THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH TANZANIA

TANZANIA MAINLAND HEALTH FACILITY'S MORTALITY STATISTICS REPORT (2019 -2023)

SEPTEMBER, 2025

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ABBREVIATIONS

AMSR	Annual Mortality Statistics Report
ANACoD3	Analysis of Causes of (National) Death for Action, Version 3
ANC	Antenatal Care
BEmOC	Basic Emergency Obstetric and Newborn Care
CEmOC	Comprehensive Emergency Obstetric and Newborn Care
CoD	Cause of Death
CRVS	Civil Registration and Vital Statistics
CSMF	Cause Specific Mortality Fractions
COVID-19	Coronavirus Disease 2019
D4H	Data for Health
DHIS2	District Health Information Software 2
EMR	Electronic Medical Records
GF	Global Fund
HIV	Human Immunodeficiency Virus
ICD-10	International Classification of Diseases, 10th Revision
ICT	Information and Communication Technology
IHI	Ifakara Health Institute
IMCI	Integrated Management of Childhood Illness
IVD	Immunization and Vaccine Development
IPT	Intermittent Preventive Treatment
ITN	Insecticide-Treated Net
MCCD	Medical Certification of Cause of Death
MDSR	Maternal Death Surveillance and Response
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MRC	Mass Replacement Campaign
NBS	National Bureau of Statistics
NCD	Noncommunicable Disease
PHC	Primary Health Care
PO-RALG	Presidents' Office-Regional Administration and Local Government
RITA	Registration Insolvency and Trusteeship Agency
SBA	Skilled Birth Attendants
SBCC	Social and Behavior Change Communication
SNP	School Net Program
TB	Tuberculosis
WHO	World Health Organization

FOREWORD

The 2023 Annual Mortality Statistics Report summarizes progress made in the Health Sector on mortality indicators. In addition, by tracking patterns related to mortality and cause of death in the country over a five-years period, this report provides a valuable opportunity to assess the effects of the 5th Health Sector Strategic Plan on population health. The report contains the analysis of data generated through medical certification of cause of death, which is captured in the health information management system DHIS2 used in the majority of health facilities in the country, and from the databases of tertiary hospitals that do not use DHIS2. Importantly, this report provides insights into the 20 leading causes of death for all ages by sex and their contribution to total deaths. Moreover, the report discusses the leading causes of death for children under age five. In addition, it compares the level of mortality among various age groups and over time, comparing 2023 mortality indicators with those of the previous four years (2019-2022).

This report provides highlights on the three broad global burdens of disease categories and how they contribute to the national disease burden. The three categories are communicable diseases, noncommunicable diseases and injuries. The report also provides death statistics for major causes of mortality, such as HIV, TB and malaria. Based on the patterns it illuminates with respect to causes of mortality over the five-years period, the report provides a summary of recommendations for policy improvement and action. The recommendations will inform guidance given to policymakers on the selection and implementation of evidence-based public health interventions.

In addition, this report assesses the quality of cause of death statistics. The quality of cause of death statistics is explained in terms of completeness against the Crude Death Rate (CDR) as well as the frequency with which ill-defined conditions have been assigned as the underlying cause of death. Based on its analysis of data quality, the report points out areas for improvement that should be prioritized in the future.

The report calls for key health sector stakeholders to support the government in improving the quality of cause of death statistics and increasing the proportion of deaths that receive a Medical Certification of Causes of Death (MCCD), which has slowly improved to 18% in 2023 from 13% in 2019. The pace of improvement needs to substantially continue to improve from year to year.

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ACKNOWLEDGMENTS

The 2023 Annual Mortality Statistics Report (AMSR) was developed through consultative and participatory efforts of various stakeholders. The Ministry of Health (MoH) would like to thank the Monitoring and Evaluation (M&E) Unit for the coordination role in the write-up process of this report. Sincere gratitude goes to the MoH Management for their proper, technical and practical guidance in developing this report.

I would also like to appreciate the MoH and the President's Office-Regional Administration and Local Government (PO-RALG) officials for their commitment and valuable contributions. Special thanks are extended to Development Partners, Implementing Partners, Faith-Based Organizations (FBOs), the Private Sector, and different institutions for their dedication and support in improving cause of death data.

The Ministry recognizes the contribution of all individuals who participated directly or indirectly in the preparation of this report. The preparation process was very inclusive while involving many key players who contributed a lot in different ways (extraction of data from DHIS2 and other hospital databases, ICD coding, analysis and report writing).

The preparation of the 2023 AMSR was made possible through financial support from the Global Fund (GF). Moreover, the Ministry recognizes technical and financial support from Vital Strategies through the Bloomberg Philanthropies Data for Health (D4H) Initiative, the Ifakara Health Institute (IHI), and the World Health Organization (WHO). Generally, the support from these partners in strengthening routine mortality data quality improvement is highly acknowledged.

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EXECUTIVE SUMMARY

Reliable and routinely available data on causes of death is essential for shaping national health policies and monitoring progress toward the 2030 Sustainable Development Goals. Since 2014, Tanzania's health sector has achieved significant progress in terms of the quality of cause of death statistics; however, the completeness of these data sets remains low. Indeed, just 18% of the approximately 333,281 deaths that occurred in 2023 have received a medically certified cause of death. This is an increase from 13% in 2019.

- In 2023, 82% of deaths that received a cause of death classification in health facilities were medically certified with a correct underlying cause of death. Efforts are still needed to ensure all health facility deaths are assigned correct causes of death.

- From 2019 to 2023, birth asphyxia and birth trauma were the leading causes of under-5 child mortality (ranking either first or second). Prematurity and low birth weight were ranked between third and fifth most common causes of childhood mortality during this period.

- The contribution of malaria to all under-5 deaths in health facilities decreased by 12% points from 6.9% in 2019 to 6.1% in 2023.

- The proportion of mortality due to HIV among adults aged 15 to 59 reduced from 15.2% in 2019 to 10.4% in 2023. HIV mortality continues to account for a higher proportion of female deaths than male deaths.

- The majority of deaths due to TB occurred among adults aged 15 to 59 (51.7% to 65.0%), and also among elders aged 60 and above (28.6% to 42.9%). Fewer TB deaths were observed in children. Additionally, more males died from TB than females.

- The percentage of deaths due to Group I diseases (communicable, maternal, neonatal and nutritional) was 55.6% in 2019, then fell proportionally to 48.1% in 2023. At the same time, the proportion of deaths due to Group II diseases (noncommunicable diseases) increased slightly, from 36.3% in 2019 to 36.8% in 2023. Similarly, the proportion of deaths classified in Group III (injuries) increased from 3% in 2019 to 4.7% in 2023.

- The proportion of deaths assigned to Group IV (undetermined and ill-defined) doubled during the five-year period, from 5.1% in 2019 to 10.3% in 2023.

- Maternal hemorrhage was among the leading causes of maternal death across the five-year period, followed by hypertensive disorders of pregnancy. All other specific conditions were grouped into other maternal conditions.

- Malignant neoplasm contributed to 7.4% of all deaths in 2023. Esophageal cancer, cervix uteri cancer, liver cancer, mouth and oropharyngeal cancer, and tracheal, bronchial and lung cancer were among the leading causes of malignant neoplasms from 2019 to 2023.

- Road traffic accidents, self-inflicted injuries and homicides were the top causes of mortality due to injuries. Injury deaths due to road traffic accidents increased from 36.9% in 2019 to 65.0% in 2023.

CHAPTER 1: INTRODUCTION

1.1 Background

The Ministry of Health (MoH) has taken several steps to improve the quality and availability of mortality statistics which it obtains from routine sources of health data, notably with the introduction and rollout of the District Health Information Software version 2 (DHIS2) starting in 2010. DHIS2 is an electronic system being implemented to record individual-level death data and to produce and classify causes of death according to World Health Organization (WHO) standards. It uses the International Classification of Diseases Version 10 (ICD-10) short list and enables for Medical Certification of Causes of Death (MCCD) for all episodes of mortality captured by the system. In addition, other Electronic Medical Records Systems (EMRs) are being used for data collection in zonal, specialized, and national referral hospitals.

Mortality statistics provide valuable information for assessing and measuring population health status. Death is not only significant insofar as it pertains to individuals' lives. When patterns of death are analyzed at the population level, they have the potential to generate knowledge that can be used to improve the public's health. Within the health sector, mortality statistics are critical for formulating health plans and policies that improve life expectancy and quality of life in the population.

The 2023 Annual Mortality Statistical Report (AMSR 2023) describes the sources of mortality data and the methodologies used for data collection and analysis. It also provides information on the quality of mortality data and summarizes patterns related to the incidence and causes of mortality in the population of Mainland Tanzania from 2019 to 2023. In doing so, it highlights areas where the health sector has made progress and others where further improvement is needed. The report presents the 20 leading causes of death for all ages, broken down by sex, as well as their contributions to the total mortality rate for the year. In addition, it categorizes causes of death into three broad disease groups and analyzes trends in mortality attribution to these groups over time. Finally, it offers recommendations for strengthening Tanzania Mainland's Civil Registration and Vital Statistics (CRVS) System in the future.

1.1.1 Special Population Groups in Tanzania Mainland

Table 1.1 describes the population of Mainland Tanzania for 2023. Some indicators in this report use population values as their denominators. Tanzania Mainland's population was extrapolated from the 2012 population census. The National Bureau of Statistics estimated

that by 2023 the population of Mainland Tanzania had reached approximately 61.7 million people (NBS). Children under 5 constituted an estimated 15% of the population, and women of reproductive age (15-49 years) constituted an estimated 24% of the total population.

Table 1.1: Population Groups in 2023 (Estimated)

Age Groups	Both Sexes	Male	Female	Percentage of Total Population
Under-5	9,470,626	4,733,210	4,737,416	15%
Adolescents (10-19)	14,428,952	7,214,564	7,214,388	23%
Women of Reproductive Age (15-49)	15,080,302	NA	15,080,302	24%
Elderly (60+)	3,406,564	1,546,298	1,860,266	6%
Total Population	61,718,700	30,078,239	31,640,461	100%

Source : NBS. Population Projections (PHC 2022), Mainland Tanzania

1.1.2. Population Distribution by Region

Planning in the health sector uses regional population projections (Figure 1.1) to allocate resources for various interventions, including infrastructure development, medical supplies forecasting, and human resources for health. In this view, regions with the highest population, such as Dar es Salaam, Mwanza, Tabora and Morogoro, will require more resources compared to Njombe, which has the least number of people. However, it is important to note that population size is only one of the criteria to consider during the allocation of resources. Other criteria include (i) age and sex profiles of populations—the very young and very old have greater and different health needs than the general population, and women have different health needs than men; and (ii) the poverty level — poverty causes ill health, and vice versa.

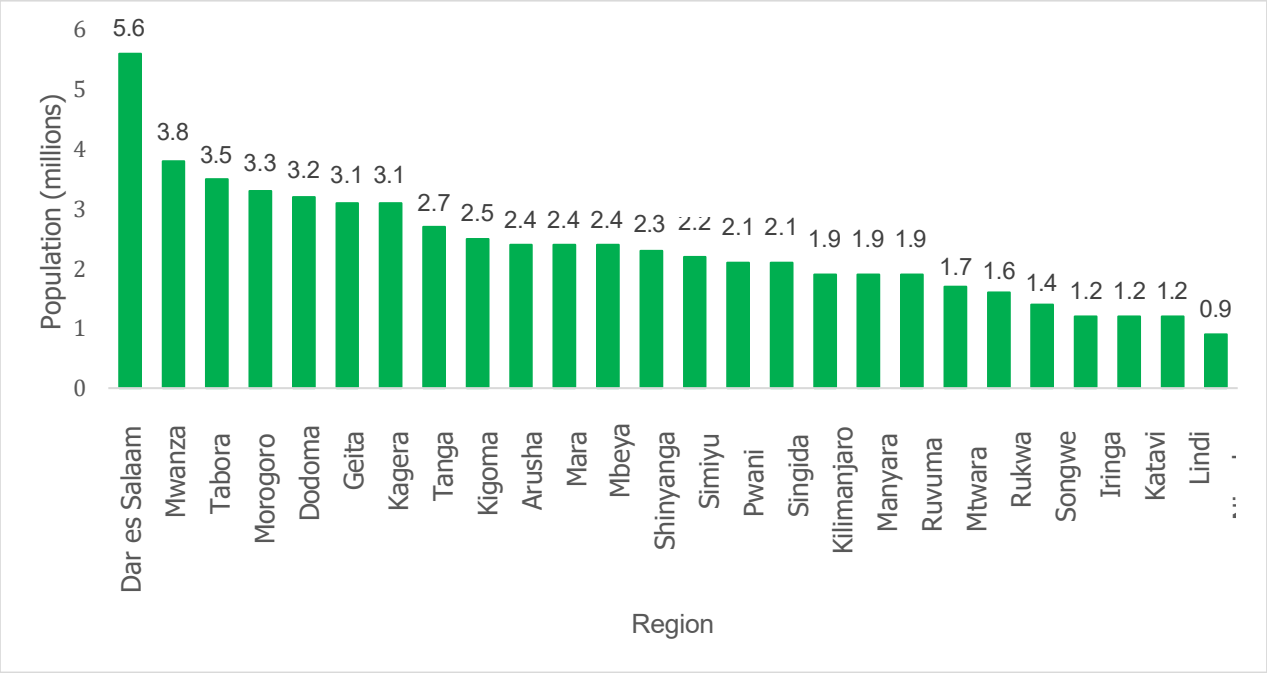

Figure 1.1: Population Distribution by Regions in Mainland Tanzania in 2023

1.2 Cause of Death Data

Data on causes of death yield valuable insights into the health status within a given population. Such data is compiled through the national CRVS systems under the MoH, and when analyzed, can illuminate current health problems, suggest persistent patterns of risk, and show trends of specific causes of death over time. These analyses can be disaggregated by sex and age to provide more focused information about the subpopulations during a given period.

Causes of death provide a basis for formulating health plans and policies to prevent or reduce avoidable mortality and improve quality of life. Many causes of death are preventable or treatable, and therefore warrant the attention of public health officials. Furthermore, information on causes of death helps illuminate the impact of policies and programs aimed at increasing the healthy life expectancy of the population and can be used for planning programmatic improvements. For example, mortality data can help focus activities and resource allocation among sectors such as transportation, food and agriculture, and the environment as well as health.

The MoH in collaboration with Vital Strategies through the Bloomberg Philanthropies Data for Health Initiative, the Global Fund and other partners, are supporting the Government of Tanzania in strengthening the CRVS system, particularly by improving the completeness and reporting quality of cause of death statistics from the community and health facilities. Through this the MoH collects, processes and analyzes mortality data that it obtains from health facilities as well as from community sources. At health facilities, particularly tertiary hospitals, death events are captured using Electronic Medical Records (EMR) systems that are installed at the health facility, or through paper-based death registry forms that are later entered into DHIS2 the platform used throughout most of the Tanzanian health system for managing health information.

1.3 Scope/Objective of the Report

The main objective of this report is to illustrate the burden of mortality and causes of death that occurred from 2019-2023 and report on the completeness and quality of mortality statistics. The information analyzed in this report comes from health facilities in Mainland Tanzania that issue medically certified causes of death. The report presents cause of death information that was ascertained through the WHO standard ICD-10. The findings reflect mortality events of males and females of all ages that occurred in health facilities, and in doing so, provide information that can help policies and programs to improve the overall quality of life for the Tanzania community.

CHAPTER 2: METHODOLOGY

2.1 Data Sources

In Tanzania, cause of death (CoD) statistics are drawn from two major sources: (1) Medical information from death certificates, which is used as a basis for ascertaining the cause of death, and WHO ICD-standard coding of causes of death, and (2) Verbal Autopsy to obtain probable CoD for community deaths (verbal autopsy data is not included in this report). This report is focused on analyzing mortality and CoD that occur in health facilities. All deaths that occur in health facilities are assigned an underlying CoD, which are defined as, "the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury." For deaths occurring in a community, a probable CoD is assigned using Verbal Autopsy. In this report, we present analysis of deaths reported from health facilities.

About one-quarter, or 25.1%, of all mortality data compiled from health facilities for this report from 2019-2023 came from 14 tertiary hospitals that use EMR systems. These include national, zonal and specialized referral hospitals. Information on the remaining 74.9% of all facility deaths were obtained from DHIS2, which include Regional Referral Hospitals (RRH) and Primary Health Care (PHC) Facilities. Maternal deaths were obtained from the MDSR system, in which all deaths associated with maternal causes were assigned a cause of death by clinicians and reviewed by the MDSR committee at the facility, council, and regional levels. Table 2.1 describes the data used to prepare this report in terms of the number of deaths by source and year.

Table 2.1: Total Number of Deaths by Data Source (EMR and DHIS2)

Source	Years					
	2019	**2020**	**2021**	**2022**	**2023**	**2019-2023**
DHIS2	30,563 (66.9%)	35,237 (75.1%)	41,742 (79.3%)	32,258 (74.9%)	38,985 (77.1%)	178,785 (74.9%)
Other EMR	15,096 (33.1%)	11,673 (24.9%)	10,899 (20.7%)	10,788 (25.1%)	11,575 (22.9%)	60,031 (25.1%)
Total Recorded Deaths	45,659	46,910	52,641	43,046	50,560	238,816

2.2 Data Collection

Data on MCCD is collected by physicians using the 2016 MCCD paper-based form to complete information regarding the causes of death in all four lines (Annex 1). Then they transfer this information to the EMR/DHIS2 system by manually selecting the appropriate ICD-10 code for the respective cause from the drop-down list. The EMR/DHIS2 systems are programmed to capture the immediate and underlying CoD only. Since 2014, clinicians have received training on completing the MCCD form based on the WHO ICD-10. The health information staff were also trained to enter codes for these events and their causes into the EMR/DHIS2 system. Maternal deaths are obtained from the MDSR system, in which all deaths associated with maternal causes are assigned causes of death by clinicians and reviewed by the MDSR committee at the facility, council, and regional levels.

2.3 Data Analysis

Combined data sets extracted from EMR, DHIS2 and MDSR were entered in the WHO ANACoD3 analytical tool for analysis. This computer application assessed the quality of MCCD and ICD-10 coding for the underlying CoD for 235,296 deaths that occurred at health facilities in Tanzania Mainland from 2019 to 2023. The tool also assessed the completeness and quality of the collected data. This included checking for missing data, ill-defined causes of death, and inconsistencies in age and sex distribution. We analyzed mortality patterns by broad categories, age and sex. Further analysis was done to identify the leading causes of death, especially those addressed by vertical programs such as human immunodeficiency virus (HIV), Tuberculosis (TB) and malaria. Data was presented in tabular and diagrammatic formats.

2.4. Data Quality Management

Data quality management provides a context-specific process for improving the quality of data used for analysis and decision-making. It is an essential process in making sense of data. In this report, data quality has been measured according to completeness and correctness. The computation of completeness is based on the number of reported 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. Given that this report is based only on health facility data, completeness of MCCD for all facility deaths is also calculated in this report. At the same time, the correctness of CoD assignment refers to the degree to which underlying causes of death reported are acceptable and well-defined as specified by WHO. In this analysis, the accuracy of CoD

data from health facilities was measured against WHO standards of medical certification of cause of death by using ANACoD3 software. This process was also used to identify the instances during which classifications could be used to identify a defined CoD and when they could not.

The high quality and completeness of the CoD data are crucial for evidence-based planning and decision-making. This quality enables the accurate measurement of mortality patterns in the population over time. This is especially important with regards to long-standing and emerging causes of death such as infant and maternal conditions, infectious diseases, accidents and suicide. In this chapter, a few quality measures are highlighted as key to providing users with an overall overview of the report quality.

2.4.1 Quality of Causes of Death Data

The quality of CoD data is determined by the completeness of the medical certificate of cause of death and its accuracy. A death certificate should provide a clear description of the chain of events from the immediate to the underlying CoD, and should also report any other conditions that contributed to death and provide specific information. In Tanzania, the Medical Certificate of Cause of Death is the primary source of mortality statistics for health facility deaths and provides the basis for describing mortality and for analyzing the conditions leading to death and changes in population health. Mortality statistics can be used in epidemiological studies that focus on the leading causes of death by age, sex, or other demographic variables. In official statistics, great importance has always been attached to the quality of data. Several systems for measurement and reporting of data quality have been introduced internationally.

2.4.2 Completeness of 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 238,816 deaths were medically certified and captured through the DHIS2 system, and through EMR systems from 2019 to 2023 in Mainland Tanzania. In 2023 alone, 50,560 deaths were medically certified. Compared to the estimated total number of deaths in Tanzania in 2023, 15.2% 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 remained constant between 2019 and 2023 (Table 2.2). Furthermore, the completeness and quality of CoD 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 2.2: Completeness of MCCD Data in Mainland Tanzania

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 Defined Cause of Death
2019	54,265,158	6.5	352,724	30,563	15,096	45,659	12.9%	81.6%
2020	55,966,030	6.1	341,393	35,237	11,673	46,910	13.7%	82.3%
2021	57,724,380	6	346,346	41,742	10,899	52,641	15.2%	81.2%
2022	59,851,347	5.6	335,168	32,258	10,788	43,046	12.8%	85.4%
2023	61,718,700	5.4	333,281	38,985	11,575	50,560	15.2%	82.0%

Source: Population and Housing Census Report 2012

2.4.3 Ill-Defined Causes

Ill-defined causes of death are vague diagnoses often described as "symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified" that the ICD-10 advises should not be used as the underlying cause of death. WHO recommends that health systems take measures to avoid classifying deaths as ill-defined and unknown during the certification process, since doing so does not give any information concerning the possible conditions that led to the death.

Defined causes accounted for 82% and ill-defined causes accounted for 18%, as illustrated in Table 2.3. When a death occurs and is medically certified, recordkeepers should make every effort to correctly ascertain the underlying CoD to draw conclusions about the leading causes and the need for priority public health interventions. Classification of deaths to ill-defined conditions significantly undermines public health value mortality data. Furthermore, where a high proportion of all deaths is classified as being due to ill-defined causes, the

cause of death distribution will be biased and unreliable. Despite these problems, ill-defined cause of death classification can still help describe the overall mortality due to broad disease (e.g., cardiovascular or respiratory disease) or injury groups.

Table 2.3: Percentage of Ill-Defined Versus Defined Causes of Death in 2023

Percentage of Ill-defined and Defined Causes of Death	
Ill-Defined Cause	Defined Cause
8,979 (18%)	41,091 (82%)

Table 2.4 shows the breakdown of ill-defined causes for 2023. Among the top 10 ill-defined causes, shock, though not listed elsewhere, was the leading culprit at 28.8%, followed by essential hypertension at 12.7%. Chronic renal failure, with 11.0%, came in third.

Table 2.4: Breakdown of Ill-Defined Causes

Rank	Ill-Defined ICD code	Description	Number	% of Ill-Defined
1	R57	Shock, not elsewhere classified	2584	28.8
2	I10	Essential (primary) hypertension	1142	12.7
3	N18	Chronic renal failure	991	11.0
4	R99	Other ill-defined and unspecified causes of mortality	768	8.60
5	R96	Other sudden death, cause unknown	758	8.4
6	A40	Streptococcal septicemia	726	8.1
7	N17	Acute renal failure	389	4.3
8	A41	Other septicemia	296	3.3
9	R98	Unattended death	156	1.7
10	R58	Hemorrhage, not elsewhere classified	152	1.7

2.5 Areas for Improvement

The analysis shows that not all health facilities are reporting in DHIS2 and that only an estimated 50% of deaths in reporting facilities (DHIS2 and other EMR systems) are getting an MCCD (Table 2.2). At the hospital level, may be due to the existence of electronic data collection systems that do not have the ICD dictionary installed, as well as the existence of an electronic ICD version that is not compatible with existing systems. This highlights the

need for the MoH to ensure that all health facilities install the electronic data collection system with the appropriate version of the ICD dictionary.

The proportion of health facility deaths that receive an MCCD, but not one that is usable (e.g. ill-defined or unknown) remains significant (18%). It is therefore important to keep on strengthening training for clinicians both in-service clinicians and those in medical schools. In addition, the MoH must make sure that each health facility's electronic system is integrated with DHIS2.

Furthermore, supportive supervision to in-service clinicians as well as medical universities and colleges that relates to assignment of causes of death and CoD data entry needs to be strengthened so as to ensure sustainable quality assurance and performance improvement mechanisms, particularly in teaching and referral hospitals. There is a need to improve the central coordination of mortality data-related interventions/activities as well as make sure that the health facility management committees are functional and put mortality data quality improvement on their agenda during their weekly management meetings. Findings reported here can be used to strengthen training efforts to improve practices that comprise the medical certification of causes of death to minimize the number of deaths coded as due to ill-defined. In addition, health facilities staff should consider ways to measure the quality of data on CoD data and use such measures to regulate and monitor health facility performance. For this to succeed, mortality coding practices should be assessed routinely.

The MoH aims to introduce or change existing legislation on CoD investigations to ensure that all deaths whose cause is classified as unknown are investigated with a forensic autopsy. It is important for clinicians to properly report the underlying cause or condition that precipitates the sequence of events leading to death, as doing so will allow death certificates to be correctly coded by the trained coders as they apply the rules of the International Statistical Classification of Diseases.

Among the approaches that will improve the quality of mortality and CoD data is to conduct more frequent data analysis and to use information at national and subnational levels to inform policy and support the decision-making process for public health programs.

CHAPTER 3: LEADING CAUSES OF DEATH IN HEALTH FACILITIES

3.1 Introduction

This chapter presents the analysis of the 20 leading causes of death for all ages. The 20 leading causes of death for all ages has been derived from the total number of deaths for each year as extracted from the health facility databases.

Table 3.1 below presents the number of deaths that received an MCCD from 2019 to 2023, disaggregated by sex and age. The overall number of deaths varies across the years, peaking in 2021 with 52,616 deaths and declining in 2022, before increasing again in 2023 to 50,557. In terms of sex, from 2019-23 males consistently accounted for a higher percentage of deaths, between 51.4% to 53.3%, with 26,945 (53.8%) of all deaths in 2023. By age group, the majority of deaths were for those above age 5, ranging from 63.1% in 2020 to 69.6% in 2023. Deaths in the under-5 age group have a large share as well, accounting for 30.1% to 36.9% over the years.

Table 3.1: Distribution of Number of Deaths by Age and Sex from 2019 to 2023

Characteristic	Year				
	2019	2020	2021	2022	2023
Overall (N)	45,650	46,877	52,616	43,037	50,557
Sex	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**
Male	23,463(51.4%)	24,384(52.0%)	28,015(53.2%)	22,443(52.1%)	26,945(53.3%)
Female	22,187(48.6%)	22,493(48.0%)	24,601(46.8%)	20,594(47.9%)	23,612(46.7%)
Age Categories					
< 5	16,217(35.5%)	17,303(36.9%)	16,298(31.0%)	15,319(35.6%)	15,240(30.1%)
>5	29,429(64.5%)	29,573(63.1%)	36,313(69.0%)	27,582(64.1%)	35,317(69.9%)
5-14	2,052(4.5%)	2,307(4.9%)	1,966(3.7%)	1,386(3.2%)	2,048(4.1%)
15-59	17,244(37.8%)	16,868(36.0%)	18,362(34.9%)	15,811(36.7%)	20,059(39.7%)
60+	10,133(22.2%)	10,398(22.2%)	15,985(30.4%)	10,385(24.1%)	13,210(26.1%)

3.2 Leading Causes of Death

3.2.1 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 five-year period. Figure 3.1 presents the top 20 causes of death in terms of the percentage of deaths recorded between 2019 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%, 8.6% and 6.5% from 2022 to 2019, 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.

Disease/Condition	2019	2020	2021	2022	2023
Lower respiratory infections	5.9%	6.4%	15.1%	8.9%	8.9%
Birth asphyxia and birth trauma	6.5%	8.6%	7.4%	8.3%	7.2%
HIV	6.8%	4.6%	3.7%	5.6%	5.7%
Hypertensive disease	2.6%	3.6%	3.2%	2.8%	4.2%
Malaria	4.7%	5.8%	3.8%	3.5%	4.0%
Prematurity and low birth weight	4.6%	3.8%	3.1%	4.1%	3.6%
Other Perinatal Conditions	7.7%	9.2%	7.3%	10.7%	3.5%
Other cardiovascular diseases	7.4%	7.3%	7.8%	3.5%	3.5%
Other infectious diseases	4.5%	4.5%	4.6%	2.4%	3.3%
Road traffic accidents	1.1%	1.3%	1.6%	1.2%	3.0%
Nephritis and nephrosis	2.6%	2.0%	1.8%	2.7%	2.9%
Diabetes mellitus	2.3%	2.7%	3.1%	2.9%	2.6%
Other digestive diseases	3.0%	2.5%	2.4%	2.3%	2.4%
Tuberculosis	1.9%	1.7%	1.7%	2.1%	2.2%
Other respiratory diseases	1.3%	1.5%	1.6%	1.2%	1.7%
Protein-energy malnutrition	1.4%	1.3%	1.0%	1.4%	1.6%
Endocrine disorders	1.5%	1.2%	1.4%	1.3%	1.5%
Other malignant neoplasms	1.2%	0.8%	0.8%	1.3%	1.2%
Diarrhoeal diseases	1.3%	1.3%	1.0%	1.0%	1.2%
Iron deficiency Anaemia	3.8%	4.5%	4.1%	0.3%	0.2%

Figure 3.1: Top 20 Causes of Overall Mortality Burden between 2019 and 2023

3.2.2 Top 20 Causes of Death for All Male Age Groups

Figure 3.2 depicts the leading causes of death among males from 2019 to 2023. Communicable diseases such as lower respiratory infections and HIV had fluctuating patterns, with lower respiratory infections peaking in 2021 at 16.0% up from 6.2% in 2019

(a jump likely due to the Coronavirus Disease 2019 (COVID-19) pandemic) and declining subsequently in the following years to 8.9% in 2023. In the past five years the contribution of malaria and other infectious diseases to all-cause mortality has not changed much despite change in the ranking order.

Deaths due to noncommunicable diseases showed a slight increase from 2019 to 2023. Hypertensive diseases, diabetes mellitus, protein-energy malnutrition and other cardiovascular diseases have seen slight increases over the years, indicating the growing relative burden of lifestyle-related diseases. Road traffic accidents, classified as injuries, increased from 1.4% in 2019 to 4.5% in 2023.

Disease/Condition	2019	2020	2021	2022	2023
Lower respiratory infections	6.2%	6.8%	16.0%	9.3%	8.9%
Birth asphyxia and birth trauma	7.3%	8.8%	7.5%	9.1%	7.7%
HIV	6.3%	4.0%	3.4%	4.8%	5.0%
Road traffic accidents	1.4%	2.0%	2.3%	1.9%	4.5%
Malaria	4.8%	5.8%	3.8%	3.6%	4.2%
Hypertensive disease	2.4%	3.3%	2.8%	2.6%	3.8%
Other conditions arising during the perin	8.1%	9.6%	7.0%	11.0%	3.7%
Other infectious diseases	4.3%	4.7%	4.7%	2.6%	3.6%
Prematurity and low birth weight	4.4%	3.8%	3.0%	4.1%	3.5%
Other cardiovascular diseases	7.3%	7.4%	7.9%	3.5%	3.4%
Nephritis and nephrosis	2.9%	2.3%	2.1%	3.1%	3.3%
Other digestive diseases	3.5%	3.0%	2.9%	2.9%	2.9%
Tuberculosis	2.5%	2.2%	2.2%	2.8%	2.6%
Diabetes mellitus	2.5%	2.9%	3.4%	3.0%	2.6%
Other respiratory diseases	1.6%	1.9%	1.9%	1.5%	2.0%
Protein-energy malnutrition	1.5%	1.3%	1.2%	1.5%	1.7%
Endocrine disorders	1.6%	1.1%	1.5%	1.3%	1.5%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.0%	1.4%
Cirrhosis of the liver	1.2%	1.0%	0.9%	1.6%	1.3%
Other malignant neoplasms	1.2%	0.8%	0.9%	1.3%	1.3%

Figure 3.2: Leading Causes of Death in Males from 2019 to 2023

3.2.3 Top 20 Causes of Death for All Female Age groups

Figure 3.3 below depicts the leading causes of death among females from 2019 to 2023. Deaths due to lower respiratory infections increased in 2021 to 14.6% from 5.8% in 2019, likely due to the impact of COVID-19, before declining to 9.4% in 2023. Deaths due to malaria remained fairly stable despite variations in yearly point estimates.

Hypertensive disease remained stable except in 2023, when it increased slightly. Deaths from road traffic accidents doubled from 0.7% in 2019 to 1.4% in 2023.

Disease/Condition	2019	2020	2021	2022	2023
Lower respiratory infections	5.8%	6.3%	14.6%	9.0%	9.4%
Birth asphyxia and birth trauma	6.1%	8.9%	7.6%	8.0%	6.9%
HIV	7.7%	5.5%	4.2%	6.8%	6.7%
Hypertensive disease	3.0%	4.1%	3.8%	3.3%	4.9%
Malaria	4.9%	6.0%	4.0%	3.7%	4.1%
Other cardiovascular diseases	7.8%	7.5%	8.0%	3.7%	3.9%
Prematurity and low birth weight	5.0%	3.9%	3.3%	4.5%	3.8%
Other conditions arising during the perinatal per	7.8%	9.1%	7.8%	11.0%	3.5%
Other infectious diseases	5.0%	4.5%	4.6%	2.4%	3.3%
Diabetes mellitus	2.1%	2.7%	2.9%	2.9%	2.7%
Nephritis and nephrosis	2.3%	1.8%	1.7%	2.6%	2.6%
Other maternal conditions	1.7%	1.8%	1.4%	1.9%	2.0%
Other digestive diseases	2.6%	2.0%	2.0%	1.8%	1.9%
Maternal haemorrhage	1.4%	1.7%	1.7%	2.1%	1.9%
Tuberculosis	1.5%	1.3%	1.3%	1.5%	1.8%
Endocrine disorders	1.4%	1.3%	1.4%	1.4%	1.7%
Protein-energy malnutrition	1.3%	1.3%	1.0%	1.4%	1.6%
Other respiratory diseases	1.2%	1.2%	1.4%	1.0%	1.4%
Road traffic accidents	0.7%	0.6%	0.8%	0.5%	1.4%
Melanoma and other skin cancers	0.1%	0.0%	0.0%	0.0%	1.3%

Figure 3.3: Leading Causes of Death in Females from 2019 to 2023

3.2.4 Top 20 Causes of Death for Children 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 3.4.

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 17.5% in 2019, reflecting persistent challenges in perinatal care despite ongoing intervention. Deaths due to lower respiratory infections increased from 9.6% in 2019 to 13.6% in 2023. Deaths due to prematurity and low birth weight have consistently remained in the top five over the past five 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 2019 to 2023 (Figure 3.4). 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 five years.

Disease/Condition	2019	2020	2021	2022	2023
Birth asphyxia and birth trauma	17.5%	22.7%	23.4%	22.8%	23.6%
Lower respiratory infections	9.6%	8.5%	9.6%	9.6%	13.6%
Prematurity and low birth weight	12.5%	10.0%	9.8%	11.3%	11.7%
Other conditions arising during the perinatal per	21.1%	24.3%	23.1%	29.3%	11.3%
Malaria	6.9%	7.3%	5.4%	4.3%	6.1%
Protein-energy malnutrition	3.3%	3.0%	2.9%	3.4%	4.5%
Other infectious diseases	3.6%	3.5%	4.2%	1.4%	2.8%
Other Congenital anomalies	2.3%	1.7%	1.4%	2.5%	2.4%
Diarrhoeal diseases	1.5%	1.4%	1.3%	1.4%	2.1%
Congenital heart anomalies	0.8%	1.0%	0.9%	1.1%	1.8%
Other respiratory diseases	1.0%	0.9%	0.5%	0.6%	1.4%
Meningitis	1.2%	0.9%	0.7%	1.0%	1.3%
HIV	0.8%	0.5%	0.3%	0.5%	1.2%
Endocrine disorders	1.0%	0.7%	0.9%	0.7%	1.1%
Other digestive diseases	1.0%	0.9%	0.9%	0.7%	1.1%
Upper respiratory infections	0.2%	0.4%	0.4%	0.5%	0.9%
Nephritis and nephrosis	0.7%	0.3%	0.3%	0.4%	0.6%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.0%	0.5%
Other neuropsychiatric disorders	0.4%	0.2%	0.2%	0.4%	0.5%
Anencephaly	0.1%	0.1%	0.1%	0.1%	0.4%

Figure 3.4: Top 20 Leading Causes of Death for Children Under 5 from 2019 to 2023

3.2.5 Top 20 Causes of Death for Children Aged 5 to 14

Figure 3.5 below presents the top 20 causes of death for children aged 5 to 14. Malaria consistently held the top position in each of the past five years, with its peak at 26.1% in 2020. Despite a slight decline to 19.4% in 2023, malaria remained the predominant health threat for children in this age group.

Deaths due to lower respiratory infections have shown fluctuations, ranging from the third position in 2020 to second position in 2023. This calls for the government to keep addressing respiratory health through efforts that minimize children's exposure to risk factors and increase the coverage and timeliness of access to vaccinations and interventions that detect and treat infections early, before they become severe.

Deaths due to endocrine disorders consistently appeared in the third position in 2023 from the fourth position in 2019, highlighting the need for better management of conditions such as diabetes and thyroid disorders.

Deaths due to road traffic accidents among children aged 5-14 have increased from 2019 (1.5%) to 2023 (3.3%). This reflects the growing need for improved road safety measures to protect children. Nephritis and nephrosis also demonstrated an increasing trajectory, peaking at 3.1% in 2023, underscoring the importance of addressing kidney health.

Protein-energy malnutrition has consistently accounted for a moderate proportion of all-cause mortality overtime. These trends highlight the need for enhanced public health interventions and nutritional programs.

Deaths due to diarrhoeal diseases and upper respiratory infections have remained in the top 20 over the past five years, accounting for 1.9% and 1.8% in 2023, respectively. These conditions emphasize the need for improved sanitation, clean water access and respiratory health initiatives.

Disease/Condition	2019	2020	2021	2022	2023
Malaria	21.6%	26.1%	21.2%	22.1%	19.4%
Lower respiratory infections	6.1%	5.9%	10.3%	11.6%	11.1%
Endocrine disorders	5.9%	4.7%	5.4%	6.8%	6.7%
Other infectious diseases	5.9%	7.2%	8.0%	4.5%	5.4%
Road traffic accidents	1.5%	1.9%	2.9%	2.3%	3.3%
Nephritis and nephrosis	2.0%	1.2%	1.7%	2.7%	3.1%
Meningitis	2.6%	1.7%	1.7%	2.5%	2.7%
Other digestive diseases	2.4%	2.6%	2.1%	3.2%	2.6%
Protein-energy malnutrition	1.9%	1.4%	1.8%	2.2%	2.6%
HIV	3.0%	1.6%	1.5%	2.7%	2.5%
Diarrhoeal diseases	1.5%	1.7%	1.5%	1.7%	1.9%
Upper respiratory infections	0.5%	1.4%	0.6%	1.0%	1.8%
Leukaemia	1.7%	1.2%	1.0%	2.4%	1.6%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.0%	1.5%
Tuberculosis	1.2%	1.3%	1.1%	1.5%	1.5%
Anencephaly	0.0%	0.0%	0.0%	0.0%	1.4%
Other malignant neoplasms	1.7%	1.1%	1.5%	2.3%	1.2%
Other respiratory diseases	1.6%	1.5%	1.0%	1.5%	1.2%
Inflammatory heart diseases	0.8%	0.6%	0.6%	0.8%	1.1%
Other unintentional injuries	1.6%	0.9%	0.7%	0.8%	1.1%

Figure 3.5: Top 20 Causes of Death for Children aged 5 to 14 from 2019 to 2023

3.2.6 Top 20 Causes of Death for Ages 5 and Above

Figure 3.6 illustrates the top 20 causes of death for individuals aged 5 and up over a five-year period.

HIV-related conditions consistently remained a major cause of death, though its relative proportion of the overall burden of mortality fluctuated, peaking at 10.6% in 2019. Deaths due to lower respiratory infections increased dramatically in 2021 (18.1%) compared to other years, and this is likely due to the impact of the second wave of the pandemic.

Deaths due to noncommunicable diseases like hypertensive disease and other cardiovascular conditions remained substantial, with hypertensive disease rising from 4.2% in 2019 to 6.2% in 2023. Diabetes and nephritis/nephrosis also showed slight growth in their death tolls. Deaths from road traffic accidents steadily increased from 1.7% in 2019 to 4.3% in 2023, signaling a growing concern.

Disease/Condition	2019	2020	2021	2022	2023
HIV	10.6%	7.4%	5.4%	8.9%	7.9%
Lower respiratory infections	3.9%	5.4%	18.1%	8.9%	7.2%
Hypertensive disease	4.2%	5.9%	4.7%	4.6%	6.2%
Other cardiovascular diseases	11.0%	11.4%	10.9%	5.6%	5.1%
Road traffic accidents	1.7%	2.1%	2.3%	1.9%	4.3%
Nephritis and nephrosis	3.8%	3.2%	2.7%	4.3%	4.0%
Diabetes mellitus	3.6%	4.4%	4.7%	4.7%	3.8%
Other infectious diseases	5.3%	5.3%	4.9%	3.2%	3.7%
Malaria	3.7%	5.0%	3.2%	3.2%	3.2%
Tuberculosis	3.0%	2.8%	2.5%	3.4%	3.1%
Other digestive diseases	4.3%	3.6%	3.2%	3.4%	3.0%
Other respiratory diseases	1.6%	1.9%	2.2%	1.7%	1.9%
Endocrine disorders	1.8%	1.5%	1.7%	1.7%	1.8%
Other malignant neoplasms	1.8%	1.2%	1.1%	2.0%	1.6%
Cirrhosis of the liver	1.4%	1.3%	1.1%	1.9%	1.5%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.0%	1.5%
Inflammatory heart diseases	1.6%	1.2%	1.4%	1.9%	1.4%
Melanoma and other skin cancers	0.1%	0.1%	0.1%	0.1%	1.4%
Peptic ulcer	1.1%	1.6%	1.2%	1.7%	1.3%
Ischaemic heart disease	0.5%	0.7%	0.7%	0.8%	1.3%

Figure 3.6: Top 20 Causes of Death for Ages 5 and above from 2019 to 2023

3.2.7 Top 20 Causes of Death for Adults Aged 15 to 59

Figure 3.7 below presents the top 20 leading causes of death for adults aged 15 to 59 from 2019 to 2023. HIV-related conditions have remained a major cause of death in the past five years for individuals aged 15 to 59. In 2023, they accounted for 10.4% of all health facility deaths.

Deaths due to road traffic accidents rose to second position, accounting for 6.2% of deaths in 2023. This calls for the need to improve road safety measures and implement injury prevention strategies. Lower respiratory infections demonstrated variability and topped the list, accounting for 12.8% of deaths in 2021, then declined to 5.4% in 2023. This reflects the occurrence of periodic outbreaks of those diseases. Other infectious diseases and other cardiovascular diseases have remained notable causes, though their impact has slightly decreased over the years, reflecting some progress in managing these conditions.

Disease/Condition	2019	2020	2021	2022	2023
HIV	15.2%	10.9%	8.9%	12.8%	10.4%
Road traffic accidents	2.3%	2.7%	3.4%	2.7%	6.2%
Lower respiratory infections	2.9%	3.9%	12.8%	6.2%	5.4%
Other infectious diseases	5.9%	5.7%	5.3%	3.9%	4.1%
Other cardiovascular diseases	8.5%	9.2%	8.8%	3.9%	3.8%
Nephritis and nephrosis	3.4%	3.0%	2.6%	4.1%	3.5%
Hypertensive disease	2.3%	3.3%	2.9%	2.7%	3.4%
Diabetes mellitus	3.2%	3.8%	4.0%	4.0%	3.3%
Tuberculosis	3.2%	2.7%	2.8%	3.7%	3.3%
Other digestive diseases	4.4%	3.8%	3.6%	3.4%	3.1%
Malaria	2.6%	3.7%	2.5%	2.6%	2.6%
Other maternal conditions	2.1%	2.3%	1.9%	2.3%	2.2%
Maternal haemorrhage	1.7%	2.2%	2.3%	2.7%	2.2%
Cirrhosis of the liver	1.6%	1.5%	1.4%	2.1%	1.9%
Other respiratory diseases	1.4%	1.8%	2.1%	1.6%	1.9%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.0%	1.8%
Endocrine disorders	1.6%	1.4%	1.6%	1.7%	1.8%
Melanoma and other skin cancers	0.1%	0.1%	0.1%	0.1%	1.7%
Other malignant neoplasms	1.9%	1.3%	1.4%	2.1%	1.7%
Hypertensive disorders of pregnancy	1.3%	1.3%	1.2%	1.7%	1.4%

Figure 3.7: Top 20 Causes of Death for Ages 15 to 59 from 2019 to 2023

3.2.8 Top 20 Causes of Death for Adults Aged 60 and Above

Figure 3.8 below illustrates the top 20 causes of death for adults aged 60 and above over a five-year period. Hypertensive diseases and lower respiratory infections were the top causes of death for individuals in this age group in 2023. Other cardiovascular diseases accounted for 8.0% of deaths in 2023, up from 16.3% in 2019. This is due to the improvement of MCCD and the specificity of the cause of death provided. Additionally, malignancies like prostate and esophageal cancer also contributed to mortality for individuals aged 60 and older. Altogether, these findings underscore the importance of comprehensive health care strategies tailored to aging populations.

Disease/Condition	2019	2020	2021	2022	2023
Hypertensive disease	8.2%	11.4%	7.3%	8.0%	11.3%
Lower respiratory infections	5.3%	7.5%	25.0%	12.5%	9.3%
Other cardiovascular diseases	16.3%	16.6%	13.9%	8.7%	8.0%
Diabetes mellitus	4.9%	6.2%	5.9%	6.0%	5.0%
Nephritis and nephrosis	4.9%	4.1%	2.8%	4.8%	5.0%
HIV	4.3%	3.1%	2.0%	3.8%	4.9%
Tuberculosis	3.1%	3.2%	2.5%	3.3%	3.1%
Other digestive diseases	4.5%	3.4%	2.9%	3.3%	3.0%
Other infectious diseases	4.0%	4.2%	4.1%	2.0%	2.7%
Ischaemic heart disease	0.7%	0.9%	1.0%	1.3%	2.1%
Inflammatory heart diseases	2.1%	1.7%	1.5%	2.5%	2.0%
Other respiratory diseases	2.1%	2.3%	2.6%	1.8%	2.0%
Road traffic accidents	0.6%	1.1%	1.0%	0.6%	1.6%
Malaria	1.6%	2.2%	1.6%	1.6%	1.5%
Prostate cancer	1.9%	1.2%	0.8%	1.9%	1.5%
Oesophagus cancer	2.7%	1.2%	0.9%	1.5%	1.4%
Other malignant neoplasms	1.7%	1.1%	0.8%	1.7%	1.4%
Peptic ulcer	1.4%	1.8%	1.4%	1.9%	1.4%
Upper respiratory infections	0.5%	0.8%	1.4%	1.5%	1.2%
Melanoma and other skin cancers	0.1%	0.1%	0.0%	0.1%	1.1%

Figure 3.8: Top 20 Leading Causes of Death for Ages 60 and above from 2019 to 2023

CHAPTER 4: BROAD CATEGORIES OF CAUSES OF DEATH FROM HEALTH FACILITIES

4.1 Introduction

This section provides an analysis of the broad categories of death covering the five-year period from 2019 to 2023. Per this categorization of mortality events, deaths are organized into groups defined by those that are due to communicable diseases, noncommunicable diseases and injuries. By analyzing trends and patterns within these categories, the section aims to highlight significant public health challenges and inform targeted interventions to reduce the burden mortality across different age and sex groups.

4.2 Broad Categories of Causes of Mortality Burden

Figure 4.1 presents the trend of the total burden of disease in Mainland Tanzania divided into three broad categories of causes from 2019 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 five-year period. Communicable diseases accounted for more than 50% of all deaths between 2019 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 3.0% in 2019 to 4.7% in 2023.

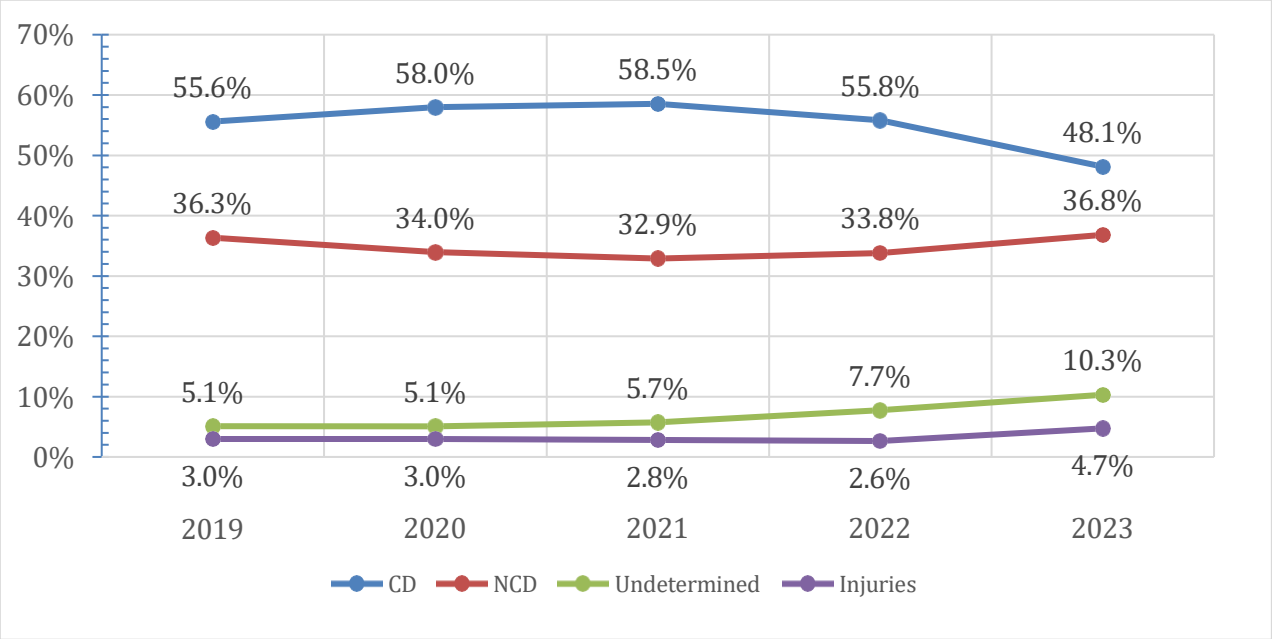

Figure 4.1 Trends of Broad Categories of Causes of Death from 2019 to 2023

4.2.1 Communicable Diseases

4.2.1.1 Distribution of Deaths Due to Communicable Diseases by Age and Sex

Table 4.1 shows the distribution of deaths due to communicable diseases, maternal and perinatal conditions, and nutritional disorders by age and sex from 2019 to 2023. The majority of deaths due to communicable diseases were concentrated among children under age 5 followed by adults between ages 15 and 59. This could be attributed to lower immunity levels in children, maternal complications (i.e., maternal hemorrhage, hypertensive disorders of pregnancy, maternal sepsis, abortion, etc.) for women of reproductive age, and injuries in young adults.

Table 4.1: Distribution of Deaths Due to Communicable Diseases by Age and Sex

Age Group (Years)	2019		2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	7,122 (58.5%)	6,364 (49.1%)	8,082 (60.7%)	7,124 (52.3%)	7,413 (47.6%)	6,610 (44.2%)	7,078 (61.1%)	6,251 (52.2%)	6,630 (55.0%)	5,560 (46.5%)
5-14	605 (5.0%)	552 (4.3%)	818 (6.1%)	643 (4.7%)	662 (4.3%)	544 (3.6%)	417 (3.6%)	297 (2.5%)	578 (4.8%)	461 (3.9%)
15-59	3,077 (25.3%)	5,025 (38.7%)	2,902 (21.8%)	4,730 (34.7%)	3,796 (24.4%)	5,033 (33.7%)	2,601 (22.5%)	4,190 (35.0%)	3,118 (25.9%)	4,518 (37.8%)
60+	1,367 (11.2%)	1,032 (8.0%)	1,504 (11.3%)	1,131 (8.3%)	3,691 (23.7%)	2,752 (18.4%)	1,479 (12.8%)	1,239 (10.3%)	1,722 (14.3%)	1,423 (11.9%)
Total	**12,171**	**12,973**	**13,306**	**13,628**	**15,562**	**14,939**	**11,575**	**11,977**	**12,048**	**11,962**

4.2.1.2 Top 20 Communicable-Disease-Related Causes of Death

Figure 4.2 shows the top 20 communicable causes of death from 2019 to 2023. The analysis revealed that the most prevalent communicable causes of death were lower respiratory infections, birth asphyxia and birth trauma, HIV-related conditions, and malaria in all five years. In addition, mortality due to lower respiratory infections was noted to be at 10.9% in 2019, 26.2% in 2021 and 19.0% in 2023.This fluctuation was associated with the impact of COVID-19.

Disease/Condition	2019	2020	2021	2022	2023
Lower respiratory infections	10.9%	11.3%	26.2%	16.4%	19.0%
Birth asphyxia and birth trauma	12.1%	15.2%	12.8%	15.4%	15.3%
HIV	12.5%	8.2%	6.4%	10.3%	12.1%
Malaria	8.7%	10.2%	6.6%	6.5%	8.5%
Prematurity and low birth weight	8.4%	6.6%	5.4%	7.7%	7.6%
Other conditions arising during the perinatal period	14.3%	16.1%	12.7%	19.8%	7.6%
Other infectious diseases	8.3%	7.9%	8.0%	4.5%	7.1%
Tuberculosis	3.6%	3.1%	3.0%	4.0%	4.6%
Protein-energy malnutrition	2.5%	2.2%	1.8%	2.6%	3.4%
Diarrhoeal diseases	2.4%	2.3%	1.7%	1.9%	2.5%
Meningitis	2.2%	1.6%	1.4%	2.1%	2.3%
Upper respiratory infections	0.7%	1.2%	1.4%	1.6%	2.1%
Other maternal conditions	1.6%	1.5%	1.1%	1.7%	1.9%
Maternal haemorrhage	1.3%	1.4%	1.3%	1.8%	1.8%
Hypertensive disorders of pregnancy	1.1%	1.0%	1.0%	1.2%	1.2%
Hepatitis B	0.8%	0.5%	0.6%	0.7%	0.9%
Iron deficiency Anaemia	7.1%	7.9%	7.1%	0.5%	0.4%
Maternal sepsis	0.2%	0.3%	0.2%	0.3%	0.3%
Measles	0.0%	0.0%	0.0%	0.0%	0.3%
Other STDs	0.1%	0.1%	0.1%	0.2%	0.3%

Figure 4.2: Top 20 communicable causes of deaths from 2019 to 2023

4.2.2 Noncommunicable Diseases

4.2.2.1 Distribution of Deaths Due to Noncommunicable Diseases by Age and Sex

Table 4.2 presents the distribution of deaths due to noncommunicable diseases by age and sex for a five-year period. Most deaths from noncommunicable diseases occurred among individuals aged 60 and above. Large proportions of deaths due to noncommunicable diseases are also observed among young adults.

Table 4.2: Distribution of Deaths Due to Noncommunicable Diseases by Age and Sex from 2019 to 2023

Age Group (Years)	2019		2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	1,059 (12.4%)	820 (11.2%)	813 (9.9%)	656 (9.2%)	747 (8.1%)	634 (8.4%)	729 (9.7%)	638 (10.0%)	1,027 (10.6%)	893 (10.8%)
5-14	367 (4.3%)	276 (3.8%)	345 (4.2%)	244 (3.4%)	275 (3.0%)	234 (3.1%)	233 (3.1%)	206 (3.2%)	359 (3.7%)	254 (3.1%)
15-59	3,624 (42.5%)	3,411 (46.6%)	3,661 (44.4%)	3,284 (46.2%)	3,798 (41.4%)	3,181 (42.2%)	3,356 (44.7%)	2,927 (45.9%)	4,369 (44.9%)	3,674 (44.4%)
60+	3,476 (40.8%)	2,812 (38.4%)	3,426 (41.6%)	2,919 (41.1%)	4,362 (47.5%)	3,492 (46.3%)	3,182 (42.4%)	2,599 (40.8%)	3,968 (40.8%)	3,451 (41.7%)
Total	**8,526**	**7,319**	**8,245**	**7,103**	**9,182**	**7,541**	**7,500**	**6,370**	**9,723**	**8,272**

4.2.2.2 Top 20 Noncommunicable Diseases

Figure 4.3 shows the top 20 mortality-leading noncommunicable diseases for five consecutive years. Analysis revealed that the most prevalent mortality-causing noncommunicable diseases were cardiovascular diseases, malignant neoplasm and digestive diseases. There was a slight change in the trend of individual NCDs observed from 2019 to 2023.

Disease/Condition	2019	2020	2021	2022	2023
Hypertensive disease	7.3%	10.8%	10.0%	8.6%	11.7%
Other cardiovascular diseases	20.8%	22.0%	24.1%	10.7%	9.8%
Nephritis and nephrosis	7.2%	6.2%	5.7%	8.4%	8.1%
Diabetes mellitus	6.4%	8.1%	9.7%	8.7%	7.2%
Other digestive diseases	8.4%	7.5%	7.4%	7.1%	6.6%
Other respiratory diseases	3.8%	4.5%	5.1%	3.8%	4.6%
Endocrine disorders	4.1%	3.6%	4.4%	4.0%	4.3%
Other malignant neoplasms	3.5%	2.5%	2.6%	4.0%	3.3%
Neuro-psychiatric conditions	0.0%	0.0%	0.0%	0.0%	3.2%
Cirrhosis of the liver	2.5%	2.3%	2.2%	3.5%	2.9%
Inflammatory heart diseases	3.1%	2.3%	2.9%	3.8%	2.8%
Congenital heart anomalies	1.4%	1.7%	1.3%	1.9%	2.8%
Melanoma and other skin cancers	0.2%	0.1%	0.1%	0.1%	2.6%
Ischaemic heart disease	0.9%	1.3%	1.6%	1.6%	2.5%
Peptic ulcer	1.9%	3.0%	2.5%	3.2%	2.5%
Other Congenital anomalies	2.5%	2.0%	1.6%	3.1%	2.2%
Oesophagus cancer	3.1%	1.7%	1.7%	2.1%	1.7%
Cervix uteri cancer	2.2%	1.6%	1.5%	2.1%	1.4%
Other neuropsychiatric disorders	1.1%	1.3%	1.0%	1.6%	1.3%
Liver cancer	1.1%	0.7%	0.8%	2.1%	1.3%

Figure 4.3: Top 20 Leading Causes of Mortality Due to Noncommunicable diseases from 2019 to 2023

4.2.2.3 Top 20 Causes of Death Due to Cancer

Malignant neoplasm contributed to 7.4% of all deaths in 2023. Table 4.3 shows the top 20 causes of death due to cancer for a five-year period. Other malignant neoplasms, esophageal, cervix uteri and liver cancers were among the top five causes of death due to cancer. However, melanoma and other skin cancers appeared to be the second cause of cancer death in 2023, while it was not among the top 20 in the previous four years (2019-2022).

Table 4.3: Top 20 Causes of Death Due to Cancer from 2019 to 2023

Cause	Year				
	2019	2020	2021	2022	2023
Other malignant neoplasms	558 (16.3%)	377 (16.9%)	438 (19.0%)	553 (17.8%)	595 (16.3%)
Melanoma and other skin cancers	31 (0.9%)	21 (0.9%)	25 (1.1%)	16 (0.5%)	470 (12.9%)
Esophageal cancer	489 (14.3%)	266 (11.9%)	277 (12.0%)	289 (9.3%)	308 (8.5%)
Cervix uteri cancer	344 (10.1%)	253 (11.4%)	250 (10.9%)	293 (9.5%)	257 (7.1%)
Liver cancer	180 (5.3%)	115 (5.2%)	128 (5.6%)	294 (9.5%)	235 (6.5%)
Mouth and oropharyngeal cancers	114 (3.3%)	64 (2.9%)	73 (3.2%)	73 (2.4%)	226 (6.2%)
Trachea, bronchial and lung cancers	171 (5.0%)	109 (4.9%)	109 (4.7%)	173 (5.6%)	207 (5.7%)
Leukemia	186 (5.4%)	130 (5.8%)	112 (4.9%)	161 (5.2%)	207 (5.7%)
Prostate cancer	208 (6.1%)	138 (6.2%)	135 (5.9%)	209 (6.7%)	199 (5.5%)
Breast cancer	279 (8.2%)	204 (9.2%)	206 (8.9%)	252 (8.1%)	175 (4.8%)
Lymphomas and multiple myeloma	250 (7.3%)	128 (5.7%)	72 (3.1%)	125 (4.0%)	132 (3.6%)
Colon and rectal cancers	163 (4.8%)	106 (4.8%)	131 (5.7%)	168 (5.4%)	126 (3.5%)
Stomach cancer	124 (3.6%)	66 (3.0%)	93 (4.0%)	100 (3.2%)	123 (3.4%)
Other neoplasms	33 (1.0%)	79 (3.5%)	41 (1.8%)	144 (4.6%)	113 (3.1%)
Ovarian cancer	80 (2.3%)	47 (2.1%)	55 (2.4%)	51 (1.6%)	106 (2.9%)
Pancreatic cancer	68 (2.0%)	44 (2.0%)	50 (2.2%)	65 (2.1%)	75 (2.1%)
Bladder cancer	112 (3.3%)	55 (2.5%)	68 (3.0%)	94 (3.0%)	51 (1.4%)
Corpus uteri cancer	32 (0.9%)	26 (1.2%)	40 (1.7%)	40 (1.3%)	38 (1.0%)
Total	**3,422**	**2,228**	**2,303**	**3,100**	**3,643**

4.2.3 Injuries

4.2.3.1 Distribution of Deaths Due to Injuries by Age and Sex

Table 4.4 shows the distribution of deaths due to injuries by age and sex over five years. The findings indicate that deaths due to injuries are pronounced in the age group of 15-59 years. The figure also reveals that males are dying at higher rates than females due to injuries in the same age category.

Table 4.4: Distribution of Deaths Due to Injuries by Age and Sex from 2019 to 2023

Age Group (Years)	2019		2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	100 (11.2%)	78 (19.5%)	87 (8.3%)	56 (18.0%)	82 (7.7%)	64 (17.4%)	56 (7.0%)	50 (17.4%)	86 (4.9%)	63 (11.4%)
5-14	52 (5.8%)	50 (12.5%)	73 (7.0%)	41 (13.2%)	71 (6.6%)	45 (12.3%)	47 (5.9%)	29 (10.1%)	88 (5.0%)	60 (10.9%)
15-59	640 (71.8%)	202 (50.6%)	754 (72.3%)	151 (48.6%)	737 (68.8%)	177 (48.2%)	592 (74.4%)	155 (53.8%)	1,398 (79.2%)	330 (59.9%)
60+	99 (11.1%)	69 (17.3%)	129 (12.4%)	63 (20.3%)	181 (16.9%)	81 (22.1%)	101 (12.7%)	54 (18.8%)	194 (11.0%)	98 (17.8%)
Total	**891**	**399**	**1,043**	**311**	**1,071**	**367**	**796**	**288**	**1,766**	**551**

4.2.3.2 Top 10 Causes of Death Due to Injuries

Figure 4.4 indicates the top 10 causes of death due to injuries. The findings from the figure below indicate road traffic accidents were the leading causes of death for the consecutive five years (2019-2023). Other unintentional injuries, self-inflicted injuries, poisonings and homicides also appeared among the top five causes of injury death for the same period.

Disease/Condition	2019	2020	2021	2022	2023
Road traffic accidents	36.9%	45.4%	57.2%	47.4%	65.0%
Other unintentional injuries	28.0%	16.1%	15.4%	19.2%	8.2%
Self-inflicted injuries	4.8%	7.0%	7.2%	10.2%	8.0%
Poisonings	11.8%	8.8%	7.6%	9.2%	6.1%
Homicide	4.9%	7.8%	2.9%	5.5%	5.8%
Falls	2.6%	4.0%	2.8%	2.5%	2.4%
Drownings	3.3%	4.9%	2.9%	2.3%	2.2%
Fires	7.7%	5.8%	4.0%	3.6%	2.2%
Other Intentional injuries	0.1%	0.1%	0.0%	0.0%	0.0%
War and conflict	0.0%	0.0%	0.0%	0.0%	0.0%

Figure 4.4: Top 10 Fatal Injuries from 2019 to 2023

4.3 Diseases of National Priority

In Tanzania, malaria, HIV and TB are designated as communicable diseases of national priority due to their significant health and socioeconomic impact. These diseases impose a heavy burden on health care systems, hinder economic development and threaten the well-being of the population. Addressing them is essential for achieving public health goals, reducing morbidity and mortality, and promoting sustainable development in the country.

4.3.1 Human Immunodeficiency Virus Disease

Table 4.5 shows the distribution of deaths due to HIV-related diseases that occurred from 2019 to 2023 by age and sex. An especially high proportion of deaths due to HIV is observed among adults between 15 and 49 years of age, as well as among those aged 60 and above. A smaller proportion of deaths were observed among children. Additionally, data shows that females are dying more from HIV-related causes than males. Overall, the higher burden of HIV mortality highlights the importance of strengthening national HIV control interventions such as voluntary counseling and testing, and the prevention of mother to child transmission. Making provider-initiated counseling and testing available and establishing more care and treatment centers would alleviate the burden of HIV mortality in the country.

Table 4.5: Distribution of Deaths Due to HIV by Age and Sex from 2019 to 2023

Age Group (Years)	2019		2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	63 (4.4%)	66 (4.1%)	45 (4.7%)	37 (3.2%)	31 (3.3%)	19 (1.9%)	43 (4.1%)	31 (2.4%)	90 (6.8%)	95 (6.3%)
5-14	27 (1.9%)	34 (2.1%)	23 (2.4%)	13 (1.1%)	11 (1.2%)	19 (1.9%)	19 (1.8%)	18 (1.4%)	22 (1.7%)	29 (1.9%)
15-59	1,129 (78.9%)	1,303 (81.7%)	741 (76.9%)	980 (83.5%)	716 (77.2%)	811 (82.1%)	804 (77.4%)	1,071 (81.4%)	898 (67.4%)	1,114 (73.6%)
60+	212 (14.8%)	191 (12.0%)	155 (16.1%)	144 (12.3%)	169 (18.2%)	139 (14.1%)	173 (16.7%)	195 (14.8%)	323 (24.2%)	276 (18.2%)
Total	**1,431**	**1,594**	**964**	**1,174**	**927**	**988**	**1,039**	**1,315**	**1,333**	**1,514**

4.3.2 Malaria

Table 4.6 shows the distribution of death due to malaria that occurred from 2019 to 2023 by age and sex. A high proportion of malaria deaths was observed in children, adolescents and young adults. Children aged 0-4 years mostly died of malaria, with a slight difference in numbers based on sex. The findings indicate that the government should continue implementing national malaria control programs (such as school net programs, and the mass distribution of bed nets for children under 5 and pregnant mothers) aimed at alleviating the burden of malaria in these age categories.

Table 4.6: Distribution of Deaths Due to Malaria by Age and Sex from 2019 to 2023

Age Group (Years)	2019		2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	580 (53.2%)	536 (52.2%)	638 (45.8%)	628 (49.5%)	464 (44.7%)	407 (44.0%)	331 (42.5%)	329 (46.1%)	508 (46.3%)	418 (45.9%)
5-14	235 (21.6%)	204 (19.9%)	354 (25.4%)	245 (19.3%)	226 (21.8%)	187 (20.2%)	175 (22.5%)	129 (18.1%)	234 (21.3%)	162 (17.8%)
15-59	208 (19.1%)	199 (19.4%)	296 (21.2%)	289 (22.8%)	207 (19.9%)	221 (23.9%)	205 (26.3%)	170 (23.8%)	263 (24.0%)	240 (26.3%)
60+	67 (6.1%)	88 (8.6%)	105 (7.5%)	107 (8.4%)	142 (13.7%)	111 (12.0%)	67 (8.6%)	85 (11.9%)	92 (8.4%)	91 (10.0%)
Total	**1,090**	**1,027**	**1,393**	**1,269**	**1,039**	**926**	**778**	**713**	**1,097**	**911**

4.3.3 Tuberculosis

Table 4.7 shows the distribution of deaths due to TB by age and sex for a five-year period. The proportion of deaths due to TB was prominent among adults aged 15 and 49; elders aged 60 years and above, and a smaller proportion of deaths observed in children. Males are at higher risk of dying of TB as compared to their female counterparts. Overall, this highlights the importance of getting the government to strengthen national TB control programs such as free testing and treatment to alleviate the burden of TB mortality in the country.

Table 4.7: Distribution of Deaths Due to TB by Age and Sex from 2019 to 2023

Age Group (Years)	2019		2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	27 (4.8%)	13 (4.3%)	13 (2.5%)	14 (5.1%)	15 (2.5%)	14 (4.5%)	24 (3.9%)	10 (3.4%)	14 (2.0%)	18 (4.6%)
5-14	10 (1.8%)	15 (4.9%)	14 (2.7%)	17 (6.2%)	17 (2.9%)	05 (1.6%)	14 (2.3%)	06 (2.0%)	13 (1.9%)	17 (4.3%)
15-59	321 (57.1%)	189 (62.2%)	281 (53.3%)	151 (55.3%)	306 (51.7%)	169 (53.8%)	347 (56.6%)	191 (65.0%)	415 (59.9%)	224 (57.0%)
60+	204 (36.3%)	87 (28.6%)	219 (41.6%)	91 (33.3%)	254 (42.9%)	126 (40.1%)	228 (37.2%)	87 (29.6%)	251 (36.2%)	134 (34.1%)
Total	**562**	**304**	**527**	**273**	**592**	**314**	**613**	**294**	**693**	**393**

4.3.4 Maternal Causes

Table 4.8 presents the distribution of specific causes of maternal deaths from 2019 to 2023. Maternal hemorrhage was among the leading causes of maternal deaths across the five-

year period, followed by hypertensive disorders of pregnancy. All other specific conditions were grouped into other maternal conditions.

Table 4.8: Specific Maternal Causes of Death from 2019 to 2023

Maternal Causes	Year				
	2019	**2020**	**2021**	**2022**	**2023**
Maternal hemorrhage	732 (44.2%)	755 (45.6%)	769 (46.4%)	736 (44.4%)	683 (41.2%)
Maternal sepsis	102 (6.2%)	94 (5.7%)	90 (5.4%)	146 (8.8%)	128 (7.7%)
Hypertensive disorders of pregnancy	259 (15.6%)	236 (14.2%)	224 (13.5%)	268 (16.2%)	227 (13.7%)
Abortion	50 (3.0%)	35 (2.1%)	23 (1.4%)	10 (0.6%)	21 (1.3%)
Other maternal conditions	514 (31.0%)	520 (31.4%)	482 (29.1%)	381 (23.0%)	439 (26.5%)
Total	**1657**	**1640**	**1588**	**1541**	**1498**

CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

A total of 235,296 deaths were medically certified and captured through the DHIS2 system and EMR systems from 2019 to 2023 in Mainland Tanzania. The proportion of certified deaths with defined causes remained constant at around 82% between 2019 and 2023. Further completeness and quality of CoD information from health facilities can be improved by providing refresher training to physicians, strengthening electronic data collection systems, and providing supportive supervision.

This report has highlighted the high burden of mortality associated with lower respiratory diseases in health facilities of Mainland Tanzania despite the various interventions undertaken by the health sector that include the use of Standard Treatment Guidelines and the National Essential Medicines List. Since lower respiratory diseases are avoidable, public health measures are needed to increase awareness, and education and strong health services delivery capacity are urgently needed.

Birth asphyxia and birth trauma, prematurity and low birth weight, lower respiratory infection, malaria, malnutrition and diarrheal diseases remain the leading causes of death in health facilities among children under 5. To address these challenges, the government must strengthen the availability and quality of health care services during the antenatal period, labor and delivery, and during children's first month of life. Additionally, in Tanzania, the management of childhood diseases is guided by the WHO program on Integrated Management of Childhood Illness (IMCI) aimed at preventing these childhood illnesses. Other interventions include malaria case management such as the provision of Intermittent Presumptive Therapy (IPT) for malaria control in pregnancy, mass distribution of Insecticide Treated Nets (ITNs) for malaria prevention for all, especially children and mothers, and strengthening coverage of vaccinations through the Immunization and Vaccine Development (IVD) Program. It is therefore necessary to improve and scale up these intervention packages, which will continue to further reduce morbidity and mortality in children under 5.

Maternal mortality remains a critical public health challenge in Tanzania's Mainland. This report shows that maternal mortality ranks number 6 out of the 10 leading causes of death in the broad category of communicable causes of death. Maternal hemorrhage, hypertensive disorders of pregnancy, obstructed labor, abortion and maternal sepsis are common causes of maternal death in health facilities in Tanzania. To avert this problem, the government should continue efforts that help ensure the availability, accessibility and quality of key maternal health interventions such as modern contraceptives, Antenatal Care services four or more times (ANC4+), skilled birth attendants (SBA) in health facilities, and

Basic Emergency Obstetric Care (BEmOC) and Comprehensive Emergency Obstetric Care (CEmOC). The use of Maternal Death Surveillance and Response (MDSR) must be strengthened to ensure that local data is available in a timely fashion to steer efforts to prevent maternal mortality in the country. Additionally, further analysis of data is important to identify where maternal deaths occur. This will give insight into what interventions are needed.

The proportion of deaths due to HIV was pronounced among adults between ages 15 and 49, as well as among those aged 60 and above. A smaller proportion of deaths were observed among children. Additionally, more women than men died of HIV. This highlights the importance of strengthening national HIV control programs. The government should continue focusing on the implementation of the global 90-90-90 treatment target as a way of eliminating HIV and AIDS by 2030.

Tanzania has experienced huge success in the fight against malaria. However, malaria continues to be a major public health concern in Tanzania Mainland as it mostly affects children under 5, the school-age population, and elders. These findings challenge Tanzania's goal of eliminating malaria by 2030. It is therefore suggested that the government should continue to use innovative, cost-effective and practical solutions to influence both access and use of programmatic efforts for malaria elimination such distribution of ITNs through a Mass Replacement Campaign (MRC), School Net program (SNP), and Reproductive Child Health Services (RCHs); indoor residual spraying, larvicide and the distribution of malaria diagnostic materials and provision of antimalarial drugs at health facilities.

Noncommunicable diseases are an emerging global health concern, and similarly, they are also a concern in Tanzania. This report shows that death due to NCDs ranks second among the broad categories of causes of death, and the elderly (60 years plus) in both sexes are the ones most affected. It also found that the most common NCDs are cardiovascular diseases, cancer, digestive diseases, diabetes and chronic respiratory diseases. This list is similar to what is reported by WHO. The increase in the prevalence of NCDs is attributed to demographic change with longer life spans and lifestyle factors that underlie NCD risk, such as dietary patterns, physical activity, and alcohol and tobacco consumption. Therefore, NCDs need to be addressed before they reach unaffordable epidemic proportions. Tanzania should continue to promote activities focusing on increasing awareness of NCDs and associated risk factors, ensuring the delivery of quality NCD services that includes incorporating NCD screening into routine PHC, targeting high-risk groups with tailored mass-media and Social Behavioral Change Communication (SBCC) intervention to encourage service utilization and healthy lifestyles.

Mortality due to injuries increased from 2.88% of all-cause mortality in 2019 to 4.63% in 2023, and thus poses a growing public health problem in Tanzania. Road traffic crashes, self-inflicted injuries and homicide are observed to be the leading causes of death in this category. To avert the burden of injury mortality, the country has to strengthen efforts to raise community awareness on safe road use and improve post-injury and trauma care by training health care workers on the management of acute injuries, promotion of laws and legislation that ensure road safety (such as use of safety belts, child restraints, speed limits, motorcycle helmets, drinking and driving laws, etc.), and building and maintaining safe roads.

The high proportion of undetermined and ill-defined causes of death call for refresher trainings on the assignment of causes of death, as well as close supportive supervisions to ensure regular data quality. This will enhance the improvement of quality of mortality data, leading to more accurate results that can be used to inform a wider range of health policy decisions and monitor the impacts of investments in injury prevention and management.

Annex 1: The Medical Certification of Cause of Death Form

FOMU YA KUTOLEA TAARIFA NA SABABU YA KIFO

Jina la kituo.....Halmashauri.....Mwezi.....Mwaka .....

Taarifa za msingi za marehemu																
Tarehe ya kifo	D	D	M	M	Y	Y	Y	Y	Namba ya usajili wa kituo							
Jina la marehemu	Jina la kwanza								Jina la kati					Jina la Mwisho		
Jinsi	☐Ke		☐Me		☐Haijulikani				Alipokuwa anaishi							
Tarehe ya kuzaliwa	D	D	M	M	Y	Y	Y	Y	Umri/ makadirio ya umri	Mwaka		Mwezi		Siku	saa	
Mahali kifo kilipotokea																

***Sehemu A:* Taarifa za kitabibu:** Sehemu ya 1 na 2				
1: Andika sababu ya kifo "immediate cause of death" kwenye safu "a"		Sababu ya kifo	ICD 10 code	Ameugua muda gani? (masaa, dakika, siku n.k)
· Andika sababu zingine za msingi zilizochangia kifo kwenye safu "b" na "c" (KAMA ZIPO)	a			
· Andika "underlying cause of death" kwenye mstariwa mwishouliotumika	b	Imesababishwa na:		
	c	Imesababishwa na:		
	d	Imesababishwa na:		
2: Andika sababu nyingine za msingi zilizochangia kifo kwenye safu		----------		

***Sehemu B:* Taarifa nyingine za kitabibu**									
Je upasuaji ulifanyika ndani ya wiki 4 zilizopita?	☐Ndio	☐Hapana	☐Haijulikani						
Kama ndio, andika tarehe ya upasuaji	D	D	M	M	Y	Y	Y	Y	
Andika sababu ya upasuaji									
Je uchunguzi ulifanyika?	☐Ndio	☐ Hapana	☐Haijulikani						
Kama ndio, majibu yalitumika kuthibitisha kifo?	☐Ndio	☐Hapana	☐Haijulikani						

Namna Kifo kilivyotokea (Manner of death)									
☐Ugonjwa ☐Shambulio				☐ Haijatambulika					
☐Ajali	☐Hatua za kisheria			☐Uchunguzi unaendelea					
☐Kujinyonga mwenyewe kwa makusudi ☐Vita				☐Haijulikani					
Kama kisababishi cha kifo sio ugonjwa (external cause) au sumu :	Andika tarehe ya tukio	D	D	M	M	Y	Y	Y	Y
Eleza namna tukio lilivyotokea (kama ni sumu taja aina ya sumu, kama ajali taja aina ya ajali)									

Mahali tukio lilipotokea:		
☐Nyumbani ☐Makazi ya Taasisi	☐ Shuleni au sehemu nyingine ya jumuia	☐Sehemu za michezo
☐Mtaani ☐Sehemu ya biashara au kazini	☐ Kiwandani au sehemu ya ujenzi	☐Shambani
☐Sehemu nyingine (taja):		☐ Haijulikani

Kifo cha mtoto tumboni au mtoto mchanga						
Mimba ya watoto pacha	☐Ndio	☐Hapana	☐Haijulikani			
Mtoto amezaliwa mfu? Macereted Still Birth	☐Ndio	☐Hapana	☐Haijulikani			
Mtoto amezaliwa mfu? Fresh Sitill Birth	☐Ndio	☐Hapana	☐Haijulikani			
Je kifo kimetokea ndani ya masaa 24 tangu kuzaliwa? (Andika masaa alioishi mtoto)			Uzito wa mtoto wakati wa kuzaliwa (kg/gm)			
Umri wa mimba kwa wiki			Umri wamama			
Kama kifo ni cha mtoto mchanga, ainisha hali ya mama iliopelekea kifo hicho.						
Kwa wanawake wenye umri wa uzazi Je marehemu alikuwa mjamzito? ☐Ndio	☐Hapana	☐Haijulikani				
Kama ndio je tukio la kifo lilitokea wakati gani?						
☐ Akiwa mjamzito ☐Wakati wa kujifungua	☐ Ndani ya siku 42 baada ya kujifungu					
Kati ya siku 43 mpaka mwaka mmoja	☐ Ndio	☐Hapana	☐Haijulikani			
Je ujauzito ulichangia kifo?	☐ Ndio	☐Hapana	☐Haijulikani			
Je kifo kimekaguliwa?	☐ Ndio	☐Hapana	☐Haijulikani			

UTHIBITISHO	Kwa kadiri ninavyofahamu taarifa iliyotolewa hapo juu ni sahihi Jina.....Tarehe..... Sahihi ..... Cheo .....