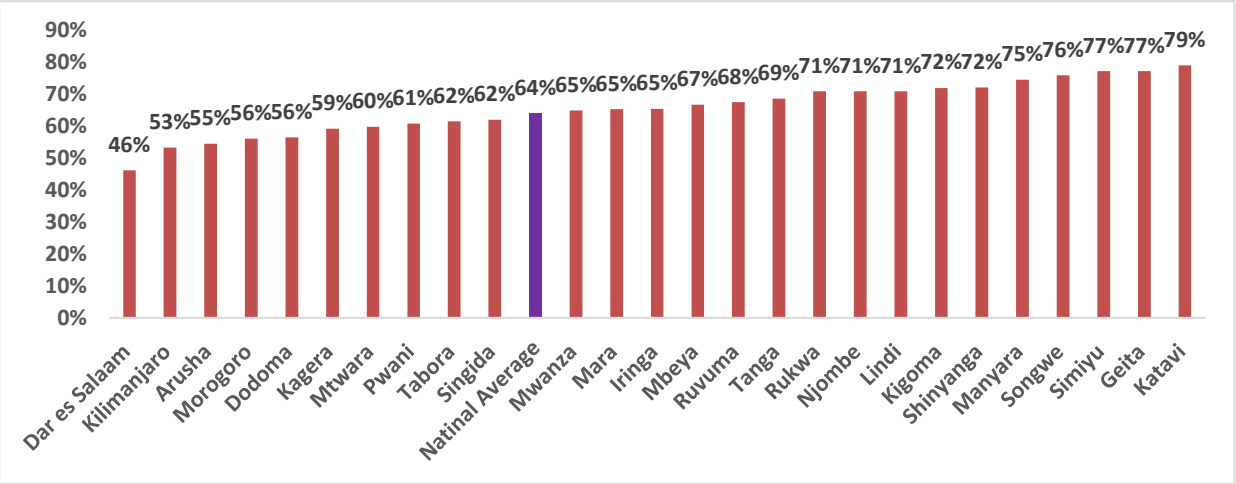
Table 46:HRH Distribution by Region, 2023

Regions	Required	Available	Shortage	Percentage Shaortage
Dar es Salaam	15,193	8,175	7,018	46.19%
Kilimanjaro	21,699	10,139	11,560	53.27%
Arusha	21,306	9,681	11,625	54.56%
Morogoro	16,133	7,086	9,047	56.08%
Dodoma	17,757	7,726	10,031	56.49%
Kagera	10,986	4,485	6,501	59.18%
Mtwara	21,597	8,671	12,926	59.85%
Pwani	15,335	6,012	9,323	60.80%
Tabora	20,604	7,933	12,671	61.50%
Singida	10,551	4,003	6,548	62.06%
Natinal Average	**21,005**	**7,664**	**13,341**	**64%**
Mwanza	20,907	7,322	13,585	64.98%
Mara	15,438	5,349	10,089	65.35%
Iringa	14,675	5,069	9,606	65.46%
Mbeya	11,902	3,956	7,946	66.76%
Ruvuma	11,008	3,572	7,436	67.55%

Regions	Required	Available	Shortage	Percentage Shaortage
Tanga	12,203	3,826	8,377	68.65%
Rukwa	8,959	2,606	6,353	70.91%
Njombe	9,917	2,883	7,034	70.93%
Lindi	10,300	2,993	7,307	70.94%
Kigoma	10,191	2,858	7,333	72%
Shinyanga	8,642	2,409	6,233	72.12%
Manyara	12,667	3,226	9,441	74.53%
Songwe	8,244	1,984	6,260	75.93%
Simiyu	2,832	645	2,187	77.22%
Geita	8,571	1,951	6,620	77.24%
Katavi	11,306	2365	8,941	79.08%

Source: *HRHIS*

Figure 78:Availability of Human Resource for Health by region, facilities as per manning level; 2023

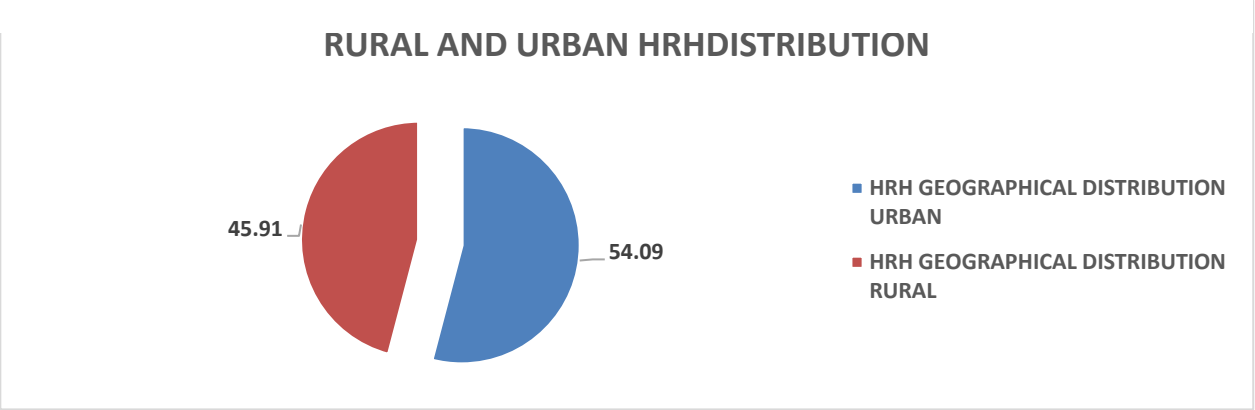


Source: *HRH*

11.4. Rural Versus Urban HRH Distribution

The total number of health workers available in 2022/2023 was 126,061 among them 33,909 (15%) are not working directly in health service delivery facilities, rather they are working in the Ministry, Training Institutions, agencies etc. The distribution of Health Care Workers (HCW) in rural and urban settings shows that, HRH 45.91 percent are in urban settings and 54.09 percent are in Rural areas as shown in the Figure 80.

Figure 79:HRH Distribution by Rural-Urban in 2023



Source: *HRH*

11.5. HRH Distribution at Facility Level

The Dispensaries experience four times shortage than in the Regional Referral Hospitals. The Health Training Institutions experiences extreme shortage of Tutors for about 69 percent. For the year 2021/22 and 2022/23, the HRH distribution by facility levels is as shown in the Table 47.

Table 47:HRH Distribution by Type of Facility, 2022-2023

Facility Level	2022				2023				
	HRH Required	HRH Available	Shortage	% Available	HRH Required	HRH Available	Shortage	%Available	% Shortage
Dispensary	100,646	30,625	70,021	30%	100,646	33,122	67,524	33%	67.10%
Health Centre	68,204	25,354	42,850	37%	68,204	27,287	40,917	40%	60.00%

District Hospital	123,624	29,409	94,215	24%	123,624	29,451	94,173	24%	76.20%
Other Hospital	16,324	11,664	4,660	71%	16,324	12,278	4,046	75%	24.80%
Regional Referal Hospital	27,941	18,528	9,413	66%	27,941	19,444	8,497	70%	30.40%
National, Zonal & Specialised Hospital	2,637	956	1,681	36%	2,637	1,856	781	70%	29.60%
Health Training Institutions	9,547	3,142	6,405	33%	9,547	3,487	6,060	37%	63.50%
Grand Total	**348,923**	**119,678**	**229,245**	**66%**	**348,923**	**126,925**	**221,998**	**36%**	**64%**

Source: *HRH*

11.6. Training and Development for Lower and Midlevel cadre

The enrolment has been fluctuating from 2020 to 2023 as shown in the Table 48. below. The trend can be explained by dicontinued March intake hence reducing enrollment: -

Table 48:Enrolment and Graduate Trend for the year (2020 – 2023)

Year	2020	2021	2022	2023	Total
Enrolment	26,012	29,519	25,393	24,463	105,387
Graduate	14,071	26,009	28,659	14,974	83,713

Source: *NACTVET/HRHIS*

11.7. Training and Development for Postgraduate

The Ministry has increased sponsorship of postgraduate students from 502 in 2020 up to 1,114 in 2023. The focus is to reduce gaps of specialists and super specialists for the National, Zonal, Specialized and Regional Referral Hospitals throughout the country.

11.8. Continuous Professional Development

Continuous Professional Development (CPD) is the organized process of continually improving and developing knowledge, understanding and professional skills. It refers to the process of certified training through independent, participation-based or interactive learning methods.

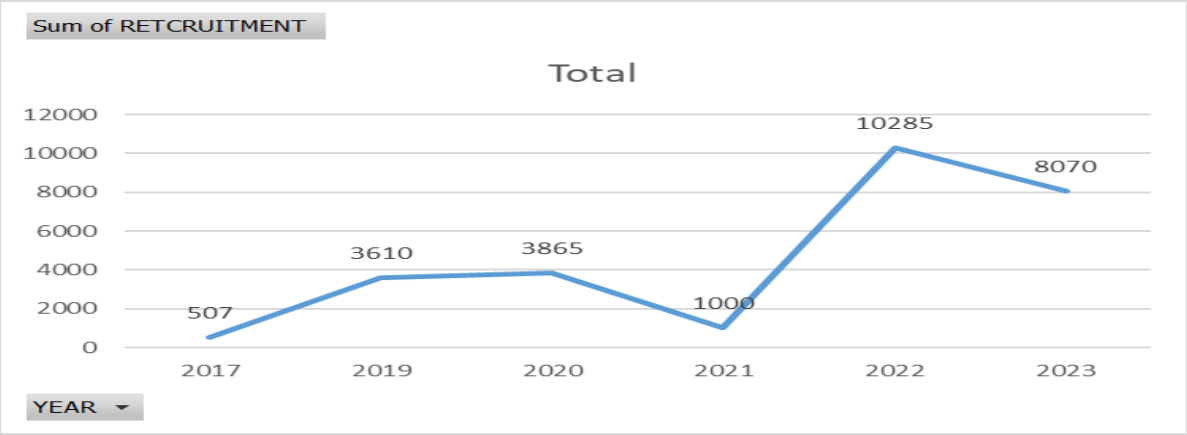
The Ministry of Health has established the National e-learning platform for health as one of cost-effective strategy in providing CPD for Healthcare workers. The main expected outputs of the eLearning are to increase the number of healthcare workers with improved capacity in provision of quality health services. In the year 2023 of National eLearning Platform for

healthcare workers had more than 256 modules and frequency of active users increased from 94,734 in 2022 to 201,916 in 2023 with increase number of modules by 113 percent.

11.9. Human Resource for Health Recruitment

The government through MoH and PORALG has recruited a total of 30,581 health care workers in five years' time from 2017 up to 2023. In the year 2023, the government hired a total of 8,070 of them 7,247 for LGAs new health care workers throughout the country, but the attrition caused by different factors reached 617 health Care Workers. The factors which contributed to attrition include retirement (493 staff), death (51), leaving the job for unknown reason (31), summary dismissal (7) and fake certificates (11). The recruitment trend is as shown in Figure 81.

Figure 80:Number of Recruited Health Care Workers, 2017 - 2023



Source: *HRHIS*

11.10. Human Resource for Health Retention

For 2022/23, a total of 6,216 houses were built around dispensaries and Health Centre's to accommodate and retain Human Resorce for Health. However, other factors include death, summary dismissal, leaving the job as a result of difficult working environments. Overcoming this challenge, the government provides recruitment permits to fill the gaps (HRH replacement). In 2022/23, the government provided a permit to recruit 1,247 new Health Care Workers to fill the gap.

Planned interventions

i. To increase enrolment of students resulting from increase of Health Training Institutions and expansion of health training programs in 2022/23
ii. To introduce one new training program in health training institutions of radiology.
iii. To implement National Health Workforce Volunteering Guideline 2021
iv. To recruit of 13,187 new health care workers

Achievements

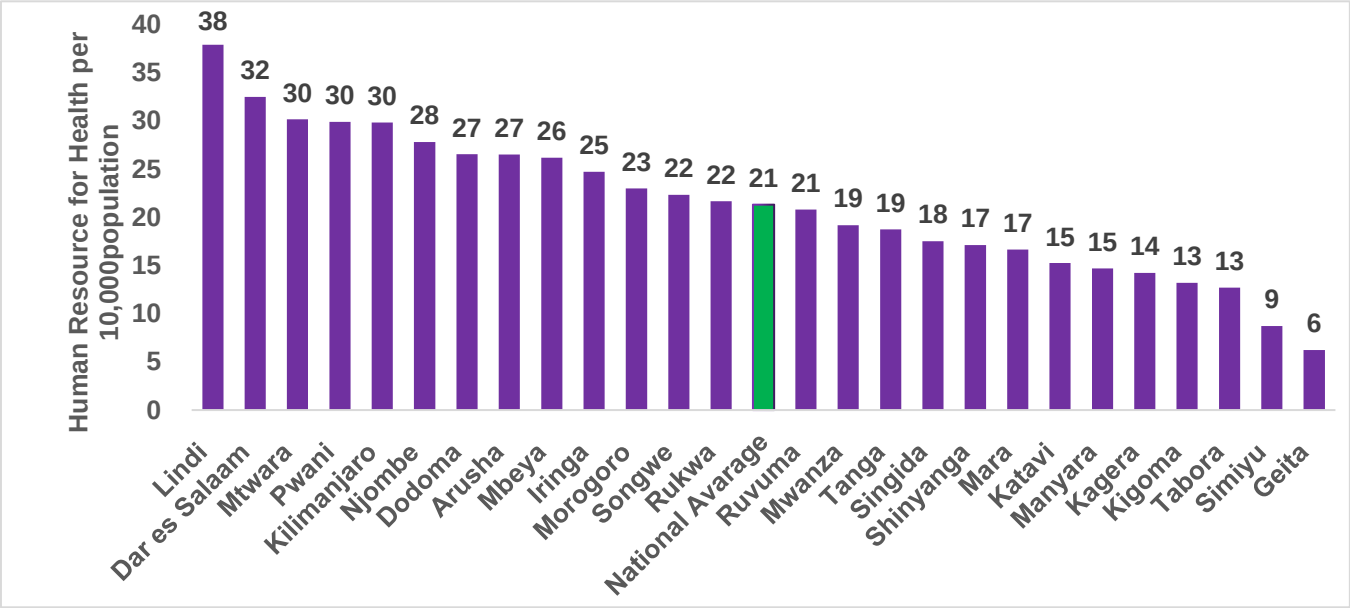
i. The public and private health training institution has enrolled 24,463 students in 2023
ii. The number of health training institutions graduates increased from 11,704 in 2019 to 14,974 in 2023.
iii. The government also recruited 8,070 new health workers for 2023 as shown in the graph above (Figure 81)

Human Resource for Health Indicators

The HRH Indicators measure the number of health workers available per 10,000 populations in a given geographical area. This indicator is very useful in making comparison of HRH available in different regions. The WHO recommends HRH density indicator of 22.8 clinicians and nurses per 10,000 populations. The respective indicator for our country in 2023 was 8.4 per 10,000 populations, same as 36.8 percent of the WHO target.

Health Laboratory Staff Per 10,000 population has increased in decreasing rate from baseline except for Medical Doctors who surpassed the 2021 targets due to the recruitment of the 10,285 HCW among whom were Medical Doctors in 2022 (Table 48).

Figure 81:HRH Distribution for Clinicians and nurses cadres Per 10,000 Population by Region 2023



Source: *HRH*

The regions with HRH per 10,000 populations regions above national average includes Lindi, Dar Es salaam, Mtwara, Pwani, Dodoma, Kilimanjaro Njombe, Arusha, Mbeya, Iringa, Mororgorom Songwe and Rukwa. These regions have favourable conditions of work and living environment. Regions such as Geita, Simiyu, Tabora, Kigoma, Kagera, Manyara, Katavi, mara, Shinyanga, Tanga, Mwanza and Ruvuma are below National average of 21 health workers per population as shown in Figure 82.

Accreditation Status of Health Training Institutions

The proportion of health training institutions with full accreditation, which is proxy for the quality of institutions, is shown in the Table 49.

Table 49:Proportion of Training Institutions with Annual Accreditation

Indicators (HSSP IV)	Baseline		
	2020	2023	Achievement (2022)
Percent of Health Training Institutions with accreditation	219 out of 219 (100%)	All 219 Health Training Institutions have full accreditation (100%)	219 (100%)

Challenges

i. Shortage of human resources for health by 64 percent.
ii. Unsatisfactory infrastructure (Electrical, clean water and sewerage systems)
iii. Unsatisfactory Classrooms, laboratory, Library, offices, staff houses etc
iv. Dilapidated buildings
v. Unfinished buildings
vi. Shortage of funds for;

a. Expansion, rehabilitation, maintenance of sewerage system and completion of unfinished buildings
b. HRH Training and Development
    i. Running of Health Training colleges
    ii. Postgraduates' sponsorship within and outside the country

vii. There is a need to establish and expand training program of some cadres which are not available in the market for recruitment e.g. Biomedical Engineers, dental technologist, dental surgeons, and occupational therapists, Oral Health Nurses and Speech therapists and Dental Technologists.
viii. HRH shortage in Health service delivery and Health Training colleges which is affecting quality of graduates
ix. Old and unfinished infrastructure for health service delivery and training institution
x. Restriction from POPSM in recruitment plans due to wage bill
xi. Inadequate funds for HRH development and management
xii. Unavailable retention plans
xiii. Many HRH players with different roles in HRH
xiv. Establishment of Projects/programs without proper plans of increasing and recruiting of HRH rather than shifting from existing facilities.

Policy Recommendation

i. To increase production and recruitment of HRH Rare cadres especially specialist and super specialist
ii. To prioritize recruitment to regions (areas) with lowest HRH density and not considering shortage by considering absolute numbers only.
iii. To strengthen HRH retention by providing essential services for health care workers such as house, electricity, water etc.
iv. To strengthen health service delivery facilities and health training institutions construction or expansion plans should take into consideration of HRH recruitment plan National Health Programs/Projects should plan and consider HRH in their plans

CHAPTER TWELVE
12. HEALTH COMMODITIES

12.1. Introduction

The government and various stakeholders are prioritizing continuous availability of health commodities at health facilities, aligning with the Health Sector Strategic Plan V (HSSP V) to ensure sufficient supplies and reduce wastage. Measurement of health commodity availability is based on 290 priority health commodities, with the Ministry refining its methodology for accurate assessment across all facility levels: 100 for Dispensaries, 178 for Health Centers (HC), 203 for District Hospitals (DH), 245 for Regional Referral Hospitals (RRH), and 290 for Tertiary Hospitals. Certain hospitals, due to specialized services, are monitored using specific lists: Mirembe (194), JKCI (157), Kibong'oto (228), MOI (194), and ORCI (169).

In 2023, availability of 290 priority health commodities increased by 14%, from 62% in 2022 to 76%. This improvement in availability is attributed to:

i. Increased government commitment with monthly disbursements of receipt-in-kind funds, totaling TZS 190.9 billion for FY 2022-2023, equivalent to 95.46% of the allocated budget. An additional TZS 66 billion has been released for FY 2023/24 (July-December 2023).
ii. Improved availability at the MSD level and use of private suppliers to supplement shortages.
iii. Production of gloves, essential health commodities and barakoa by MSD
iv. Enhanced management and accountability through routine medicines and financial tracking at facilities, along with the IMPACT approach.
v. Mentorship for health facilities staff on managing health commodities gaps via the redesigned logistics system (RLS).
vi. Data quality assessments conducted at health facilities.
vii. Implementation of bottom-up quantification approach for demand forecast on time.

Efforts to improve medicine quality include updating Standard Treatment Guidelines and the National Essential Medicines List; Medical Therapeutics Committee (MTC) guidelines, and training healthcare workers in public hospitals. However, challenges persist due to inadequate of resources.

12.2. Availability of 30 Tracer medicines by regions

Table 50. below shows availability of 30 tracer medicines by regions. The average availability of 30 tracer medicines was 92.7% in 2023, this is slightly lower compared to 94.48% of 2022.

Table 50:Availability of 30 Tracer Medicines by Regions 2023

SN	Region	Availability in (%)
1	Arusha Region	97.9
2	Dar Es Salaam Region	98.2
3	Dodoma Region	89.9
4	Geita Region	100
5	Iringa Region	94.2
6	Kagera Region	98.3
7	Katavi Region	94.0
8	Kigoma Region	93.9
9	Kilimanjaro Region	88.4
10	Lindi Region	90.9
11	Manyara Region	94.6
12	Mara Region	94.2
13	Mbeya Region	82.8

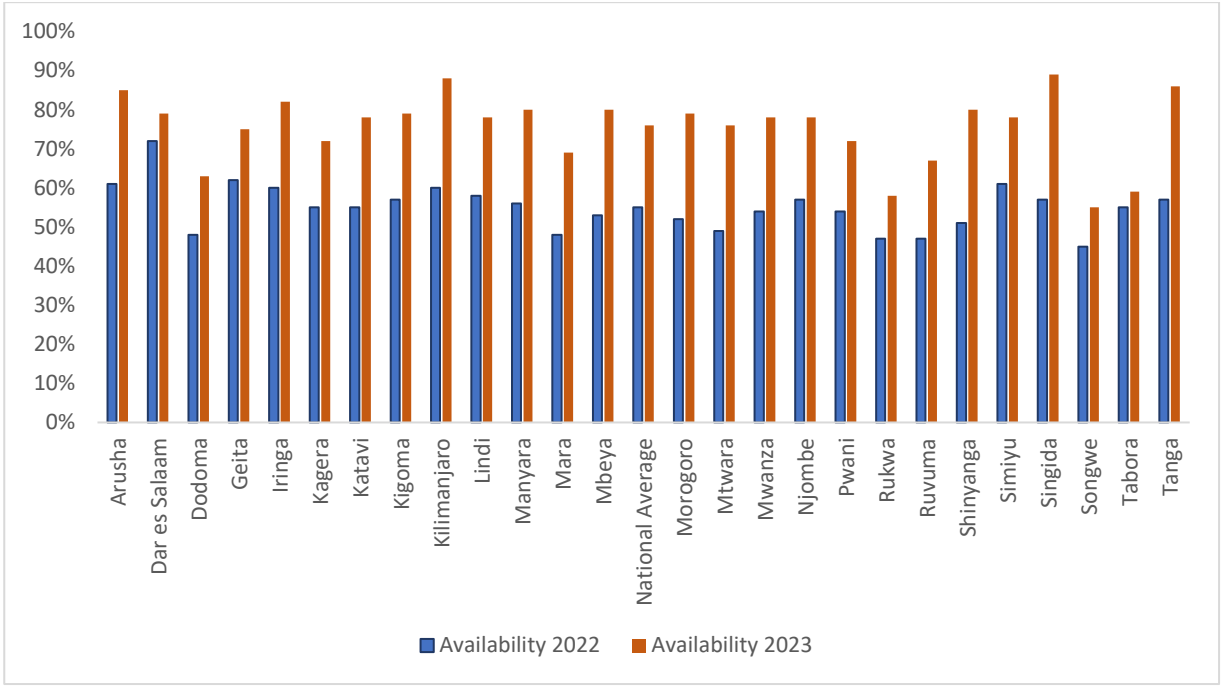
SN	Region	Availability in (%)
14	Morogoro Region	91.2
15	Mtwara Region	90.9
16	Mwanza Region	94.7
17	Njombe Region	89.2
18	Pwani Region	85.4
19	Rukwa Region	87.8
20	Ruvuma Region	100
21	Shinyanga Region	95.7
22	Simiyu Region	97.2
23	Singida Region	96.7
24	Songwe Region	95.4
25	Tabora Region	90.6
26	Tanga Region	82.5
	National Average	**92.7**

Source: *DHIS2, 2023*

12.3. Availability of 290 priority health commodities by regions.

The availability of 290 priority health commodities has increased from 63% in 2022 to 76% in 2023. In 2023, the availability varies by regions, ranging from 55% in Songwe region to 89% in Singida region (**Figure 51**)

Table 51:Availability of 290 priority health commodities by region, in 2022 and 2023

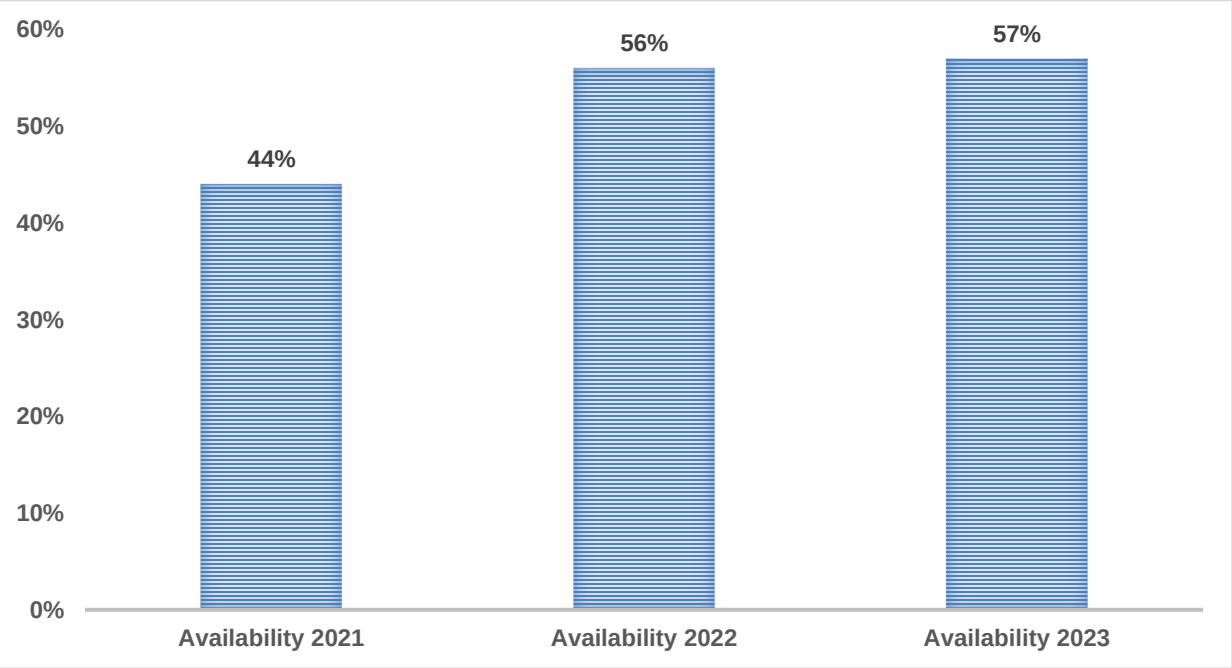


Source: *e-LMIS*

12.4. Availability of 290 priority health commodities at MSD

Figure 83. below shows the availability of 290 priority health commodities at MSD from 2021 to 2023. The average availability of health commodities has improved from 44% in 2021 to 57% in 2023.

Figure 82 :Availability of 290 priority health commodities at MSD



Source: *E10*

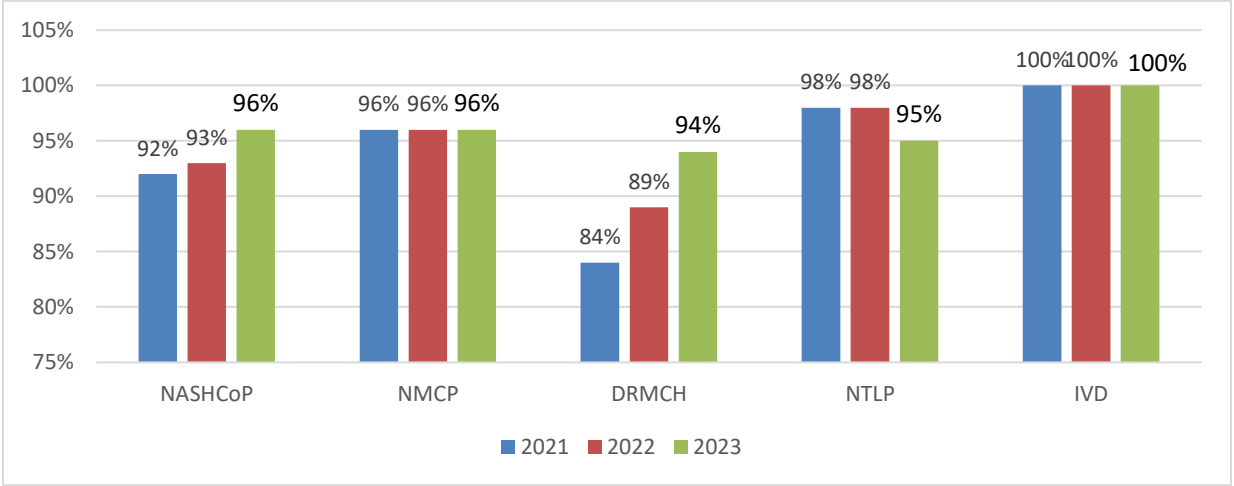
This better performance of MSD is a result of ongoing improvements in areas such as procurement, storage, distribution, and manufacturing of health commodities. Additionally, the improvement has been contributed by procuring commodities based on an improved supply plan and ensuring that all priority health commodities have framework agreements. These agreements help ensure the timely accessibility of commodities at an affordable price.

12.5. Availability of vertical program commodities at facilities

The availability of vertical health commodities has consistently remained high throughout the reporting period, with the exception of NTLP, which experienced a slight decrease due to the phasing out of Isoniazid tablets for the Tuberculosis

Preventive Treatment (TPT) program. However, Reproductive, Maternal, Neonatal Child and Adolescent Health (RMNCAH) commodities recorded significant improvement, increasing from 84% in 2021 to 94% in 2023. This increase in the availability of RMNCAH commodities was attributed to the increased allocation of funds for health commodities from the government and development partners.

Figure 83:Availability of vertical program priority items



Source: *e-LMIS & DHIS2*

12.6. Promotion of domestic pharmaceutical manufacturing

The Ministry of Health, in collaboration with stakeholders, is promoting domestic investment in pharmaceutical manufacturing. In 2023, twelve (12) pharmaceutical manufacturing facilities were in operation, and eight (8) more were

under construction. These facilities are expected to reduce the reliance on imported health commodities, which currently stands at 80% for medicines and medical equipment, and 100% for reagents and vaccines

Key milestones in the promotion of domestic pharmaceutical manufacturing include:

1. Provision of exemption of VAT on raw materials for the production of medicines such as packaging and molds used in medicines manufacturing.
2. Establishment of the Masks (Barakoa) Factory, which has been completed and is now operational under the management and operation of MSD.
3. Establishment of Gloves manufacturing at Idofi
4. Production of essential health commodities at Keko pharmaceutical
5. Investment in the production of therapeutic water, which has been successful and is now able to meet the needs of the country.

Challenges

i. Provision of health services through a block payment system that hinders effective revolving of health commodities funds.
ii. Health facilities' failure to adhere to guidelines on effective utilization of cost-sharing funds in the procurement of health commodities for example, facilities rely on health commodities funds for other expenditures.
iii. Reliance on imported health commodities, which currently stands at 80% for medicines and medical equipment, and 100% for reagents and vaccines.
iv. Health facilities operating without fully functioning electronic systems.

Policy Recommendations

i. Health commodities funds (receipt in kind) should consistently be disbursed on time and according to the budget to increase the availability of health commodities in the supply chain.
ii. To strengthen supportive supervision and health commodities tracking for optimal utilization of existing systems.

iii. To ensure effective implementation of Health Commodities Revolving Fund guidelines.
iv. The government should create an enabling environment (capital, various taxes, and infrastructure such as roads, water, and electricity) for establishing and developing health products industries in the country.
v. All healthcare facilities should be equipped with user-friendly electronic systems to manage health products (EMR).
vi. To increase human resources in the supply chain area, specifically pharmacists and laboratory experts.

CHAPTER THIRTEEN
13. DIAGNOSTIC SERVICES, BLOOD SAFETY SERVICES AND PUBLIC HEALTH LABORATORIES

13.1. Diagnostic Services

13.1.1. Medical Laboratory Services

Medical laboratories in Tanzania have always played an essential role in determining clinical decisions and providing clinicians with information that assists in the prevention, diagnosis, treatment, and management of diseases and outbreaks. From 2010 to 2023 the Government has installed various laboratory equipment at all levels of the health system in the country, beginning with the most challenge machines at Health facilities, such as Chemistry, Haematology and Urine analysers. Table 52. shows that the Ministry has installed a total of 2,267 equipment, 740 being Haematology analysers, 773 Chemistry analysers and 754 Urine analysers. On the other hand, among 862 health facilities installed with this equipment; are 7 Dispensaries, 632 Health Centres, 121 District Hospitals, 39 Designated District hospitals, 29 Military Hospitals, 28 Regional Referral Hospitals and 5 Hospitals.

Table 52 :Types and installation of analysers by health facilities level from 2010-2023

	Types and level of Health facilities with installed analysers							
Types and number of installed analysers	**DDH**	**DH**	**DISP**	**HC**	**Hos**	**RRH**	**Military**	**Total**
Haematology analysers	**38**	**98**	**1**	**538**	**5**	**28**	**32**	**740**
Chemistry analysers	**37**	**102**	**7**	**561**	**5**	**29**	**32**	**773**
Urine analysers	**32**	**75**		**603**	**4**	**8**	**32**	**754**

Total equipment installed per facility level	**107**	**275**	**8**	**1702**	**14**	**65**	**96**	**2267**

DDH: Designated District Hospital. **DH:** District Hospital. **HC:** Health Centre. **RRH;** Regional Referral Hospital. **DISP:** Dispensary

13.1.2. Quality Management System and accreditation (ISO 15189)

The measures that follow have been undertaken by the government in order to implement Quality Management System and accreditation for proficiency in rendering specific laboratory services at all levels. In 2023, thirteen (13) laboratories were accredited making a total of sixty-five (65) health laboratories that have been accredited on ISO 15189 by internationally recognised organisations which are; SADCAS and KENAS since year 2010. Additionally, a total of six (6) blood transfusion centre laboratories have been accredited on African Society for Blood Transfusion (AfSBT) international standards for blood transfusion services.

13.2. RADIOLOGY SERVICES

The government through the Ministry and President's Office Regional Administrative and Local Government from 2010 to 2023 procured 32 CT scan, 7 MRI, 201 digital X-ray in order to improve diagnostic services. As in table below, 38 health facilities have CT installed and are providing services. 11 facilities have MRI installed and providing services. Also, 340 facilities have X-ray installed and providing services. Teleradiology has been installed to 23 health facilities to increase access to quality diagnostic services and reduce referral system although still below the targets by 2025 as depicted in Table 53.

Table 53:Key Indicators

Indicator(s)	Target 2025	Achievements	
		2022	2023
CT scan services at National, Zonal, Specialised and Regional referral hospitals	41	36	38
MRI services at National, Zonal and Specialized	11	9	11
X-ray services at National, Zonal, Specialized, RRH, Council hospitals and health centres	1,408	304	346
Radiotherapy services at specialized and zonal hospitals	8	2	2

Tele-radiology coverage at National, Zonal, Specialized, regional referral hospitals and council hospitals	41	9	23
Radiology and imaging facility met radiation safety requirements	1,408	1,390	1,400
Ultrasound services at National, Zonal, Specialized, RRH, Council hospitals, health centres and dispensaries	9,489	445	677

13.3. Health Care Technical Services

As in the table below, in 2023 Healthcare technical services have increased and improved in different levels of health facilities. The Government through the Ministry of Health have established mechanisms to ensure proper management of medical devices and machineries through installation services, preventive maintenance, and repair services to all levels of health facilities. The Ministry has been working with Government institutions and collaborating partners in health sector to enhance the provision of timely and effective healthcare technical services, which leads to the delivery of quality health services like diagnosis, treatment, and rehabilitation. In the year of 2023, the government has increased the number of Biomedical engineers and technicians from 180 to 299 which makes the present number of 44 Biomedical Engineers and 255 Biomedical Equipment Technicians working in Government Institutions. This number excludes those who are working in training institutions.

Table 54 shows that the performance on Maintenance contracts to facilities with high valued diagnostic and treatment equipment (Regional referral Hospitals, Zonal, Specialized and National) was 97.5% in year 2023, this very great achievements since increased from 97.4% in 2022. The availability of equipped biomedical workshops for repair and maintenance services was 31% very low compared to targets of 100% by 2025.

Table 54:Key indicators

Indicator(s)	Target 2025	Achievements	
		2022	2023
Maintenance contracts to facilities with high valued diagnostic and treatment equipment (Regional referral Hospitals, Zonal, Specialized and National)	41	39	40

Availability of equipped biomedical workshops for repair and maintenance services	41	9	13
Strengthening the use of medical equipment and Infrastructure management information system at all levels of health facilities.	249	146	222

13.4. Blood Safety Services

Key performance indicators and Status

The key blood safety indicators in HSSP V includes: Strengthening the availability of safe blood and other blood products by establishing an effective and sustainable system for the collection, care and distribution of safe blood in the country.

Status of the Performance on blood units collected

Table 55. indicates the number of individuals who appears for blood donation, the number has been increasing slightly overtime from 417,514 in 2022 to 531,000 in the year 2023. The increase could be due to ongoing advocacy, awareness campaigns and increase in the number of blood collection sites at council level.

The collection of 531,000 blood units in 2023 covers 90 percent of the required blood units of 590,000 in the country per year. NBTS screen all individuals for eligibility before blood donation. All individuals deferred from donation during screening are referred to the nearest health facility for further diagnostic and treatment. During the reporting period of 2023, a total of 5,027 (0.94%) of the individuals appeared for blood donation deferred from donation due to medical and high-risk behavior. Throughout the reporting period, more than half (54.5%) of blood donors were Replacement, while approximately a third (33%) of the blood donors were aged 18-20 years, Male donors contributed more than 86 percent of all blood donations and only 7 percent of the blood donors were in the category of Repeat donors.

Table 55:Characteristics of Blood Donors During the Year 2023

	Variables	Total	Percentage
Gender	Male	457,954	86.1
	Female	73,809	13.9
Donor types	Voluntary	241,605	45.5
	Replacement	289,395	54.5
Frequency of donation	First time	495,954	93.4
	Repeat	35,046	6.6
Age group	**18-20**	175,230	33
	21-25	100,890	19
	26-65	254,880	48

Source: *NBTS 2023*

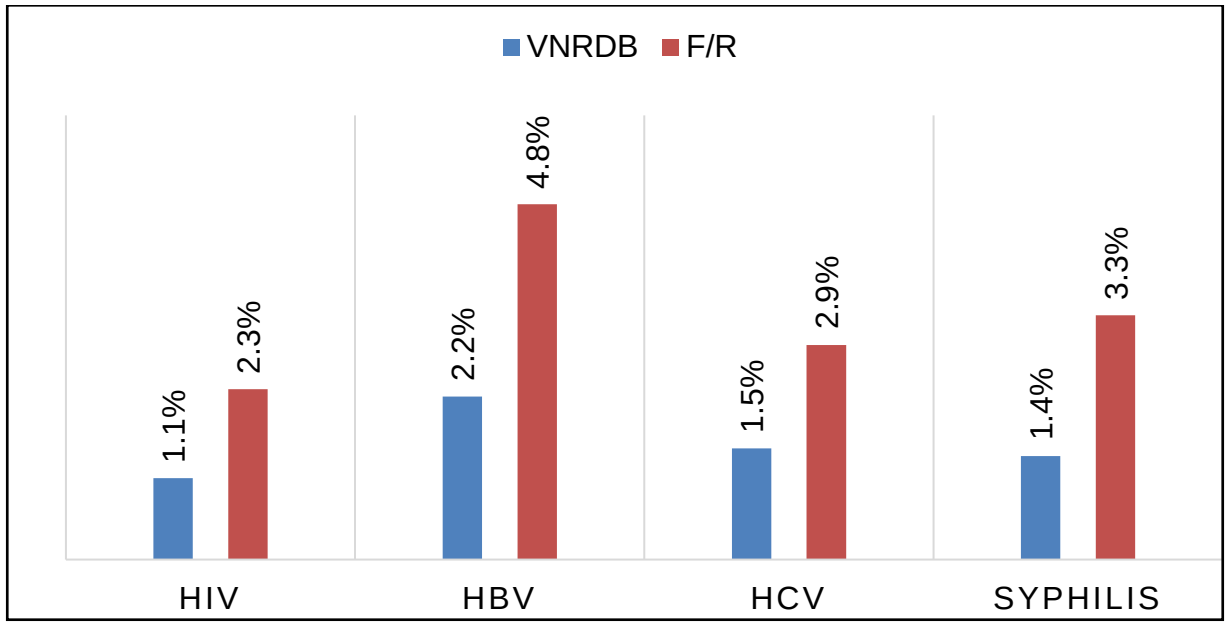
Status of the Performance on Components Production in 2023

There was a total of 56,307 (11%) whole blood units of the total collection processed into components. A total of 85,270 blood components were produced, of which 56,307 were PRBCs, 6,225 platelets and 22,738 FFP.
During the reporting period NBTS mentored and equipped four (4) Regional Referral Hospitals in Njombe, Kigoma, Temeke and Manyara regions together with their Medical Officer In charges (MOIs) at Zonal Referral Hospital in the area of produce, storage and distribution of components production.

Status of the Performance on Blood Units Discarded

A total of 61,716 (12%) blood units were discarded due to Transfusion-Transmitted Infection (TTIs). The percentage contribution of discards by TTIs type is as follows: HBV (4.7%), HIV (2.2%), Syphilis (3.2%) and HCV (2.3%). The report shows the high discarded rate on the units collected from Family Replacement donors compared to the units collected from Voluntary Non remunerated Blood donors across all TTIs factors. (Figure 85)

Figure 84: Proportional of Blood Units Discarded Due to TTIs for the Year 2023



Challenges

i. Inadequate skilled human resource capacity is affecting the quality and the pace of workload created by demands of safe blood at all levels.
ii. Tanzania meets only 9 whole blood unit per 1,000 population falling substantially below the WHO threshold of 10 whole units per 1,000 population.
iii. High rate of blood units discarded due to TTIs especially HBV.

Policy recommendations

i. To establish the blood safety cost sharing mechanism to ensure sustainability of blood safety activities
ii. To promote blood collection so that all blood recipient in Tanzania receive blood collected from the safe pool of voluntary non-remunerated blood donor and screened in quality assured manner
iii. To prevent the spread of HBV, HCV and other TTIs among the community.
iv. Blood components production and utilization should be scaled up to minimize the use of whole blood for those who need blood components.

CHAPTER FOURTEEN
14. HEALTH MANAGEMENT INFORMATION SYSTEMS

14.1. Introduction

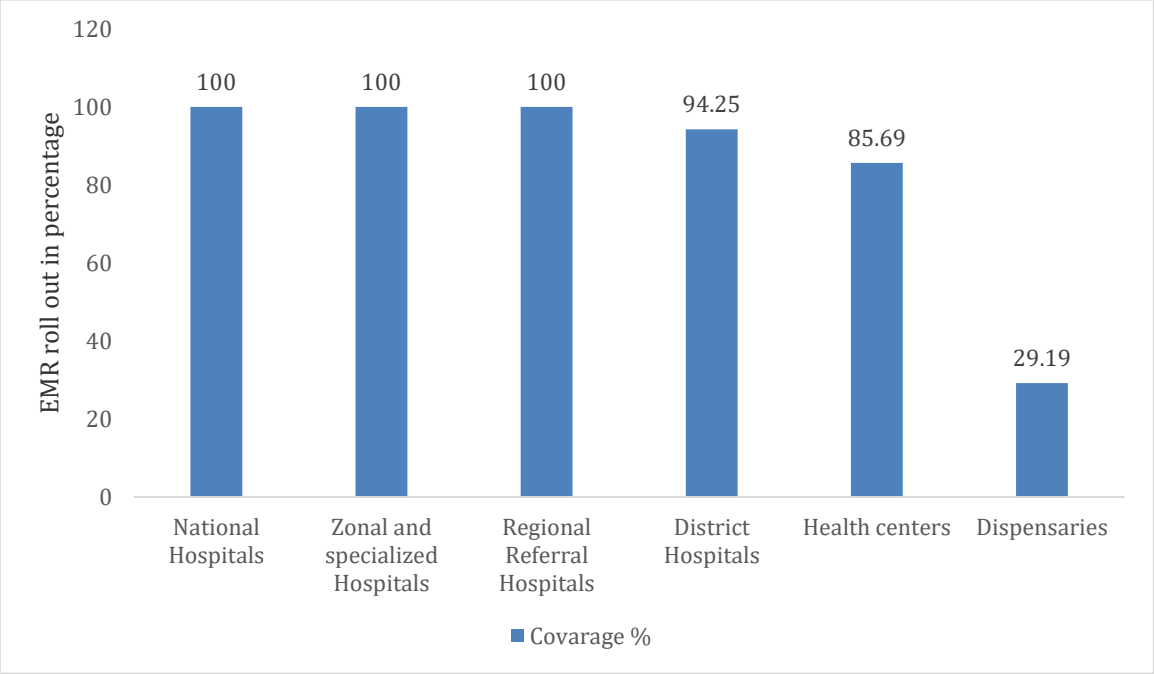
This chapter describes how the Digital Health strategy (2019–2024) and Digital Health Investment Roadmap (2017–2023) have improved health care delivery, data supply and demand, system performance and resource management (human, financial and supply chain). In 2023, the Ministry upgraded ICT infrastructure in Regional Referral Hospitals, Zonal and Specialized Hospitals. Additionally, Health Information Mediator and Muungano Gateway linked major digital platforms for easy data transmission.

14.2. Digital health Coverage of EMR in Tanzania

EMR coverage is 100% in National (1 Hospital), Specialized (5 Hospitals), Zonal (4 Hospitals) as well as RRH (28 Hospitals) while 94.25% in District hospitals (164 out of 174 District hospitals), 85.69% in Health centres (599 out of 698 Health Centers) and 29.19% in Dispensaries (1589 out of 5,443 Dispensaries)

The wide implementation of EMR systems has significantly streamlined patient data management, improving the accuracy and accessibility of medical records. This has led to enhanced patient care, as healthcare providers can quickly access comprehensive patient histories. Moreover, EMRs facilitate better data analysis, enabling health authorities to make informed decisions based on up-to-date information.

Figure 85:Percentage of EMR coverage in Health Facility for the year 2023



The integration of these new facilities into the existing digital framework is a priority for the upcoming years to ensure consistent data management across all levels of healthcare system.

14.3. Interoperability status

The health sector has enhanced systems to communicate to each other. Up to date 36 systems communicate to each other and 106 use cases have been implemented to enable interoperability between systems.

In response to the COVID-19 epidemic, various measures to assist the fight against this epidemic has been developed:

Electronic Event-Based Surveillance (EBS) system captures health-threatening rumours. This system collects rumours from the community, media scanning software, call center, health facilities and regions. By identifying potential outbreaks early, the EBS system helps in prompt response and containment efforts.

Introducing public messaging as part of EBS where citizens are allowed to send normal sms to 199 and report the rumours they have by starting with word "TETESI" e.g there are children with high fever with fainting episodes in Ubungo "TETESI Ubungo Watoto wanapata homa kali na kuzimia". This initiative empowers the community to participate actively in monitoring public health threats, thereby enhancing the overall surveillance network.

Table 56:Implementation Summary of Hospital Management Information System by Levels for the year 2023

No.	Level	Available	No. of Facilities
1	National Level	JEEVA	2
2	Specialized Hospital and Zonal Hospitals	MediPro; eMedical; Inaya; eHMS; AfyaCare and CareMD	13 out of 13 (100 %)
3	Regional Referral Hospitals	AfyaCare, GoTHoMIS and eHMS	28 out of 28 (100%)
4	District Hospitals, Health Centres, Dispensaries	GoTHoMIS	2352 out of 6311 (37.27%

The implementation of these systems has streamlined hospital operations, reduced paperwork and improved patient record-keeping. National-level hospitals using JEEVA have reported increased efficiency in patient management and administrative tasks. Specialized and zonal hospitals employing MediPro, eMedical, Inaya, eHMS, AfyaCare, and CareMD have also seen significant operational improvements. Regional Referral Hospitals utilizing AfyaCare, GoTHoMIS and eHMS have achieved 100% implementation, reflecting their commitment to digitizing health services. However, the lower implementation rate in District Hospitals, Health Centres and Dispensaries indicates a need for further efforts to expand digital health infrastructure at these levels.

Implementation of Telemedicine Services

Telemedicine services have been rolled out to 7 Hubs and 19 Regional Referral hospitals by implementing Tele-radiology and Tele-consultation services. This enables specialized services to be accessed in remote area through ICT innovations.

14.4. Other digital systems which have been implemented in 2023

i. Postgraduate Sponsorship application system enables health workers to apply for postgraduate sponsorship with the intention of studying at local and abroad colleges. For the year 2023, Total of 810 applicants applied for sponsorship and 788 met the given criterions.

ii. MUSE implemented in all 28 RRHs and 4 Zonal Hospitals

iii. MEIMIS system implemented in National Hospitals (Muhimbili and Mloganzila), JKCI, MOI, Mbeya Zonal, Manyara RRH, Ruvuma RRH and Irings RRH

iv. MMAMA: m-mama is an emergency transport system (EmTS) that expands access to quality emergency care with an aim to reduce maternal and newborn deaths. The system is already rolled out in all regions in Tanzania including Zanzibar. M-mama ia integrated with other payment systems such as MUSE, GePG and NaPA through HIM.

Challenges

Despite these achievements, several challenges affected successful implementation of digital solutions:

i. Limited eHealth skills among users and decision-makers.
ii. Resistance to eHealth solutions due to divergent views or negative attitudes toward ICT systems in health facilities.
iii. Inadequate computers, printer and other LAN installation equipment inhibit efforts to reach more facilities.
iv. Inadeqaute electric power supply in some areas.
v. Inadequate financial resources
vi. Inadequate ICT personnel
vii. Multiple fragmented electronic health information systems that are not aligned with healthcare workflow.

Policy Recommendations

To enhance the transformation of the Tanzania health care system through innovative, data-driven and integrated digital health solutions, the following actions are recommended:

i. To improve investment in ICT infrastructure
ii. To provide comprehensive training for health workers to improve computer literacy and eHealth skills.
iii. To develop and implement standards for interoperability among different HISs to ensure seamless data flow and integration.
iv. To engage with private sector partners to leverage resources and expertise in implementing digital health initiatives.
v. To allocate adequate financial resources to support ongoing and future digital health projects.

vi. To implement alternative power solutions, such as generator and inverters power supply in areas with unreliable electricity supply.

vii. To conduct awareness campaigns to change negative perceptions and attitudes towards digital health solutions.

CHAPTER FIFTEEN
15. QUALITY OF HEALTH CARE SERVICES

15.1. Health Service Quality Assurance

The Ministry of Health through Health Quality Assurance Unit (HQAU) continues with the task of coordinating and supporting the implementation of the Quality Improvement initiatives in line with Tanzania Quality Improvement Framework (MOHSW, 2011) and the Health Sector Strategic Plan V. In a course of implementing Digital Health Investment Roadmap (2019-2024), MoH under the Directorate of Policy and Planning, Health Quality Assurance Unit and Information Communication and Technologies (ICT) Unit has developed a digital platform called Afya Supportive Supervision System (AfyASS) to manage supportive supervisions conducted by MoH, PO-RALG, R/CHMTs and Partners at all levels of health service delivery.

Furthermore, the Ministry continued to conduct supportive supervisions and assesments and therefore, build capacity of healthcare workers through training and mentorship in order to improve the infection prevention control measures.

The performance of critical indicators under health quality assurance unit in areas of infection prevention and control, supportive supervision and quality management as whole are presented ina table 15.1 below. Star Rating assessment was not conducted in 2023, therefore its indicators i.e Number of primary HFs assessed rated and Percentage of Primary health facilities with 3-star rating.

Table 57:Summary of Key Indicators and their Achievements

Indicators	Set target	Key achievements
Percentage of healthcare workers trained on Infection Prevention and Control	2000 HCWs trained by Jan to December 2023	A total of 1955 (98%) healthcare workers have been trained on Infection Prevention and Control by December 2023 i.e (a) General IPC training – 328 HCWs (b) HAI surveillance training – 34 HCWs (c) IPC M&E training 394 HCWs

Indicators	Set target	Key achievements
		(d) IPC training and sharing through ECHO platform – 1199 HCWS
Percentage of healthcare workers mentored on Infection Prevention and Control	3,000 HCWs mentored by Jan to December 2023	A total of 2,720 (91%) healthcare workers have been mentored on Infection Prevention and Control by December 2023.
Number of health facilities mentored on Infection Prevention and Control	42 Referral Hospitals and 69 primary Health care facilities (Councils Hospitals) mentored by Jan to December 2023	A total of 100 (90%) HFs have been mentored on Infection Prevention and Control by December 2023. • These 100HFs include 1 National Hospital, 3 specialized hospitals, 3 ZRHs, 7 RRHs, 49DHs, 36HCs and 1 Dispensary. • Average compliance to IPC standards in Referral HFs was 70% and PHC was 43% (by using National IPC assessment tool – SBMR).
Percentage of HIV Point of Care Testing site evaluated achieved level 4	80% of audited testing points achieved level 4 by December 2023	External auditing was conducted on a of total 1,147 HIV RT sites covering 893 health facilities in 16 regions. The level of compliance to quality standards for the audited HIV rapid testing sites was 865 (75%) of HIV RT sites scored level 4
Number of health care workers trained/oriented on Afya Supportive Supervision (AfyaSS) digital platform tool	All health care workers trained/oriented	A total of 3,134 healthcare workers had been trained from 26 Regions by December 2023 (Arusha, Dar es Salaam, Dodoma, Geita, Iringa, Kagera, Katavi, Kigoma, Kilimanjaro, Lindi, Manyara, Mara, Mbeya, Morogoro, Mtwara, Mwanza, Njombe, Pwani, Rukwa, Ruvuma, Shinyanga, Simiyu, Singida, Songwe, Tabora and Tanga) Virtual training was done for all RHMTs and CHMTs of 26 Regions

Indicators	Set target	Key achievements
Number of supportive supervisions conducted using Afya Supportive Supervision (AfyaSS) per regions	All 26 Regions to report planned and conducted supportive supervision using AfyaSS tool in quarterly basis	Supportive supervision was conducted using AfyaSS tool in all 26 regions whereby a total of 15,313 supervision visits were planned, 12,674 were conducted and 6,200 (49%) were completed in 2023

Challenges

i. Poor internet connectivity in some regions as AfyaSS in some part requires internet to upload data to the system
ii. There is no autonomous/semiautonomous accreditation body to provide an independent oversight of quality in health facilities.
iii. The clinical audit implementation not yet institutionalized at all levels especially in Primary Healthcare facilities.
iv. Inadequate funds to carryout nationwide QA/QI planned activities.

Policy Recommendations

i. To improve governance and leadership skills and competencies of health managers at all levels.
ii. To capacitate LGAs to perform self-assessment and the National Team to select facilities with three stars and above for verification.
iii. RHMTs and CHMTs need to supervise and support health facilities to improve quality of care.
iv. To scale up Clinical Audit to primary health care facilities.
v. To ensure that all RHMTs and CHMTs have QI sub-Committees
vi. To acceralate establishment of accreditation body
vii. Inclusion of QA/QI module in curriculum of the health training institutions.
viii. Pay for Performance instrument to be institutionalized in health sector for service delivery accountability
ix. MoH and PO-RALG and other Stakeholders to strengthen advocacy strategies on usage of AfyaSS System

CHAPTER SIXTEEN
16. COUNCIL LEVEL MANAGEMENT

16.1. Introduction

Health Services in Council level is organized at four levels, namely Community, Dispensaries, Health Centres and level 1 hospital (District Hospital/Hospital at the District level). Chronologically, dispensaries, health centres and Level 1 hospitals are the first points of contact for health services provision to the community mandated to provide Primary Health Care services. CHMTs are Overseers of technical and sector-specific administrative performances.

Indicators

i. Percentage of councils whose annual plans were approved in the first round of CCHP's assessment criteria

ii. Percentage of councils whose annual CCHPs' implementation technical & financial reports (Technical & Financial) submitted and assessed

Targets

i. All Councils (184) are approved annual plans after the assessment

ii. 83% of the HFGCs to be fully functional by 2024

iii. The coverage of health services in remote areas is increased through the implementation of construction and rehabilitation by 2024

iv. The number of health facilities providing comprehensive health services based on the National Essential Health Care Interventions Package (NEHCIP) is increased.

v. The accreditation system for health facilities in place.

vi. Decentralization of management (planning, budgeting, financial management, implementation and monitoring) from council level to health facility and community level in place.

vii. All health programmes' activities incorporated in CCHPs and services in health facilities provided in an integrated way

16.2. Planning and Budgeting Performance

The quality of CCHPs is on track to reach the HSSP V target of having 100 percent CCHPs approved at first round assessment. CCHPs are approved for funding if they score 70 percent or above. Some government directives usually are used during the budget preparation. Assessors are usually provided with electronic version of CCHP guidelines, ceilings for all LGAs and other appropriate documents. The percentage of CCHPs approved for funding at first round of assessment has increasd slightly from 96.1 percent in 2021/22 to 96.5 percent for 2022/2023.

Table 58:Ten Best Performing Councils and Poorest Performing Councils During CCHP First Assessment; 2023/2024

Best Performing Councils			Poorest Performing Councils	
No.	**Council**	**Score (%)**	**Council**	**Score (%)**
1	Kibaha DC	94.5	Mbulu TC	61.5
2	Kongwa DC	94	Masasi TC	61.5
3	Ludewa DC	93.5	Urambo DC	61.5
4	Tunduru DC	93.5	Korogwe TC	61.5
5	Dodoma CC	93	Liwale DC	61
6	Nkasi DC	93	Nanyumbu DC	61
7	Monduli DC	92.5	Handeni DC	60.5
8	Chato DC	92	Tandahimba DC	59
9	Bariadi DC	92	Mbarali DC	56
10	Ilemela MC	90.5	Iringa MC	50

Source: *PORALG implementation report 2024*

The Councils which scored below 70% were asked to correct their plan and resend for second assessment until all score 70% and above.

16.3. Decentralization of Management from Council Level to Health Facility and Community Level

The government has decentralized management of health services (governance and financial management) from the Council level to the Health facility level (Health Centres and Dispensaries) since 2017/18 and the following has been achieved with regards to decentralization to the health facility level:

i. All public health facilities at the Council level (i.e. 6324 HFs - Council hospitals, Health centres and Dispensaries) opened and started operating bank accounts
ii. Contract employment of 517 assistant accounts for the Health Centres
iii. Financial tracking, reporting and analysis were done and worked on the identified challenges for improvement
iv. Automation and application of the new resource allocation formula for 2022/2023plan
v. The DHFF process has elevated the level of morale among the health facility staff
vi. Through Health Facility Governing Committees, community participation in planning and budgeting and service delivery has improved
vii. Improved planning and budgeting of facilities through proper use of data
viii. Improved financial management through the use of PlanRep and FFARS systems

Challenges

i. Low geographical coverage in terms of availability of health facilities and improved referral system particularly in the remote areas.
ii. Shortage of skilled HRH needed for provision of health services at council level
iii. Delayed funding, delays in procurement process, inadequate transport facilities and ad hoc activities resulting in partial or non-implementation of activities

iv. The number of clients joining the iCHF is low despite continuous sensitization.
v. Unsatisfactory quality of health services.
vi. Few CHSBs and FHGCs receive orientation on their functions and responsibilities.
vii. Unreliable availability of electricity, internet connectivity affecting ability of health facility staff to work of ICT systems such as FFARS
viii. Low expenditure of facility funds due to various reasons including; cumbersome procurement procedures
ix. Inadequate funding to finance health services provision

Policy Recommendations

i. To strengthen the decentralized health systems beyond the council/ district, while, capacitating the CHMTs, facility teams and health facility governing committees.
ii. To strengthen supportive supervision and outreach services in order to improve quality of services.
iii. To strengthen capacity building on using the FFARS and using the system frequently
iv. To strengthen monitoring of DHFF implementation by MoH and PO-RALG to ensure proper utilization of funds by facilities and improvement of services.
v. To raise public awareness on the importance of CHSBs/FHGCs in the councils.
vi. To build capacity on Human and Financial Management to the health Facilities.