

Kenya Vital Statistics Report 2022

SECOND EDITION

CIVIL REGISTRATION SERVICES

Kenya Vital Statistics Report 2022

Civil Registration Services

The Kenya Vital Statistics Report 2022 is produced by the Civil Registration Services (CRS), Kenya.

Additional information about the Report can be obtained from the Civil Registration Services. Ministry of Interior and National Administration, P.O Box 49179-00100, Nairobi Kenya, Telephone: +254202691109
Email: secretary@crs.go.ke.

Recommended citation:

Civil Registration Services (CRS) 2023. Kenya Vital Statistics Report 2022 Civil Registration Services, Statistics Division. Government of Kenya. Nairobi, Kenya.



Foreword

The Government of Kenya recognizes that, a well-functioning Civil Registration and Vital Statistics (CRVS) system plays a central role in attaining good governance, economic and social development of a Nation as envisioned in the Kenya vision 2030. A complete CRVS should provide Vital Statistics for births and deaths for evidence-based decision making and also key indicators of fertility and mortality. CRVS is published on an annual basis through the leadership of Civil Registration Service (CRS). The report monitors the status of the CRVS system in the country through collating, analyzing and publishing and disseminating data on all births and deaths registered in the Country.

This report provides the status in registration of births and deaths in Kenya at both National and County levels for the year 2022. The registration completeness demonstrates the trends and patterns of registration in the country. It also provides recommendations, opportunities and challenges to inform the next cycle of the CRVS report development in line with the set targets in the CRS strategic plan 2018-2023 and the annual Work plan.

The report contributes to the aim of Vision 2030 of transforming Kenya into "a newly industrialized, middle-income country providing a high quality of life to all its citizens in a clean and secure environment". Kenya has also committed to achieve various targets set out in regional and global frameworks on sustainable development. These include, East African Community Vision 2050, African Union Agenda 2063, ICPD25 Kenya Country Commitments, Addis Ababa Declaration on Population and Development (AADPD) and 2030 Agenda for Sustainable Development. The information provided in this report will be used in tracking and reporting the progress made by the country in achieving these targets.

Consequently, the Government in collaboration with partners is implementing strategies aimed at improving both coverage and quality of Vital Statistics as outlined in the Civil Registration Department Strategic Plan 2018-2023.

AMB. PROF. JULIUS K. BITOK, MBS
PRINCIPAL SECRETARY
STATE DEPARTMENT FOR IMMIGRATION AND CITIZEN SERVICE

Collaborators

REPUBLIC OF KENYA

KNBS
KENYA NATIONAL BUREAU OF STATISTICS
Keeping you informed

KENYA MEDICAL RESEARCH INSTITUTE
KEMRI
In Search of Better Health

University of Nairobi –
Population Studies and
Research Institute

NATIONAL COUNCIL FOR POPULATION AND DEVELOPMENT
NCPD

UNFPA

UN WOMEN

Vital Strategies

ILO International Labour Organization



Acknowledgement

The Kenya Vital Statistics Report (KVSR), 2022 was developed by Civil Registration Service (CRS) in partnership with various Government Agencies and key development partners.

First, we acknowledge the financial support from the Government of Kenya through the Ministry of Interior and National Administration, the Cabinet Secretary (CS) and the Principal Secretary (PS) for the support given to the Civil Registration Services

Second, we acknowledge the leadership, Commitment and overall stewardship of the Principal Secretary State Department for Immigration and Citizen Service Amb.Prof.Julius, K.Bitok, MBS for providing policy guidance to the department.

Third, we also acknowledge the United Nations Population Fund (UNFPA) for their technical and financial support for the production of this report and their continued efforts towards improvement of vital statistics and uptake of Civil Registration products and services. We are also indebted to the commitment and technical support provided by various stakeholders including; the Kenya National Bureau of Statistics (KNBS), the Population Studies and Research Institute (PSRI), the Kenya Medical Research Institute (KEMRI), International Labour Organization (ILO), UN Women, World Food Program (WFP), National Council for Population development (NCPD) and Vital strategies.

Finally, a word of appreciation to the CRS staff across the country who provided quality and timely vital statistics data. I cannot forget the contribution of statistics division who worked tirelessly in the finalization of this report.

PAUL D. MWANGEMI
THE SECRETARY – CIVIL REGISTRATION SERVICES

Acronyms and Abbreviations

ABN	Acknowledgement of Birth Notification
AG	Attorney General
ASFR	Age Specific Fertility Rate
ASMR	Age Specific Mortality Rate
CD	Communicable Diseases
CDC	Center for Disease Control and Prevention
CoD	Cause of Death
CRDP	Civil Registration Demonstration Project
CRO	Civil Registration Office
CRS	Civil Registration Services
CRVS	Civil Registration and Vital Statistics
CRVSS	Civil Registration and Vital Statistics System
HIS	Health Information system
ICD	International Classification of Diseases
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
KNEC	Kenya National Examination Council
KPHC	Kenya Population and Housing Census
KVSR	Kenya Vital Statistics Report
MCH	Maternal and Child Health
MDAs	Ministry, Departments and State Agencies
MoH	Ministry of Health
MCCD	Medical Certification of Cause of Death
NCD	Non-Communicable Disease
NEMIS	National Education Management Information System
NGAO	National Government Administrative Officers

NGO	Non-Governmental Organization
NHIF	National Hospital Insurance fund
NIIMS	National Integrated Identity Management System
PSRI	Population Studies and Research Institute
RA	Registration Agent
SDG	Sustainable Development Goal
TB	Tuberculosis
TWG	Technical Working Group
UHC	Universal Health Coverage
UN	United Nations
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNECA	United Nations Economic Commission for Africa
VA	Verbal Autopsy
VS	Vital Strategies
WB	World Bank
WHO	World Health Organization

Definition of Terms and Concepts

Age-specific fertility rate (ASFR): The annual number of births to women of a particular age group per 1,000 women in that age group.

Age-specific mortality rate (ASMR): A mortality rate limited to a particular age group. The numerator is the number of deaths in that age group; the denominator is the number of persons in that age group in the population.

Burial Permit: Official document, usually issued only for a legally registered death, authorizing the removal of the dead body to the cemetery or other final disposal.

Causes of Death: All diseases, morbid conditions, or injuries that either resulted in or contributed to death and the circumstances of the accident or violence that produced any such injuries. Symptoms or modes of dying, such as heart failure or asthenia, are not considered to be causes of death for vital statistics purposes.

Certifier (of Cause of Death): Person authorized by law to issue a certificate, in a prescribed format, stating the underlying and contributory causes of death and other facts related to the event for submission to the local registrar or other appropriate authority. The certifier is usually the clinician who attended the deceased in his or her last illness; in the case of deaths of persons who were not attended during the last illness, then by a clinician; or in the case of deaths due to violence or injury, then the medical-legal officer (e.g., physician or medical examiner).

Civil Registrar: Official authorized by law to register the occurrence and charged with the responsibility for civil registration of vital events in a well-defined area and for recording and reporting information on those vital events for legal and statistical purposes.

Civil Registration System: The institutional, legal, and technical settings established by the government to conduct civil registration in a technical, sound, coordinated and standardized manner throughout the country, taking into account cultural and social circumstances particular to the country.

Civil Registration: This is the act of recording and documenting vital events in a person's life (birth, marriage, divorce, adoption and death and causes of death).

Complete Civil Registration: When every vital event that has occurred to the members

of the population of a particular country (or area), within a specified period, has been registered in the civil registration system, i.e., has a vital registration record. Thus, the system has attained 100-percent coverage. Any deviation from complete coverage is measured by "coverage error."

Completeness: Complete registration exists when every vital event that has occurred in the population of a has been registered in the civil registration system.

Crude birth rate (CBR): The number of live births relative to the size of that population during a given period, usually one year. It is expressed as the number of live births per 1,000 population per year.

Crude death rate (CDR): The number of deaths relative to the size of that population during a given period, usually one year. It is expressed as the number of deaths per 1,000 population per year.

Date Occurrence: The exact date when the event occurred; it should be expressed in terms of day, month, and year, as well as hour and minute, if appropriate (for live births, foetal deaths, and deaths).

Date of Registration: The day, month and year when an entry of registration of a vital event is made in the civil register.

Death: Death is the permanent disappearance of all evidence of life at any time after live birth has taken place (postnatal cessation of vital functions without capability of resuscitation). This definition excludes foetal deaths.

Delayed Registration: The registration of a vital event after the prescribed period denoted in existing laws, rules or regulations (including any grace period, if one is specified). A late registration is the registration of a vital event after the prescribed time period but within a specified grace period. Because the grace period is usually considered to be 1 year after the vital event, delayed registration is usually considered the registration of a vital event 1 year or more after the vital event has occurred. In Kenya, the grace period is from the third to sixth month following the event.

Foetal death (also referred to as 'stillbirth'): 'Death prior to the complete expulsion or extraction from the mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles.[1] Note that this definition broadly includes all terminations of pregnancy other than live births, as defined above.

Infant Mortality Rate: A vital statistics summary rate based on the number of infant deaths occurring during the same period of time, usually a calendar year, i.e., the number of deaths under 1 year of age occurring in a given geographical area during a given year, per 1,000 live births occurring among the population of the given geographical area during the same year.

Informant: The individual or institution whose responsibility, designated by law, is to report to the local registrar the fact of the occurrence of a vital event and to provide all the information and characteristics related to the event. On the basis of such a report, the event may be legally registered by the local registrar. The importance of the informant lies in the fact that the registrar can legally record a vital event only on the basis of a legally designated informant's declaration, either verbally or in writing. The informant must be able not only to supply the accurate information necessary for registration, i.e., for legal purposes, but also the particulars required for statistical purposes[2] .

Late Registration: A late registration is the registration of a birth or death after the legally specified time period but within a specified grace period. The grace period is usually considered to be six months after the vital event.

Live Birth: A live birth is the result of the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which after such separation breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered to be live born.

Neonatal mortality rate (NMR): Probability (expressed as a rate per 1,000 live births) of a child born in a specific year or period dying in the first 30 days of life, if subject to age-specific mortality rates of that period.

---

[1] United Nations (2014). Principles and recommendations for a vital statistics system. Revision 3. Department of Economic and Social Affairs, Statistics Division Statistical Papers, Series M No. 19/Rev.3, New York.

[2]UN 2001, para. 374

Population Pyramid: This is the distribution of a population by age groups and sex.

Quality assurance: This refers to strategies and procedures for ensuring the quality of vital statistics.

Sex Ratio: This is the ratio of males to females in a population. They describe the balance or imbalance between males and females in a population. Imbalances in sex ratio may be due to data quality issues, where more males may be reported than females and also due to migration.

Timeliness in Register-Based Vital Statistics: For every vital event registered within the interval specified by legislation, a statistical report form has been forwarded to the agency responsible for the compilation of vital statistics within the established time schedule of the vital statistics program, and the production, publication, and dissemination of the vital statistics is prompt enough to serve the users' needs.

Timeliness in Registration: This element of a vital event report is determined by the difference between the date of the event and the date of its registration when compared to the interval specified by legislation.

Total fertility rate (TFR): The sum of age-specific fertility rates for females aged between 15 and 49 years during a specified period, usually one year. It is an estimate of the average number of children a cohort of women would bear if they went through their childbearing years experiencing the same age-specific fertility rates.

Under-5 mortality rate (U5MR): The probability of a child born in a specific year or period dying before reaching the age of 5, if subject to age-specific mortality rates of that period. The under-5 mortality rate as defined here is strictly speaking not a rate (i.e., the number of deaths divided by the number of populations at risk during a certain period of time) but a probability of death derived from a life table and expressed as rate per 1,000 live births.

Underlying Cause of Death: The cause of death to be used for primary statistical tabulation purposes has been designated as the underlying cause of death. The underlying cause of death is defined as '(a) the disease or injury which initiated the train of events leading directly to death, or (b) the circumstances of the accident or violence which produced the fatal injury.'[3]

[3] United Nations (2014). Principles and recommendations for a vital statistics system. Revision 3. Department of Economic and Social Affairs, Statistics Division Statistical Papers, Series M No. 19/Rev.3, New York.

Verbal Autopsy: VA is a process for diagnosing causes of death based on responses collected from families and/or caregivers to a series of structured questions on the signs and symptoms experienced by the deceased, and their duration. These responses are usually reviewed by a physician to determine the probable cause of death.

Vital Event Record: A legal document entered in the civil register which attests to the occurrence and characteristics of a vital event.

Vital Event: The occurrence of a live birth, death, foetal death, marriage, divorce, adoption, legitimation, recognition of parenthood, annulment of marriage, or legal separation.

Vital Statistical Record: A document or record containing those items of information concerning an individual vital event that meet the needs for vital statistics compilation.

Vital Statistics System: In the context of defining a system as a set of interacting or independence components forming an integrating whole and for the purposes of these principles and recommendations, the vital statistics system's components are (a) legal registration, (b) statistical reporting of, and (c) collection, compilation, and dissemination of statistics pertaining to vital events. The vital events of interest are live births, adoptions, legitimations, recognitions; deaths and foetal deaths; and marriages, divorces, separations, and annulments of marriage.





Table of Contents

Foreword	iii
Collaborators	iv
Acknowledgement	v
Contributors	vi
Acronyms and Abbreviations	vii
Definition of terms and concepts	ix
Table of contents	xiv
List of Tables	xvii
List of Figures	xviii
List of Maps	xix
Executive Summary	xxi

CHAPTER 1. INTRODUCTION **1**
1.1 Background 1
1.2 Objectives and Scope of the report 1
1.2.1 Main Objective 1
1.2.2 Specific objectives 1
1.2.3 Scope of the report 1
1.3 Country profile 2
1.3.1 Geography 2
1.3.2 Country Demographic Profile 3
1.4 Data Sources and Methodology 4
1.4.1 Introduction 4
1.4.2 Data Sources 4
1.4.3 Methodology 7
1.4.4 Causes of Death 7
1.5 Limitations of the report 7
1.6 Organization of the report 7

CHAPTER 2. THE CIVIL REGISTRATION SYSTEM IN KENYA **8**
2.1 Introduction 8
2.2 History of Civil Registration 8
2.3 Legal and administrative issues 10
2.4 Organizational structure, registration processes and information flows 11
2.4.1 Organizational structure of Civil Registration 11
2.4.2 Registration processes and information flows 11
2.4.3 Late registration 13
2.4.4 Issuance of certificates 13
2.4.5 Transmission of data 13
2.5 Vital statistics production and dissemination 13
2.6 Opportunities and Challenges of CRVS 13
2.6.1 Opportunities 13
2.6.2 Challenges 13

CHAPTER 3. DATA QUALITY, TIMELINESS AND REGISTRATION COMPLETENESS **14**
3.1 Introduction 14
3.2 Data Quality 14
3.2.1 Data quality control 15
3.2.2 Data Quality Assurance 15
3.3 Timeliness and availability 16

3.4 Completeness of registration 16
3.5 Correctness or accuracy 17
3.6 Data adjustment and redistribution 17

CHAPTER 4. BIRTHS REGISTRATION 18
4.1 Introduction 18
4.2 Birth registration completeness 19
4.3 Sex ratio 28
4.4 Live births by background characteristics 29
4.4.1 Live births by sex of child 29
4.4.2 Live births by place of occurrence 29
4.4.3. Live births by age of mother 30
4.4.4 Live births by marital status 30
4.4.5 Live Birth Registration completeness by Education level 31
4.5 Fertility measures 32
4.6 Foreign registration of births 33

CHAPTER 5. DEATHS 34
5.1 Introduction 34
5.2 Death registration completeness 36
5.3 Sex ratios for registered deaths 40
5.4 Deaths by background characteristics 41
5.4.1 Deaths by place of occurrence 41
5.4.2 Deaths by age and sex 43
5.4.3 Deaths by marital status 45
5.4.4 Neonatal deaths 48
5.4.5 Adult deaths 50
5.5 Crude death rate 52
5.6 Foreign registration of Deaths 52
5.7 Foreign registration of Death by age and Sex 53

CHAPTER 6. CAUSES OF DEATH 54
6.1 Introduction 54
6.2 Registered deaths by cause, age and sex, 2019-2022 56
6.3 Medically certified causes of death 57
6.3.1 Top 10 causes of death in 2022 57
6.3.2 Leading cause of deaths for Neonates. 57
6.3.3 Leading causes of deaths for under 1 year 58

6.3.4 Ten leading causes of death under 5 years 59
6.3.5 Ten leading causes of death for age 5-14 years 61
6.3.6 Ten leading causes of death for age 15-49 years 61
6.3.7 Ten leading causes of death among 50-59 years 62
6.3.8 Ten leading causes of death among 60+ years 63
6.4 Causes of Death according to Global Burden of Disease groups 64
6.5 Programmatic and emerging diseases by age and sex 65
6.6 Foreign causes of death 68
6.7 Community causes of death 69
6.7.1 Top ten (home) community causes of death 69
6.7.2 Leading cause of deaths for Neonates. 69
6.7.3 Leading causes of deaths for under 1 year 70
6.7.4 Ten leading causes of death under 5 years 72
6.7.5 Ten leading causes of death for age 5-14 years 72
6.7.6 Ten leading causes of death for age 15-49 years 73
6.7.7 Ten leading causes of death among 60+ years 73

CHAPTER 7. CONCLUSION AND RECOMMENDATIONS 74
7.1 Introduction 74
7.2 Conclusion 74
7.2.1 Birth registration 74
7.2.2 Death registration 75
7.2.3 Causes of death 76
7.3 Recommendations 77
References 78
Appendices 80
A. Birth and Death Registration Forms 80
B. Registered Births by National and County, 2018–2022 85
C. Registered Deaths by national and county, 2018–2022 98

LIST OF TABLES

Table 1. 1 Number of expected births by age in Kenya, 2022 5
Table 1. 2 Number of expected deaths by age in Kenya, 2022 6
Table 4. 1 Summary Statistics in Kenya from 2018 to 2022. 19
Table 4. 2 Expected, registered and completeness of birth registration, 2018-2022 23
Table 4. 3 Sex ratio distribution by County, 2022 28
Table 4. 4 Fertility measures, 2022 33
Table 4. 5 Top ten Leading countries in foreign birth registration. 33

Table 5.1 Summary statistics on mortality by year of occurrence 36
Table 5. 2 Expected, registered and completeness of death registration, 2018-2022 37
Table 5. 3 Sex ratio by county, 2022 40
Table 5. 4 Cross tabulation of the Marital status and age of the registered deaths 47
Table 5. 5 Registered neonatal deaths by county, 2022 49
Table 5. 6 Top leading countries in foreign death registration by sex, 2022 53
Table 5. 7 Foreign death registration by age and sex, 2022 53
Table 6. 1 Leading causes of death, 2019-2022 56
Table 6. 2 Ten leading causes of death of all age groups 57
Table 6. 3 Ten leading causes of deaths of neonates 58
Table 6. 4 Ten leading causes of death under 1 year 59
Table 6. 5 Ten leading causes of death for under 5 years in the health facilities, 2022 60
Table 6. 6 Ten leading causes of death for age 5-14 years 61
Table 6. 7 Ten leading causes of death for age 15-49 years 62
Table 6. 8 Ten leading causes of death in 50-59 years 63
Table 6. 9 Ten leading causes of death 60+ years 64
Table 6. 10 Ten leading causes of death by disease category 65
Table 6. 11 Foreign Causes of foreign death in 2022 68
Table 6. 12 Ten leading causes of death at the community, 2022 69
Table 6. 13 Ten leading causes of death for neonates 70
Table 6. 14 Ten leading causes of death for under 1 year 70
Table 6. 15 Ten leading causes of death for under 5 years 72
Table 6. 16 Ten leading causes of death for 5-14 years 72
Table 6. 17 Ten leading causes of death for 15-49 years 73
Table 6. 18 Ten leading causes of death for 60+ years 73

LIST OF FIGURES

Figure 1. 1 Population Pyramid for Kenya 2022 3
Figure 2. 1 Organizational structure for Civil Registration Services 11
Figure 2. 2 Registration processes and information flows 12
Figure 4. 1 Counties with over 90 percent birth completeness 20
Figure 4. 2 Six counties with lowest birth registration completeness 21
Figure 4. 3 Trends in expected births, registered births and birth registration completeness in the year 2018-2022 27
Figure 4. 4 Birth registration completeness in Counties, 2022 27
Figure 4. 5 Live birth registration completeness by sex of child, 2018-2022 29
Figure 4. 6 Percentage of birth registration by age of the mother, 2018-2022 30
Figure 4. 7 Live births by marital status of the mother, 2022 31

Figure 4. 8 Registered live births by education level of mother, 2022 31
Figure 5. 1 Trend in expected, registered and completeness of death, 2018-2022 38
Figure 5. 2 Comparison of death registration completeness, 2021 and 2022 39
Figure 5. 3 Trends in registered deaths by place of occurrence; 2018-2022 41
Figure 5. 4 Highest five counties Registered deaths at health facility, 2022 42
Figure 5. 5 Registered deaths by county at the community, highest 5, 2022 43
Figure 5. 6 Summary of death registration by sex and year of occurrence 44
Figure 5. 7 Age-Sex structure of registered deaths, 2022 44
Figure 5. 8 Deaths by marital status, 2022 45
Figure 5. 9 Deaths by Marital Status and County, 2022 46
Figure 5. 10 Deaths by marital status and sex of the deceased, 2022 46
Figure 5. 11 Deaths by marital status and age, 2022 47
Figure 5. 12 Neonatal deaths by sex, 2021-2022 48
Figure 5. 13 Neonatal Deaths by place of occurrence, 2021-2022 48
Figure 5. 14 Adult Deaths by Place of Occurrence, 2021-2022 50
Figure 5. 15 Adult deaths by Sex, 2021-2022 52
Figure 6. 1 Ten leading causes of death for under 5 years in health facilities, 2022 60
Figure 6. 2 Causes of death according to global burden of diseases groups 64
Figure 6. 3 Programmatic diseases, 2022 66
Figure 6. 4 Programmatic diseases by age 67

LIST OF MAPS

Map 1. 1 Map of Kenya by administrative units 2
Map 1. 2 Birth completeness in Kenya, 2022 22
Map 1. 3 Death completeness in 2022 39
Map 1. 4 Adult deaths in Kenya, 2022 51



Executive Summary

The Kenya Vital Statistics Report presents information on births and deaths registration and causes of death in 2022. It highlights information on birth and death registration completeness, live birth distribution by various background characteristics and causes of death. The information presented in this report is useful for planning and evidence-based decision making at all level of governments.

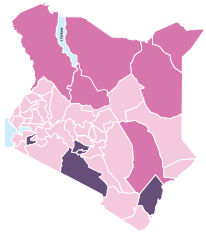
Birth registration completeness

Birth registration completeness increased from 73.4 percent in 2018 to 83.1 percent in 2021 before declining to 80.6 percent in 2022 in the Country. A total of 17 counties achieved birth registration completeness of at least 90 percent. Mandera (13.4%), Wajir (17.7%), Turkana (35%), Marsabit (38.4%), Samburu (39.4%), and Tana River (44%) counties reported the lowest live birth registration completeness. Counties with the highest increase of registered births were: Kiambu (8,553), Kilifi (7,224), Kajiado (4,970), Nairobi (3912) and Kisii (3,335).



80.6%

Birth registration completeness increased from 73.4 percent in 2018 to 83.1 percent in 2021 before declining to 80.6 percent in 2022 in the Country



71

A total of 17 counties achieved birth registration completeness of at least 90 percent.



Sex Ratio

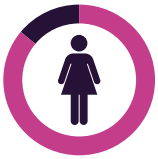
Nationally, sex ratio is 103.1 and 21 Counties had sex ratios within the normal range. Six counties (Lamu - 108.4, Tana River - 109.5, Garissa - 109.1, Mandera - 116.8, Marsabit - 119.8 and Baringo - 108.6) reported higher sex ratios than the normal while 4 counties (Kilifi - 97.5, Kajiado - 99.5, Kericho - 98.5 and Nyamira - 98.6) reported slightly lower sex ratios.

Live Births by place of occurrence

Proportion of births occurring in health facilities increased from 94.7 percent in 2018 to 99.0 percent in 2022 while community births declined from 5.3 percent in 2018 to 1.0 percent in 2022. All counties had over 90% of their live births occurring in health facilities. Four counties (Uasin Gishu, Baringo, Kericho, and Bomet) reported all their births registered in health facilities.

Live Births by Age of Mother

Majority of live births occurred among women aged 20-24 followed by women aged 25-29. The proportion of live births for mothers of age 15-19 was highest in 2021 and slightly declined in 2022. Generally, there was a steady decline in live births between ages 30-44.



85.6%

Majority of live births were registered among married women (85.6 %) compared to single women (13.9%).

Live Births by Marital Status

Majority of live births were registered among married women (85.6 %) compared to single women (13.9%). The proportion of live births registered for divorced and widowed mothers was 0.2 percent.

Live Births by Level of Education

Mothers with secondary education level had the highest proportion of live birth registration at 29.4 percent followed by mothers with secondary education level (28.5%). For mothers with primary education level, live birth registration was 28.5 percent while birth registration completeness was 23.5 percent for mothers with primary level of education. Five counties with the highest number of live birth registration for mothers with university education level were: Nakuru (16.6%), Uasin Gishu (9.3%), Kajiado (9.1%), Kericho (7.6%), Bomet (6.5%) and Narok (6.1%). The calculated CDR (unadjusted) using the registered deaths was 4.2 deaths per 1000 population in 2022.

Registered Adult Deaths

Adult deaths contributed to 80.76 percent of the total registered deaths in Kenya in 2022.Majority of registered adult deaths occurred in health facilities than in the communities at 50.2 percent and 49.8 percent respectively in 2022. Counties with the highest number of registered adult deaths were; Nairobi (17,000), Kiambu (9,567), Kakamega (8,545), Nakuru (8,034) and Meru (7,280). Counties with the lowest adult registered deaths were; Samburu (433), Lamu (444), Wajir (586), Garissa (659) and

49%

of deaths registered in 2022 occurred among those who were married.

64%

More male deaths occurred within the married 64 percent.

76%

more female deaths were among the windowed category at 76 percent.

Pneumonia was the leading cause of death in the period 2019-2022. Non communicable diseases were the leading causes of deaths.

Isiolo (703). There were more registered adult male deaths at 57.1 percent as compared to the females at 42.9 percent in 2022.

The calculated CDR (unadjusted) using the registered deaths was 4.2 deaths per 1000 population in 2022

Registered deaths by marital status

Analysis of deaths by marital status indicate that about 49 percent of deaths registered in 2022 occurred among those who were married. More male deaths occurred within the married 64 percent category while more female deaths were registered among the widowed and divorced category at 64 percent each while more female deaths were among the windowed category at 76 percent. This replicated in the counties with more deaths being registered coming from those who were married. More male deaths across all countries were also registered from those who were married while females contributed to more deaths among those who were widowed. Wajir and Mandera county registered more than 90 percent of all deaths from those who were married. Deaths of minors 10-18 years were also registered among all the category of marital status which is an indication of child marriage

Causes of Death

Pneumonia was the leading cause of death in the period 2019-2022. Non communicable diseases were the leading causes of deaths. The leading cause of death among the neonates, under one and under 5 is prematurity and birth Asphyxia for facility deaths while Pneumonia is the leading cause of death for the age category in the community. Injuries and road traffic accidents featured among the top causes of death for males above 15 years, while HIV and hypertension were more pronounced in females of the same age group.

The five leading causes of death for population age 60+ were cardiopulmonary and cardiorespiratory arrest (9.9%), Pneumonia (9.3%), cancer (5.5%), Hypertension (5.4%) and Respiratory infection (4.6%).







CHAPTER

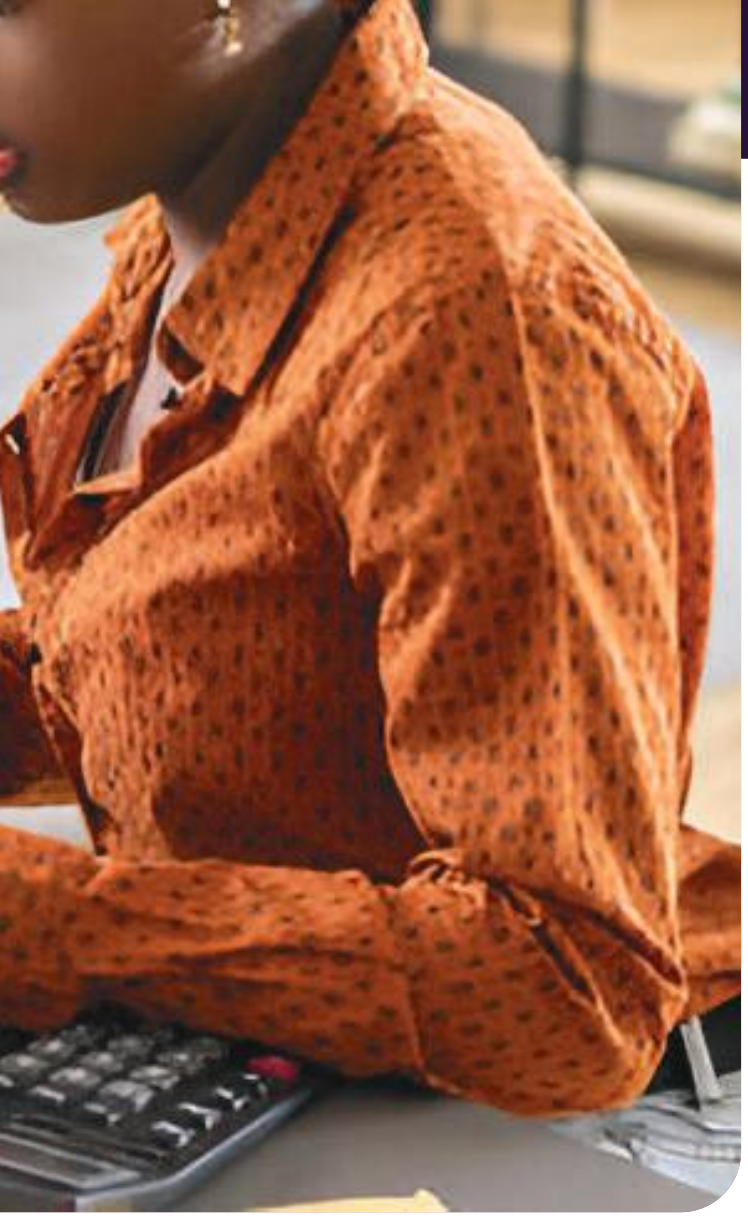
01

Introduction

1.1 Background

A well-functioning civil registration system should produce data that is consistent, comparable, complete, correct, and cost-effective on a continuous basis. Vital statistics from civil registration is cost-effective and timely than other data sources with regard to report availability and processing time. The system must abide by the UN's principles and guidelines. (UN, 2014)

Civil registration is a vital institution that has twin functions: to safeguard fundamental legal rights, such as those related to citizenship and property ownership, and to offer a rich source of statistical data on population dynamics, growth, and distribution, on topics such as births, deaths, and causes of death by age, sex, and location. Demographic data is integral in the formulation of



effective public health and social service policies.

Data from civil registration promotes efficient government planning, effective use of resources and aids in monitoring progress towards achievement of the Sustainable Development Goals (SDGs). There are 17 SDGs, with 169 targets and over 230 global indicators, which were endorsed by the Statistical Commission in March 2016. Of these, 67 global indicators covering 12 of the 17 SDGs could be estimated in full or in part using data originating from well-functioning Civil Registration and Vital Statistics (CRVS) systems (Mills et al., 2017). Target 16.9 calls for providing a legal identity for all, including birth registration, by 2030; Indicator 17.19.2 includes a provision to achieve 100% birth registration and 80% death registration by 2030, and Target 17.18 calls for enhanced support for developing countries to improve the quality, timeliness, reliability and disaggregation of their statistical data, of which CRVS is an integral component.

Vital events covered in this report are births and deaths that occurred in Kenya in the year 2022 from both the community and health facilities as captured in the CRVS system. The yearly vital statistics report is an excellent resource for understanding Kenya's process for recording births and deaths, analyzing the quality of data collected, and documenting causes of death.

The production and compilation of this report adopted the Vital Statistics Production template and workbook, revision 1, jointly developed by Vital Strategies, United Nations Economic Commission for Africa, United Nations Economic and Social Commission for Asia and the Pacific, and Statistics Norway (2020). (Vital Strategies, 2020)

1.2 Objectives and Scope of the Report

1.2.1 Main Objective

The main objective of compiling this critical statistics report is to showcase the current position of registering vital events in Kenya for informing policies and decisions concerning the system, highlighting its limitations and advantages.

1.2.2 Specific Objectives

1. To assess the trends of completeness of birth and death registration at the national and county level.
2. To assess the quality of data at the national and county level.
3. To analyze the characteristics of birth and death registration at the national and county level.
4. To establish the patterns and causes of death at the national and county level.
5. To identify gaps and challenges in birth and death registration and make recommendations.

1.2.3 Scope of the Report

This report will be limited to analyzing births and deaths by various characteristics although the UN recommends that countries register and collect information on civil registration and vital statistics on birth, death, stillbirth/ foetal death, marriage, divorce, annulment, judicial

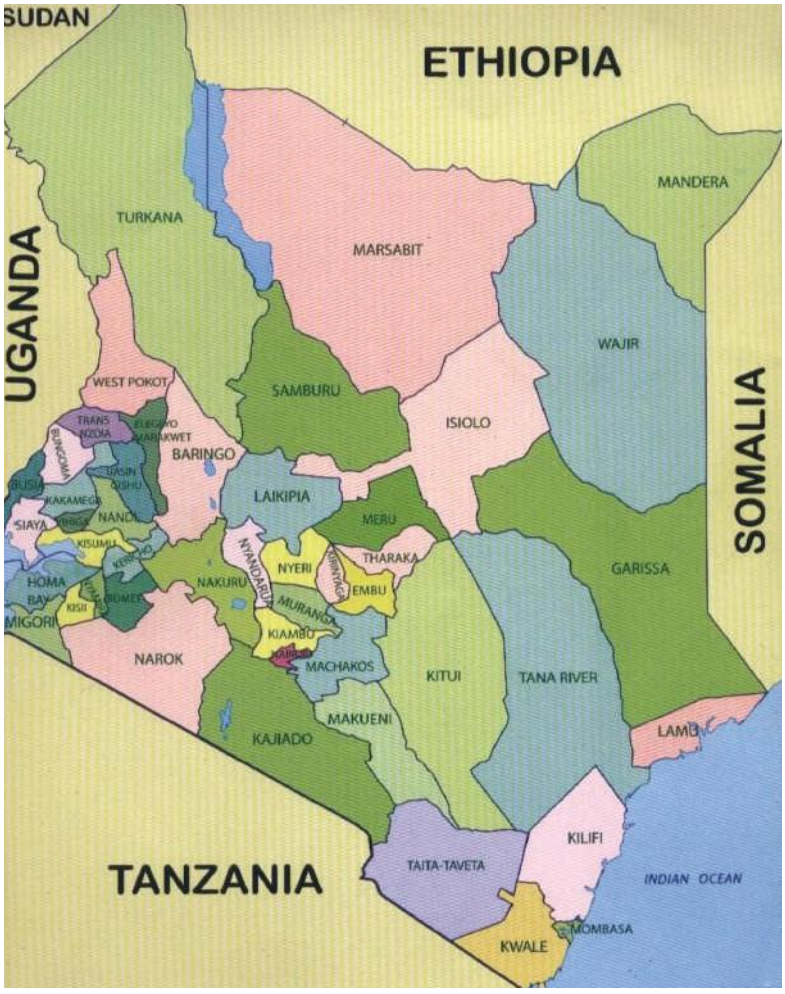
separation, adoption, legitimization and judicial declaration of paternity (UN, 2014). It should be noted that in Kenya, marriage, divorce, judicial separation, adoption, and judicial declaration of paternity are domiciled in the Office of the Attorney General (AG). The analysis of vital statistics events will similarly, not delve into lower levels (sub-county) but will be confined to national and county levels. The report will be limited to the number of events registered within the officially stipulated time period from health facilities and community which is six months from the date of occurrence.

1.3 Country Profile

1.3.1 Geography

Kenya is located in Eastern Africa and has a coastline on the Indian Ocean between Somalia and Tanzania. Kenya's terrain is composed of low plains that rise into central highlands that are, in turn, bisected by the Great Rift Valley. Much of the country in the north and east is arid and semi-arid while the west of the country is a fertile plateau. The lowest point on Kenya is 0 meters at sea level on the Indian Ocean while the highest point on Kenya is 5,197 meters above sea level at Mount Kenya. Kenya's geographic coordinates are 1°00'N and 38°00'E with a total area of 582,650.2 km2. It is bordered by South Sudan to the northwest, Uganda to the west, Somalia to the east, Tanzania to the south, and Ethiopia to the north.

Map 1. 1 Map of Kenya by administrative units



582,650.2 km²

Kenya's geographic coordinates are 1°00'N and 38°00'E with a total area of 582,650.2 km².

5,197m

The lowest point on Kenya is 0 meters at sea level on the Indian Ocean while the highest point on Kenya is 5,197 meters above sea level at Mount Kenya.

1.3.2 Country Demographic Profile

According to the 2019, Kenya Population and Housing Census (KPHC), Kenya's population was 47.6 million and projected to increase to 50.6 million by 2022 with an intercensal growth rate of 2.2 percent between 2009 and 2019. The projected population for males and females is 25.1 million and 25.5 million respectively for 2022. The Kenyan population is essentially young, with 75 percent of all Kenyans under the age of 35 according to the KPHC of 2019. Fifty seven percent of Kenya's population accounts for the country's labour force (15-64 yrs.) while 43.7% of the labour force are youth (18-35 yrs.). From the census, the dependency ratio is high where an estimated 75 persons in the dependent ages (0-14 yrs. and those above 64 yrs.) are supported by 100 persons in the working ages. The country's population is largely rural with 71 percent of the population residing in the rural areas in 2022. The population density as per the 2019 KPHC is 82 per square kilometer.

47.6m

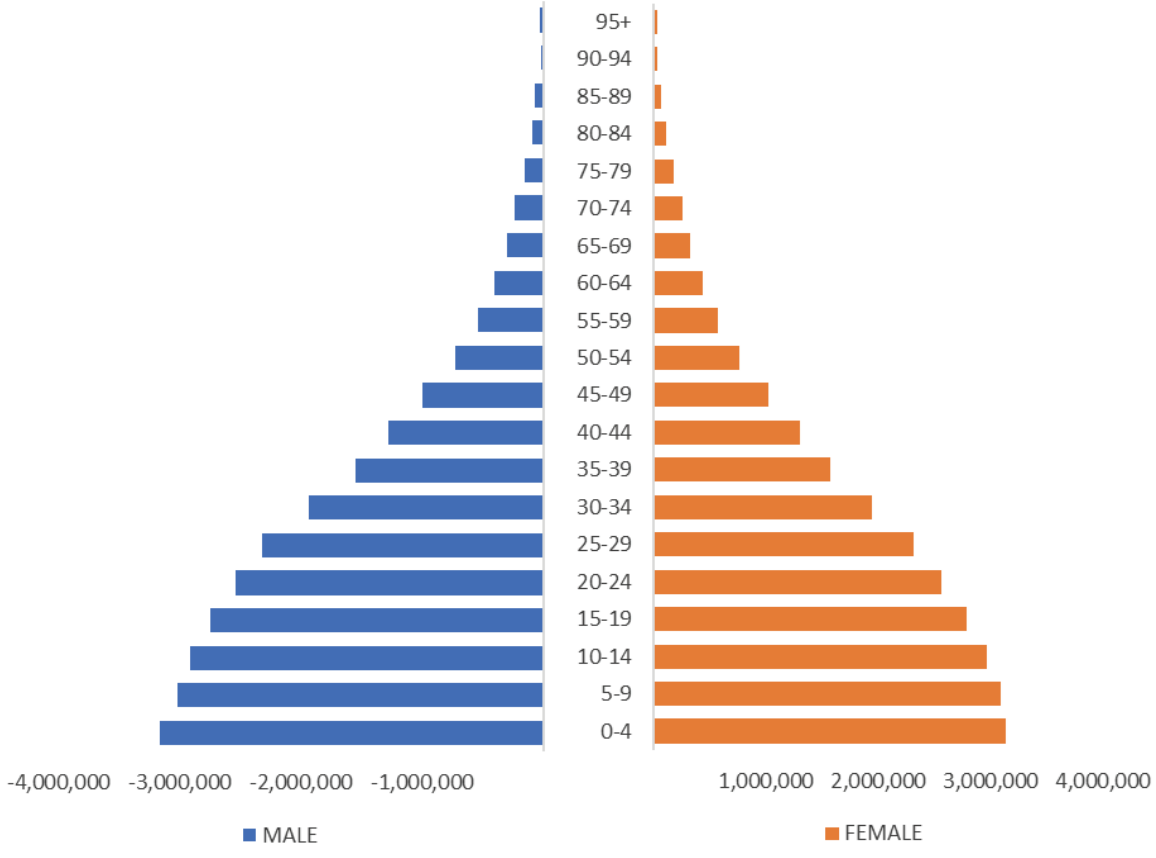
According to the 2019, Kenya Population and Housing Census (KPHC), Kenya's population was 47.6 million and projected to increase to 50.6 million by 2022

75%



The Kenyan population is essentially young, with 75 percent of all Kenyans under the age of 35 according to the KPHC of 2019.

Figure 1. 1 Population Pyramid for Kenya 2022



(Source: Population Projections 2022 from KPHC 2019)



1.4 Data Sources and Methodology

1.4.1 Introduction

The data used for development of this report was derived from the 2022 Civil Registration System, the 2019 KPHC and the 2022 Kenya Demographic and Health Survey (KDHS) indicators report.

1.4.2 Data Sources

A. The primary data for the production of this report was extracted from the following registration tools:

- Form B1 which is a register of births that captures comprehensive data about birth events, both live and stillbirths, in community and healthcare facilities **(refer to Appendix A1).**
- Form D1 which is a register of deaths used for collecting vital information on the cause of death through medical certifications in health facilities and post-mortem examinations for community fatalities **(refer to Appendix A2).**
- Form D2 which is the register of death used to collect data on deaths and their various characteristics that occur in the community - from possible causes to other defining characteristics **(refer to Appendix A3).**

B. The KDHS 2022 key fertility and mortality indicators.

C. The KPHC 2019. The calculation of expected births and deaths is done using data on population projections sourced from the KPHC 2019.

1.4.3 Methodology

This subsection outlines methods for estimating completeness of births and deaths that have been registered, in addition to computing the expected

number of births and deaths in 2022.

1.4.3.1 Estimation of Birth Completeness

Completeness of registration is the proportion of registered events to the expected number of events. The number of expected births was computed for women of reproductive age (15-49 years) at the national and county levels. National-level Age Specific Fertility Rates (ASFR) for each age group were multiplied by the corresponding projected female populations for 2022 from the KDHS 2022 key indicators report, while county-level ASFRs used were from the 2019 KPHC to compute the expected number of births at the county level.

The number of expected births was obtained based

$$\text{Expected Births} = \sum_{i=1}^{n} X_i \pi_i$$

where:
X_i is the ASFR for the women in age-group i,
π_i is the population of the age group i as per the 2022 population projections and;
n is the number of age-groups among the population under consideration

Table 1. 1 Number of expected births by age in Kenya, 2022

Age Group	The Projected Population 2022 (π_i)	ASFR (X_i)	Expected Births 2022
15 -19	2,787,718	0.052686	203,503
20 - 24	2,560,022	0.169092	458,244
25 - 29	2,322,652	0.175102	399,496
30 - 34	1,942,289	0.140731	266,094
35 - 39	1,571,971	0.098102	136,762
40 - 44	1,303,359	0.041359	45,618
45 - 49	1,021,815	0.008023	5,109
TOTAL	**13,509,826**		**1,514,825**

Birth registration completeness is calculated using;

$$\text{Birth Registration Completeness} = \frac{\text{Actual registered live births}}{\text{Expected births}} \times 100$$

1.4.3.2 Estimation of Death Completeness

The 2022 population projection derived from 2019 census and corresponding Age-Specific Mortality Rates (ASMRs) was used to estimate the expected number of deaths with assumption that the ASMRs remain constant for the period covered by this report (Table 1.1)

The expected deaths at the national and county are obtained using the following formula;

$$\text{Expected Deaths} = \sum_{i=1}^{n} X_i \pi_i$$

where:
X_i is the ASMR for the women in age-group i,
π_i is the population of the age group i as per the 2022 population projections and
n is the number of age-groups among the population under consideration

Table 1. 2 Number of expected deaths by age in Kenya, 2022

Age in Years	Projected population size for Males 2022	Age Specific Mortality Rate Male	Expected deaths Male	Projected population size for Females 2022	Age Specific Mortality Rate Female	Expected deaths Female
<1	638,272	0.0399	25,467	635,531	0.0333	21,163
1-4	2,524,620	0.0038	9,594	2,502,893	0.0044	11,013
5-9	3,022,324	0.001	3,022	3,088,624	0.001	3,089
10-14	2,912,893	0.0007	2,039	2,970,670	0.0006	1,782
15-19	2,750,556	0.0025	6,876	2,787,718	0.0016	4,460
20-24	2,544,560	0.0035	8,906	2,560,022	0.0022	5,632
25-29	2,319,258	0.004	9,277	2,322,652	0.0027	6,271
30-34	1,935,374	0.0048	9,290	1,942,289	0.0032	6,215
35-39	1,552,923	0.0062	9,628	1,571,971	0.0039	6,131
40-44	1,279,437	0.0084	10,747	1,303,359	0.0049	6,386
45-49	997,646	0.0119	11,872	1,021,815	0.0064	6,540
50-54	733,857	0.0171	12,549	763,604	0.0091	6,949
55-59	542,165	0.0247	13,391	570,733	0.0135	7,705
60-64	410,462	0.0362	14,859	435,504	0.0207	9,015
65-69	301,920	0.0525	15,851	326,766	0.0324	10,587
70-74	239,292	0.0743	17,779	263,832	0.0514	13,561
75-79	159,915	0.1031	16,487	183,208	0.0811	14,858
80-84	100,898	0.1419	14,317	117,554	0.1257	14,776
85-89	72,246	0.2027	14,644	72,164	0.1911	13,791
90-94	29,186	0.2853	8,327	36,882	0.2753	10,154
95+	36,350	0.4477	16,274	40,970	0.4143	16,974
TOTAL	25,104,154		251,197	25,518,760		197,052
Expected Deaths						448,249

Death registration completeness for both the national and county levels will be calculated using the following formula:

$$\text{Death Registration Completeness} = \frac{\text{Actual number of death events}}{\text{Expected number of deaths}} \times 100$$

1.4.4 Causes of Death

Causes of death information is useful for evaluating the health of a country's population by describing the level, trend, and difference in mortality, important for health policy and planning.

To promote comparability in cause of death information within countries, the World Health Organization (WHO), recommends the use of the International Classification of Diseases (ICD) guides to assign the main underlying cause of death, for health-facility deaths where a physician is available to certify the event.

In Kenya, data on death events are obtained from both health facilities and the community. For community events Assistant Chiefs are designated as registration assistants and assign cause of death based on a predefined list of possible causes of death. For health facility events, health professionals report on the causes of death in accordance with the standard ICD guidelines.

1.5 Limitations of the Report

Death events in the community are not medically certified; instead, they are assigned a lay diagnosis from a predetermined list of causes of death.

Medical certification for causes of death for events in health facilities is impeded by the low numbers of trained certifiers and coders on ICD guidelines.

The current form D1 (death register) for health facility deaths is based on the ICD-9 guideline which needs review.

1.6 Organization of the Report

The report is organized in the following main chapters:

- **Chapter 1** Presents the general introduction providing background of the report, objectives and scope, demographic profile, data sources, methodology, overview of causes of death and limitations of the report.
- **Chapter 2** Presents an overview of the Civil Registration Services (CRS) in Kenya including its historical development, the legal framework, administrative and organizational structure and the registration process and information flows. Also discussed is the production and dissemination of vital statistics, the challenges and opportunities for improving Kenya's Civil Registration and Vital Statistics System (CRVS).
- **Chapter 3** Presents various aspects of data quality, timelines, and registration completeness.
- **Chapter 4** Presents findings on birth registration by background characteristics, completeness and sex ratios nationally and per county.
- **Chapter 5** Presents information on registration of death by background characteristics focusing on death by place of occurrence, age, sex, by marital status, death ratios and neonatal deaths.
- **Chapter 6** Presents findings on medically certified causes of deaths from health facilities and deaths as reported from the community (lay reporting).
- **Chapter 7** Presents the conclusion and recommendations of the report.



CHAPTER

02

The Civil Registration System In Kenya

2.1 Introduction

The chapter presents the history of CRS, legal framework, administrative and organizational structure, registration processes and information flow; production and dissemination of vital statistics. It also highlights the challenges and opportunities for civil registration improvement.

2.2 History of Civil Registration

Registration of births and deaths started in Kenya (then East African Protectorate) in 1904 and it was restricted to Europeans and Americans residing in Kenya. During this period, colonial legal framework (Ordinance act) was



applied in registration. In 1928, the Births and Deaths Registration Act [CAP 149] was enacted which provided for compulsory registration of births and deaths of Europeans, Americans, and Asians residing in Kenya. The Act also provided for the registration of deaths of all people that occurred within the municipalities.

Registration of all births and deaths occurring amongst the inhabitants of Nyeri District and Nairobi City was declared compulsory on 12th March 1963. Consequently, on 1st July 1965, births and deaths registration became compulsory in Mombasa and Nakuru municipalities as well as Bungoma and Kwale Districts. The process was progressively introduced to other districts until 1st September 1971 when all districts were declared compulsory registration areas.

In the beginning, civil registration was conducted centrally with the Registrar General serving as the head and deputy registrars who registered births and deaths occurring at the district level. The deputy registrars were mobile as they moved and registered events around their areas of operation and were paid honoraria based on the number of records filled. They then forwarded the records to the Registrar General who was responsible for issuance of the respective certificates. However, the process was compromised as some deputy registrars would fill the forms for imaginary events just to earn the honoraria. This continued until 1982 when deputy registrars were replaced by assistant registrars who now became fully in charge of the district.

The Government in partnership with UNFPA conducted a pilot study between 1982 to 1985 called the Civil Registration Demonstration Project (CRDP) aimed at improving registration of vital events. The CRDP initiative confirmed the need to shift from the initial registration system to the agent-based approach that embraced community-based reporting.

In the new system, registration agents were involved in registration of vital events occurring in their respective areas. Assistant chiefs were officially gazetted as registration agents to capture events that occurred within the community while medical personnel captured events that occurred in health facilities. This pilot was conducted in two phases with phase one including Murang'a, Nyeri, Kirinyaga and Lurambi Division in Kakamega District. Phase two incorporated Kisumu, Kakamega, Uasin Gishu and Embu Districts in 1984.

In 1928, the Births and Deaths Registration Act [CAP 149] was enacted which provided for compulsory registration of births and deaths of Europeans, Americans, and Asians residing in Kenya. The Act also provided for the registration of deaths of all people that occurred within the municipalities.

The project led to a tremendous improvement in the number of births and deaths registered within the pilot districts. Due to the success of the project, the Government fully adopted the CRDP and converted it to Civil Registration Program (CRP) and rolled it out progressively to all other districts until 2009 when all districts were covered.

Up to 1989, Civil Registration was a section within the Registrar General's office located within the AG's chambers in Sheria House. It became a fully-fledged department in 1989 and moved to the Office of the President in 1990 headed by a Principal Civil Registrar. In an endeavor to improve civil registration and service delivery to the citizens, the department transitioned from being headed by a Principal Civil Registrar to Director. It is currently headed by the Secretary assisted by several Directors. The Department has its headquarters in Hass Plaza building along Lower Hill Road in Nairobi.

In April 2018, the department introduced the office of the Regional Coordinator to further enhance service delivery and improve coordination. Each region is headed by a Regional Coordinator who oversees operations within counties and sub counties in that region. With the Executive order number one of January 2023 on the Organization of Government of the Republic of Kenya, the department is currently domiciled in the Ministry of Interior and National Administration, State Department for Immigration and Citizen Services.

2.3 Legal and Administrative Issues

The Births and Deaths Registration Act Cap. 149 laws of Kenya, enacted in 1928 [GOK, 1928], governs the registration of births and deaths in Kenya. This Act makes it mandatory to register all births and deaths that occur in Kenya, regardless of nationality, and permits the optional registration of births and deaths of Kenyan citizens that occur abroad [GOK, 1972]. Apart from CAP 149, the CRS administers part of the Legitimacy Act [CAP 145]. This act empowers the CRS to re-register births of individuals who were born out of wedlock but were legitimized by their parents' subsequent marriage [GOK, 1931] or recognition. Furthermore, the CRS operates under some of the provisions of the Children's Act [Cap 151] of the Laws of Kenya on adoptions. In addition, section 7 and 29 of Cap 149 were amended in 2022 to allow for recognition of the intersex. The last review of Cap 149 was undertaken in 1972. However, there have been attempts to review it to conform to emerging issue.

As part of its digital transformation agenda, the Government of Kenya has initiated a process to combine the registration of events such as births and deaths with identity management systems. This integration will ultimately result in the launch of a Unique Personal Identifier (UPI), which will be incorporated into the Integrated Population Registration System (IPRS). The primary goal of this initiative is to establish a reliable and accurate "single source of truth" for population data that spans from birth to death. To achieve this, an end-to-end Civil Registration and Vital Statistics (CRVS) system will generate a UPI at birth, which will be exited at death. Moreover, the CRVS system will be designed to be interoperable and able to connect with other identity management systems. It is essential to connect the national population database with the foundational civil registration systems, as recommended by international standards and the UN legal identity agenda. The automation of the CRVS system and the timely issuance of the Unique Personal Identifier (UPI) at birth and retirement at death are crucial in realizing SDG target 16.9, which aims to provide legal identity for all, including birth registration by 2030

The improvement of the CRVS system has been prioritized to achieve the same level of operational efficiency as the identity management system. Significant progress has been made in automating the CRVS system, including the digitization of 46 million historical records of birth and death registrations. Furthermore, the system has been re-designed to facilitate linkage with the National Population Register. Business processes for birth and death registration have been reviewed and revised, registration tools have been updated, and standard operating procedures (SOPs) have been developed to incorporate changes to the system.

In order to safeguard data privacy and confidentiality during data integration, sharing, storage and archival, the government has taken significant steps. These include the enactment of the Data Protection Act, 2019 and the appointment of a Data Commissioner to enforce and oversee compliance. (Information captured in 2nd paragraph in page 13).

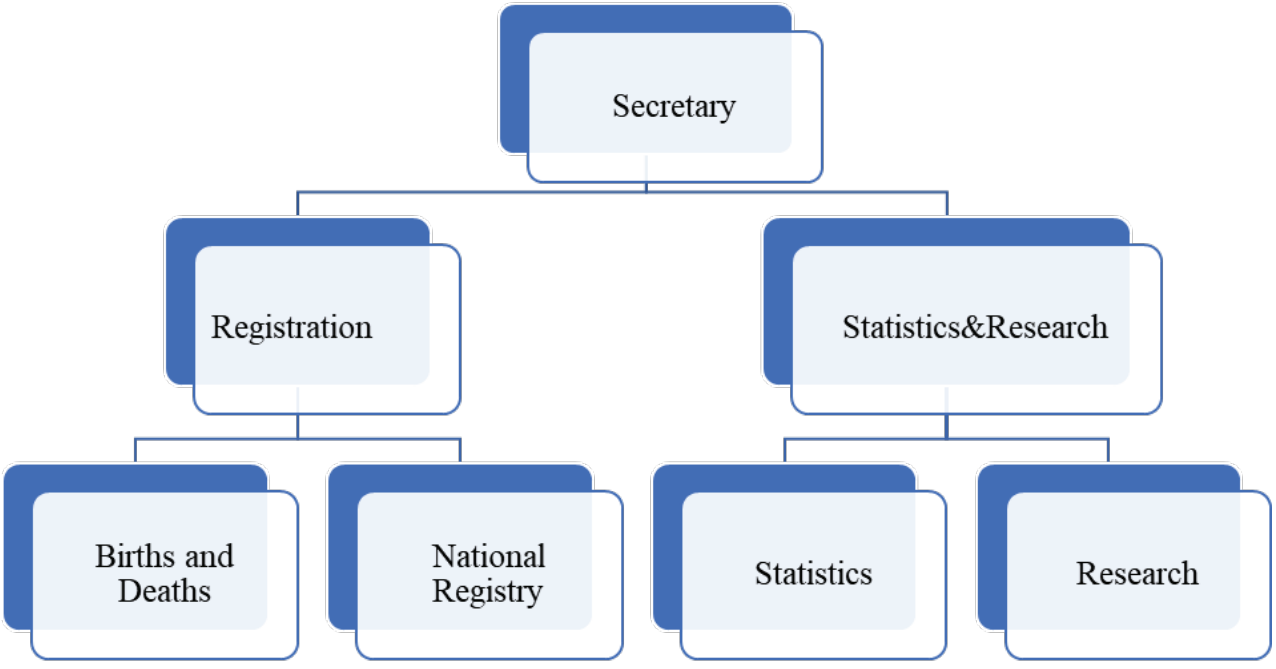
2.4 Organizational Structure, Registration Processes and Information Flow

This section describes the department's organizational structure and information flow during the registration process and certificate issuance. Additionally, it highlights the procedure involved in records transfer and offers an explanation of the procedures for registering late events.

2.4.1 Organizational Structure of Civil Registration

Currently CRS is headed by a Secretary Civil Registration. The Directorate is divided into four departments namely: Registration and Field Services, National Registry, Statistics and Research and Liaison and Strategy. Each department is divided into several divisions as shown in **Figure 2.1.**

Figure 2. 1 Organizational structure for Civil Registration Services



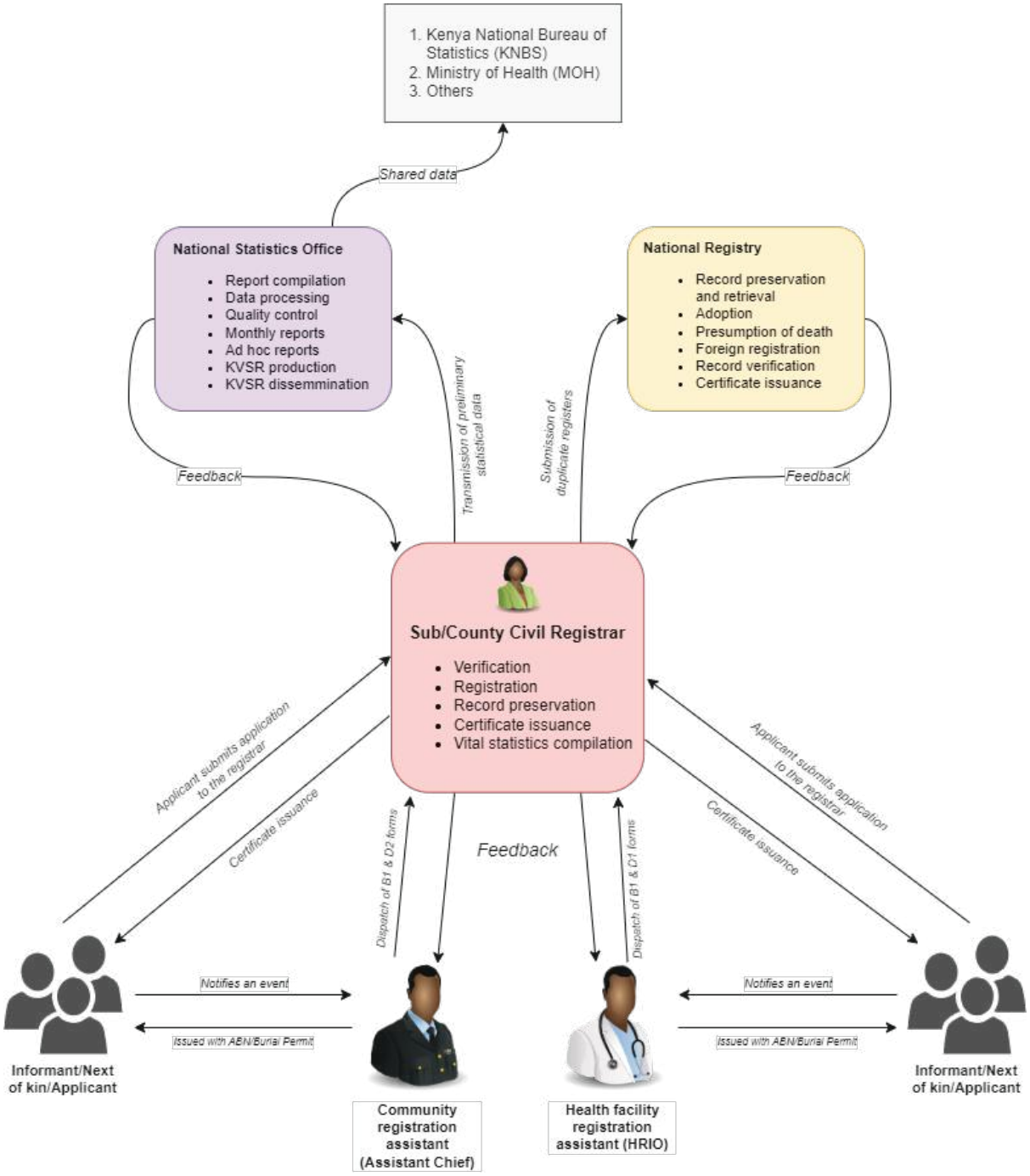
2.4.2 Registration Processes and Information Flow

In Kenya, the civil registration system is community-based where an event is notified at the place of occurrence. If the event occurs in hospital, it is notified by the hospital personnel while events occurring in the community are notified by the assistant chief. The hospital personnel and the assistant chief are gazetted as Registration Assistants. The process begins when an informant reports a vital event to a Registration Agent (RA). The RA records the details of the event in a designated register (B1/D1/D2) and issues a birth notification or burial permit to the informant or the next of kin. The RA then dispatches the completed forms in duplicate to the sub-county registrar for verification using dispatch form CRP6 for home events and CRP7 for facility events. Once the registrar confirms the accuracy of the information

provided, they assign a unique entry number and a date of registration and append their signature to create a register.

Figure 2.2 below summarizes the information flow during the registration and other processes carried out in the production of vital statistics, records preservation and dissemination.

Figure 2. 2 Registration processes and information flow



2.4.3 Late Registration

Any vital event registered after the prescribed period of six months from the date of occurrence is considered as late or delayed registration. This registration is only done by the Sub-County Registrar in their discretion in the Sub-County of occurrence .The data from late registration is not included as part of vital statistics and attracts a penalty.. The applicant for a delayed registration is expected to complete forms (GP138A, A1 for events that occurred before CRP & B3 for CRP events). The B3 form must be certified by both the Chief and Assistant Chief of the place the event occurred.

2.4.4 Issuance of Certificates

To obtain a birth and death certificate, the applicant makes a formal application to the local Sub-County Registrar or the National Registry using forms B4 and D4 for birth and death respectively by presenting the birth notification or burial permit and upon payment of the prescribed fee.

2.4.5 Transmission of Data

Upon receipt of birth and death records from the registration agents, the Sub-County Registrar sorts the forms by place of occurrence and classifies them as current or late events. The records are checked for completeness and accuracy. The current cases that meet the above threshold are then signed by the registrar who also appends a unique number to each form qualifying it to become a register.

The registers are then used to create birth and death templates that contain data on the variables usually found in the birth and death forms. The data from the excel templates is then used to populate CRP forms 5, 21, 24/25 and 34; each with a summary of the different aspects of registration. Completed CRP forms are then transmitted electronically via a secure mail to the National CRS Statistics office by the 10th of every month. Once the National CRS Statistics office receives thedata, it acknowledges the same, verifies and validates the statistical reports. Feedback is then provided for those with inconsistencies or data variances for correction and resubmission. The data is then cleaned and merged per county, region and finally to one master file which is stored and used for analysis and production of the KVSR Report and any other necessary report.

2.5 Vital Statistics Production and Dissemination

The Vital Statistics report is produced and disseminated yearly by CRS in collaboration with partners. The production process begins with data cleaning of the master file, development of a tabulation plan and data analysis. Thedraft report is subjected to review and technical editing before validation and publsihing. Finally, the report is validated, published and then disseminated to stakeholders in print form.

2.6 Opportunities and Challenges of CRVs

2.6.1 OPPORTUNITIES

The following incentives have boosted the birth and death registration in Kenya. They include among others:

1. Existence of several initiatives and commitments for CRVS improvement: include African Conference for Ministers responsible for Civil Registration, Agenda 2063, UN Legal identity agenda, ID for Africa.
2. Existence of government initiatives and programs such as MCH (Maternal and Child Health), Linda Mama, Universal Health Coverage programs and UPI.
3. Partnerships and collaborations between CRS and stakeholders for technical and financial support.
4. Political Goodwill
5. Demand for birth certificates for school enrolment and examination registration

2.6.2 Challenges

i. Lay reporting of causes of death
ii. Inadequate resources.
iii. Social cultural and religious beliefs towards births and deaths and registration.
iv. Inadequate service delivery points especially in hard-to-reach areas and special populations.
v. Insecurity in some areas hinder service delivery.
vi. Procedures/guidelines for registering street families yet to be rolled out.
vii. Inadequate capacity in data collection especially among our agents.
viii. Low awareness and utilization of vital statistics from CRS
ix. Limited modes of dissemination of vital statistics from CRS



CHAPTER

03

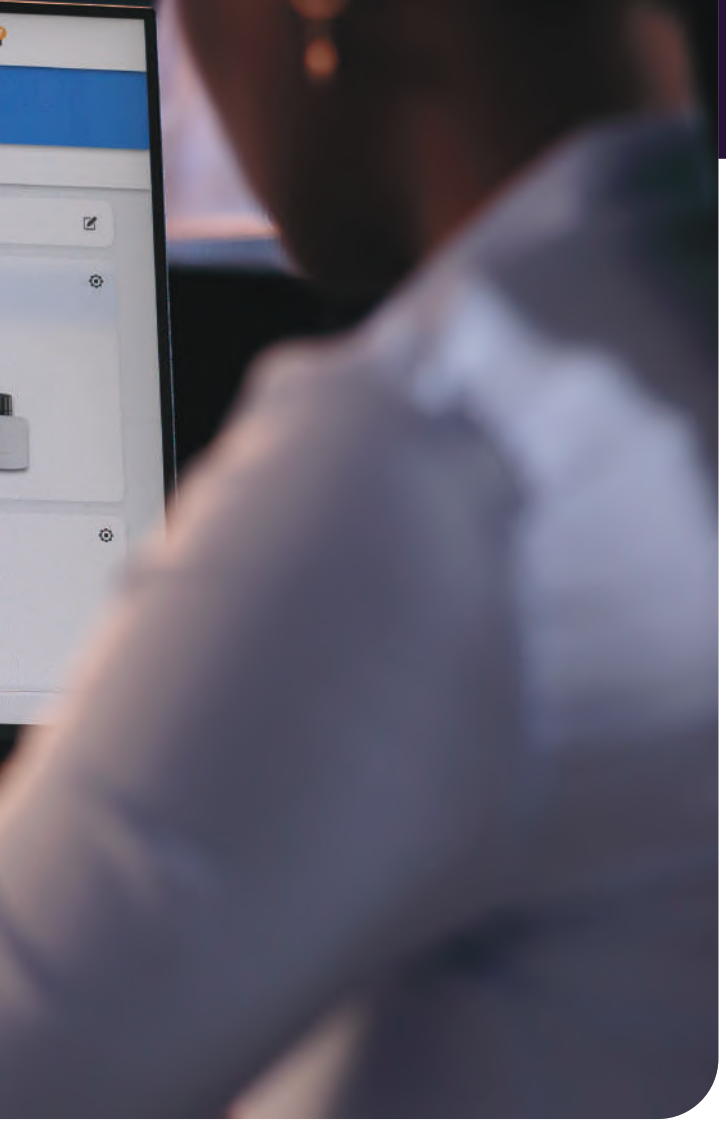
Data Quality, Timeliness and Registration Completeness

3.1 Introduction

The chapter presents data quality, timelines and availability, completeness of registration, Correctness or accuracy; and data adjustment and redistribution.

3.2 Data Quality

According to the (UN, 2014) data quality refers to the accuracy, completeness, consistency, timeliness, and reliability of the information. Data quality is generally considered of high quality if it is "fit for [its] intended uses in operations, decision making and planning" in an organization.



Data quality has three pillars: people, process and technology. The three areas serve as the cornerstone of a structured approach to data quality. Sometimes data quality is likely to be lost amidst a host of competing priorities especially failure to allocate dedicated gate keepers.

Organizations have no control of data entry points, data accuracy and verification. This situation brings about duplicated data entry, human error or lack of verifications. It should be pointed out that having the right policies and procedures in place gives an organization control of her data. It is often a cost-effective strategy to use automated tools for data quality. Therefore, ensuring data quality is important because poor quality data is often pegged as the source of operational snafus, inaccurate analytics and ill-conceived organizations strategies. Data is a foundational element that enables an organization to work better. But the services provided by an organization are only as good as the quality of the data they are built on. Data quality control in CRS is done routinely through the field officers and the statistics section.

3.2.1 Data Quality Control

Quality control (QC) of data refers to the application of methods or processes that determine whether data meet overall quality goals and defined quality criteria for individual values. The four types of quality control aspects are; process control, control charts, acceptance sampling, and product quality control.

In this report, data promptness and completion has been addressed by the use of schedules which controls the receipt of notifications of vital events by the registration agents. In the field offices (sub/county), guidelines on data validation are in place to track books (registers) issued to registration agents. Registrars maintain a control book, which is used to verify and validate submitted records by verifying whether serial numbers indicated in the submission forms (CRDP 6/7) conform with registers issued to agents. In addition, they check on the corrections and do an imputation of missing or inconsistent values. Registration Agents (RAs) have been trained and sensitized on the correct way to complete the registration forms to uphold data quality.

3.2.2 Data Quality Assurance

Data quality assurance is the process of determining and screening anomalies by means of data profiling, removing obsolete information, and data cleaning. In CRS, errors observed in the vital statistics data are mistyping of information and missing variables that occur during data entry. Received data is queried to

Data quality has three pillars: people, process and technology. The three areas serve as the cornerstone of a structured approach to data quality. Sometimes data quality is likely to be lost amidst a host of competing priorities especially failure to allocate dedicated gate keepers.

identify and deal with any errors of omission. The statistics section constantly makes follow-up with field officers to ensure accuracy and completeness of vital statistical reports.

3.3 Timeliness and Availability

Timeliness refers to the duration taken for a vital event to be reported for registration. Timely registration and reporting of vital events are essential for effective planning and resource allocation, public health interventions, and research.

There are two categories of registration in Kenya namely; current and late registrations. Current registration refers to events that are notified and registered within six months from the time of occurrence while late registration refers to events registered six months after the date of occurrence.

To ensure timeliness of the data, birth and death records are submitted by the end of every month by the RAs to the sub/county registrars and CROs submit the statistical reports to the CRS headquarter (statistics section) for analysis. From our reports, 95% of all the registrars have their reports received by the statistics section.

Availability refers to the accessibility of vital statistics data to users. This means that data should be readily available in a timely manner and in a format that is easy to access and use (UN, 2014). CRS data is made available through publishing and disseminating the annual Kenya Vital Statistics Report (KVSR) and sharing it with our stakeholders and to those who request for the reports from the office.

3.4 Completeness of Registration

Completeness of births and deaths is an important indicator of the quality of a country's vital statistics system, and can be used in guiding improvements in data collection and reporting.

The CRS completeness of births and deaths is calculated by dividing the actual number of reported events (births and deaths) by the expected number of events. Expected births and deaths are calculated using age-specific rates, which are statistical measures that express the probability of a particular event (birth or death) occurring in a specific age group of a population.

Age-specific rates are better than crude rates in measuring births and deaths completeness because they provide more detailed and targeted information on the distribution of events across different age groups.

$$\text{Birth Registration Completeness} = \frac{\text{Actual registered live births}}{\text{Expected births}} \times 100$$

Similarly, completeness rate for deaths may be obtained by dividing the number of registered deaths within the year divided by estimated number of deaths within the year.

$$\text{Death Registration Completeness} = \frac{\text{Actual number of death events}}{\text{Expected number of deaths}} \times 100$$

Age-specific birth and death rates for this report were obtained from 2019 census monograph volume VI Fertility and Nuptiality. Similarly, 2022 population projections were estimated based on the 2019 census provided by KNBS.



3.5 Correctness or Accuracy

Correctness or accuracy refers to the extent to which the recorded data in the registration forms reflects the actual event that occurred. It means that the data should be complete, reliable, and free from errors (editing, coding and classification/ tabulation), omissions or inconsistencies. The accuracy of the data depends on the quality of the registration process, the skills and training of the registration assistant, the completeness of the information provided by the informant, and the quality control measures in place. Further, Standard Operating Procedures (SOPs) were developed to guide the registration process.

3.6 Data Adjustment and Redistribution

Adjustment refers to a set of procedures employed to: improve coverage, classification, timing and valuation of the data; conform to an accounting and recording basis; or. address data quality differences in compiling specific data sets Statistical adjustment is a ubiquitous practice in all quantitative fields that is meant to correct for improprieties or limitations in observed data, to remove the influence of nuisance variables or to turn observed correlations into causal inferences. Data redistribution is a database administration operation that can be performed to primarily move data within a partitioned database environment when partitions are added or removed.

For the CRS data, there is a need to adjust the rates to correct the data due to observed data limitation of some of the coverage rates and other fertility and mortality rates. The coverage rates for birth and death rates in 2022 were 80.6 percent and 47.6 percent respectively. There is a need to adjust the numbers for births and deaths to minimize the effect of the low and over 100 percent completeness rates on fertility and mortality indicators. The fertility indicators considered are ASFR, TFR, GFR, and CBR while mortality indicators are crude death rates, neonatal, infant and under five mortality rates. A table with details of computed unadjusted and adjusted 2022 fertility indicators is presented below.



CHAPTER

04

Births Registration

4.1 Introduction

This chapter presents information on live birth registration completeness, sex ratio and live birth registration by sex of child, place of occurrence, age of mother, marital status and education level between 2018 to 2022. The chapter also presents fertility measures based on live births registered in 2022.



KEY FINDINGS:

80.6%
• Birth registration completeness was 80.6 percent.

17
• Sex ratio in the country was 103.1 and 17 counties had sex ratios within the normal range.

• There are slightly more male live births registered than female live births.

99%
• Ninety nine percent of the live births occurred in the health facilities.

• Majority of live births occurred among women aged 20-24.

86%
• Eighty six percent of live births occurred among married women.

• Majority of live births occurred among women with a secondary level of education.

• Crude Birth Rate is **24 per 1000** people.

• General Fertility Rate is **98 births per 1000.**

• TFR is **2.8**.

Table 4. 1 Summary Statistics in Kenya from 2018 to 2022.

Indicator	2018	2019	2020	2021	2022
Expected	1,551,693	1,556,157	1,410,795	1,443,542	1,514,825
Registered	1,138,654	1,186,144	1,126,762	1,200,190	1,221,444
Coverage (%)	73.4	76.2	79.9	83.1	80.6
Sex Ratio	104.4	103.6	104.4	104.2	103.1
Community Births	60,243	52,309	25,728	26,316	12,598
Health Institution Births	1,078,411	1,133,835	1,101,034	1,173,874	1,208,846
Male	581,547	603,774	575,454	612,434	619,929
Female	557,107	582,774	551,308	587,756	601,515

4.2 Birth Registration Completeness

Birth Registration completeness is computed using the following equation:

$$\text{Birth Registration Completeness} = \frac{\text{Actual registered live births}}{\text{Expected births}} \times 100$$

This analysis focuses on data of live births that were registered within six months from the time of occurrence. The results of live births registration nationally and by County are presented in Table 4.2. Nationally the live birth registration completeness has been on an upward trajectory in the last four years. The live birth registration increased from 73.4 percent in 2018 to 83.1 percent in 2021. However, in 2022 there was a decline in birth registration completeness to 80.6 percent. This decline may be attributed to the inadequate registration materials (B1). In addition, the denominator for computing the expected births in 2020 and 2021 was based on provisional population projections while in 2022, the denominator was based on the official population projected figures. This may have affected registration completeness.

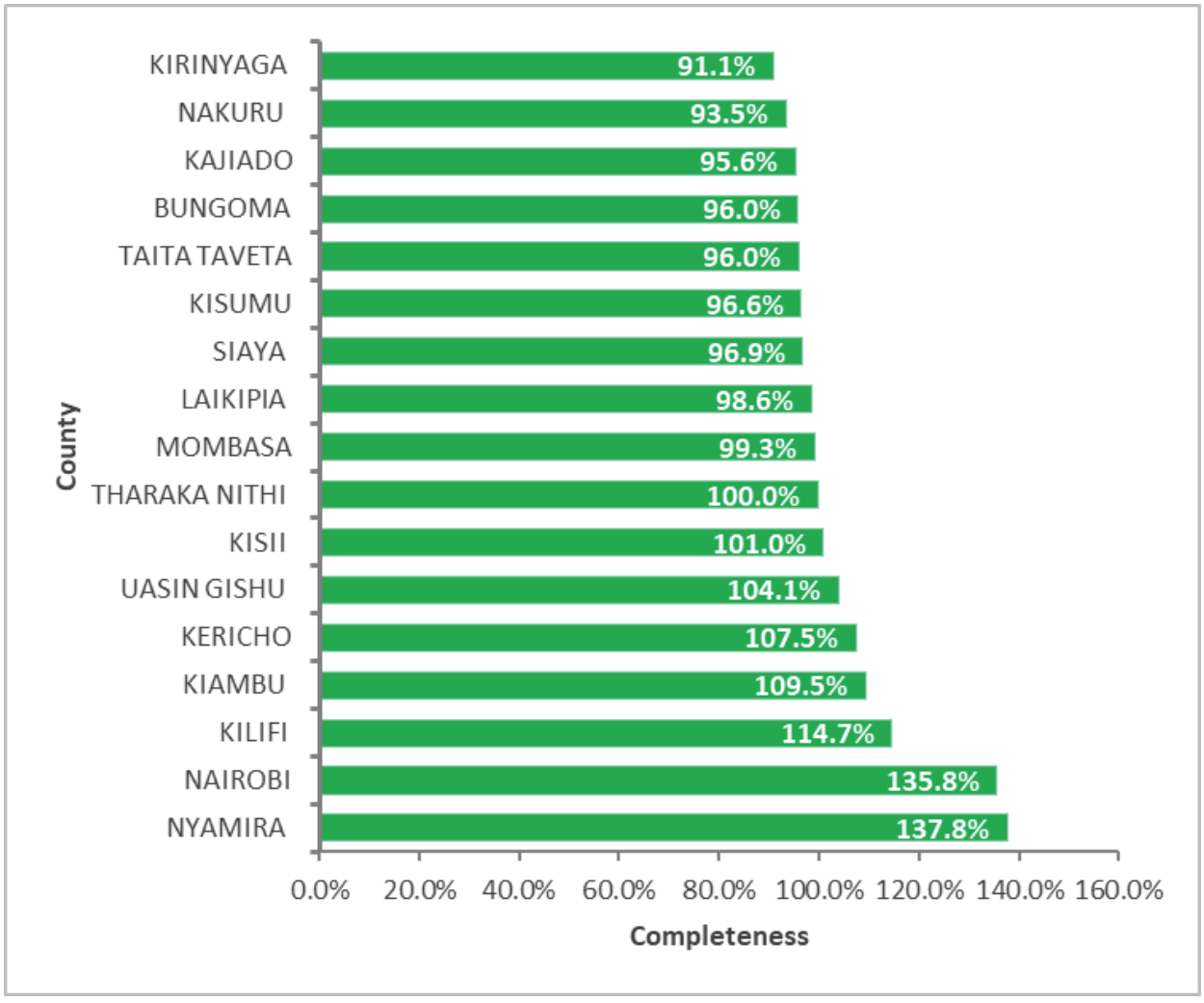
A total of 17 counties met the UN recommended birth registration completeness of 90 percent as shown in figure 4.1 below.



80.6%

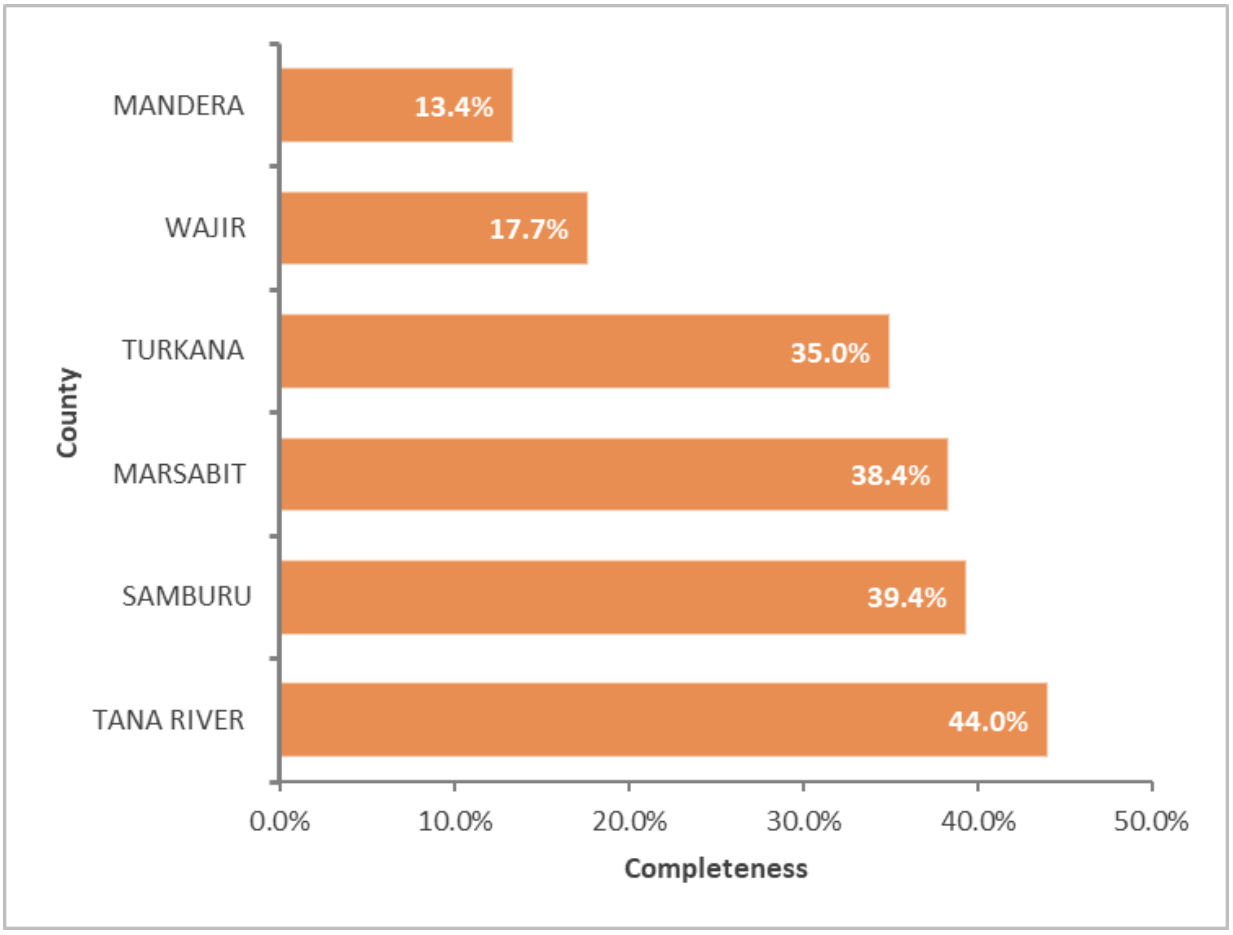
The live birth registration increased from 73.4 percent in 2018 to 83.1 percent in 2021. However, in 2022 there was a decline in birth registration completeness to 80.6 percent.

Figure 4. 1 Counties with over 90 percent birth completeness



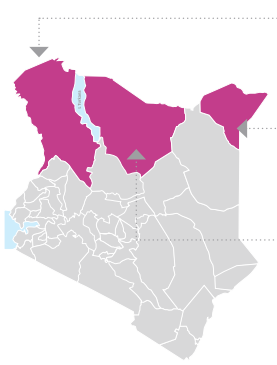
The completeness rate in Nairobi (135.8%) and Kiambu (109.5%) counties can be attributed to improved health care facilities compared to the surrounding counties, proximity to neighboring areas contributed to the spill-over in access to health services, the high literacy levels among the population and the awareness on the need for birth registration. Completeness rate in Nyamira (137.8%). For the last two years Nyamira has been experiencing high rates of teenage pregnancies attributed to; poverty, ignorance on sex related matters by teenage girls, permissive society, and lack of role models in society (Orioki and Getange, 2018). Kilifi has a completeness of (114.7%). Similar findings on high teenage pregnancies in Kilifi and Nyamira is also evidenced in (KDHS 2022). Mandera, Wajir, Turkana, Marsabit, Samburu, and Tana River counties reported the lowest live birth registration completeness as shown in Figure 4.2.

Figure 4. 2 Six counties with lowest birth registration completeness



These are counties in Arid and Semi-arid areas. The low completeness rate can be attributed to the vastness of the counties which negatively affects the access to registration points, insecurity, and few registration points. For instance, Turkana County has one registration point serving a population of 997,337. Marsabit County has two registration points serving a population of 503,338 and Mandera County has one registration point serving a population of 935,251. The complete pictorial presentation of live birth registration completeness is shown in the map below.

REGISTRATION POINTS



Turkana County
997,337

Mandera County
935,251

Marsabit County
503,338

Map 1. 2 Birth completeness in Kenya, 2022

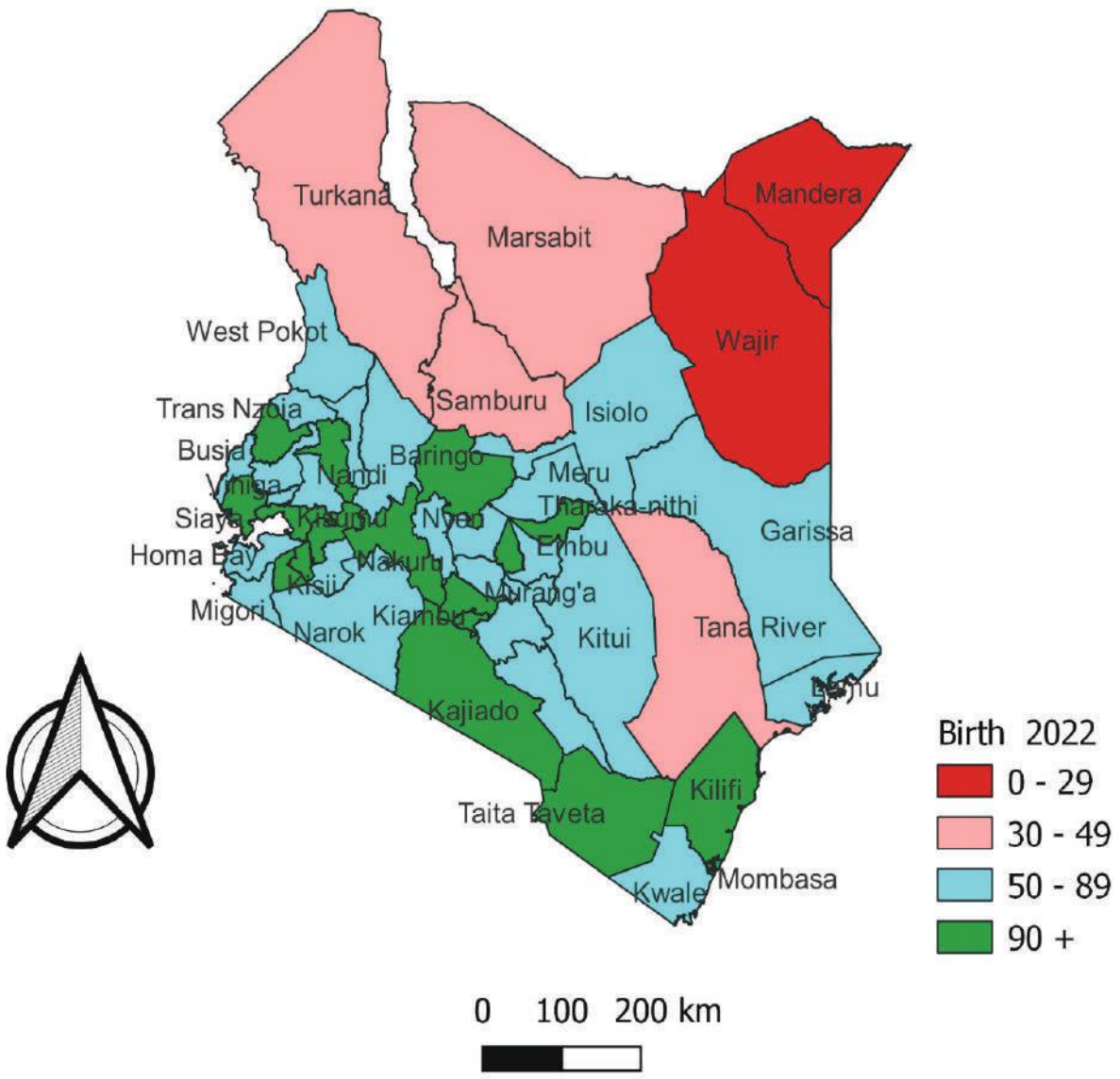


Table 4. 2 Expected, registered and completeness of birth registration, 2018-2022

Code	National and County	EXPECTED					REGISTERED					COMPLETENESS				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
	Kenya	1,551,693	1,556,157	1,359,456	1,391,533	1,514,825	1,138,654	1,186,144	1,126,762	1,200,190	1,221,444	73.4	76.2	82.9	86.2	80.6
001	Mombasa	42,208	39,978	36,110	36,491	34,418	32,963	35,994	30,459	32,680	34,166	78.1	90.0	84.3	89.6	99.3
002	Kwale	31,588	31,160	28,699	29,522	30,370	21,531	22,965	19,498	21,291	20,791	68.2	73.7	67.9	72.1	68.5
003	Kilifi	57,710	58,616	43,127	44,407	43,478	42,112	45,949	41,226	42,633	49,857	73.0	78.4	95.6	96.0	114.7
004	Tana River	13,260	12,982	11,301	11,699	12,725	4,766	5,380	4,889	6,305	5,603	35.9	41.4	43.3	53.9	44.0
005	Lamu	4,293	4,405	4,113	4,241	5,077	3,513	3,958	3,526	4,413	4,241	81.8	89.9	85.7	104.0	83.5
006	Taita Taveta	9,075	8,155	8,768	8,929	8,977	8,189	8,448	8,197	8,065	8,618	90.2	103.6	93.5	90.3	96.0
007	Garissa	23,481	36,095	27,099	28,144	32,331	13,592	12,983	10,432	15,201	16,321	57.9	36.0	38.5	54.0	50.5
008	Wajir	26,527	38,521	35,386	36,975	45,064	9,412	6,327	5,900	9,141	7,957	35.5	16.4	16.7	24.7	17.7
009	Mandera	27,977	28,465	43,885	46,331	60,178	10,532	12,342	8,224	10,167	8,057	37.6	43.4	18.7	21.9	13.4
010	Marsabit	9,398	14,466	20,924	21,792	27,115	6,665	8,346	7,894	10,185	10,404	70.9	57.7	37.7	46.7	38.4
011	Isiolo	5,308	9,453	7,636	7,878	9,847	5,660	5,816	5,301	5,657	5,894	106.6	61.5	69.4	71.8	59.9
012	Meru	35,541	37,742	36,556	37,129	39,625	32,391	31,883	34,584	33,684	34,048	91.1	84.5	94.6	90.7	85.9
013	Tharaka Nithi	9,951	9,938	8,681	8,866	9,734	8,509	7,363	8,341	10,074	9,730	85.5	74.1	96.1	113.6	100.0
014	Embu	13,053	14,562	13,874	14,057	15,157	14,156	14,042	13,392	12,501	12,203	108.5	96.4	96.5	88.9	80.5
015	Kitui	28,731	31,232	26,443	27,357	33,756	29,650	25,520	22,953	24,123	23,146	103.2	81.7	86.8	88.2	68.6
016	Machakos	30,267	40,008	32,160	32,624	34,600	31,063	27,656	25,141	27,828	25,276	102.6	69.1	78.2	85.3	73.1
017	Makueni	21,003	23,340	19,969	20,484	24,757	18,117	18,247	19,002	19,631	21,347	86.3	78.2	95.2	95.8	86.2
018	Nyandarua	23,313	15,757	15,467	15,899	19,765	11,660	11,196	11,918	12,058	10,945	50.0	71.1	77.1	75.8	55.4
019	Nyeri	18,691	15,066	16,183	16,333	19,061	15,614	15,788	16,689	16,316	16,251	83.5	104.8	103.1	99.9	85.3
020	Kirinyaga	12,725	10,986	13,124	13,207	14,221	11,531	11,506	13,220	13,811	12,951	90.6	104.7	100.7	104.6	91.1
021	Muranga	25,095	21,713	23,735	24,026	28,661	19,280	19,046	20,994	21,840	19,516	76.8	87.7	88.5	90.9	68.1
022	Kiambu	50,521	65,877	66,863	67,570	63,231	70,147	71,923	69,483	60,663	69,216	138.8	109.2	103.9	89.8	109.5
023	Turkana	59,724	46,631	43,388	45,031	51,027	13,291	15,665	16,667	17,337	17,841	22.3	33.6	38.4	38.5	35.0

Table 4. 2 Expected, registered and completeness of birth registration, 2018-2022 (Continued)

Code	National and County	EXPECTED					REGISTERED					COMPLETENESS				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
024	West Pokot	35,806	30,056	23,211	24,228	28,899	9,549	10,756	13,333	15,523	14,819	26.7	35.8	57.4	64.1	51.3
025	Samburu	13,693	13,428	10,495	10,915	12,237	4,132	4,952	4,012	5,178	4,817	30.2	36.9	38.2	47.4	39.4
026	Trans Nzoia	45,047	38,675	27,569	28,669	33,486	22,371	25,052	22,463	23,195	23,914	49.7	64.8	81.5	80.9	71.4
027	Uasin Gishu	38,927	36,919	31,423	32,397	32,641	26,813	29,080	33,911	34,809	33,975	68.9	78.8	107.9	107.4	104.1
028	Elgeyo Marakwet	15,623	13,876	12,519	12,915	14,608	11,246	10,564	11,026	12,494	12,157	72.0	76.1	88.1	96.7	83.2
029	Nandi	32,360	27,918	22,411	23,166	26,775	15,530	17,921	16,209	18,313	18,346	48.0	64.2	72.3	79.0	68.5
030	Baringo	26,295	22,564	18,694	19,333	22,927	10,998	12,487	12,731	14,336	13,627	41.8	55.3	68.1	74.2	59.4
031	Laikipia	16,207	14,466	14,862	15,227	17,137	14,491	16,932	14,283	16,897	16,894	89.4	117.0	96.1	111.0	98.6
032	Nakuru	70,592	67,455	62,007	63,587	68,061	55,569	68,156	57,507	62,019	63,622	78.7	101.0	92.7	97.5	93.5
033	Narok	51,664	49,300	38,932	40,608	46,179	14,914	18,838	20,765	25,468	23,775	28.9	38.2	53.3	62.7	51.5
034	Kajiado	38,665	45,689	34,746	35,566	36,910	21,552	25,084	27,354	30,312	35,282	55.7	54.9	78.7	85.2	95.6
035	Kericho	34,565	29,953	23,165	23,832	26,068	21,425	33,166	23,121	28,677	28,027	62.0	110.7	99.8	120.3	107.5
036	Bomet	33,804	30,039	23,490	24,263	27,208	28,517	27,420	24,570	30,601	23,478	84.4	91.3	104.6	126.1	86.3
037	Kakamega	63,358	61,302	47,741	49,516	57,360	42,473	48,519	43,944	46,835	48,967	67.0	79.1	92.0	94.6	85.4
038	Vihiga	20,009	18,003	13,808	14,223	17,550	10,555	13,872	12,256	12,219	14,416	52.8	77.1	88.8	85.9	82.1
039	Bungoma	67,873	60,900	45,186	47,031	54,145	44,197	46,058	46,905	50,966	51,966	65.1	75.6	103.8	108.4	96.0
040	Busia	19,117	31,656	24,518	25,424	28,521	20,302	30,515	21,025	20,613	21,603	106.2	96.4	85.8	81.1	75.7
041	Siaya	32,948	32,540	27,079	27,913	31,274	34,516	29,988	28,967	27,836	30,316	104.8	92.2	107.0	99.7	96.9
042	Kisumu	36,345	37,729	32,410	33,232	34,425	35,033	32,275	31,351	35,061	33,255	96.4	85.5	96.7	105.5	96.6
043	Homa Bay	48,090	47,527	32,795	34,016	37,713	31,961	29,174	27,868	31,052	30,897	66.5	61.4	85.0	91.3	81.9
044	Migori	46,113	47,636	35,211	36,708	39,854	48,249	33,278	32,648	32,981	35,292	104.6	69.9	92.7	89.8	88.6
045	Kisii	44,039	38,993	30,491	31,184	33,604	32,830	27,846	32,336	30,596	33,931	74.5	71.4	106.0	98.1	101.0
046	Nyamira	21,959	17,277	13,445	13,858	14,976	12,587	10,868	12,995	19,463	20,635	57.3	62.9	96.7	140.4	137.8
047	Nairobi	140,180	136,668	129,866	130,258	105,362	134,500	145,000	137,252	139,142	143,054	95.9	106.1	105.7	106.8	135.8



Results of the trends in expected and registered births between 2018 and 2022 are presented in Figure 4.3. The number of expected and registered births increased between 2018 and 2019 and declined in 2020 before increasing slightly between 2021 and 2022. The slight decline of expected births in 2020 could be attributed to the fact that it was computed using Age Specific Fertility Rates (ASFRs) and provisional population projection figures from the 2019 Population and Housing Census. The increase in expected births between 2021 and 2022 could be attributed to the fact that, expected births were calculated using the age-specific fertility rates from the 2022 Kenya Demographic and Health Survey (KDHS) key indicators report and revised population projections from 2019 population census.



Between 2020 and 2021 the number of expected births increased by 71,375 births as shown in Table 4.2. Five Counties that experienced the highest increase in expected births were: Mandera (13,847), Kakamega (7,844), Bungoma (7,114), Kitui (6,399) and Turkana (5,996). The number of registered births increased marginally by 21,254 between 2021 and 2022. Counties with the highest increase of registered births were: Kiambu (8,553), Kilifi (7,224), Kajiado (4,970), Nairobi (3912) and Kisii (3,335).

The marginal increase in registered births could be attributed to the fact that the expected births in 2021 were computed using provisional ASFRs and provisional population projection figures from the KPHC 2019 while expected births in 2022 were computed using ASFRs from 2022 KDHS key indicators report and revised population projection figures from the KPHC 2019.

Figure 4. 3 Trends in expected births, registered births and birth registration completeness in the year 2018-2022

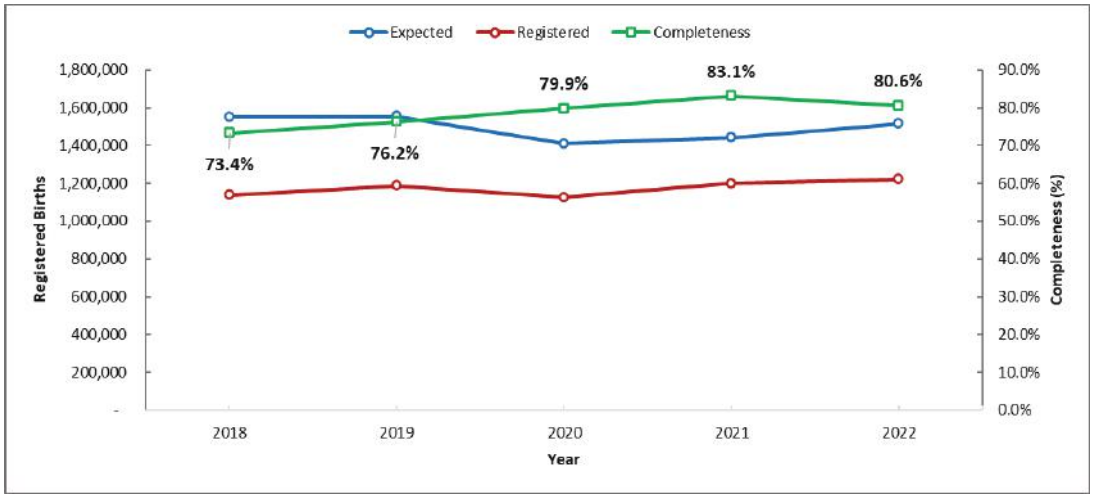
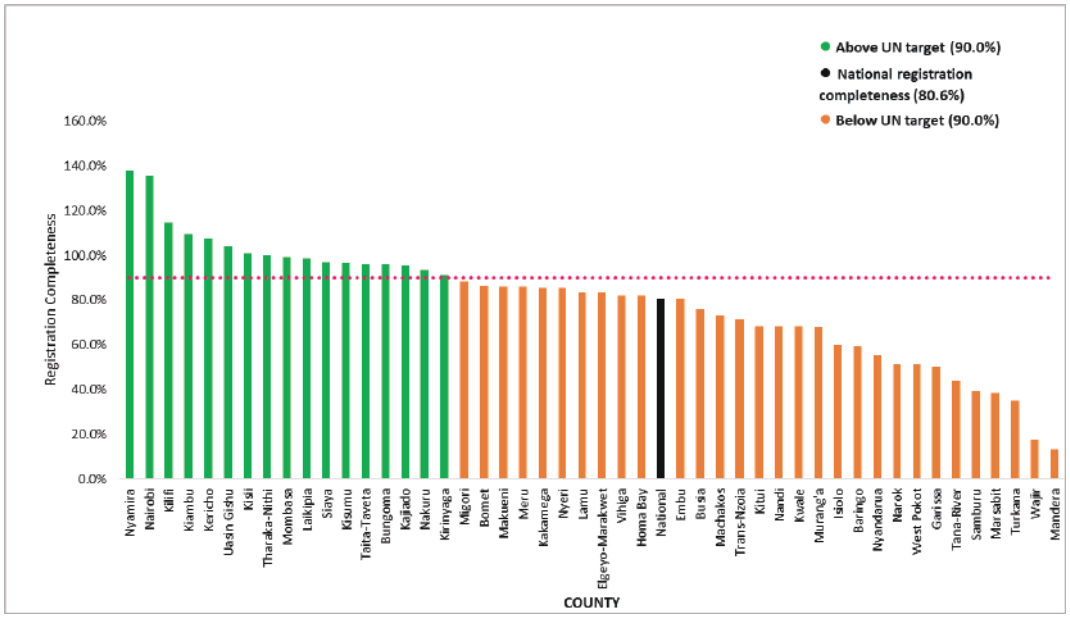


Figure 4. 4 Birth registration completeness in Counties, 2022



4.3 Sex Ratio

This is the ratio of males and females in a given population. Sex ratio imbalances occur when there is a significant deviation from the expected ratio of males to females in a population. This may be attributed to data quality issues and migration. The results of sex ratio nationally and county for 2022 are presented in Table 4.2. The results indicate that the Country's sex ratio is 103.1 and falls within the expected normal range of sex ratio (103 to 107).

The sex ratio distribution by County shows that 21 Counties namely: Kwale, Wajir, Meru, Tharaka Nithi, Embu, Kitui, Nyeri, Kirinyaga, Murang'a, Kiambu, Turkana, West Pokot, Samburu, Trans Nzoia, Elgeyo Marakwet, Laikipia, Nakuru, Narok, Bomet, Migori and Kisii is within the normal range.

Six counties namely Lamu, Tana River, Garissa, Mandera, Marsabit and Baringo reported slightly higher sex ratios than the normal. This is an indication of over-reporting of male births while 4 counties namely Kilifi, Kajiado, Kericho and Nyamira reported slightly lower sex ratio and this is attributed to under-reporting of male births.

Table 4. 3 Sex ratio distribution by County, 2022

	County	Sex ratio
	NATIONAL	**103.1**
001	Mombasa	102.8
002	Kwale	107.3
003	Kilifi	97.5
004	Tana River	109.5
005	Lamu	108.4
006	Taita Taveta	101.9
007	Garissa	109.1
008	Wajir	104.4
009	Mandera	116.8
010	Marsabit	119.8
011	Isiolo	101.9
012	Meru	107.1
013	Tharaka Nithi	105.7
014	Embu	103.7
015	Kitui	104.1
016	Machakos	100.1
017	Makueni	102.4
018	Nyandarua	101.5
019	Nyeri	103.2
020	Kirinyaga	103.5
021	Muranga	103.2
022	Kiambu	103.7
023	Turkana	105.6

	County	Sex ratio
024	West Pokot	106.9
025	Samburu	106.9
026	Trans Nzoia	104.5
027	Uasin Gishu	102.1
028	Elgeyo Marakwet	106.3
029	Nandi	101.7
030	Baringo	108.6
031	Laikipia	104.5
032	Nakuru	104.2
033	Narok	106.2
034	Kajiado	99.7
035	Kericho	98.9
036	Bomet	106.1
037	Kakamega	100.8
038	Vihiga	102.1
039	Bungoma	100.0
040	Busia	101.0
041	Siaya	102.9
042	Kisumu	102.5
043	Homa Bay	102.3
044	Migori	104.7
045	Kisii	103.8
046	Nyamira	98.6
047	Nairobi	102.0

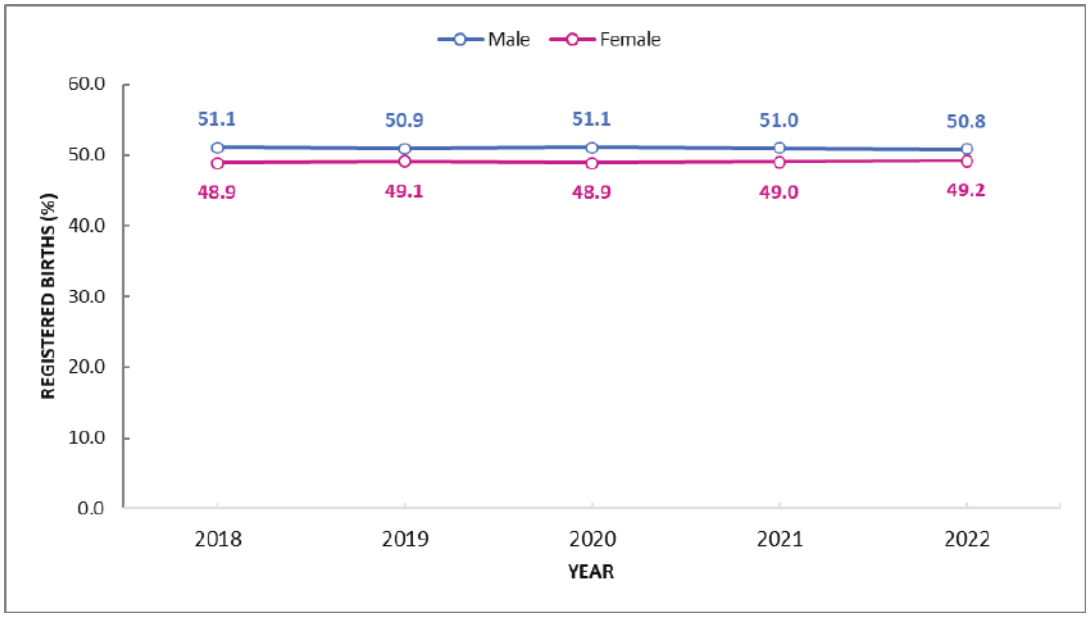
4.4 Live Births by Background Characteristics

This section presents information on live births registration by various background characteristics such as sex of child, place of occurrence, mother's age, marital status and education level. The last subsection presents information on fertility indicators based on live births registered in 2022.

4.4.1 Live Births by Sex of Child

This section presents results of live birth registration by sex of child. The results of live birth registration by sex of child are presented in **Figure 4.4.** Generally, there were more male births registered compared to female births over the five-year period. A similar pattern is observed in all the counties **(Appendix B2).**

Figure 4. 5 Live birth registration completeness by sex of child, 2018-2022

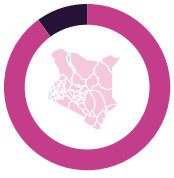


4.4.2 Live Births by Place of Occurrence

Birth registration is done either in a health facility or in the community. Evidence has shown that health facility delivery is an effective measure to reduce both maternal and child mortality as well as improve registration completeness. (KNBS et al., 2015). The results of the live births registered by place of occurrence are presented in Figure 4.5.

Over the five years, there was a general upward trend in the births that occurred in health facilities from 94.7 percent in 2018 to 99.0 percent in 2022 whereas community births declined from 5.3 percent in 2018 to 1.0 percent in 2022. This therefore means the majority of births occurring in Kenya are attended to by skilled medical personnel.

All counties had over 90% of their live births occurring in health facilities (Appendix B1). Four counties namely Uasin Gishu, Baringo, Kericho, and Bomet had all their births registered occurring in health facilities. This could be attributed to poor coordination between the sub-county registrars and assistant chiefs on timely submission of registered events. Except for Marsabit County, majority of the ASAL counties reported the lowest health facility births nationally of between 90.2 percent and 93.8 percent for Garissa.



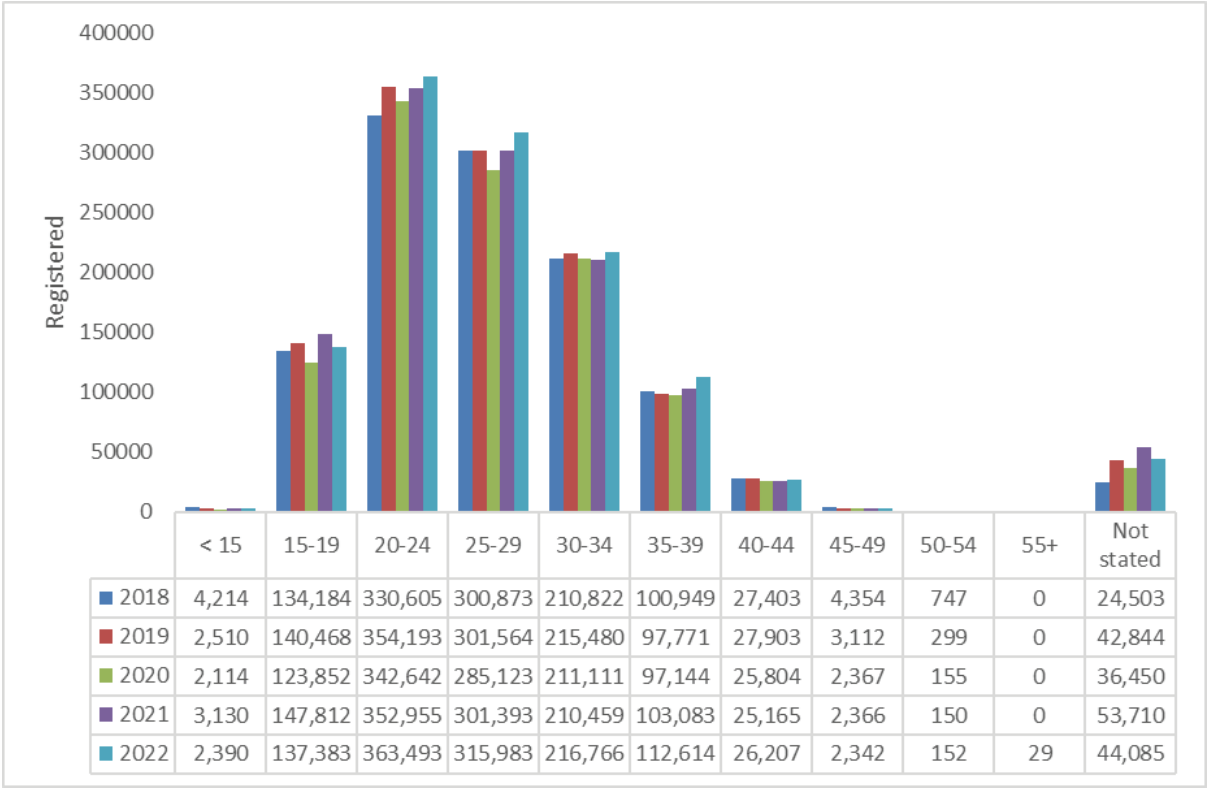
90%

All counties had over 90% of their live births occurring in health facilities.

4.4.3. Live Births by Age of Mother

Early initiation of child bearing is associated with an increase in total fertility rate and is also linked with maternal and child morbidity and mortality (Negash, 2022). The results of live births registered by age of mother are presented in Figure 4.6. The proportion of live births for mothers of age 15-19 was highest in 2021 and slightly declined in 2022. This implies teenage pregnancies are still prevalent. The majority of live births occurred among women aged 20-24 followed by women aged 25-29. Generally, there was a steady decline in live births between ages 30-44. The proportion of live births by mothers whose age was not stated declined from 4.5 percent in 2021 to 3.6 percent in 2022.

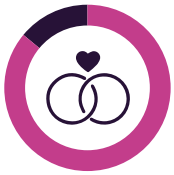
Figure 4. 6 Percentage of birth registration by age of the mother, 2018-2022



	< 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55+	Not stated
2018	4,214	134,184	330,605	300,873	210,822	100,949	27,403	4,354	747	0	24,503
2019	2,510	140,468	354,193	301,564	215,480	97,771	27,903	3,112	299	0	42,844
2020	2,114	123,852	342,642	285,123	211,111	97,144	25,804	2,367	155	0	36,450
2021	3,130	147,812	352,955	301,393	210,459	103,083	25,165	2,366	150	0	53,710
2022	2,390	137,383	363,493	315,983	216,766	112,614	26,207	2,342	152	29	44,085

4.4.4 Live Births by Marital Status

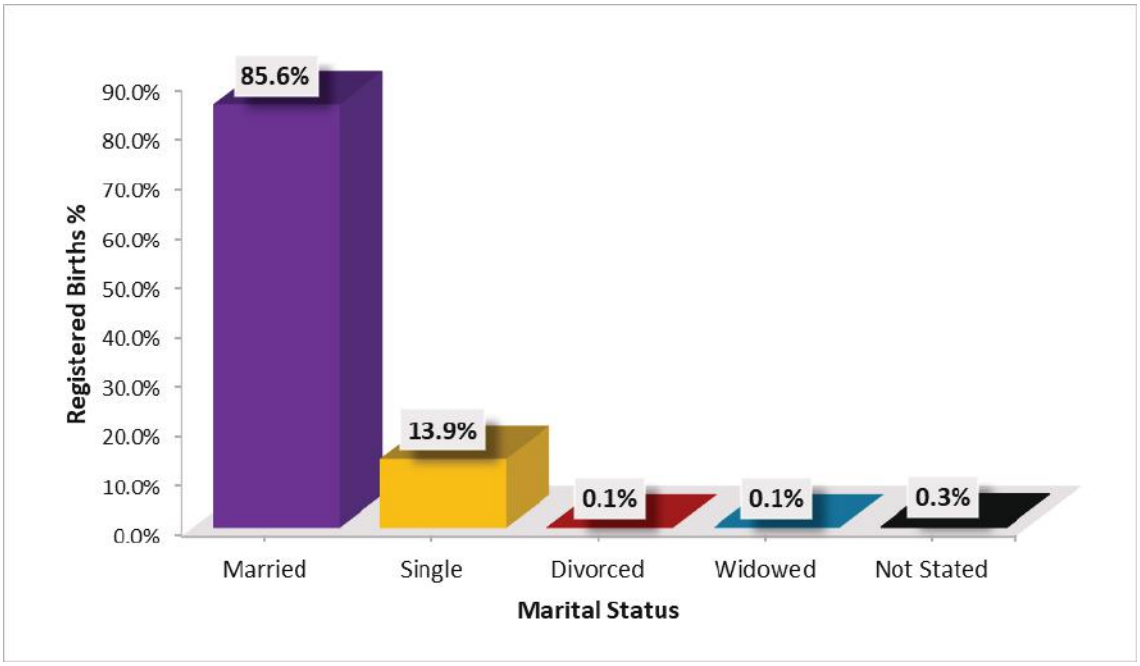
Marriage is an important proximate determinant of fertility. Early marriage is associated with a longer period of exposure to the risk of pregnancy and thus higher fertility levels (Bongaarts J. , 1999). This subsection presents results of live birth registration by marital status of the mother at the time of birth **(Figure 4.6).** The results show that the majority of live births were registered among married women (85.6%) compared to single women (13.9%). The proportion of live birth registration for divorced and widowed women was 0.2 percent while the proportion was 0.3 percent for women whose marital status was Not Stated.



85.6%

The results show that the majority of live births were registered among married women (85.6%) compared to single women (13.9%).

Figure 4. 7 Live births by marital status of the mother, 2022

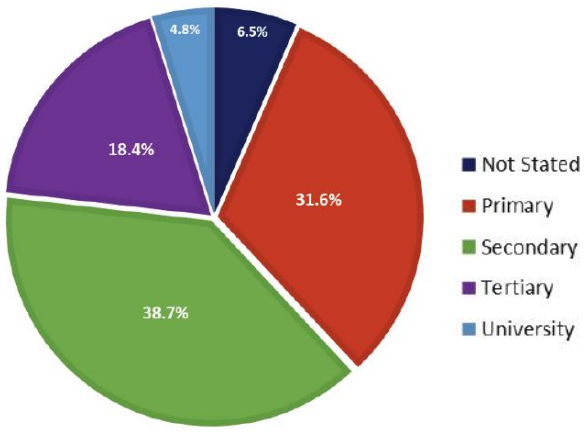


The results of the distribution of live births registration completeness by marital status in the counties is shown in Appendix B8 The findings show that all live births were registered among married women in Mandera. This was followed by Wajir (99.9%), Garissa (99.9%), Marsabit (99.4%), Tana River (98.8%), Kilifi (97.8%). On the other hand, counties with the lowest live births registration completeness among married women include: Nyandarua (72.2%), Nyeri (72.3%), Muranga (74.7%), Kitui (75.1%), and Kirinyaga (76.12%). The highest number of live births registration completeness for women whose marital status was Not Stated include: Homabay (0.3%), Migori (0.26%), Kisumu (0.2%), Turkana (0,2%) and Narok (0.2%).

4.4.5 Live Birth Registration Completeness by Education Level

Education is associated with fertility decline through changing family relations and childbearing behavior. Education contributes to women empowerment, delayed marriage and childbearing and smaller family size (KC S, 2017). This subsection presents information on live births by the education level of the mother at the time of birth (Figure 4.9). The results show that, mothers with secondary and primary levels of education had the highest proportion of live birth registration completeness at 38.7 percent and 31.6 percent respectively while birth registration completeness was 18.4 percent for mothers with tertiary level of education. Mothers' whose level of education was not stated had a 6.5 percent level of live birth registration completeness.

Figure 4. 8 Registered live births by education level of mother, 2022



The findings of live births distribution by level of education in the counties is presented in Appendix B9. Five counties with the highest number of live birth registration for mothers with university education level were: Nairobi (31.8%), Kiambu (9.0%), Nakuru (5.3%), Uasin Gishu (5.3%), and Mombasa (3.5%).

For those mothers with Tertiary level of education, five counties with highest live birth registration include: Nairobi (13.9%), Kiambu (7.3%), Turkana (5.8%), Nakuru (5.6%) and Kajiado (5.4%). The top five counties with highest live birth registration for mothers with secondary education level were: Nairobi (12.4%), Kiambu (7.1%), Nakuru (6.2%), Bungoma (4.9%) and Kakamega (4.1%). Furthermore, counties with the highest live birth registration for mothers whose level was Primary include: Kilifi (7.4%), Nairobi (6.3%), Bungoma (4.9%), Nakuru (4.8%) and Kakamega (4.5%).

4.5 Fertility Measures

Fertility measures were computed using live births registered in 2022. These include: Crude birth rate (CBR), General Fertility Rate (GFR), Age Specific Fertility Rate (ASFR) and Total fertility rate (TFR). Crude Birth Rate was computed per 1000 live births within the population in a given year. General Fertility Rate was calculated for live births per 1000 women of childbearing age 15-44. Age-specific fertility rate was computed for live births to females in a specific age group. TFR was computed by summing the age-specific fertility rates for all women age 15-49 multiplied by five.

The results of fertility measures based on live births registered in 2022 are presented in table 4.3. The results show that, the CBR was 24 per 1000 while it reported to be 27.7 in the 2022 KDHS key indicators report. GFR was 98 per 1000 live births compared to 122 per 1000 live births from the 2022 KDHS. The ASFR was highest for mothers age 20-24, 147 births per thousand. The same age group recorded the highest ASFR of 179 per 1000 live births based on 2022 KDHS. Fertility among adolescents (15-19) was 51 births per 1000 while the same was 73 births per 1000 live births based 2022 KDHS. TFR was 2.8 compared to 3.4 from the 2022 KDHS. The differences observed in these fertility measures between the 2022 KDHS indicators report and data from CRS may be attributed to incompleteness of birth registration. This implies that complete birth registration will greatly improve fertility estimates.



Table 4. 4 Fertility measures, 2022

Age group	ASFR-CRS	ASFR-KDHS
15-19	51	73
20-24	147	179
25-29	141	172
30-34	115	137
35-39	74	87
40-44	21	35
45-49	2	5
TFR	2.8	3.4
GFR	98	122
CBR	24	27.7

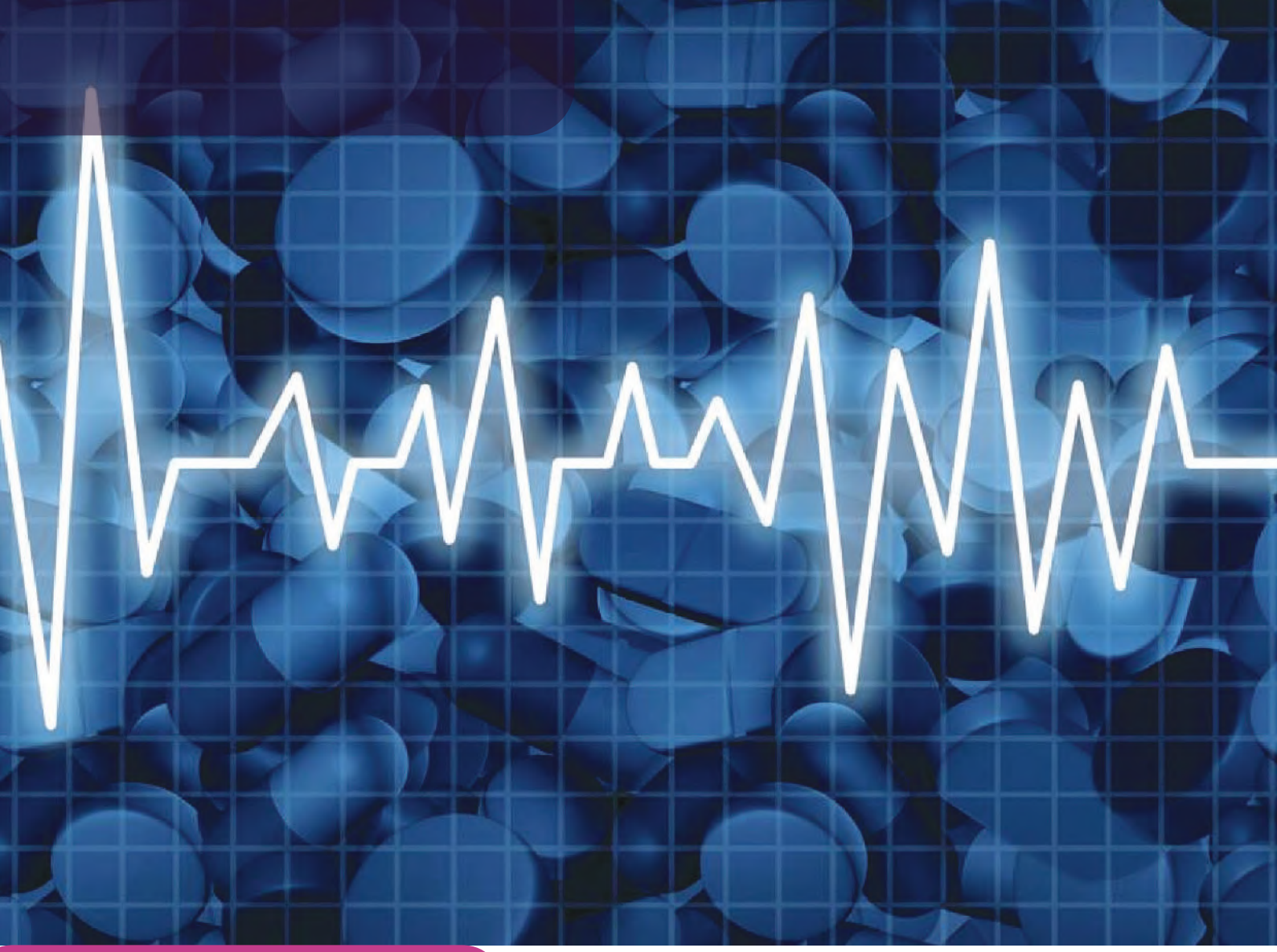
4.6 Foreign Registration of Births

A civil registration system can be used to produce data on the migrant populations in a country, however, at least two conditions must be met: migrants need to be included in the system and it must be possible to identify migrants in the registers, typically from information about country of birth/citizenship. Kenya's civil registration registers contain two very important variables which can give the migratory patterns of our population, these are, place of birth and the usual residence of the mother. The department also deals with events occurring outside the country. In this section, data on births which occurred outside Kenya and were registered in Kenya is presented. This data gives a snap shot of human mobility and migratory patterns in Kenyan population.

Table 4.5 below shows a total of 4,191 Births occurred outside and registered in Kenya, among these births, 2,047 were females and 2,144 were males. USA registered the largest number of Births followed by UK, UAE Uganda and Canada topping the first five countries.

Table 4. 5 Top ten Leading countries in foreign birth registration.

Country	Female	Male	Total
USA	584	558	1142
UK	372	354	726
UAE	107	115	222
Uganda	96	85	181
Canada	79	74	153
Saudi Arabia	74	79	153
Tanzania	74	77	151
South Africa	65	65	130
Australia	59	58	117
Botswana	56	48	104
Others	534	578	1112
Total	2047	2144	4191



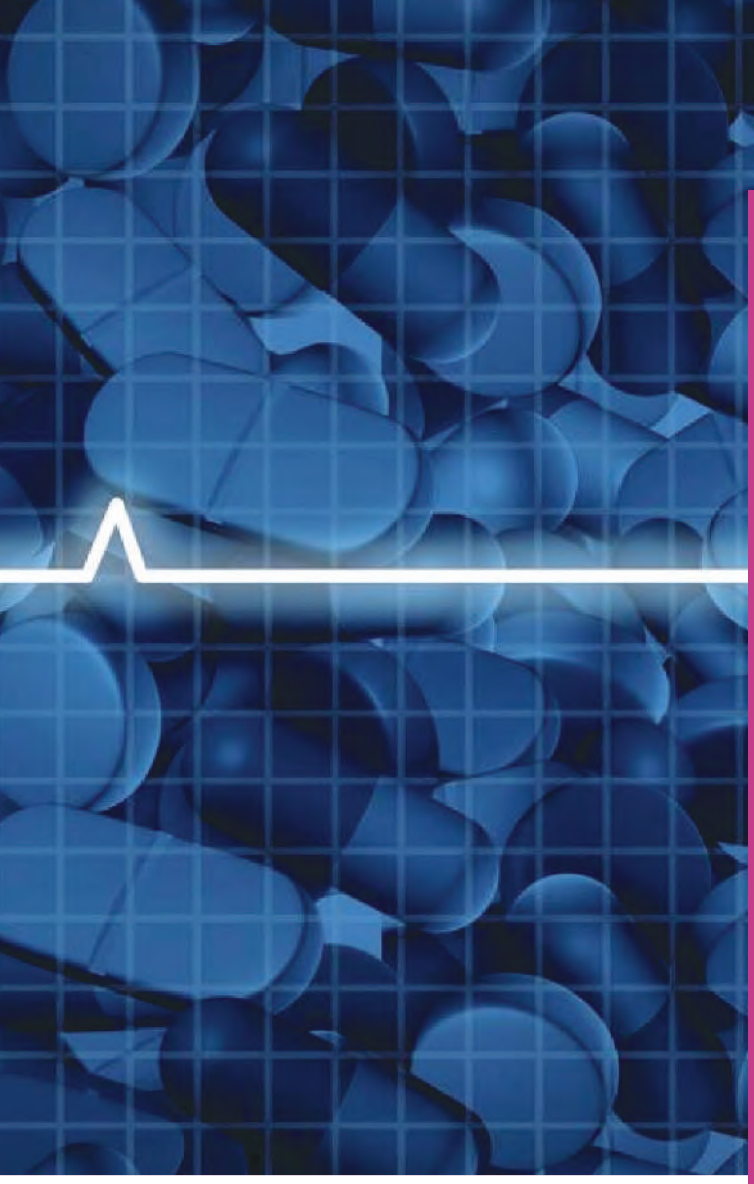
CHAPTER

05

Deaths

5.1 Introduction

Information on the number of deaths and their causes is invaluable in evaluating and tracking progress towards the national, regional and international goals. Goal three of the SDGs aims to improve maternal and child health outcomes, and end infectious diseases, reduce premature mortality from noncommunicable diseases and injuries and ensure universal health coverage by 2030. The Africa Agenda 2063 envisages a continent characterized by universal access to healthcare, zero communicable deaths, zero maternal deaths, zero child deaths and countries capable of mobilizing domestic funding for preventing, detecting and responding to public health threats such as non-communicable diseases, health needs of the youth population and malnutrition by 2063.



KEY FINDINGS:

47.6%

- Death registration completeness in 2022 in Kenya was 47.6 percent.
- Majority of the Counties, **39 (83%)** recorded a decrease in registration completeness.
- Only **7 (15%)** of the Counties recorded an improvement in registration completeness, while no change was recorded in one county from the 2021 rate.
- The sex ratio at death was **129.6.**
- The number of registered deaths was high among males compared to females across all age groups except at older ages (80+).
- More than half **(53%)** of all deaths occurred in the health facilities while 47 percent occurred in the community.
- Over the last 5 years, there was an increase in the proportion of deaths registered at the community as compared to health facilities.
- Kakamega County, has in the last 5 years led in the deaths reported at the community while Nairobi County has consistently led in the deaths reported at the health facility.
- The married category contributed **49.3 percent** of the total registered deaths in 2022 of which 64 percent were males.
- Deaths of children aged **10-14** who were either in marriage, widowed or divorced were also registered in 2021, an indication of child marriage. More than eight hundred deaths were registered among those aged 10-19 years in the same category.
- The calculated CDR using the registered deaths was **4.2 deaths per 1000** population in 2022.

The information on the mortality levels, trends and differentials is important for the identification of emerging diseases and conditions, formulation of evidence-based health policies and tracking of the population health status. Mortality data are generated from the civil registration system that permit the production of mortality statistics continuously and contribute to the understanding of the burden of diseases at national and sub national levels. This vital statistics report contains registration of both community and health facility registered deaths and the causes of death. Out of the expected 448,250 deaths, only 213,210 were registered in the CRVS system.

Table 5. 1 Summary statistics on mortality by year of occurrence

Indicator	2018	2019	2020	2021	2022
Expected	473,927	489,492	438,095	443,252	448,250
Registered	192,019	191,495	185,385	231,944	213,210
Coverage (%)	40.5	39.1	42	52.3	47.6
Sex Ratio	124.1	124.5	130.1	131.1	129.6
Community Deaths	79112	81960	86019	110174	100209
Health Institution Deaths	112,907	109,535	99,366	121,770	113,001
Male	106,318	106,215	104,832	131,599	120,357
Female	85,701	85,280	80,553	100,345	92,853

5.2 Death Registration Completeness

The computation of death registration completeness is based on the number of deaths registered divided by the expected deaths. The age-specific death rates and the projected population were from the 2019 Kenya population and housing census (KPHC).

Completeness in registration enables adjustments to be made when computing demographic indicators, mortality rates, population dynamics, population projections, age and sex-specific mortality rates (KPHC 2019).



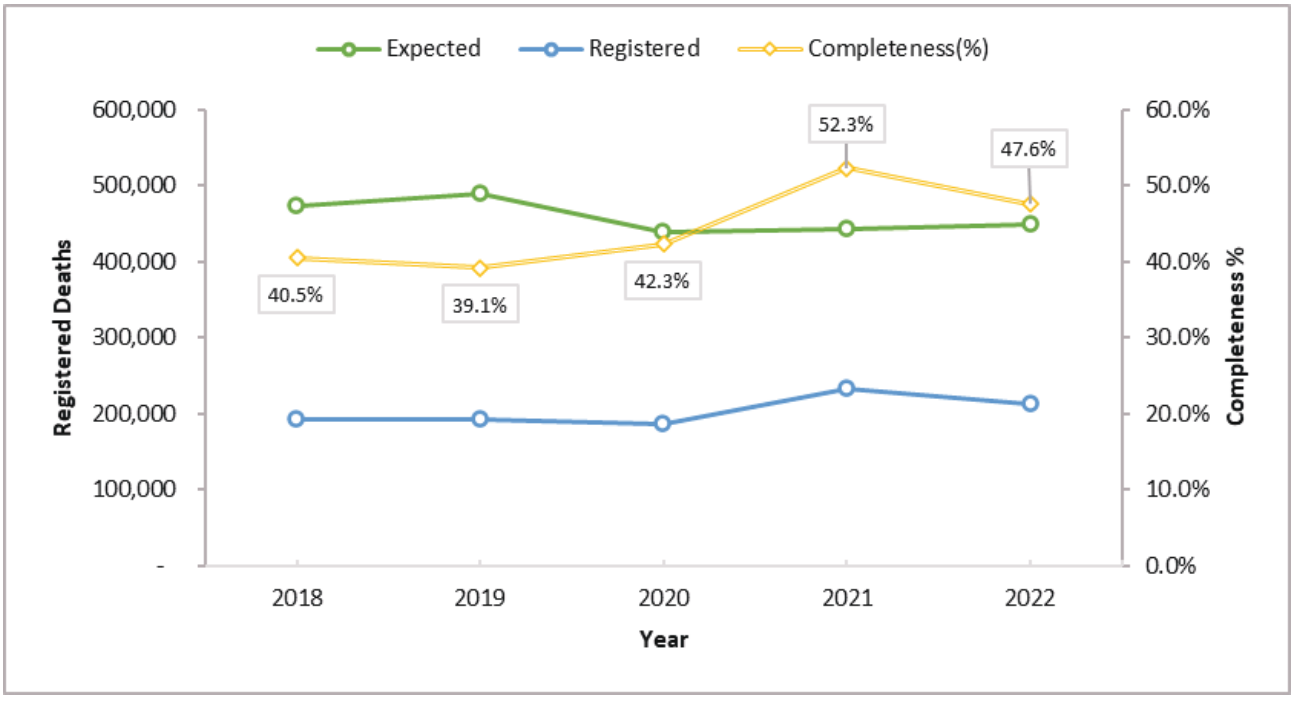
Table 5. 2 Expected, registered and completeness of death registration, 2018-2022

Code	Region/ County	EXPECTED					REGISTERED					COMPLETENESS				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
	Kenya	**473,927**	**489,492**	**438,095**	**443,252**	**448,250**	**192,019**	**191,495**	**185,385**	**231,944**	**213,210**	**40.5**	**39.1**	**42.3**	**52.3**	**47.6**
001	Mombasa	12,360	11,733	12,007	12,435	6,898	5,856	6,158	5,819	6,636	6,081	47.4	52.5	48.5	53.4	88.2
002	Kwale	9,519	9,498	9,719	8,953	8,874	2,629	2,980	2,965	3,491	3,393	27.6	31.4	30.5	39.0	38.2
003	Kilifi	14,635	14,226	14,555	15,713	19,553	5,477	5,341	5,180	6,202	6,651	37.4	37.5	35.6	39.5	34.0
004	Tana River	3,847	3,509	3,674	3,418	3,556	559	502	528	606	548	14.5	14.3	14.4	17.7	15.4
005	Lamu	1,576	1,620	1,686	1,128	1,215	427	444	478	627	561	27.1	27.4	28.3	55.6	46.2
006	Taita Taveta	6,160	5,969	6,107	3,609	4,108	1,780	1,743	1,666	2,337	2,063	28.9	29.2	27.3	64.7	50.2
007	Garissa	3,798	7,038	7,203	6,820	8,091	633	717	626	637	753	16.7	10.2	8.7	9.3	9.3
008	Wajir	5,294	8,534	8,734	6,022	6,313	464	720	333	567	613	8.8	8.4	3.8	9.4	9.7
009	Mandera	11,079	12,389	12,677	6,641	6,716	504	438	315	495	387	4.5	3.5	2.5	7.5	5.8
010	Marsabit	2,529	3,411	3,489	4,286	4,236	648	799	679	791	925	25.6	23.4	19.5	18.5	21.8
011	Isiolo	1,043	1,754	1,795	2,589	2,846	620	570	581	715	801	59.5	32.5	32.4	27.6	28.1
012	Meru	11,602	13,848	14,250	15,815	18,137	7,247	6,565	6,243	7,782	8,046	62.5	47.4	43.8	49.2	44.4
013	Tharaka Nithi	3,152	3,736	3,821	4,620	4,733	1,852	1,535	2,072	2,669	2,368	58.8	41.1	54.2	57.8	50.0
014	Embu	4,343	5,458	5,583	7,605	8,078	3,639	3,608	3,438	3,860	3,832	83.8	66.1	61.6	50.8	47.4
015	Kitui	11,087	12,904	13,199	14,592	14,016	5,238	4,177	4,900	5,970	6,070	47.2	32.4	37.1	40.9	43.3
016	Machakos	13,723	18,346	18,764	18,898	18,118	7,063	10,200	6,533	9,306	7,969	51.5	55.6	34.8	49.2	44.0
017	Makueni	11,049	13,533	13,841	14,361	13,961	4,870	4,272	4,276	5,865	5,541	34.8	31.6	30.9	40.8	39.7
018	Nyandarua	10,970	7,804	7,984	8,376	8,428	2,786	2,553	2,332	2,950	2,646	25.4	32.7	29.2	35.2	31.4
019	Nyeri	11,012	11,450	11,713	7,744	9,359	5,067	4,774	5,318	6,662	5,814	46.0	41.7	45.4	86.0	62.1
020	Kirinyaga	6,364	6,501	6,651	7,473	8,800	3,250	2,970	3,457	4,370	3,872	51.1	45.7	52.0	58.5	44.0
021	Muranga	12,763	13,332	13,638	17,342	17,934	5,721	7,652	6,197	8,169	6,884	44.8	57.4	45.4	47.1	38.4
022	Kiambu	16,953	20,760	21,240	19,601	21,418	10,720	10,373	10,281	12,702	11,915	63.2	50.0	48.4	64.8	55.6
023	Turkana	13,938	11,610	11,882	8,762	9,019	1,814	2,041	1,923	2,041	2,134	13.0	17.6	16.2	23.3	23.7
024	West Pokot	7,924	6,857	7,017	5,618	6,276	1,074	789	1,171	1,356	1,179	13.6	11.5	16.7	24.1	18.8
025	Samburu	2,890	2,862	2,929	2,516	2,608	348	328	320	440	556	12.0	11.5	10.9	17.5	21.3
026	Trans Nzoia	11,663	10,735	10,985	7,374	7,386	3,699	4,378	3,957	4,819	4,753	31.7	40.8	36.0	65.3	64.4
027	Uasin Gishu	13,636	13,560	13,874	7,960	8,598	7,039	7,005	6,493	8,155	6,866	51.6	51.7	46.8	102.4	79.9
028	Elgeiyo Marakwet	5,159	4,906	5,019	4,800	5,198	1,372	1,132	1,186	1,600	1,310	26.6	23.1	23.6	33.3	25.2
029	Nandi	11,971	11,152	11,409	7,949	7,852	2,293	2,691	2,365	3,403	2,682	19.2	24.1	20.7	42.8	34.2
030	Baringo	8,402	7,843	8,024	5,012	4,922	1,583	1,224	1,105	1,533	1,363	18.8	15.6	13.8	30.6	27.7
031	Laikipia	6,864	7,130	7,295	5,011	5,001	2,404	2,315	2,301	3,167	2,718	35.0	32.5	31.5	63.2	54.4
032	Nakuru	26,704	27,613	28,254	19,164	19,407	9,761	9,009	9,697	12,476	10,668	36.6	32.6	34.3	65.1	55.0
033	Narok	8,719	8,175	8,365	10,371	10,001	1,187	1,557	1,499	2,081	1,936	13.6	19.0	17.9	20.1	19.4
034	Kajiado	7,086	8,836	9,042	9,755	10,067	1,866	1,692	2,213	3,026	2,829	26.3	19.1	24.5	31.0	28.1
035	Kericho	11,222	10,427	10,669	9,082	9,655	3,780	3,494	3,441	4,233	3,888	33.7	33.5	32.3	46.6	40.3
036	Bomet	9,905	9,153	9,365	8,599	9,815	2,780	2,729	2,545	3,206	2,854	28.1	29.8	27.2	37.3	29.1
037	Kakamega	23,418	24,136	24,696	16,302	15,780	9,355	9,720	8,900	11,265	10,671	39.9	40.3	36.0	69.1	67.6
038	Vihiga	11,171	11,703	11,973	7,905	9,015	3,945	4,024	3,911	5,038	4,650	35.3	34.4	32.7	63.7	51.6
039	Bungoma	19,870	18,164	18,586	11,914	11,733	6,509	7,265	6,446	8,398	8,242	32.8	40.0	34.7	70.5	70.2
040	Busia	7,534	11,960	12,238	7,937	7,757	4,187	4,498	3,837	4,476	4,426	55.6	37.6	31.4	56.4	57.1
041	Siaya	21,111	20,281	20,752	13,333	13,197	6,105	6,028	5,627	7,180	6,278	28.9	29.7	27.1	53.9	47.6
042	Kisumu	17,432	16,787	17,178	12,600	12,580	6,920	6,431	6,567	7,579	6,362	39.7	38.3	38.2	60.1	50.6
043	Homa Bay	16,558	15,584	15,947	14,565	14,910	3,800	3,077	3,154	3,861	3,615	22.9	19.7	19.8	26.5	24.2
044	Migori	15,398	14,485	14,823	13,378	13,463	3,170	2,800	2,820	3,548	3,207	20.6	19.3	19.0	26.5	23.8
045	Kisii	14,514	13,804	14,123	13,229	14,728	6,782	7,065	6,283	8,118	7,388	46.7	51.2	44.5	61.4	50.2
046	Nyamira	7,349	7,153	7,318	6,948	9,406	1,789	1,417	1,740	2,439	2,447	24.3	19.8	23.8	35.1	26.0
047	Nairobi	37,732	31,357	32,091	28,484	30,173	21,407	19,695	21,667	25,097	22,455	56.7	62.8	67.5	88.1	74.4

During the period under review, there was a notable decline in Death registration completeness from about 52 percent to 48 percent. This can be attributed to lack of registration materials (form D1 and D2) that was witnessed in some of our registration points, it is also notable that areas that registered lowest completeness are in the ASAL areas largely affected by geographical vastness, insecurity and religious beliefs where bodies are buried almost immediately without notification (figure 5.1).

Trends in expected, registered and death registration completeness are presented in figure 5.1. The number of expected deaths which were on an upward trend from 2018 declined in 2021 before increasing again in 2022. This is attributable to the new mortality indicators from the 2019 KPHC census used in estimation of the expected deaths. On the other hand, registered deaths which were on a declining trend from 2018 increased in 2021 before declining slightly in 2022. In addition, the registration completeness for deaths which was on a downward trend from 2018 increased sharply in 2021 before declining in 2022.

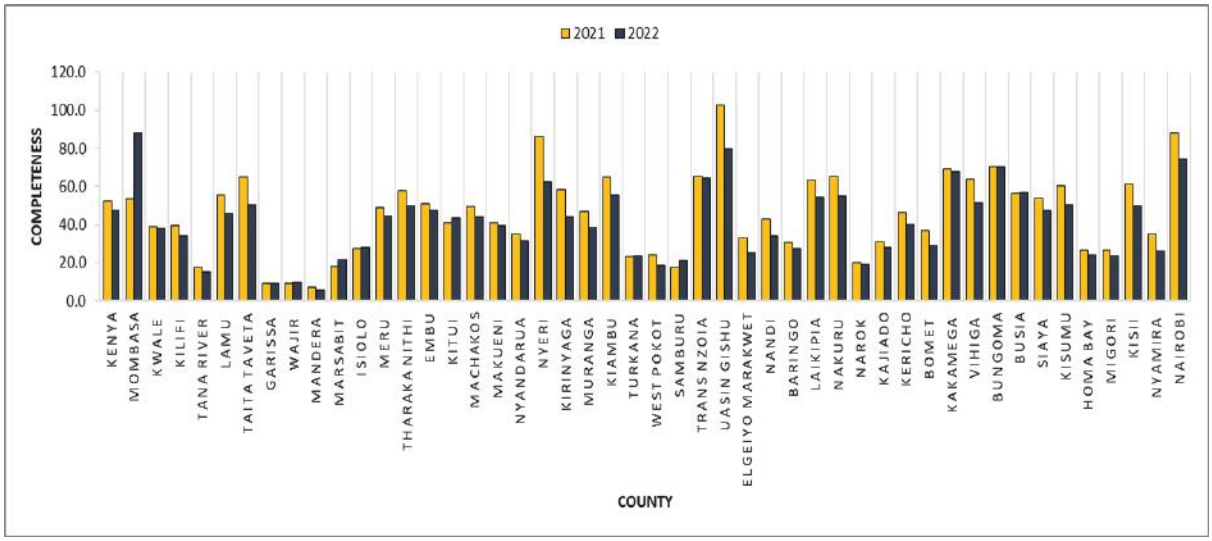
Figure 5. 1 Trend in expected, registered and completeness of death, 2018-2022



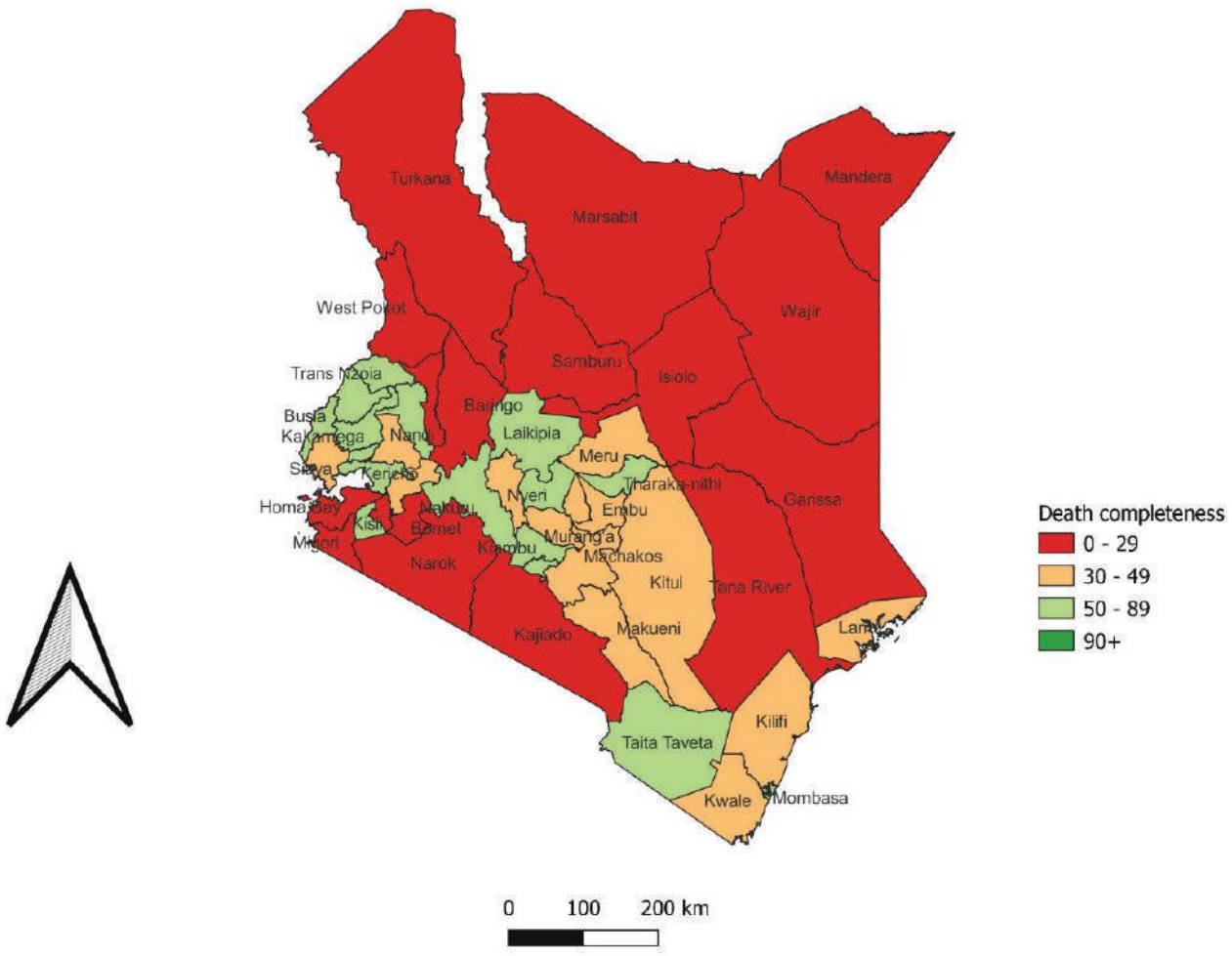
The death registration completeness (Figure 5.2) indicates a decline at the National Level from 55 percent in 2021 to 48 percent in 2022. The same pattern is replicated in most counties with the exception of Kitui (2.4%), Samburu (3.8%), Marsabit (3.4%) which recorded a percentage increase as indicated. Busia, Isiolo, Wajir, and Turkana had also reported an increase of less than one percent. The counties of Narok, Mandera, Garissa, Wajir and Tana River had registration completeness of 20 percent and below for the two consecutive years.

The highest decline in completeness in 2022 was witnessed in Nyeri (23.9%), Uasin Gishu (22.6%), Mombasa (15%), Kirinyaga and Taita Taveta (14.5%), and Nairobi (13.7%).

Figure 5. 2 Comparison of death registration completeness, 2021 and 2022



Map 1. 3 Death completeness in 2022



5.3 Sex Ratios for Registered Deaths

The sex ratios for deaths registered were consistently above 100 for all age groups, an indication that there were more male than female deaths registered except for the age group above 80 years with a sex ratio of 80.6. The national average sex ratio was 129.6 with most male deaths being registered in the age group 20-24 (186.8) followed by age group 40-44 (182.9). In 2021 the national sex ratio was 131.0 with most deaths occurring in the age group 40-44 (175.3) followed by age group 20-24 with a ratio of 174.6.

As illustrated in table 5.2 below, Mandera (214.6), Wajir (187.8), Garissa (178.9), Tana River (170.0) and Isiolo (167.0) are the top 5 counties with the highest deaths sex ratios. These are all ASAL areas. The counties with the lowest sex ratios are Busia (119.5), Kilifi (118.8), Homabay (113.3), Siaya (109.0) and Turkana (105.2).

Table 5. 3 Sex ratio by county, 2022

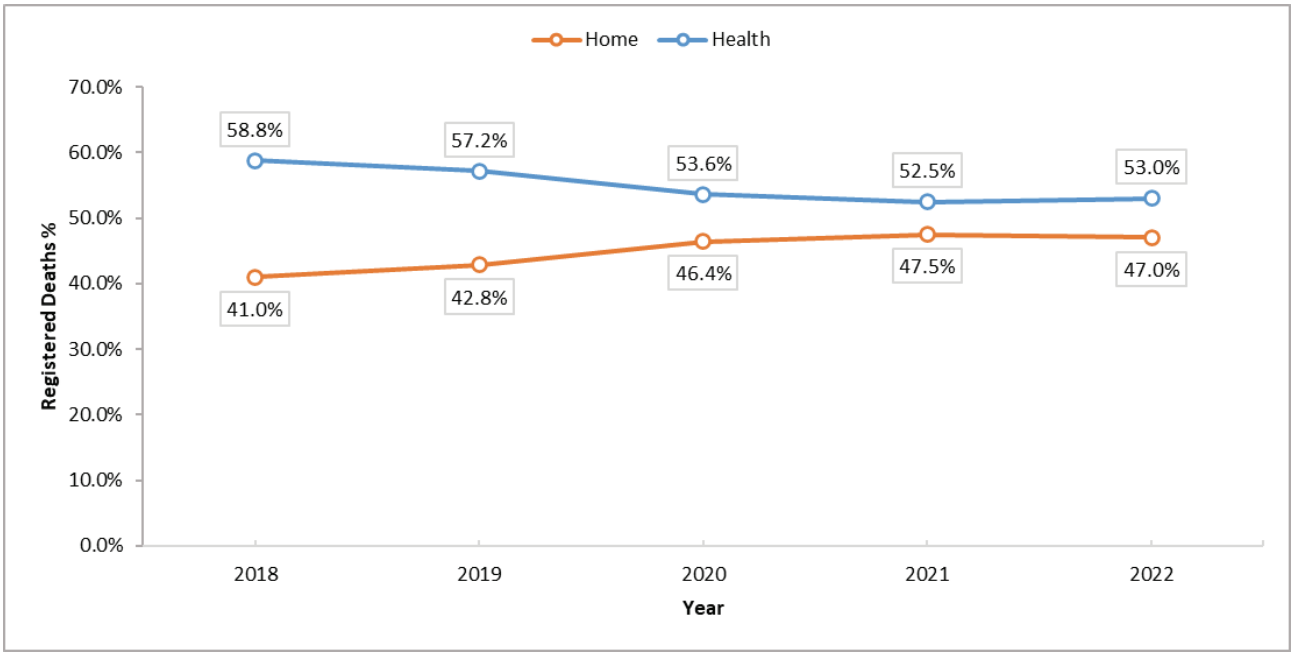
CODE	COUNTY/ NATIONAL	SEX RATIO	MALE	FEMALE
			Registered	Registered
	KENYA	**129.6**	**120,355**	**92,853**
001	Mombasa	123.9	3,365	2,716
002	Kwale	127.4	1,901	1,492
003	Kilifi	118.8	3,611	3,040
004	Tanariver	170.0	345	203
005	Lamu	164.6	349	212
006	Taita Tav-eta	139.3	1,201	862
007	Garissa	178.9	483	270
008	Wajir	187.8	400	213
009	Mandera	214.6	264	123
010	Marsabit	154.1	561	364
011	Isiolo	167.0	501	300
012	Meru	150.7	4,837	3,209
013	Tharaka Nithi	149.0	1,417	951
014	Embu	136.3	2,210	1,622
015	Kitui	126.2	3,387	2,683
016	Machakos	135.3	4,582	3,387
017	Makueni	123.0	3,056	2,485
018	Nyandarua	136.9	1,529	1,117
019	Nyeri	121.1	3,184	2,630
020	Kirinyaga	122.4	2,131	1,741
021	Muranga	141.3	4,031	2,853
022	Kiambu	129.9	6,732	5,183
023	Turkana	105.2	1,094	1,040
024	West Pokot	131.6	670	509
025	Samburu	130.7	315	241
026	Trans Nzoia	122.8	2,620	2,133
027	Uasin Gishu	129.5	3,874	2,992
028	Elgeyo Marakwet	130.2	741	569
029	Nandi	132.8	1,530	1,152
030	Baringo	143.4	803	560
031	Laikipia	140.5	1,588	1,130
032	Nakuru	125.5	5,938	4,730
033	Narok	140.2	1,130	806
034	Kajiado	124.3	1,568	1,261
035	Kericho	125.7	2,165	1,723
036	Bomet	126.7	1,595	1,259
037	Kakamega	127.3	5,977	4,694
038	Vihiga	146.6	2,764	1,886
039	Bungoma	125.7	4,590	3,652
040	Busia	119.5	2,410	2,016
041	Siaya	109.0	3,274	3,004
042	Kisumu	123.1	3,511	2,851
043	Homa Bay	113.3	1,920	1,695
044	Migori	140.2	1,872	1,335
045	Kisii	130.9	4,188	3,200
046	Nyamira	140.4	1,429	1,018
047	Nairobi	130.5	12,713	9,742

5.4 Deaths by Background Characteristics

5.4.1 Deaths by Place of Occurrence

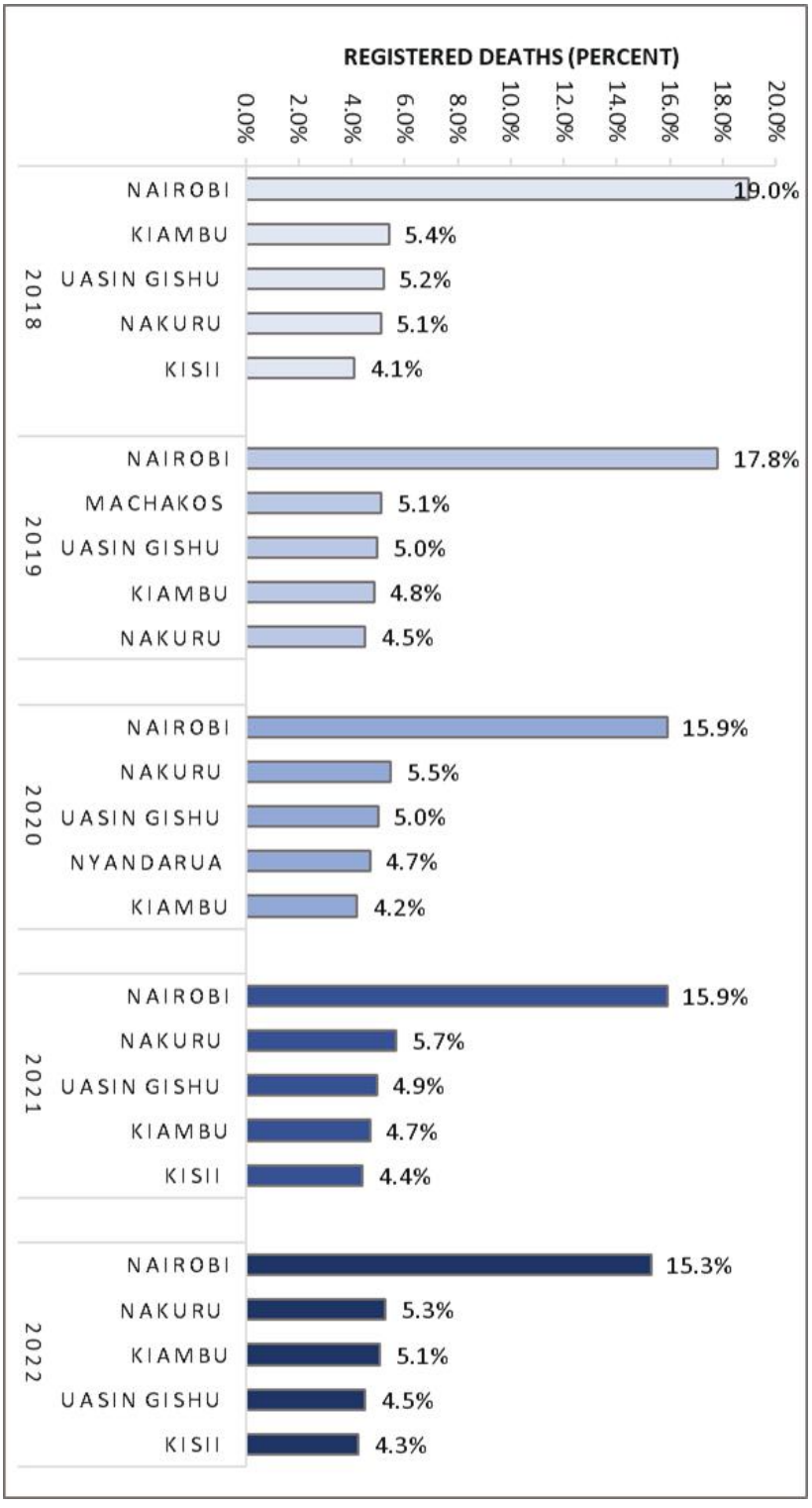
Over the last 5 years, there has been a decrease in the proportion of registered deaths at home and health facility. As indicated in Fig 5.3, in 2018, 41 percent of the reported deaths occurred at home and this increased steadily in the five years to 47 percent in 2022. On the contrary, registration of deaths occurring at health facilities registered a moderate decrease from 58.8 percent in 2018 to 53 percent in 2022. The sharp increase in the proportion of reported deaths which occurred at home was recorded in 2020, and this may be attributed to the effect of COVID-19 when the government enhanced efforts to ensure all the deaths which occurred at home were reported to ascertain if they are COVID-19 related or not.

Figure 5. 3 Trends in registered deaths by place of occurrence; 2018-2022

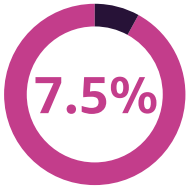


Among the deaths reported at the health facility, Nairobi County was the leading contributor accounting for 15.3 percent of the total number reported which can be attributed to the population size as well as referral hospitals. In 2022, five Counties, including Nairobi, Kiambu, Nakuru, Uasin Gishu and Kisii contributed 34.4 percent. The trend is also noted in the last five years where the top four in 2022, consistently ranked in the highest contributing Counties between 2018 to 2022. The same trend is also noted among the lowest counties of Wajir, Mandera, Tana River, Lamu and Marsabit. The findings could be associated with the fact that high coverage counties also have the highest concentration of both private and public health facilities, with a an average of less than one hour to access the nearest health facility as compared to the Counties reporting low contributions to deaths recorded at health facilities where there is low health facility coverage and the average travel to the nearest health facility could be even more than 3 hours (Moturi, 2022).

Figure 5. 4 Highest five counties Registered deaths at health facility, 2022

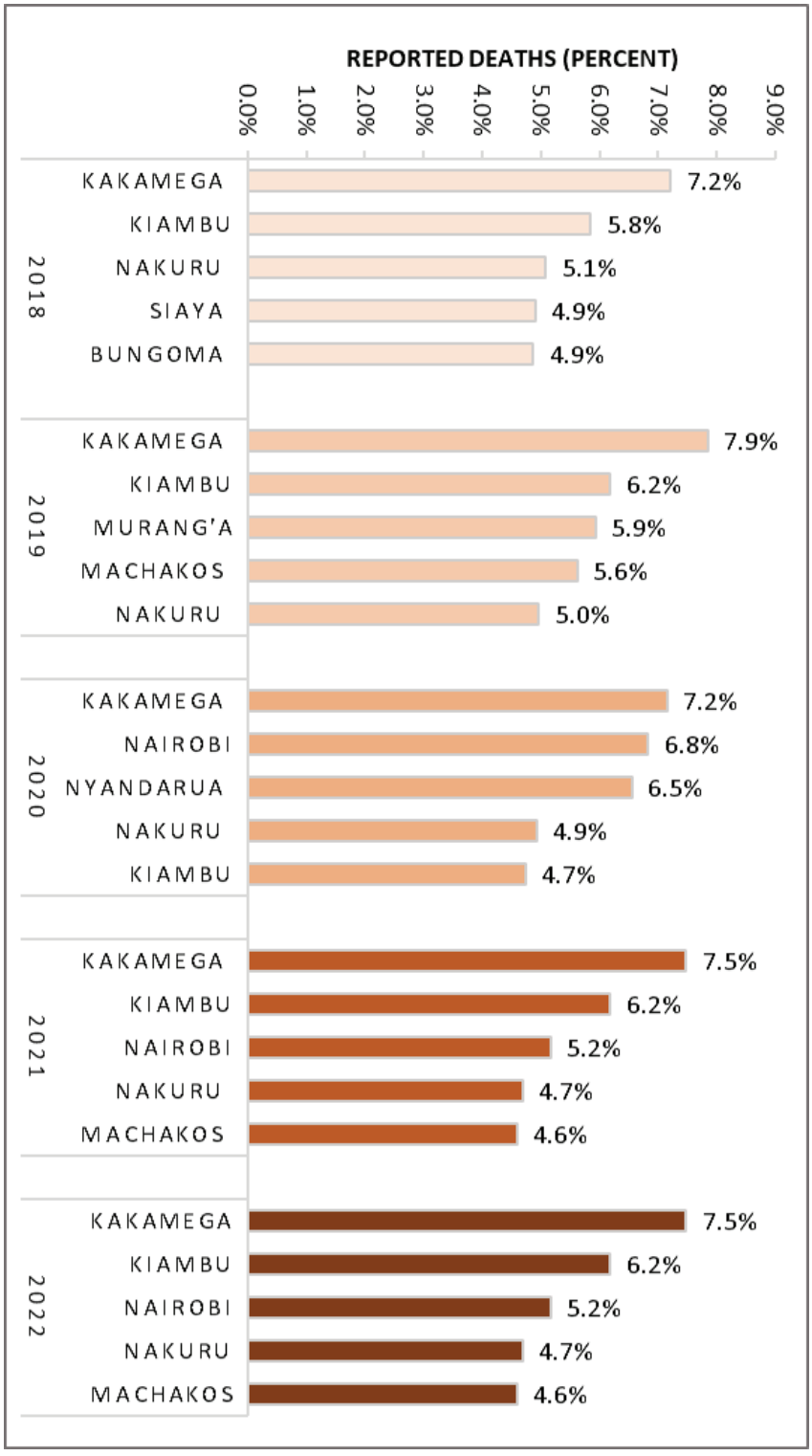


Among the deaths reported at the community level, Kakamega County recorded the highest contribution of the total deaths reported at 7.5 percent in 2022. Subsequently, Kakamega County has consistently contributed reported deaths at above seven percent nationally for the last five years. Kiambu and Nakuru Counties, which in the last five n years ranked n in the top five high contributors on the deaths reported at the community level. Between the year 2020 to 2022, Nairobi County contributed a substantial number of reported deaths at the community level at above five percent consecutively. This may have been attributed to the COVID-19 pandemic that was declared in 2020. Other Counties that were top five among the deaths reported at the community level in the last five years include: Machakos, Nyandarua, Muranga, Bungoma and Siaya Counties. In 2022 and 2021, Machakos County also appeared among the top five counties in 2022, 2021 and 2019 contributions.



Among the deaths reported at the community level, Kakamega County recorded the highest contribution of the total deaths reported at 7.5 percent in 2022.

Figure 5. 5 Registered deaths by county at the community, highest 5, 2022



The high death rate among males can be attributed to several factors associated with hazardous and risky occupations heavy machinery, construction industry, long-haul truck driving, security e sectors among others.

5.4.2 Deaths by Age and Sex

The recording of death by sex and age can provide important information on age patterns of death in a population. The expected pattern is that males die more than females except at the very old ages. Departure from this norm is an indicator of underreporting of male deaths for some ages.

Nationally, registered deaths by sex shows that more male deaths are registered as compared to females with the trend (Fig 5.6) recording a consistent difference in the last five years. The trend was at its peak in 2021 for both sexes before dipping gradually in 2022. The high death rate among males can be attributed to several factors associated with hazardous and risky occupations heavy machinery, construction industry, long-haul truck driving, security e sectors among others.

Figure 5. 6 Summary of death registration by sex and year of occurrence

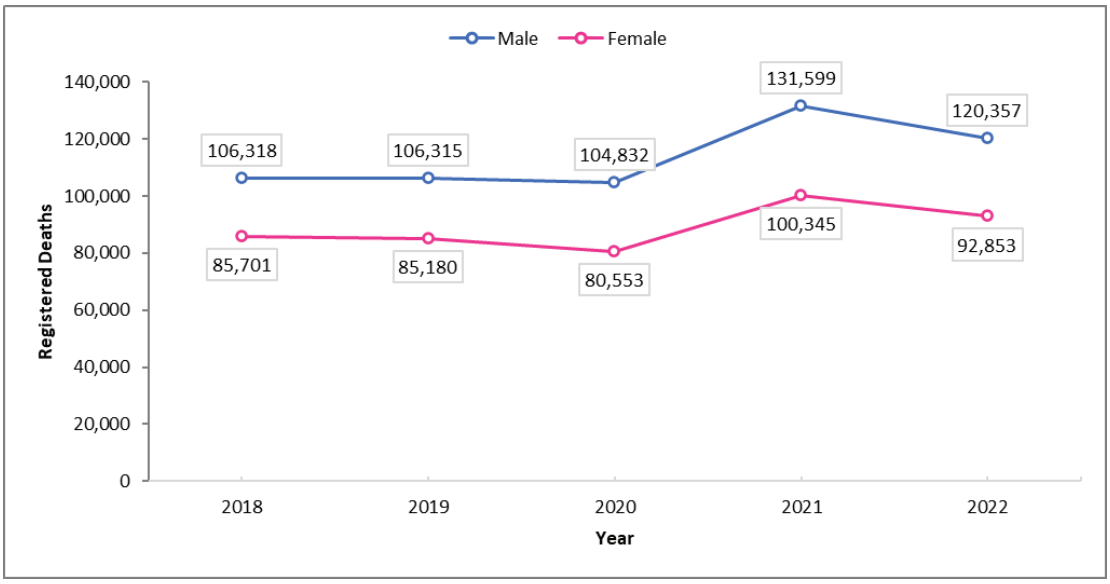
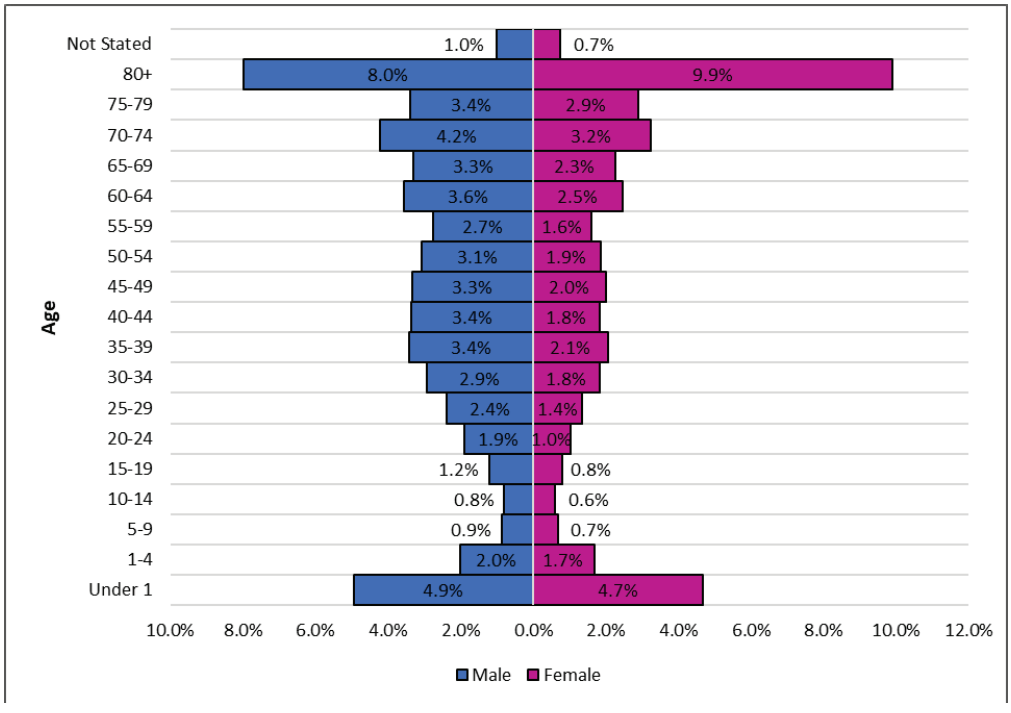


Figure 5.7 shows distribution of registered deaths by sex and age groups. The same age-sex structure pattern exhibited above is a replica of the year 2021 where more male deaths were reported across all age groups with the exception of females above 80 years who died more than the males. Most deaths occur in the under 1 age group and the 80+ category. This conforms to the expected demographic trend worldwide.

Figure 5. 7 Age-Sex structure of registered deaths, 2022



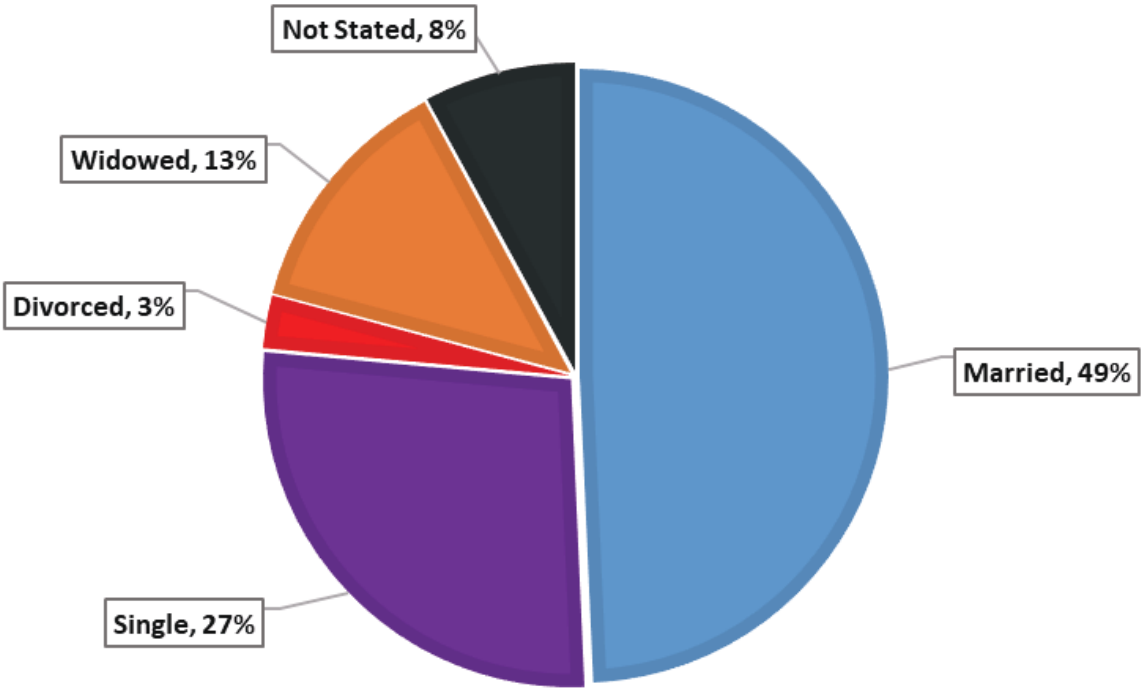
5.4.3 Deaths by Marital Status

Marital status and living arrangements and accompanying life events have health and mortality implications in a population. Many studies indicate that health and mortality outcomes for married persons are better than for unmarried persons[4] , with men being more affected than women. In other studies, based on Asian Populations, belonging in the unmarried categories was associated with poor health and mortality outcomes as compared to their married counterparts. For purposes of this section, registration data collected on deaths by marital status, will only look for the trends and patterns by sex, and county.

5.4.3.1 Deaths by Marital Status and County, 2022

In 2022, (49.3%) of registered deaths occurred among those that were in the marriage category (fig 5.8), in all the counties. Only 3 percent of deaths that were registered in 2022 were from those who were divorced across all counties.

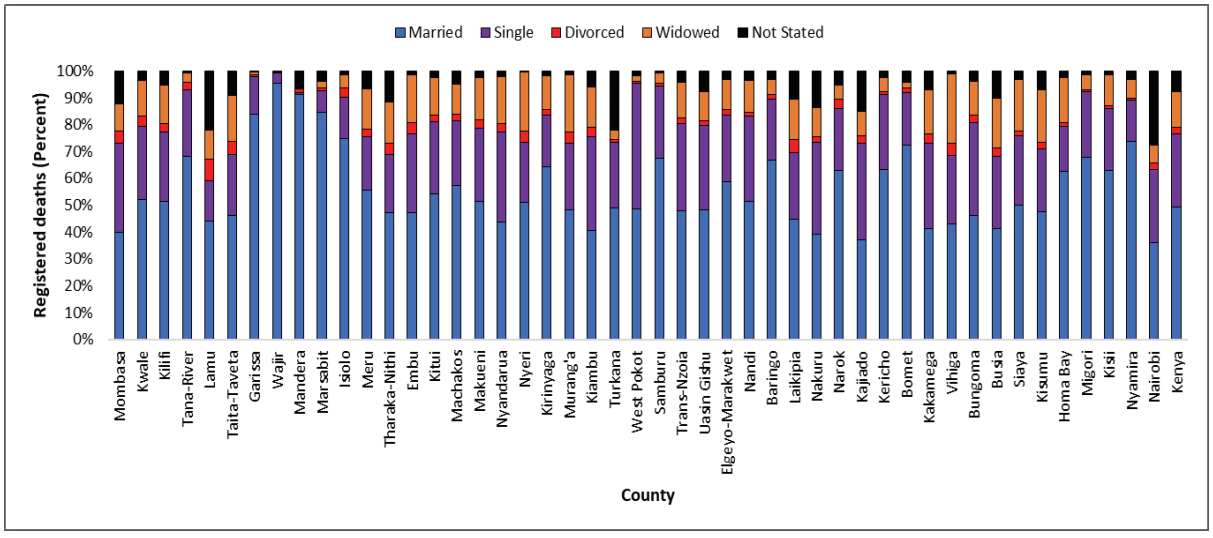
Figure 5. 8 Deaths by marital status, 2022



In all the counties, the highest proportion of deaths reported were from the married category, followed by single, widowed and then divorced. A similar pattern is replicated in the counties. Wajir county had the highest proportion at 95.9 percent of all deaths registered within the married category followed by Mandera with 92 percent, Marsabit 85 percent, Garissa 84 percent and Isiolo 75 percent as shown in **fig.5.9.**

[4] Farr W Savill and Edwards; London:1858. Influence of marriage on mortality of French people.

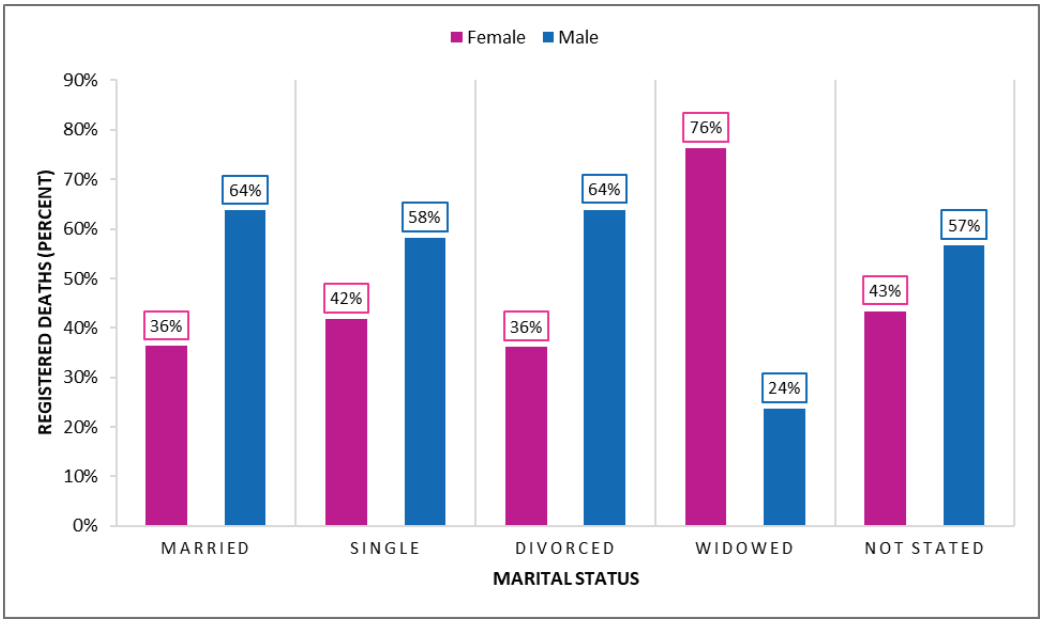
Figure 5. 9 Deaths by Marital Status and County, 2022



5.4.3.2 Deaths by Marital Status and Sex

Fig 5.10 gives a summary of deaths by marital status and sex during the 2022 registration period. More male deaths (64%) were registered within the married, single (58%) and divorced (64%) category in 2022. In the same year, the proportion of registered female deaths among the widowed category was 76 percent as compared to male proportion of deaths at 24 percent. It is also important to note the high number of deaths (15,154) where marital status was not indicated Among the females, 43 percent and 57 percent male deaths were not assigned any marital.

Figure 5. 10 Deaths by marital status and sex of the deceased, 2022



5.4.3.3 Deaths by Marital Status by Age

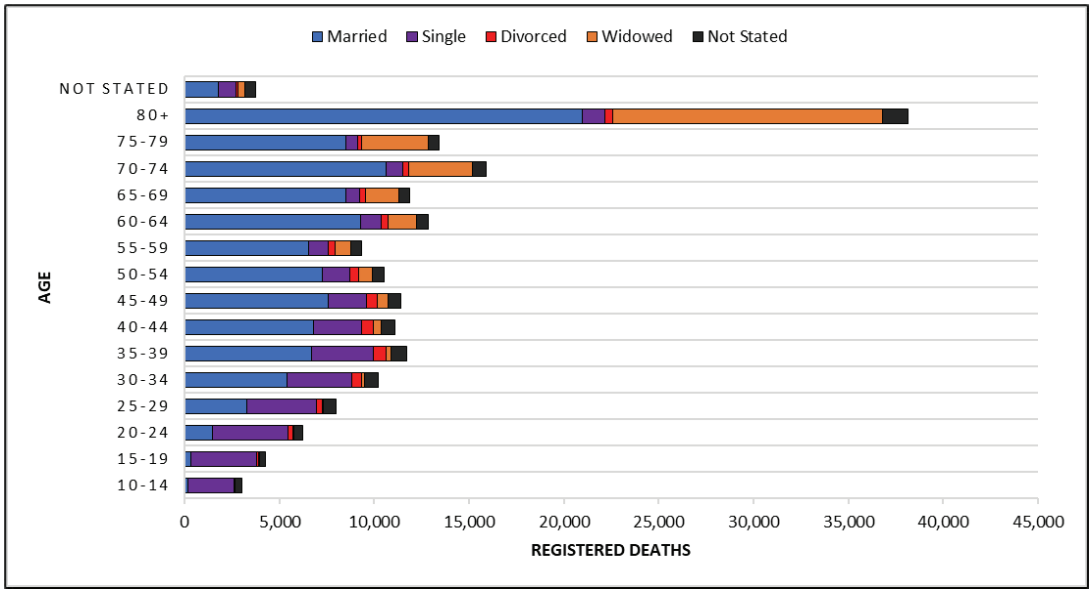
More deaths were registered among those in the married category and aged 80 years and above. In the 5-year age category, more deaths were registered among married and those aged 70-74 years followed by 60-64 years.

Table 5. 4 Cross tabulation of the Marital status and age of the registered deaths

Age	Sex	Married	Divorced	Widowed	TOTAL
10-14	Female	59 (39%)	23 (42%)	7 (58%)	89 (41%)
	Male	91 (61%)	32 (58%)	5 (42%)	128 (59%)
	Total	**150 (100%)**	**55 (100%)**	**12 (100%)**	**217 (100%)**
15-19	Female	154 (48%)	52 (38%)	8 (40%)	214 (45%)
	Male	165 (52%)	85 (62%)	12 (60%)	262 (55%)
	Total	**319 (100%)**	**137 (100%)**	**20 (100%)**	**476 (100%)**
20-49	Female	11,969 (38%)	1,000 (33%)	1,013 (68%)	13,982 (39%)
	Male	19,255 (62%)	2,067 (67%)	466 (32%)	21,788 (61%)
	Total	**31,224 (100%)**	**3,067 (100%)**	**1,479 (100%)**	**35,770 (100%)**
50+	Female	25,321 (35%)	985 (40%)	19,859 (77%)	46,165 (46%)
	Male	46,345 (65%)	1,455 (60%)	6,000 (23%)	53,800 (54%)
	Total	**71,666 (100%)**	**2,440 (100%)**	**25,859 (100%)**	**99,965 (100%)**

As presented in table 5.3, among the registered deaths of those who had ever been married, 217 (0.2%) were aged between 10-14 years, 2,247 (1.6%) were aged between 15-24 years. Among the 10-14 years, 150 (69.1%) died while in active marriage, 55 (25.4%) were already divorced whereas 12 (5.5%) were widowed. This shows that there is a substantial number of children who are in child marriage and some divorced or widowed at very young age, below 15 years. This is a weighty policy issue as it is an indication of child marriage despite existence of policy and legal frameworks that prohibit child marriage. More male deaths were registered across all ages in married, single and divorced with exception of those in widowed category, where more female deaths were registered in all age's exception of 15-24 years.

Figure 5. 11 Deaths by marital status and age, 2022



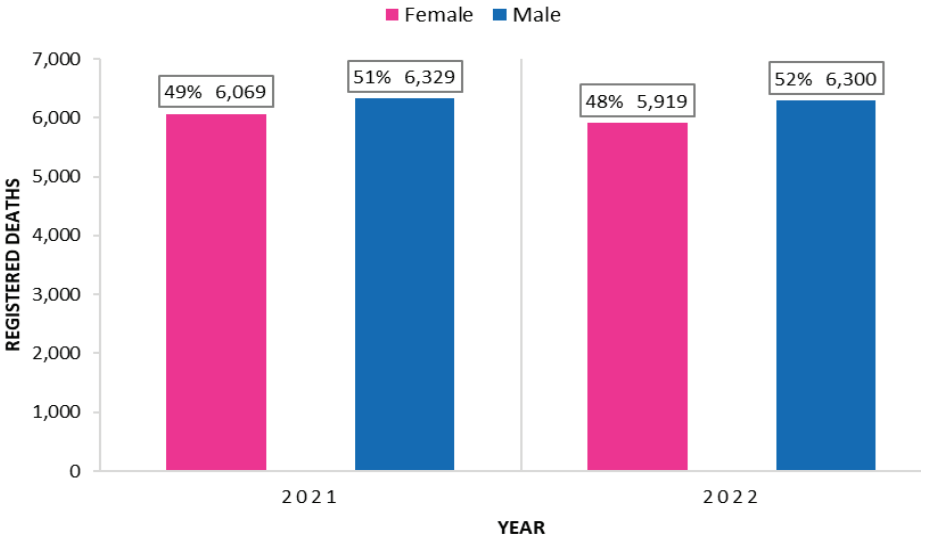
5.4.4 Neonatal Deaths

Mortality during the neonatal period accounts for a large proportion of child deaths, and is considered to be a useful indicator of maternal and newborn neonatal health and care.

5.4.4.1 Neonatal Deaths by Sex

A total of 12,219 neonatal deaths were reported nationally with more male deaths 52 percent than female's 48 percent (Figure 5.12). However, eleven counties (Nakuru, Kiambu, Kakamega, Makueni, Nandi, Kirinyaga, Kisumu, Siaya, Meru, Laikipia and Nyeri) had more female than male neonatal deaths reported. In almost a similar pattern the neonatal deaths in 2021 where 12,398 where male deaths were 51 percent and females accounted for 49 percent.

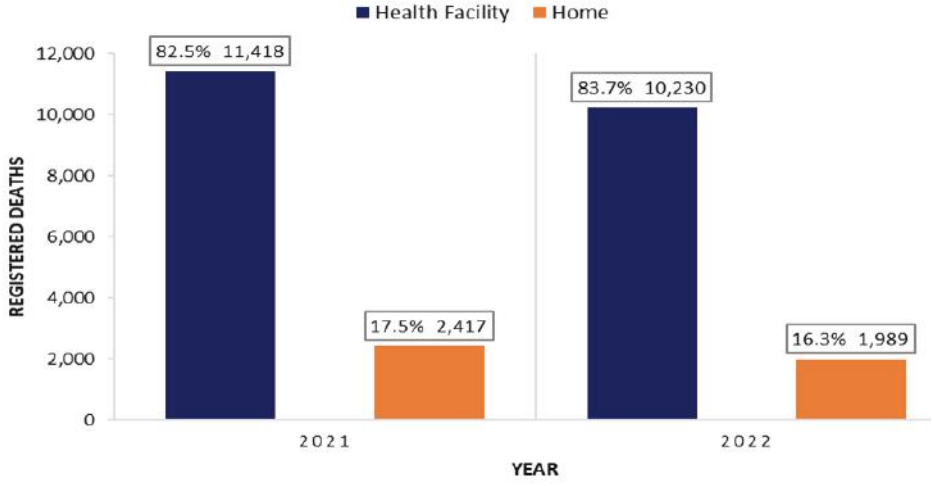
Figure 5. 12 Neonatal deaths by sex, 2021-2022



5.4.4.2 Neonatal Deaths by Place of Occurrence

There were more neonatal deaths registered at health facilities (83.7%) than those registered at home (16.3%) of the total neonatal deaths. The same pattern was observed in 2021 where 82.5 percent of neonatal deaths occurred in health facilities as compared to 17.5 percent at home **(Figure 5.13).**

Figure 5. 13 Neonatal Deaths by place of occurrence, 2021-2022



5.4.4.3 Neonatal Deaths by County

A total of 10 counties contributed 63 percent of the total deaths, namely-Nairobi, Nakuru, Kiambu, Mombasa, Kilifi, Bungoma, Kitui, Kakamega, Kericho and Trans Nzoia while 21 counties contributed 7.3 percent of the total deaths. In the year 2021 Nairobi, Nakuru, Kiambu and Mombasa had the highest deaths. The counties with zero percent reported cases in 2022 were Mandera, Wajir, Isiolo, Tana River, Garissa, Samburu, Narok, Lamu, Vihiga, Homabay, Elgeyo-Marakwet, Tharaka and Nyamira which can be attributed to under reporting of neonatal deaths **(Table 5.4).**

Table 5. 5 Registered neonatal deaths by county, 2022

Code	National/County	Total
	Kenya	12,219
1	Mombasa	676
2	Kwale	270
3	Kilifi	620
4	Tana-River	31
5	Lamu	36
6	Taita-Taveta	96
7	Garissa	22
8	Wajir	8
9	Mandera	2
10	Marsabit	16
11	Isiolo	14
12	Meru	100
13	Tharaka-Nithi	47
14	Embu	178
15	Kitui	499
16	Machakos	418
17	Makueni	341
18	Nyandarua	156
19	Nyeri	113
20	Kirinyaga	167
21	Murang'a	172
22	Kiambu	950
23	Turkana	182

Code	County	Total
24	West Pokot	219
25	Samburu	30
26	Trans-Nzoia	406
27	Uasin Gishu	71
28	Elgeyo-Marakwet	39
29	Nandi	189
30	Baringo	59
31	Laikipia	99
32	Nakuru	1,049
33	Narok	51
34	Kajiado	326
35	Kericho	377
36	Bomet	118
37	Kakamega	544
38	Vihiga	63
39	Bungoma	547
40	Busia	198
41	Siaya	159
42	Kisumu	162
43	Homa Bay	33
44	Migori	206
45	Kisii	326
46	Nyamira	25
47	Nairobi	1,809

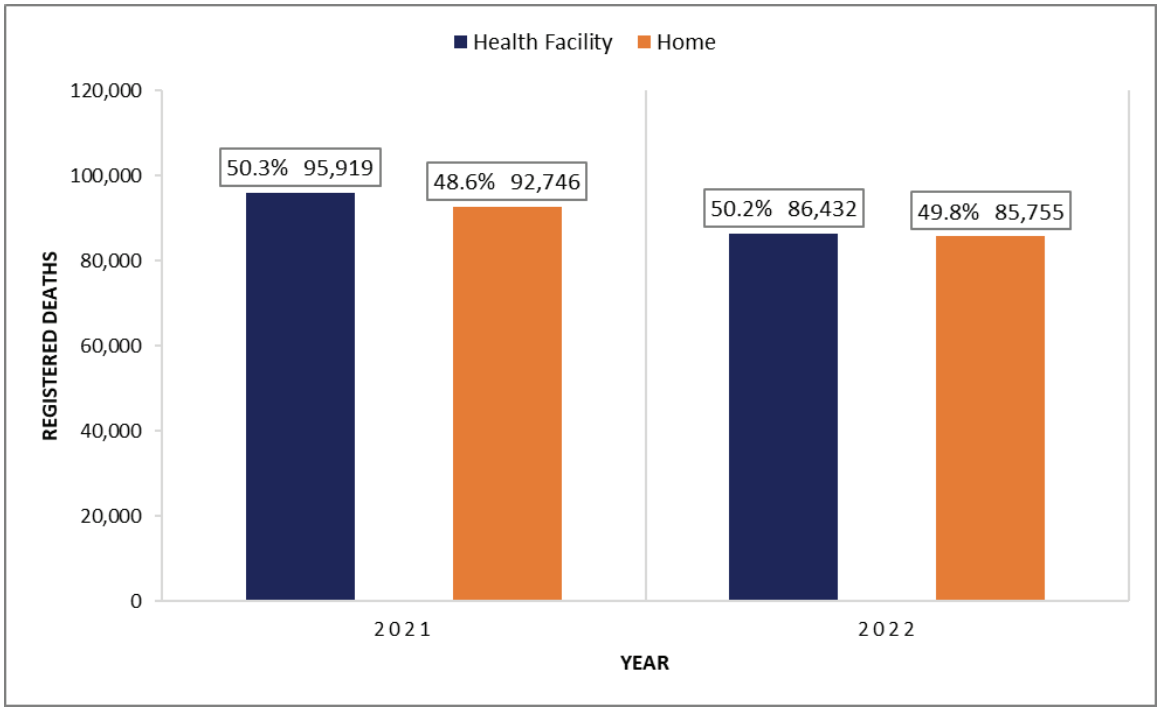
5.4.5 Adult Deaths

One of the SDG goals on health is SDG 13 - to "ensure healthy lives and promote wellbeing for all at all ages". Adult deaths are an important development and public health issue. In the last decade the disease burden from non-communicable diseases among adults - the most economically productive age span - has been rapidly increasing in developing countries due to ageing and health transitions. The level of adult deaths is also an important indicator for the comprehensive assessment of the mortality pattern in a population. Therefore, comprehensive and reliable information on adult deaths is required to improve policies implementation, monitoring and evaluation of national programs of a country. In practice, the risk of death in each population group varies according to age and sex as well as patterns of socioeconomic status, and environmental and other factors. For this report, the adult deaths have been analyzed for ages 18 and above.

5.4.5.1 Adult Deaths by Place of Occurrence

Adult deaths contributed to 80.76 percent of the total registered deaths in Kenya in 2022. Registered adult deaths by place of occurrence is presented in figure 5.14. Majority of registered adult deaths occurred in health facilities than in the communities at 50.2 percent and 49.8 percent respectively in 2022. This was similar to 2021 where adult deaths in health facilities was 50.3 percent and community at 48.6 percent.

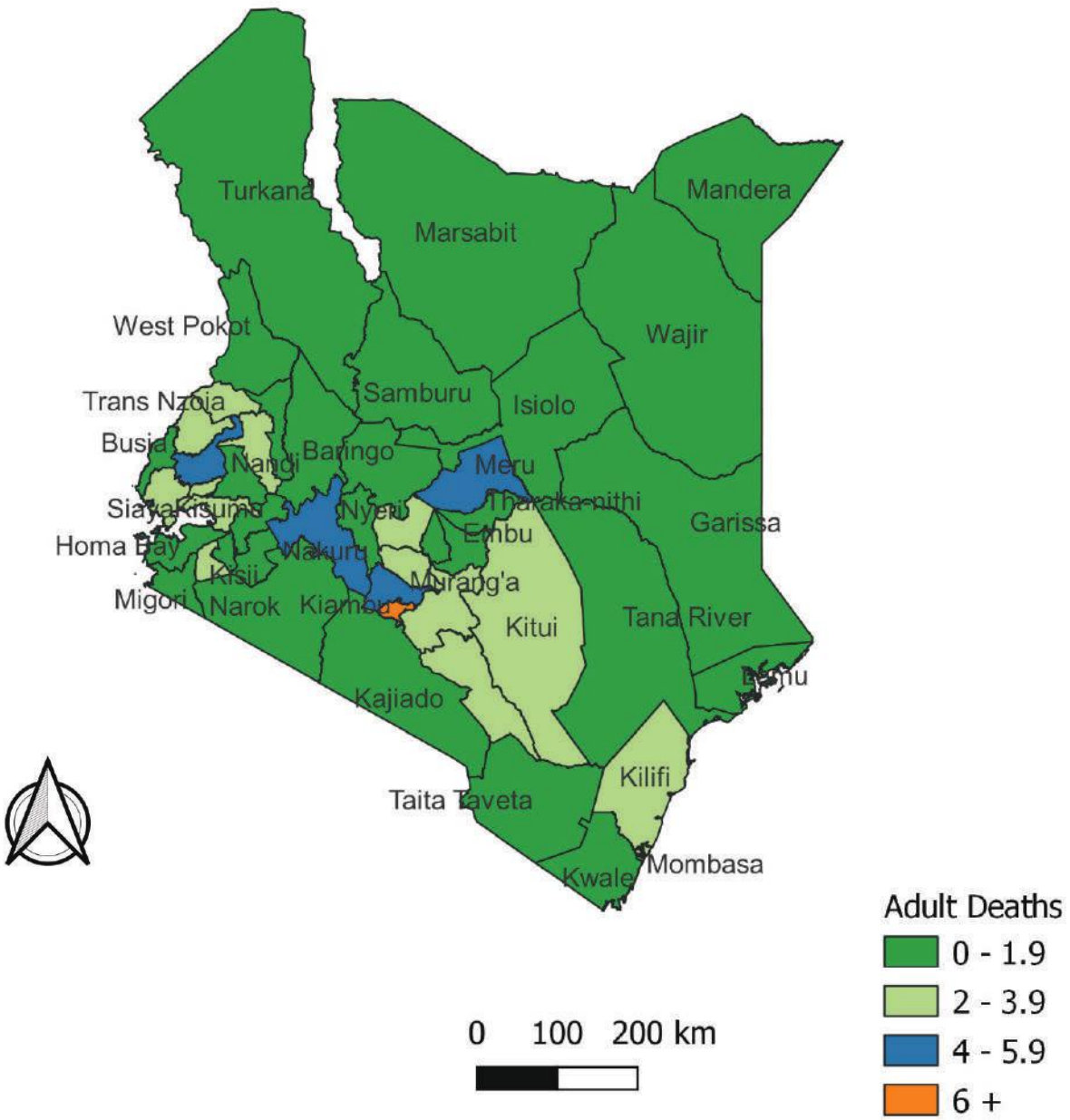
Figure 5. 14 Adult Deaths by Place of Occurrence, 2021-2022



5.4.5.2 Adult Deaths by County

County differentials exist in registration of adult deaths. Counties with the highest number of registered adult deaths were; Nairobi (17,000), Kiambu (9,567), Kakamega (8,545), Nakuru (8,034) and Meru (7,280). These also happen to be counties with the highest population. On the other hand, counties with the lowest adult registered deaths were; Samburu (433), Lamu (444), Wajir (586), Garissa (659) and Isiolo (703). These are counties in the arid and semi-arid (ASAL) areas. County differentials in adult registered deaths are presented in Map 5.2.

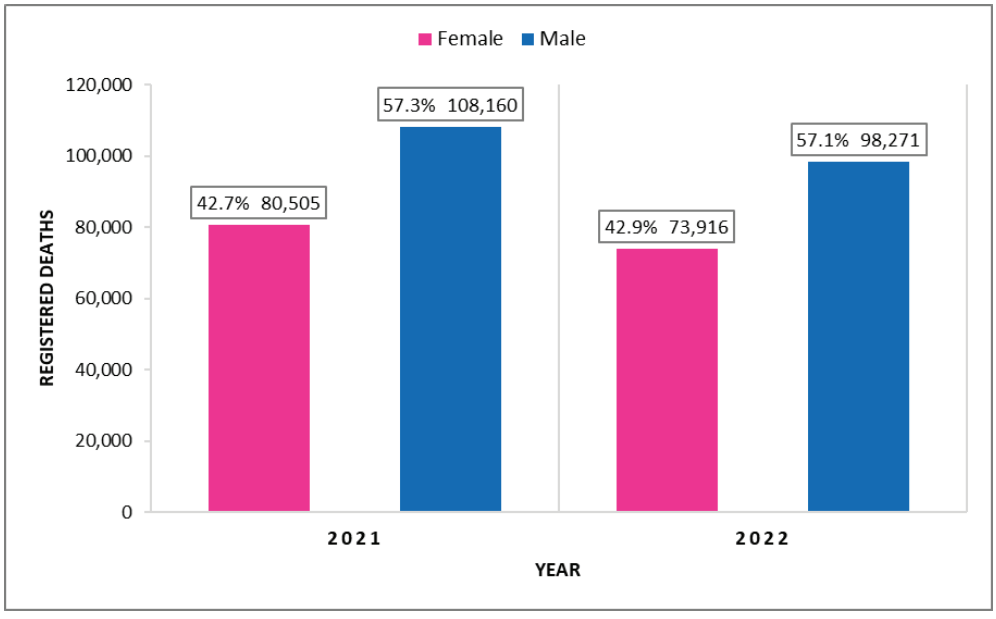
Map 1. 4 Adult deaths in Kenya, 2022



5.4.5.3 Adult Deaths by Sex

From the registered death statistics, adult deaths vary by sex as presented in figure 5.15. There were more registered adult male deaths at 57.1 percent as compared to the females at 42.9 percent in 2022. This trend is the same for 2021. This could be attributed to among other factors the risk-taking behavior and poor health seeking behavior among males as compared to females.

Figure 5. 15 Adult deaths by Sex, 2021-2022



5.5 Crude Death Rate

The crude death rate (CDR) is a measure of the number of deaths relative to the size of the population at a given point in time, usually at the mid-year. It is expressed in numbers of deaths per 1,000 populations per year. The CDR is the simplest measure of mortality that can provide insights into the health status of a population over time. In addition, the CDR provides a useful indicator of possible problems with the completeness of mortality data. The CDR is called a 'crude' rate because it does not take into consideration the age and sex structure of the population. In practice, the risk of death in each population group varies according to age and sex as well as patterns of socioeconomic status, and environmental and other factors.

The calculated CDR using the registered deaths was 4.2 deaths per 1000 population in 2022, as a result of low death registration completeness and also, no adjustments were made on the registered deaths. However, the 2019 KPHC gives an adjusted CDR of 10.5 per 1000 of the mid-year population.

5.6 Foreign Registration of Deaths

Those Kenyans who stay outside the country and meet their death in those countries, or die while seeking specialized treatment do seek registration in Kenya and consequently acquire a Kenyan death certificate. A total of 271 death were registered as having occurred outside Kenya in the year 2022. Table 5.6 below shows USA, India, UK, Somalia and Qatar as the leading top five countries in registration of foreign deaths. More men died in foreign countries with USA leading in the number of male deaths while India led in female deaths.

Table 5. 6 Top leading countries in foreign death registration by sex, 2022

Country of death	Female	Male	Total
USA	24	34	58
INDIA	25	23	48
UK	7	19	26
SOMALIA	0	22	22
QATAR	3	11	14
SAUDI ARABIA	6	7	13
UGANDA	1	12	13
TANZANIA	3	9	12
SOUTH AFRICA	3	5	8
UAE	3	5	8
OTHERS	44	35	79
Total	**89**	**182**	**271**

5.7 Foreign Registration of Death by Age and Sex

Table 5.7 below shows foreign death registration by age and sex. Majority of death occurred among the 45-49 age bracket with 32 deaths. Notably there were no death for Kenyans of Under-5 years from foreign Countries during the period under review. More males (182) died than women who were 89 in total. During the period under review, the highest number of female deaths occurred in the age bracket 45-49 years (12) while for males it was 40-44 and 45-49 age bracket with 20 deaths each.

5. 7 Foreign death registration by age and sex, 2022

Age group	Female	Male	Total
5-9	0	1	1
10-14	1	0	1
15-19	2	0	2
20-24	2	4	6
25-29	4	16	20
30-34	2	16	18
35-39	10	10	20
40-44	10	20	30
45-49	12	20	32
50-54	6	13	19
55-59	9	17	26
60-64	7	16	23
65-69	10	17	27
70-74	4	13	17
Over 75	10	19	29
Total	**89**	**182**	**271**



CHAPTER

06

Causes of Death

6.1 Introduction

The chapter discusses causes of death occurring in health facilities and in the community. The top ten leading causes of death in 2022, among the neonates, under one, under 5, age groups 5-15,15-49,50-59,60+ and the programmatic causes of death are discussed. Understanding the magnitude and causes of mortality at national and sub-national levels is critical in facilitating evidence-based prioritization of public health response (Waruiru, W., Oramisi, V., Sila, A. et al. (2022)).

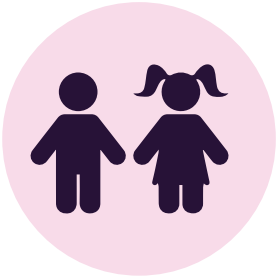
Cause of death is defined as the disease or injury which started the sequence of morbid (disease-related) events which led directly to death, or the circumstances of the



KEY FINDINGS:

- **Pneumonia** is the leading cause of death in the last four years (2019-2022).
- **Non communicable diseases** were the leading causes of medically certified deaths.
- The most prevalent non-communicable diseases were **cancer** and **cardiopulmonary diseases,** while the most prevalent communicable diseases were pneumonia and malaria.
- The leading cause of death among the neonates, under 1 year and under 5 years is **prematurity and birth Asphyxia.**
- The leading cause of death among the population aged (5-14 years) is **Pneumonia.**
- The leading cause of death among the 15-49 years age bracket is **cardiopulmonary** and **cardiorespiratory arrest.**
- **Pneumonia, cancer** and **cardiopulmonary diseases** were the leading causes of death for the age group 50 years and above.
- **Injuries** and **road traffic** accidents featured among top causes of death for males above 15 years, HIV and hypertension were more pronounced in the females of the same age groups.
- **Pneumonia** is the leading cause of death among the neonates, under 1 year and under 5 years for community deaths.





<1< 5 years

The leading cause of death among the neonates, under 1 year and under 5 years is prematurity and birth Asphyxia.

accident or violence which produced the fatal injury. This section takes an in-depth analysis of medically certified causes of death, and highlights the leading causes of death as reported from the community. The chapter also highlights the Global burden of Disease groups (Communicable, non-communicable, maternal/perinatal external/injuries, nutritional deficiencies) and it is reported that more than half (53%) of the causes of death occurred in the community.

Knowledge on the leading causes of death provides fundamental information for monitoring population health trends, recognizing the pattern of disease and injuries impacting premature deaths, identifying emerging health challenges, and tracking the effectiveness of interventions. Analyzing the leading causes of death in both males and females can help identify gender-specific differences in health outcomes.

6.2 Registered Deaths by Cause, Age and Sex, 2019-2022

This section compares the medically certified causes of death for all age groups by sex for the last 4 years. The analysis presents four years against the normal five years because the format for 2018 and below could not allow the data set to be segregated in the form of medically certified and the lay diagnosis. The four leading causes of death for the last four years is Pneumonia, Cardio-pulmonary arrest, respiratory infections, and cancer in that order. Injuries took the fifth position for the last three years but was not among the leading causes of death for both sexes for all ages in 2022 as shown in table 6.1. The proportion of Pneumonia deaths increased from 2019 to 2021 but declined from 2021 to 2022 from 12.8 percent to 10.1 percent, respectively.

Table 6. 1 Leading causes of death, 2019-2022

Cause of Death	2022			2021			2020			2019		
	Rank	N =112,967	%	Rank	N = 119,851	%	Rank	N = 97,124	%	Rank	N =105,753	%
Pneumonia	1	11453	10.14	1	15354	12.81	1	8966	9.23	1	8090	7.65
Cardiopulmonary and Cardiorespiratory Arrest	2	11176	9.89	2	10897	9.09	2	8871	9.13	2	7214	6.82
Respiratory Infections	3	7340	6.5	3	7612	6.35	4	5495	5.66	4	4708	4.45
Cancer	4	5653	5	4	5638	4.7	3	5685	5.85	3	5869	5.55
Injuries	5	4296	3.8	9	3705	3.09	9	2895	2.98			
Hypertension	6	4212	3.73	6	4524	3.77	5	4450	4.58	5	4486	4.24
Anaemia	7	4108	3.64	8	3749	3.13	7	3664	3.77	7	3286	3.11
Prematurity & Birth Asphyxia	8	3641	3.22	10	3686	3.08	6	4155	4.28	6	3582	3.39
Sepsis	9	3158	2.8				10	2465	2.54			
Diarrhea	10	2997	2.65									
COVID-19				5	5308	4.43						
Diabetes				7	3937	3.28	8	3170	3.26			
Tuberculosis										8	2970	2.81
HIV/AIDS										9	2731	2.58
Menengitis										10	2626	2.48
Other causes		54933	48.63		55441	46.26		47308	48.71		60191	56.92

6.3 Medically Certified Causes of Death

6.3.1 Top 10 Causes of Death in 2022

The causes of death in this section include all age groups, and are segregated into sex. Pneumonia (10.14%), Cardio-pulmonary arrest (9.89%), respiratory infections (6.5%) and cancer (5%) are the leading causes of death for both sexes as shown in **table 6.2** below. When the causes are segregated by sex, a similar trend is observed, with injuries and road traffic accidents featuring the top causes of death for males, while sepsis features in the top causes of death for females. It is worth taking note that while hypertension appears much lower on the overall on male causes of death, it is among the top 5 causes of death for females. Covid-19 and heart diseases, which were among the top 10 causes of death in 2021 do not feature in the leading causes of death in 2022.

Table 6. 2 Ten leading causes of death of all age groups

Male				Female			Both Sexes		
Rank	Disease	N =62,679	%	Disease	N = 50,286	%	Disease	N = 112,967	%
1	Pneumonia	6,294	9.99	Cardiopulmonary and Cardiorespiratory Arrest	5,269	10.48	Pneumonia	11,453	10.14
2	Cardiopulmonary and Cardiorespiratory Arrest	5,907	9.38	Pneumonia	5,159	10.26	Cardiopulmonary and Cardiorespiratory Arrest	11,176	9.89
3	Respiratory Infections	3,905	6.2	Respiratory Infections	3,435	6.83	Respiratory Infections	7,340	6.5
4	Injuries	3,278	5.2	Cancer	2,974	5.91	Cancer	5,653	5
5	Cancer	2,679	4.25	Hypertension	2,217	4.41	Injuries	4,296	3.8
6	Prematurity & Birth Asphyxia	2,102	3.34	Anaemia	2,006	3.99	Hypertension	4,212	3.73
7	Anaemia	1,995	3.17	Prematurity & Birth Asphyxia	1,749	3.48	Anaemia	4,108	3.64
8	Hypertension	1,892	3	Sepsis	1,575	3.13	Prematurity & Birth Asphyxia	3,641	3.22
9	Road Traffic Accident	1,786	2.84	Diabetes	1,436	2.86	Sepsis	3,158	2.8
10	Diarrhea	1,625	2.58	Diarrhea	1,372	2.73	Diarrhea	2,997	2.65
	Other Causes	31,517	50.04	Other Causes	23,095	45.93	Other Causes	54,933	48.63

6.3.2 Leading Cause of Deaths for Neonates.

A neonate equally referred to as a newborn infant, is a child under 28 days of age. During these first 28 days of life, the child is at highest risk of dying. The vast majority of newborn deaths take place in developing countries where access to health care is low.

Accurate information on causes of death is required for public health tracking improvements in maternal-child health and progress towards Sustainable Development Goals (SDG) 3, 11 and 16. The risk of infections are more serious and higher in a child's first four weeks of her/his life. The top five causes of deaths among the neonates are prematurity and Birth Asphyxia, respiratory infections, sepsis, cardiopulmonary and cardiorespiratory arrest and Pneumonia in that order.

The leading causes of deaths among the neonates in 2021 and 2022 for medically certified causes was prematurity and Birth Asphyxia for both sexes accounting for 34.11% and 34.9% in 2022 and 2021 respectively. Causes of death associated with neonates accounted for more than half of the under 5 years in 2022.

Table 6. 3 Ten leading causes of deaths of neonates

Male				Female			Both Sexes		
Rank	Disease	N =5,267	%	Disease	N = 4,962	%	Disease	N = 10,230	%
1	Prematurity & Birth Asphyxia	1,832	34.78	Prematurity & Birth Asphyxia	1,657	33.39	Prematurity & Birth Asphyxia	3,489	34.11
2	Respiratory Infections	942	17.88	Pneumonia	976	19.67	Respiratory Infections	1,918	18.75
3	Sepsis	482	9.15	Respiratory Infections	532	10.72	Sepsis	1,014	9.91
4	Cardiopulmonary and Cardiorespiratory Arrest	326	6.19	Sepsis	308	6.21	Cardiopulmonary and Cardiorespiratory Arrest	634	6.2
5	Pneumonia	310	5.89	Cardiopulmonary and Cardiorespiratory Arrest	271	5.46	Pneumonia	581	5.68
6	Diarrhea	125	2.37	Diarrhea	155	3.12	Diarrhea	280	2.74
7	Jaundice	81	1.54	Gastroenteritis	54	1.09	Jaundice	133	1.3
8	Injuries	66	1.25	Anaemia	52	1.05	Injuries	120	1.17
9	Heart Disease	56	1.06	Menengitis	38	0.77	Heart Disease	84	0.82
10	Menengitis	43	0.82	Malaria	28	0.56	Menengitis	81	0.79
	Other Causes	1,004	19.06	Other Causes	891	17.96	Other Causes	1,896	18.53

6.3.3 Leading Causes of Deaths for Under 1 Year

The section presents an analysis of causes of death under one year (infant mortality). A child under the age of 1 year is referred to as an infant, that is, a child in the first year of life. The leading causes of death in this age group were prematurity and birth asphyxia (23.95%), respiratory infections (14.54%) and pneumonia (13.41%). The trend is similar for males and females; however, heart disease appears among leading causes of death while malaria appears among leading causes of death for females in this age group.

A similar picture was observed in 2021, with malaria being more prevalent in both sexes. It is critical to note that the neonates make up 32.71 percent of the Under-1 registered deaths, hence the high prevalence of prematurity and birth asphyxia in this age group.



32.71%

The neonates make up 32.71 percent of the Under-1 registered deaths, hence the high prevalence of prematurity and birth asphyxia in this age group.

Table 6. 4 Ten leading causes of death under 1 year

Male				Female			Both Sexes		
Rank	Disease	N =7,765	%	Disease	N = 7,439	%	Disease	N = 15,204	%
1	Prematurity & Birth Asphyxia	1,892	24.37	Prematurity & Birth Asphyxia	1,749	23.51	Prematurity & Birth Asphyxia	3,641	23.95
2	Respiratory Infections	1,092	14.06	Pneumonia	1,119	15.04	Respiratory Infections	2,211	14.54
3	Pneumonia	1,047	13.48	Respiratory Infections	992	13.34	Pneumonia	2,039	13.41
4	Sepsis	564	7.26	Sepsis	630	8.47	Sepsis	1,194	7.85
5	Cardiopulmonary and Cardiorespiratory Arrest	519	6.68	Cardiopulmonary and Cardiorespiratory Arrest	476	6.4	Cardiopulmonary and Cardiorespiratory Arrest	995	6.54
6	Diarrhea	218	2.81	Diarrhea	263	3.54	Diarrhea	481	3.16
7	Gastroenteritis	159	2.05	Gastroenteritis	161	2.16	Gastroenteritis	320	2.1
8	Menengitis	124	1.6	Anaemia	122	1.64	Menengitis	246	1.62
9	Anaemia	119	1.53	Menengitis	106	1.42	Anaemia	225	1.48
10	Heart Disease	92	1.18	Malaria	75	1.01	Heart Disease	166	1.09
	Other Causes	1,939	24.97	Other Causes	1,746	23.47	Other Causes	3,686	24.24

6.3.4 Ten Leading Causes of Death Under 5 Years

The Sustainable Development Goals were developed to promote healthy lives and well-being for all children. SDG Goal 3.2.1 aims to promote healthy lives and well-being for all children by ending preventable deaths of children under-5 by 2030. The target is to reduce deaths in this age group to at least as low as 25 per 1000 live births in every country (WHO, 2022).

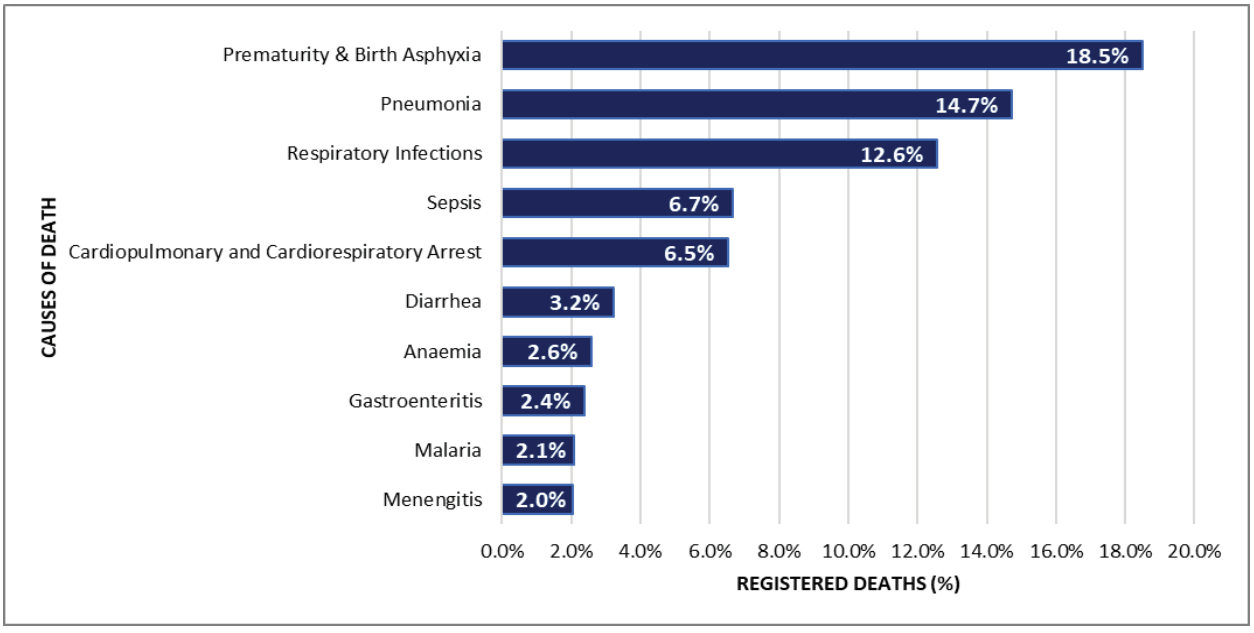
Table 6.5 and **Figure 6.1** show leading causes of death among children aged under 5 years. Prematurity and Birth Asphyxia has overtaken Pneumonia as the main cause of child mortality. The leading cause of death among children under five years was Prematurity and Birth Asphyxia (18.5%) followed by Pneumonia (14.7%) and Respiratory infections (12.6%). Sepsis (6.7%) and Cardiopulmonary and Cardiorespiratory Arrest (6.5%) were also common causes of death in the age category. More male deaths than female deaths were registered from these causes.

Pneumonia, Malaria, Sudden death, Anaemia; and Premature and Birth Asphyxia were the leading causes of death in the community for under 5. There were more males compared to female deaths in this group.

Table 6. 5 Ten leading causes of death for under 5 years in the health facilities, 2022

Male				Female			Both Sexes		
Rank	Disease	N =10,199	%	Disease	N =9489	%	Disease	N = 19688	%
1	Prematurity & Birth Asphyxia	1,892	18.55	Prematurity & Birth Asphyxia	1,749	18.43	Prematurity & Birth Asphyxia	3,641	18.49
2	Pneumonia	1,520	14.9	Pneumonia	1,377	14.51	Pneumonia	2,897	14.71
3	Respiratory Infections	1,240	12.16	Respiratory Infections	1,235	13.02	Respiratory Infections	2,475	12.57
4	Cardiopulmonary and Cardiorespiratory Arrest	687	6.74	Sepsis	684	7.21	Sepsis	1,310	6.65
5	Sepsis	626	6.14	Cardiopulmonary and Cardiorespiratory Arrest	600	6.32	Cardiopulmonary and Cardiorespiratory Arrest	1,287	6.54
6	Diarrhea	304	2.98	Diarrhea	330	3.48	Diarrhea	634	3.22
7	Anaemia	279	2.74	Gastroenteritis	230	2.42	Anaemia	508	2.58
8	Gastroenteritis	238	2.33	Anaemia	229	2.41	Gastroenteritis	468	2.38
9	Malaria	233	2.28	Menengitis	186	1.96	Malaria	406	2.06
10	Menengitis	215	2.11	Malaria	173	1.82	Menengitis	401	2.04
	Other Causes	2,965	29.07	Other Causes	2,696	28.41	Other Causes	5,661	28.75

Figure 6. 1 Ten leading causes of death for under 5 years in health facilities, 2022



6.3.5 Ten Leading Causes of Death for Age 5-14 Years

Table 6.6 shows leading causes of death among children aged 5-14 years. In 2022, the leading cause of death for both sexes were Pneumonia (10.3%) followed by Anaemia (9.3%) and Cardiopulmonary and Cardiorespiratory Arrest (8.3%). Malaria (5.8%) and Respiratory infections (4.7%) were the other major causes of death in the group. The 5 leading causes of mortality were the same for both sexes. For population ages 5-14, malaria, Pneumonia, Sudden death, Anaemia and drowning were the top 5 causes of death in the community.

Table 6. 6 Ten leading causes of death for age 5-14 years

Male				Female			Overall		
Rank	Disease	N =1923	%	Disease	N = 1524	%	Disease	N = 3447	%
1	Pneumonia	188	9.8%	Anaemia	144	9.5%	Pneumonia	355	10.3%
2	Anaemia	177	9.2%	Pneumonia	167	11.0%	Anaemia	321	9.3%
3	Cardiopulmonary and Cardiorespiratory Arrest	145	7.5%	Cardiopulmonary and Cardiorespiratory Arrest	141	9.3%	Cardiopulmonary and Cardiorespiratory Arrest	286	8.3%
4	Malaria	113	5.9%	Malaria	87	5.7%	Malaria	200	5.8%
5	Respiratory Infections	86	4.5%	Respiratory Infections	75	4.9%	Respiratory Infections	161	4.7%
6	Injuries	79	4.1%	Menengitis	56	3.7%	Injuries	132	3.8%
7	Diarrhea	68	3.5%	Injuries	53	3.5%	Diarrhea	116	3.4%
8	Menengitis	57	3.0%	Diarrhea	48	3.2%	Menengitis	113	3.3%
9	Road Traffic Accident	51	2.7%	Heart Disease	40	2.6%	Road Traffic Accident	89	2.6%
10	Cancer	43	2.2%	Sepsis	40	2.6%	Cancer	81	2.4%
	Other Causes	916	47.6%	Other Causes	673	44.2%	Other Causes	1,593	46.2%

6.3.6 Ten Leading Causes of Death for Age 15-49 Years

Understanding the leading causes of death in this age group can help develop targeted interventions to improve health outcomes and reduce premature mortality. For example, males in this age group may have a higher incidence of deaths due to injuries and accidents, while females may have a higher incidence of deaths due to maternal and reproductive health issues. Analyzing the causes of death for the age group of 15-49 years in females is crucial for maternal and reproductive health, non-communicable diseases, social impact, and gender-based violence prevention. In 2022, the leading cause of death for both sexes were Cardiopulmonary and Cardiorespiratory Arrest (8.8%), Injuries (7.0%) followed by Pneumonia (6.8%), Respiratory infections (4.5%), Cancer (4.5%).

Table 6. 7 Ten leading causes of death for age 15-49 years

Male				Female			Overall		
Rank	Disease	N =20804	%	Disease	N = 14459	%	Disease	N = 35263	%
1	Injuries	2,055	9.9%	Cardiopulmonary and Cardiorespiratory Arrest	1,473	10.2%	Cardiopulmonary and Cardiorespiratory Arrest	3,109	8.8%
2	Cardiopulmonary and Cardiorespiratory Arrest	1,636	7.9%	Pneumonia	1,031	7.1%	Injuries	2,466	7.0%
3	Pneumonia	1,373	6.6%	Cancer	1,019	7.1%	Pneumonia	2,404	6.8%
4	Road Traffic Accident	1,265	6.1%	Anaemia	802	5.6%	Respiratory Infections	1,595	4.5%
5	Respiratory Infections	882	4.2%	Respiratory Infections	713	4.9%	Cancer	1,581	4.5%
6	Tuberculosis	880	4.2%	HIV/AIDS	685	4.7%	Road Traffic Accident	1,499	4.3%
7	Menengitis	636	3.1%	Menengitis	600	4.2%	Tuberculosis	1,457	4.1%
8	Anaemia	619	3.0%	Tuberculosis	577	4.0%	Anaemia	1,421	4.0%
9	Cancer	562	2.7%	Injuries	411	2.8%	Menengitis	1,236	3.5%
10	HIV/AIDS	462	2.2%	Hypertension	374	2.6%	HIV/AIDS	1,147	3.3%
	Other Causes	10,434	50.2%	Other Causes	6,774	46.9%	Other Causes	17,348	49.2%

6.3.7 Ten Leading Causes of Death Among 50-59 Years

The leading causes of death in the 50-50 years age group were Cardiopulmonary arrest (10.98%), Cancer (9.14%) and pneumonia (7.08%). This is similar to 2021 when Cancer and pneumonia were among the leading causes of death in this age group. The leading causes of death are similar for both sexes, however, injuries feature among the leading causes of death in males, while HIV featured among the top causes of death for females. It is worth noting that hypertension, diabetes and tuberculosis are more prevalent for this age category as compared to the younger groups. Covid-19, which was prevalent in 2021 for both sexes does not appear among the top 10 causes of death in this age group.



Table 6. 8 Ten leading causes of death in 50-59 years

Male				Female			Both Sexes		
Rank	Disease	N =6539	%	Disease	N =4485	%	Disease	N =11024	%
1	Cardiopulmonary and Cardiorespiratory Arrest	726	11.1	Cancer	557	12.42	Cardiopulmonary and Cardiorespiratory Arrest	1,210	10.98
2	Pneumonia	499	7.63	Cardiopulmonary and Cardiorespiratory Arrest	484	10.79	Cancer	1,008	9.14
3	Cancer	451	6.9	Pneumonia	282	6.29	Pneumonia	781	7.08
4	Injuries	319	4.88	Respiratory Infections	246	5.48	Respiratory Infections	560	5.08
5	Respiratory Infections	314	4.8	Hypertension	235	5.24	Hypertension	484	4.39
6	Hypertension	249	3.81	Anaemia	181	4.04	Injuries	400	3.63
7	Tuberculosis	246	3.76	Diabetes	154	3.43	Anaemia	360	3.27
8	Diarrhea	200	3.06	HIV/AIDS	151	3.37	Tuberculosis	360	3.27
9	Diabetes	186	2.84	Diarrhea	139	3.1	Diabetes	340	3.08
10	Anaemia	179	2.74	Tuberculosis	114	2.54	Diarrhea	339	3.08
	Other causses	3,170	48.48	Other causses	1,942	43.3	Other causses	5,182	47.01

6.3.8 Ten Leading Causes of Death Among 60+ Years

This section presents leading causes of death among people of 60+ years. In this category, a total of 41,557 people died. The five leading causes of death were cardiopulmonary and cardiorespiratory arrest (9.9%), Pneumonia (9.3%), cancer (5.5%), Hypertension (5.4%) and Respiratory infection (4.6%). This different from the leading causes of death in 2021: Pneumonia (15.6%), cardiopulmonary and cardiorespiratory arrest (8.7%), Covid-19 (7.9 %), Hypertension (6.8%) and Cancer (6.2%).



Table 6. 9 Ten leading causes of death 60+ years

Male				Female			Overall		
Rank	Disease	N =22067	%	Disease	N =19490	%	Disease	N = 41557	%
1	Cardiopulmonary and Cardiorespiratory Arrest	2,606	11.81	Cardiopulmonary and Cardiorespiratory Arrest	2,481	12.73	Cardiopulmonary and Cardiorespiratory Arrest	5,087	9.87
2	Pneumonia	2,597	11.77	Pneumonia	2,210	11.34	Pneumonia	4,807	9.32
3	Cancer	1,572	7.12	Hypertension	1,543	7.92	Cancer	2,867	5.56
4	Respiratory Infections	1,309	5.93	Cancer	1,295	6.64	Hypertension	2,826	5.48
5	Hypertension	1,283	5.81	Respiratory Infections	1,100	5.64	Respiratory Infections	2,409	4.67
6	Diabetes	862	3.91	Diabetes	934	4.79	Diabetes	1,796	3.48
7	Anaemia	804	3.64	Heart Disease	618	3.17	Anaemia	1,418	2.75
8	Injuries	633	2.87	Anaemia	614	3.15	Heart Disease	1,125	2.18
9	Diarrhea	585	2.65	Diarrhea	483	2.48	Diarrhea	1,068	2.07
10	Kidney Diseases	525	2.38	Sepsis	474	2.43	Sepsis	993	1.93
	Other Causes	9,291	42.1	Other Causes	7,738	39.7	Other Causes	27,161	52.68

6.4 Causes of Death According to Global Burden of Disease Groups

The medically certified causes of death were categorized as per the Global burden of Disease groups (Communicable, non-communicable, maternal/perinatal external/injuries, nutritional deficiencies). Non-communicable diseases ranked the top most causes of death (44.1%) while communicable diseases followed (32.8%). The most prevalent non-communicable diseases were cancer and cardiopulmonary diseases, while the most prevalent communicable diseases were pneumonia and malaria. The prevalence of Injuries and accidents was significant (6.8%), while congenital anomalies and maternal deaths had prevalence of below 1 percent. The category "other causes" has causes of death that are not clearly stated during the notification/registration process.

Figure 6. 2 Causes of death according to global burden of diseases groups

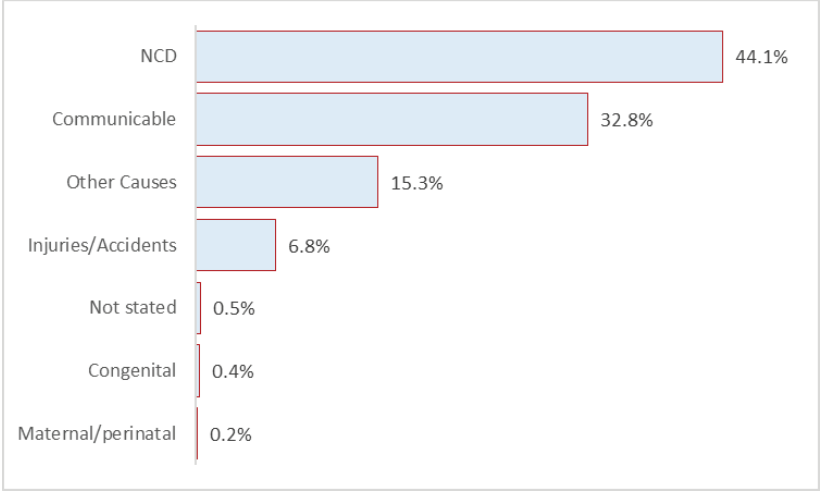


Table 6. 10 Ten leading causes of death by disease category

Rank	Non-communicable			Communicable		
	Disease	Number	%	Disease	Number	%
1	Sudden Death	16,621	17.68	Pneumonia	26,885	38.41
2	Cancer	15,374	16.36	Malaria	11,321	16.18
3	Cardiopulmonary and Cardiore-spiratory Arrest	11,835	12.59	Respiratory Infections	7,546	10.78
4	Hypertension	8,626	9.18	Tuberculosis	6,734	9.62
5	Anaemia	6,863	7.3	Diarrhea	3,277	4.68
6	Diabetes	5,766	6.13	Sepsis	3,224	4.61
7	Prematurity & Birth Asphyxia	3,731	3.97	HIV/AIDS	2,836	4.05
8	Asthma	3,297	3.51	Menengitis	2,442	3.49
9	Heart Disease	3,168	3.37	Gastroenteritis	1,607	2.3
10	Stroke	2,957	3.15	Urinary Tract Infections	1,330	1.9
	Other causes	15,757	16.76	Other causes	2,786	3.98

6.5 Programmatic and Emerging Diseases by Age and Sex

The section presents program specific causes of death in the country. Table 6.3 shows mortality due to Pneumonia, Asthma, Malaria, TB, HIV/AIDS, Cancer and RTA considered as programmatic diseases. The leading cause in this category was Pneumonia, with a total of 26,885 cases registered with males accounting for 55 percent of the causes during the review period. The majority of the deaths occurred in the population aged under 1 and 75+. Nairobi, Nakuru, and Kiambu contributed the most to these deaths.

The second leading cause of death in the category was Malaria. A total of 11,321 cases were registered with the majority of these cases accounted for by males (53%). Similar to Pneumonia, the majority of the deaths occurred in children aged under 5 and the population aged 75+. Kakamega, Bungoma and Siaya accounted for the largest share of these deaths. Tuberculosis was the third cause of death with 6,734 cases with males accounting for the majority of these cases (4,503). Nairobi, Kiambu and Kakamega registered the highest number of TB cases.

A total of 4,070 cases were registered due to the Road Traffic Accidents (RTA). Similarly, the majority of these cases occurred to males (81%). More deaths due to this disease were reported in the age group 20-29 years. Kiambu and Nakuru accounted for the majority of the deaths. The other diseases considered were Asthma and HIV/AIDS with 3,297 and 2,836 cases, respectively.



26,885

No of registered pneumonia cases with males accounting for 55 per cent of the causes of death in the country.



11,321

The second leading cause of death in the category was Malaria. A total of 11,321 cases were registered with the majority of these cases accounted for by males (53%).



4,070

A total of 4,070 cases were registered due to the Road Traffic Accidents (RTA). Similarly, the majority of these cases occurred to males (81%).

Figure 6. 3 Programmatic diseases, 2022

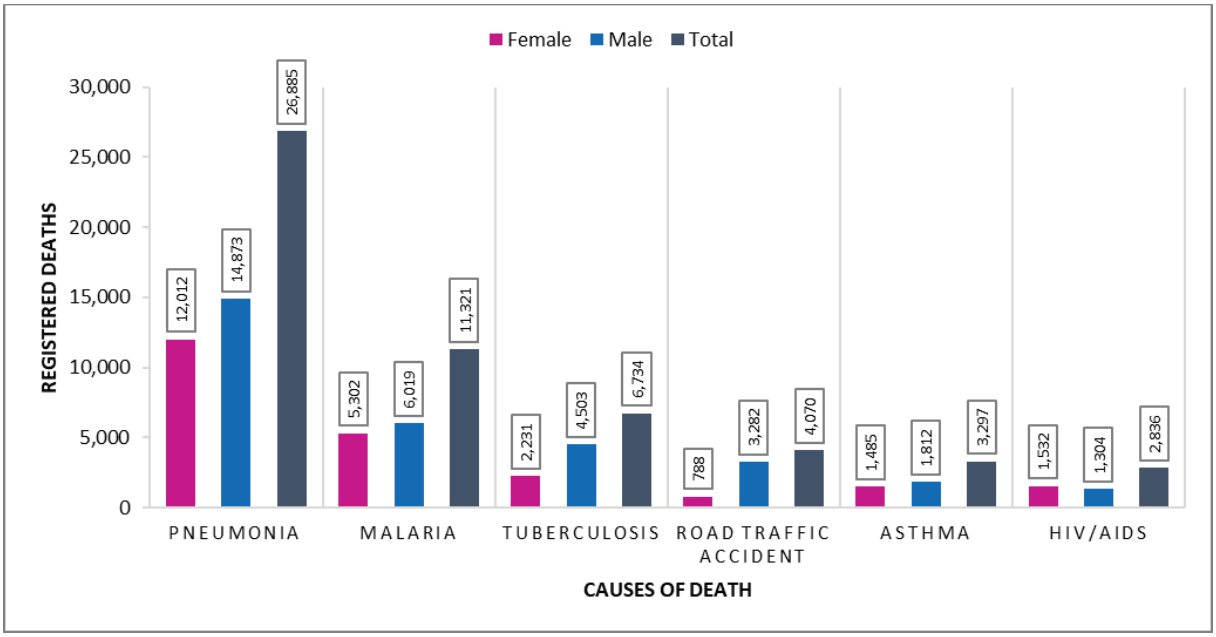
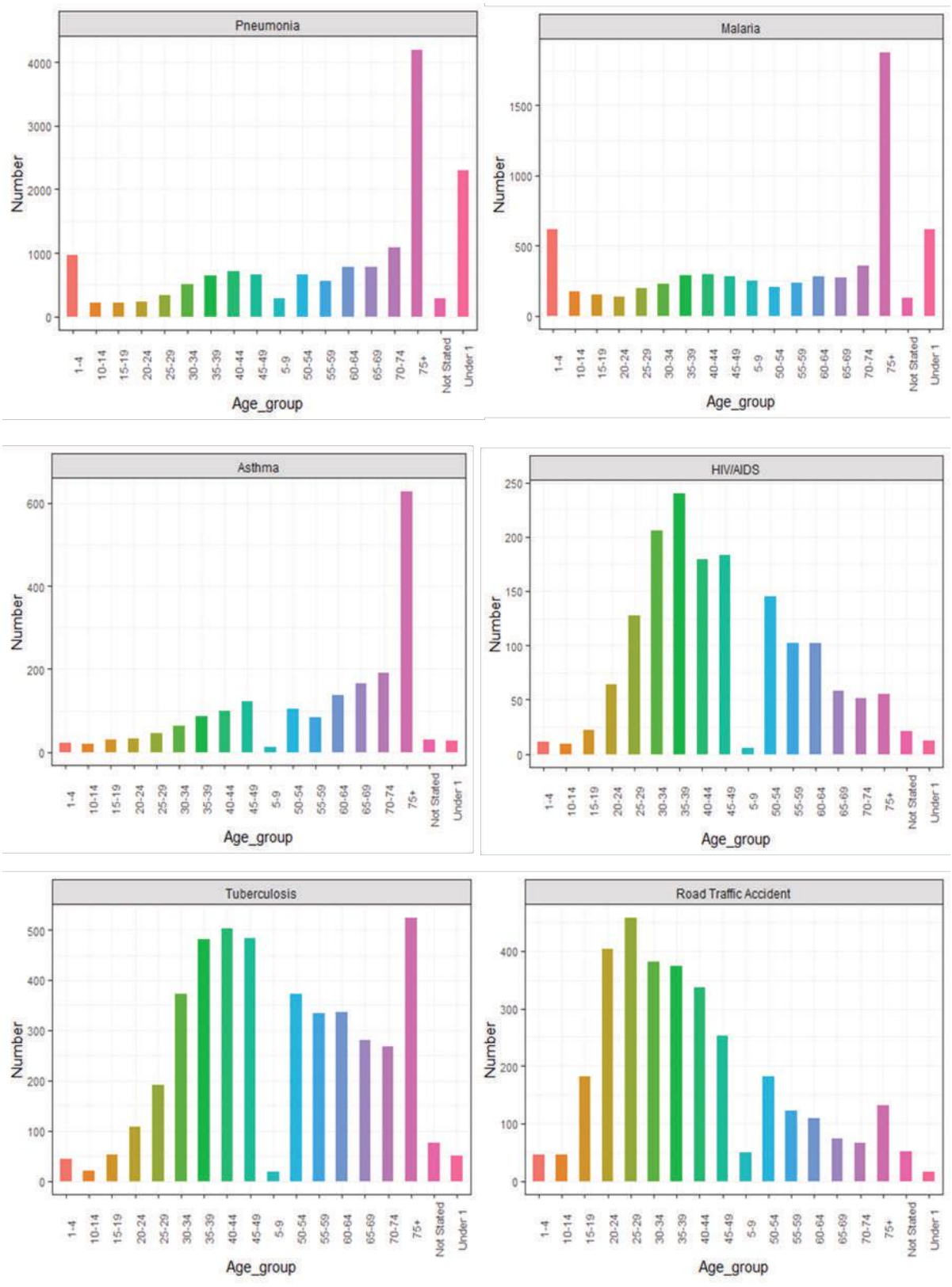




Figure 6. 4 Programmatic diseases by age



6.6 Foreign Causes of Death

During the year under review, Cardiopulmonary and cardiorespiratory arrest, Cancer, Heart Disease, COVID-19 and Pneumonia took the top five causes of death. **Table 6.11** below shows Foreign Causes of foreign death in 2022.

Table 6. 11 Foreign Causes of foreign death in 2022

Cause of Death	Female	Male	Total
Cardiopulmonary and cardiorespiratory arrest	11	24	35
Cancer	9	16	25
Heart Disease	4	8	12
COVID-19	3	8	11
Pneumonia	7	4	11
Hemorrhage	5	5	10
Drowning	1	8	9
Respiratory Infections	3	6	9
Road Traffic Accident	1	7	8
Gunshot Wounds	0	7	7
Injuries	2	5	7
Kidney Diseases	2	4	6
Sepsis	2	3	5
Hepatitis	0	4	4
Hypertension	2	2	4
Stroke	1	3	4

Cause of Death	Female	Male	Total
Tuberculosis	2	2	4
Suicide	1	2	3
Abdominal Wall Effect	1	1	2
Alzheimer and Other Dementia	2	0	2
Diarrhea	0	2	2
Gastroenteritis	2	0	2
Alcoholism	1	0	1
Cerebrovascular Disease	1	0	1
Epilepsy	1	0	1
Liver Cirrhosis	0	1	1
Malaria	0	1	1
Malnutrition	0	1	1
Menengitis	0	1	1
Poisoning	1	0	1
Sudden Death	0	1	1
Other Causes	24	56	80



6.7 Community Causes of Death

This section analyzes home deaths (lay diagnosis). Home deaths otherwise referred to as community deaths are registered by the assistant chiefs. Assistant chiefs have not been trained on certification of causes of death however, they are required to fill a form with a predetermined cause of death, this certification of death is called lay reporting.

6.7.1 Top Ten (Home) Community Causes of Death

Lay reporting of deaths at the community produced the leading causes of death as shown in table 6.11 below.

Sudden death (16.24%), pneumonia (15.39%), malaria (9.89%) and cancer (9.7%) were the leading causes of death in the general population, while pneumonia (38.2%), malaria (22.27%), sudden death (13.97%) and anemia (3.32%) were reported to be the leading causes of death in under 5s. The limited capacity in determining causes of death at the community has led to inaccurate causes of death such as sudden death as the leading cause of death in the general population. This has elicited the need to strengthen verbal autopsies as a way of enhancing the reporting of community deaths and improving on the accuracy of the causes of deaths.

Table 6. 12 Ten leading causes of death at the community, 2022

Male				Female			Overall		
Rank	Disease	N =57676	%	Disease	N = 42566	%	Disease	N = 100242	%
1	Sudden Death	9,280	16.09	Sudden Death	7,001	16.45	Sudden Death	16,281	16.24
2	Pneumonia	8,579	14.87	Pneumonia	6,853	16.1	Pneumonia	15,432	15.39
3	Cancer	5,222	9.05	Malaria	4,710	11.07	Malaria	9,916	9.89
4	Malaria	5,206	9.03	Cancer	4,499	10.57	Cancer	9,721	9.70
5	Tuberculosis	2,879	4.99	Other Causes	3,607	8.47	Hypertension	4,414	4.40
6	Hypertension	1,794	3.11	Hypertension	2,620	6.16	Tuberculosis	4,079	4.07
7	Asthma	1,604	2.78	Diabetes	1,508	3.54	Diabetes	2,933	2.93
8	Road Traffic Accident	1,496	2.59	Asthma	1,293	3.04	Asthma	2,897	2.89
9	Diabetes	1,425	2.47	Tuberculosis	1,200	2.82	Anaemia	2,754	2.75
10	Anaemia	1,424	2.47	Stroke	1,196	2.81	Stroke	2,152	2.15
	Other Causes	18,767	32.54	Other Causes	8,079	18.98	Other Causes	29,663	29.59

6.7.2 Leading Cause of Deaths for Neonates.

For community deaths, the leading causes were pneumonia (43.09%) sudden death (19.16%), Malaria (14.68%), prematurity and Birth Asphyxia (3.22%) and jaundice. This is slightly different from 2021 where pneumonia was the leading cause of death with prematurity and Birth Asphyxia and jaundice taking the fourth and fifth positions, respectively.

Table 6. 13 Ten leading causes of death for neonates

Male				Female			Overall		
Rank	Disease	N =1032	%	Disease	N = 957	%	Disease	N =1989	%
1	Pneumonia	462	44.77	Pneumonia	395	41.27	Pneumonia	857	43.09
2	Sudden Death	185	17.93	Sudden Death	196	20.48	Sudden Death	381	19.16
3	Malaria	149	14.44	Malaria	143	14.94	Malaria	292	14.68
4	Prematurity & Birth Asphyxia	37	3.59	Prematurity & Birth Asphyxia	27	2.82	Prematurity & Birth Asphyxia	64	3.22
5	Jaundice	19	1.84	Maternal Conditions	18	1.88	Jaundice	34	1.71
6	Maternal Conditions	14	1.36	Anaemia	17	1.78	Maternal Conditions	32	1.61
7	Anaemia	13	1.26	Jaundice	15	1.57	Anaemia	30	1.51
8	Malnutrition	9	0.87	Respiratory Infections	10	1.04	Sepsis	18	0.90
9	Sepsis	9	0.87	Sepsis	9	0.94	Malnutrition	16	0.80
10	Measles	6	0.58	Tetanus	9	0.94	Respiratory Infections	16	0.80
	Other causses	129	12.5	Other causses	118	12.33	Other causses	249	12.52

6.7.3 Leading Causes of Deaths for Under 1 Year

In 2022, the leading cause of death in the community were pneumonia (44.4%), malaria (19.4%), sudden death (14.18%) and Prematurity & Birth Asphyxia (1.68%). This was almost the same in 2021 with the leading three causes of death being the same as in 2022.

Table 6. 14 Ten leading causes of death for under 1 year

Male				Female			Overall		
Rank	Disease	N =2794	%	Disease	N =2565	%	Disease	N =5359	%
1	Pneumonia	1,251	44.77	Pneumonia	1,130	44.05	Pneumonia	2,381	44.43
2	Malaria	531	19.01	Malaria	506	19.73	Malaria	1,037	19.35
3	Sudden Death	378	13.53	Sudden Death	382	14.89	Sudden Death	760	14.18
4	Anaemia	71	2.54	Anaemia	63	2.46	Anaemia	134	2.50
5	Prematurity & Birth Asphyxia	48	1.72	Prematurity & Birth Asphyxia	42	1.64	Prematurity & Birth Asphyxia	90	1.68
6	Jaundice	37	1.32	Diarrhea	26	1.01	Jaundice	62	1.16
7	Diarrhea	31	1.11	Jaundice	25	0.97	Diarrhea	57	1.06
8	Gastroenteritis	26	0.93	Measles	25	0.97	Measles	51	0.95
9	Measles	26	0.93	Maternal Conditions	20	0.78	Malnutrition	42	0.78
10	Heart Disease	25	0.89	Asthma	19	0.74	Heart Disease	41	0.77
	Other causses	370	13.24	Other causses	327	12.75	Other causses	704	13.14



6.7.4 Ten Leading Causes of Death Under 5 Years

Pneumonia, Malaria, Sudden death, Anaemia; and Premature and Birth Asphyxia were the leading causes of death in the community for under 5. There were more males compared to female deaths in this group.

Table 6. 15 Ten leading causes of death for under 5 years

Male				Female			Overall		
Rank	Disease	N =4,610	%	Disease	N = 4,085	%	Disease	N = 8,695	%
1	Pneumonia	1,749	37.94	Pneumonia	1,557	38.12	Pneumonia	3,306	38.02
2	Malaria	998	21.65	Malaria	938	22.96	Malaria	1,936	22.27
3	Sudden Death	634	13.75	Sudden Death	581	14.22	Sudden Death	1,215	13.97
4	Anaemia	156	3.38	Anaemia	133	3.26	Anaemia	289	3.32
5	Prematurity & Birth Asphyxia	63	1.37	Prematurity & Birth Asphyxia	51	1.25	Prematurity & Birth Asphyxia	114	1.31
6	Malnutrition	59	1.28	Malnutrition	45	1.1	Malnutrition	97	1.12
7	Drowning	55	1.19	Drowning	42	1.03	Drowning	93	1.07
8	Measles	48	1.04	Measles	38	0.93	Measles	93	1.07
9	Jaundice	45	0.98	Jaundice	38	0.93	Diarrhea	83	0.95
10	Diarrhea	41	0.89	Diarrhea	37	0.91	Jaundice	82	0.94
	Other causses	762	16.53	Other causses	625	15.3	Other causses	1,387	15.95

6.7.5 Ten Leading Causes of Death for Age 5-14 Years

For population ages 5-14, malaria, Pneumonia, Sudden death, Anaemia and drowning were the top 5 causes of death in the community.

Table 6. 16 Ten leading causes of death for 5-14 years

Male				Female			Overall		
Rank	Disease	N =1618	%	Disease	N = 1206	%	Disease	N =2826	%
1	Malaria			Malaria	305	18.85	Malaria	255	21.14
2	Pneumonia	295	18.23	Pneumonia	295	18.23	Pneumonia	217	17.99
3	Sudden Death	216	13.35	Sudden Death	216	13.35	Sudden Death	158	13.10
4	Anaemia	115	7.11	Anaemia	115	7.11	Anaemia	104	8.62
5	Drowning	94	5.81	Cancer	94	5.81	Drowning	42	3.48
6	Road Traffic Accident	44	2.72	Drowning	44	2.72	Cancer	33	2.74
7	Suicide	42	2.6	Asthma	42	2.6	Road Traffic Accident	23	1.91
8	Cancer	40	2.47	Road Traffic Accident	40	2.47	Suicide	23	1.91
9	Epilepsy	28	1.73	Epilepsy	28	1.73	Epilepsy	19	1.58
10	Injuries	28	1.73	Asphyxia	28	1.73	Asthma	16	1.33
	Other causses	411	25.4	Other causses	316	26.2	Other causses	316	26.20

6.7.6 Ten Leading Causes of Death for Age 15-49 Years

Under this age bracket, the first five leading causes of death among the community reported cases were as follows; Sudden death, Pneumonia, malaria, cancer and Tuberculosis. For males, RTA takes the fifth position while cancer is the second leading cause of death among the women in this category.

Table 6. 17 Ten leading causes of death for 15-49 years

Male				Female			Overall		
Rank	Disease	N =18783	%	Disease	N = 8810	%	Disease	N =27593	%
1	Sudden Death	2,927	15.58	Sudden Death	1,315	14.91	Sudden Death	4,242	15.37
2	Pneumonia	1,943	10.34	Cancer	1,061	12.03	Pneumonia	2,929	10.62
3	Malaria	1,357	7.22	Pneumonia	986	11.18	Malaria	2,180	7.90
4	Tuberculosis	1,308	6.96	Malaria	823	9.33	Cancer	2,015	7.30
5	Road Traffic Accident	1,123	5.98	Tuberculosis	476	5.4	Tuberculosis	1,784	6.47
6	Cancer	954	5.08	Anaemia	347	3.94	Road Traffic Accident	1,248	4.52
7	Injuries	939	5	HIV/AIDS	331	3.75	Injuries	1,083	3.92
8	Suicide	929	4.95	Hypertension	283	3.21	Suicide	1,074	3.89
9	Alcoholism	516	2.75	Asthma	250	2.84	Anaemia	712	2.58
10	Asthma	408	2.17	Diabetes	164	1.86	Asthma	658	2.38
	Other causses	6,379	33.96	Other causses	2,782	31.55	Other causses	9,668	35.04

6.7.7 Ten Leading Causes of Death Among 60+ Years

In this category, community reported causes of death were as follows; sudden death, pneumonia, cancer, malaria and hypertension for all the sexes. Also, urinary-tract infection, asthma and stroke are among the ten leading causes of death.

Table 6. 18 Ten leading causes of death for 60+ years

Male				Female			Overall		
Rank	Disease	N =25780	%	Disease	N =24793	%	Disease	N =50573	%
1	Sudden Death	4,317	16.75	Sudden Death	4,329	17.46	Sudden Death	8,646	17.10
2	Pneumonia	3,704	14.37	Pneumonia	3,667	14.79	Pneumonia	7,371	14.57
3	Cancer	3,406	13.21	Cancer	2,749	11.09	Cancer	6,155	12.17
4	Malaria	2,049	7.95	Malaria	2,400	9.68	Malaria	4,449	8.80
5	Hypertension	1,391	5.4	Hypertension	2,096	8.45	Hypertension	3,487	6.89
6	Tuberculosis	1,015	3.94	Diabetes	1,206	4.86	Diabetes	2,185	4.32
7	Diabetes	979	3.8	Stroke	1,042	4.2	Asthma	1,818	3.59
8	Asthma	953	3.7	Asthma	865	3.49	Stroke	1,817	3.59
9	Urinary Tract Infections	893	3.46	Anaemia	646	2.61	Tuberculosis	1,557	3.08
10	Stroke	775	3.01	Old Age	604	2.44	Anaemia	1,315	2.60
	Other causses	6,298	24.43	Other causses	5,189	20.93	Other causses	11,773	23.28



CHAPTER

07

Conclusion and Recommendations

7.1 Introduction

This chapter presents conclusion and recommendations on civil registration and vital statistics based on the findings of the analysis. The findings will be useful for planning, improving program effectiveness, and promoting learning and accountability. Recommendations are aimed at improvement of the CRVSsystem in the country.

7.2 Conclusion

7.2.1 Birth Registration

The results of the 2022 KVSR report have shown that birth registration completeness increased from 73.4 percent in 2018 to 83.1 percent in 2021 before declining



to 80.6 percenin 2022 in the country. This decline may be attributed to a change in methodology used in calculating the expected births where indicators from the 2022 KDHS were used as well as a shortage of registration materials.

Sex ratio was 103.1 and falls within the expected normal range.. Twenty-one counties had sex ratios within the normal range of…….(give normal range) . Six counties (Lamu, Tana River, Garissa, Mandera, Marsabit and Baringo) reported slightly higher sex ratios than the normalwhich could be attributed to over-reporting of male births. Four counties (Kilifi, Kajiado, Kericho and Nyamira) reported slightly lower sex ratios and this could be attributed to under-reporting of male births.

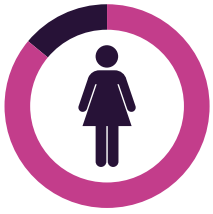
The proportion of live births registered in health facilities has been on an upward trend between 2018 and 2022. Nationally, the proportions increased from 94.7 percent in 2018 to 99.0 percent in 2022. All counties had over 90% of their live births occurring in health facilities. This could be an indication that the initiatives by GoK such as, Linda Mama and UHC are paying dividends.

Majority of live births occurred among women aged 20-24 followed by women aged 25-29. This age group represents the peak in childbearing. Between 2018 and 2022, the majority of teenage births occurred in 2021 and declined slightly in 2022 Indicating that teenage fertility will continue to contribute to the overall total fertility in the country. There was a steady decline in live births between ages 30-44,an indication that that women have fewer births as they age.

The results show that majority of births were registered among married women (85.6%). Birth registration among married women was highest in these counties: Mandera (100%), Wajir (99.9%), Garissa (99.9%), Marsabit (99.4%) Tana River (98.8%) and Kilifi (97.8%). This indication that marriage is still regarded as the socially sanctioned institution for childbearing. The proportion of birth registration completeness was highest among women with secondary education (38.5%) and primary education level (32.5%).

7.2.2 Death Registration

Death registration completeness nationally declined from 52.3 percent in 2021 to 47.6 percent in 2022 with more deaths registered in health facilities (53%) compared to community (47%). Nationally,



85.6%

The results show that majority of births were registered among married women (85.6%). Birth registration among married women was highest in these counties: Mandera (100%), Wajir (99.9%), Garissa (99.9%), Marsabit (99.4%) Tana River (98.8%) and Kilifi (97.8%).

the sex ratio at death was 129.6 which implied that there were 129.6 male deaths for every 100 female deaths. In addition, sex ratio at death was consistently above 100 for all age groups except the age group of 80 and above. The results also depicted more deaths at the younger ages (under 1) and the older ages, while neonatal deaths (less than 28 days after birth) constituted 59.5 percent of infant deaths. Majority of registered deaths occurred among those that were married (49.3%), followed by single (27%), widowed (13%), and divorced (3%). Adult deaths contributed to 80.76 percent of the total registered deaths.

7.2.3 Causes of Death

Nationally, Pneumonia was the leading cause of death in the period 2019-2022. According to the global burden of diseases, non-communicable diseases were the leading causes of death accounting at 44.1%. The most prevalent non-communicable diseases were cancer and cardio-pulmonary diseases while the most prevalent communicable diseases were pneumonia and malaria. The leading causes of death among the neonates, under one and under 5 is prematurity and birth Asphyxia for facility deaths while pneumonia is the leading cause of death for the same age categories in the community. Injuries and road traffic accidents were among the top ten causes of death for males above 15 years, while HIV and hypertension were among the top ten causes of death in females of the same age group. The five leading causes of death for the older population (age 60+) were cardiopulmonary arrest (9.9%), pneumonia (9.3%), cancer (5.5%), hypertension (5.4%) and respiratory infection (4.6%).

7.3 Recommendations

1. CRS should ensure all variables in registration forms are captured in the template to make it possible to analyze whatever variables recommended by the UN Principles.
2. There is need to capture and analyze data on refugees and migration status from CRS.
3. Capacity building-Continuous capacity building for the following:
   - Registration agents both at the health facility and community level on filling of registration forms to ensure completeness of registration tools.
   - Assistant chiefs on verbal autopsy skills for registration of community deaths to enhance quality of community death reporting.
   - Statistis staff and registrars on data management, monitoring and evaluation and report writing.
   - Capacity building on data adjustments especially on incomplete registration (adjustments for fertility statistics, mortality indicators and redistribution for missing values)
4. CRS should come up with strategies to improve registration completeness in arid and semi- arid counties(Wajir, Mandera and Garissa recorded below 10% completeness).
5. CRS should establish a standing committee between CRS, MOH and KNBS to undertake quarterly data audits and reviews.
6. CRS to seek for more partnerships and technical assistance in order to generate and analyze statistics that are tailored to specific user needs; gender response, child protection, generate SDG indicators and and a Kenyan life table
7. CRS to endeavor to launch and disseminate the KVSR through the Ministerial website, produce county profiles, fact sheets, policy briefs. Develop a data dissemination plan and disseminate the KVSR by June 2023.
8. Consider disaggregation of vital statistics data to lower levels such as Regional and Sub County level.
9. Enhance awareness and advocacy for death registration by facilitating registrars to hold quarterly sensitization and registration campaigns in all the sub-counties.
10. Consider compiling statistics on birth/ death certification.
11. Revise the death template to include a column on the certificate (lay reporting, medically certified)-immediately.
12. To attempt data adjustments especially on incomplete registration (adjustments for fertility statistics, mortality indicators and redistribution for missing values)
13. Open CRS offices in all Sub-Counties which will help improve registration completeness.
14. CRS to adopt and roll out the revised Forms B1 and D1/D2 which conform with the UN and ICD-11 standards. (Capture rural urban variables, medical certification, place of occurrence and residence).

References

Bongaarts, J. (1999). *The fertility impact of changes in the timing of child bearing in the developing world.* Population Studies 53(3): 277 289.

Bongaarts, J. (n.d.). *The fertility impact of changes in the timing of child bearing.* Population Studies 53(3), 277-289.

Chahnazarian, A. (1988). *Determinants of sex ratio at birth: Review of recent literaure.* Soc. Biol 35: 214-235.

Civil Registration Services (CRS). (2021). *Kenya Vital Statistics Report.* Civil Registration Services (CRS), Statistics Division, Nairobi.

Colleran H, J. G. (2014). *Community-level education accelerates the cultural evolution of fertility decline.* Proc R Soc B Biol Sci. Retrieved from https://doi.org/10.1098/rspb.2013.2732

Getange, O. M. (2018). *Factors influencing Teenage Pregnacies in Mixed Secondary Schools in Nyamira South, Nyamira County, Kenya.* International Journal of Recent Research in Social Sciences and Humanities. 5(3), 6-10.

KC S, L. W. (2017). *The human core of the shared socioeconomic pathways: population scenarios by age, sex and level of education for all countries.* Retrieved from https://doi.org/10.1016/j.gloenvcha.2014.06.004

Kenya National Bureau of Statistics. (2022). *2019 Kenya Population and Housing Census, Analytical Report On Mortality, Volume VII.* Nairobi: KNBS.

Moturi, S. M. (2022, November 3). Geographic accessibility to public and private health facilities in Kenya in 2021: An updated geocoded inventory and spatial analysis. *Frontiers in Public Health, 10.* Retrieved from https://ora.ox.ac.uk/objects/uuid:dc14b3ec-8b1c-4c30-a1d7-5e5d5619c239

(2015). *National Bureau of Statistics-Kenya and ICF International. Kenya Demographic and Health Survey (KDHS) 2014 Rockville, Maryland, USA: KNBS and ICF International.*

National Institute of Statistics of Rwanda (NISR). (2020). *Rwanda vital statistics report 2019.* National Institute of Statistics of Rwanda (NISR), Statistics, Kigali.

S., J. (n.d.). *Women's education, autonomy, and reproductive behavior: experience from developing countries.*

UN. (1995). *Women's Education and Fertility Behaviour:Recent Evidence from Demographic and Health Surveys.* ST/ESA/SER.R/137.

UN. (2014). *Principles and recommendations for a vital statistics system. Revision 3. New York: Department of Economic and Social Affairs, Statistics Division Statistical Papers.* New York: Series M No. 19/Rev.3.

UNESA. (2014).

United Nations. (2014). *Principles and Recommendations for a Vital Statistics System.* Retrieved from UN Website: http://unstats.un.org/unsd/demographic/standmeth/principles/M19Rev3en.pdf

UNSD. (2014). Retrieved from https://unstats.un.org/unsd/demographic/products/dyb/dyb2014.htm

Vital Strategies. (2020). *Production of a Vital Statistics Report.* Retrieved from Production of a Vital Statistics Report: https://www.vitalstrategies.org/resources/production-of-a-vital-statistics-report/

Wang Q, S. X. (2016). *The role of socio-political and economic factors in fertility decline: a cross-country analysis.* Retrieved from World Dev: https://doi.org/10.1016/j.worlddev.2016.07.004

Waruiru, W. O. (2022). *All-cause and cause-specific mortality rates for Kisumu County: a comparison with Kenya, low-and middle-income countries.* Retrieved from BMC Public Health 22, 1828: https://doi.org/10.1186/s12889-022-14141-

WHO. (2004). ICD-10. *International Statistical Classification of Diseases and Related Health Problems, Tenth revision, second edition.* Geneva: s.n.

WHO. (2014). *Improving Mortality Statistics as part of Strengthening Civil Registration and Vital Statistics Systems.* WHO. Geneva: .

Appendices

A. BIRTH AND DEATH REGISTRATION FORMS

APPENDIX A1: FORM B1

FORM B1

REPUBLIC OF KENYA
THE BIRTHS AND DEATHS REGISTRATION ACT
(Cap. 149)

ORIGINAL

ACKNOWLEDGEMENT OF BIRTH NOTIFICATION (FOR PARENTS)

Serial

1. NAME OF CHILD: ……
First name Other name Father's *(surname or tribal) name*

2. DATE OF BIRTH : ..... 3. SEX:* Male □ Female □
Day month year

5. NATURE OF BIRTH: Born alive □ Born dead □

7. NAME OF MOTHER ……
First name Maiden name Father's *(surname or tribal) name*

I certify that the above information has been notified and recorded.

17. DATE ..... 18. REGISTRATION ASSISTANT FOR: 19. NAME AND SIGNATURE
Day month year (state sub-location or health institution)

……. ……

See Instruction III (b) on the cover.
Note.-To obtain a birth certificate, present this notification to the District Registrar of Births where this birth occurred.

FORM B1

REPUBLIC OF KENYA
3E BIRTHS AND DEATHS REGISTRATION ACT
(Cap. 149)
REGISTER OF BIRTH

ORIGINAL

Serial

1. NAME ……
First name Other name Father's (surname or tribal) name

2. DATE OF BIRTH ……
Day Month Year

CHILD

3. SEX: 1 Male □ 2 Female □
4. TYPE OF BIRTH 1 Single □ 2 Twin □
Other, specify ……
5. NATURE OF BIRTH 1 Born alive □ 2 Born dead □

6. PLACE OF BIRTH ……/……
Sub-location or Estate and town or health institution District

MOTHER

7. NAME …… 8. AGE ……
First name Maiden name Father's *(surname or tribal) name*

9. IS MOTHER MARRIED TO FATHER?*
Yes □ No □

10. RESIDENCE …… ……
Sub-location or Estate or town District

11. PREVIOUS BIRTHS TO MOTHER: No. born alive ..... No. born dead ……..
(excluding current one)

FATHER

12. NAME ……
First name Other name Father's *(surname or tribal) name*

INFORMANT

13. NAME .....
First name Other name Father's *(surname or tribal) name*

14. CAPACITY OF INFORMANT'
1 Parent □ 2 T.B.A. □ 3 Midwife □ 4 Medical Attendant □ 5 Other, specify ……□

REGISTRATION ASSISTANT

I certify that to the best of my knowledge the information given above is correct.
15. DATE ..... Day month year
16. SIGNATURE ……

17. DATE ..... Day month year
18. REGISTRATION ASSISTANT FOR (state sub-location or health institution) ……
19. NAME AND SIGNATURE ……

REGISTRAR

20. DISTRICT .... 21 REGISTRATION NO. ……

22. DATE ..... 23. NAME ..... 24. SIGNATURE ……

* Cross the appropriate box, thus (x).
If mother is not married to father, do not insert the name of father

GPK(L)

Pg 1 of 2

APPENDIX A2: FORM D1

FORM D1

REPUBLIC OF KENYA

THE BIRTHS AND DEATHS REGISTRATION ACT
(*Cap*. 149)

PERMIT FOR BURIAL

Serial No. DA 0958801 **IP Number** .....

1. NAME OF DECEASED .....
First Name Middle Name Father's or husband's name

2. IDENTIFICATION /PASSPORT NUMBER .....

4. SEX: Male ☐ Female ☐ 5. AGE ..... 6. DATE OF DEATH .....
Years /Months/ Days Day /Month /Year

9. USUAL RESIDENCE .....
Sub-location or estate and town Sub-county

After making due inquiry as to cause of the death of the above named deceased person, I hereby authorize the interment of the body.

18. DATE..... 19. REGISTRATION ASSISTANT FOR: 20. SIGNATURE
Day /Month/ Year
....

PERMIT ISSUED TO (NAME): ..... ID No. ..... SIGNATURE .....

Note.— To obtain death certificate, present this permit to the Sub-county Registrar of Deaths in the Sub-county where this death occurred

FORM DI

REGISTER OF DEATH

(for use in health institutions and by Medical Practitioners)

Serial No. DA 0958801 **IP Number** .....

1. NAME OF DECEASED .....
First Name Middle Name Father's or husband's name

2. IDENTIFICATION /PASSPORT NUMBER ..... 3. NATIONALITY .....

4. †SEX: Male ☐ Female ☐ ..... 5. AGE ..... 6. DATE OF DEATH
Years /Months /Days Day /Month /Year

7. MARITAL STATUS: (a) Married ☐ (b) Divorced ☐ (c) Single ☐ (d) Widowed ☐

8. PLACE OF DEATH. ..... / .....
Health Institution/Sub-location or estate and town. Sub-county

9. USUAL RESIDENCE ..... / .....
Sub-location or estate and town Sub-county

10. LEVEL OF EDUCATION ..... 11. OCCUPATION .....

12. CAUSE OF DEATH (PRINT IN BLOCK LETTERS, DO NOT ABBREVIATE) .....

MEDICAL CERTIFICATION

IMMEDIATE CAUSE: disease or condition directly leading to death (a) .....
Due to

ANTECEDENT CAUSES: Morbid conditions, if any, which gave rise to immediate cause (a)
(b) .....
Due to (stating the underlying condition last)
(c) .....

OTHER SIGNIFICANT CONDITIONS: Contributing to death but not related to (a) .....

13. CERTIFICATE: I certify that:

Tick as Appropriate

(a) I attended the deceased before death or
(b) I examined the body after death; or
(c) I conducted a post-mortem examination of the body, and that the above information is correct to the best of my knowledge.

REGISTRATION ASSISTANT

14. NAME ..... 15. TITLE .....

16. DATE ..... 17. SIGNATURE .....

18. DATE ..... 19. REGISTRATION ASSISTANT FOR: 20. SIGNATURE .....
Day/ Month/Year (Name of health institution)
.....

REGISTRAR

21. SUB-COUNTY ..... 22. REGISTRATION No. .....

23. DATE ..... 24. NAME ..... 25. SIGNATURE .....

*If the deceased was a married woman, husband's name can be written, +cross the appropriate box, thus [X]

GPK (SP) 7106—80m Bks. —8/14

APPENDIX A3: FORM D2

FORM D2

REPUBLIC OF KENYA

0798926 THE BIRTHS AND DEATHS REGISTRATION ACT
(*Cap*. 149)

PERMIT FOR BURIAL

Serial No. _____

1. NAME OF DECEASED .....
First Name Middle Name *Father's or husband's name

2. IDENTIFICATION /PASSPORT NUMBER .....

4. SEX: Male ☐ Female ☐ 5. AGE ..... 6. DATE OF DEATH .....
Years/Months/Days Day Month Year

9. USUAL RESIDENCE .....
Sub-location or estate and town Sub-county

After making due inquiry as to cause of the death of the above named deceased person, I hereby authorize the interment of the body.

17. DATE..... 18. REGISTRATION ASSISTANT FOR: 18. SIGNATURE
Day/Month/ Year (Name of Sub-location)

....

PERMIT ISSUED TO (NAME): ..... ID No. ..... SIGNATURE .....

Note.— To obtain death certificate, present this permit to the Sub-county Registrar of Deaths in the Sub-county where this death occurred

FORM D2

REPUBLIC OF KENYA
THE BIRTHS AND DEATHS REGISTRATION ACT
(*Cap*. 149)

REGISTER OF DEATH
(for use by Registration Assistants for home death)

Serial No. 0798926

1. NAME OF DECEASED .....
First Name Middle Name *Father's or husband's name

2. IDENTIFICATION /PASSPORT NO. ..... 3. NATIONALITY .....
(ID to be surrendered)

4. †SEX: Male ☐ Female ☐ 5. AGE...../...../..... 6. DATE OF DEATH...../...../.....
Years Months Days Day Month Year

7. MARITAL STATUS: (*a*) Married ☐ (*b*) Divorced ☐ (*c*) Single ☐ (*d*) Widowed ☐

8. PLACE OF DEATH. ...../.....
Sub-location or estate and town. Sub-county

9. USUAL RESIDENCE ...../.....
Sub-location or estate and town Sub-county

10. LEVEL OF EDUCATION..... 11. OCCUPATION .....

12A. NATURAL CAUSES*

Malaria	☐	Anaemia	☐	Cancer	☐
Pneumonia	☐	Jaundice	☐	Urinary Obstruction	☐
Measles	☐	Child/pregnancy/birth	☐	AIDS	☐
Tetanus	☐	Sudden death	☐	Malnutrition	☐
Tuberculosis	☐	Alcoholism	☐	Asthma	☐

Other known cause, specify .....

I am satisfied after the above-mentioned death is not one to which section 386 or 387 of the Criminal Procedure Code (*Cap*.75) apply. An external examination of the body has/has not been made by a medical practitioner.

12B. UNNATURAL CAUSES*

Accident	☐	Motor Vehicle	☐	House fire	☐
Poisoning	☐	Attacked by animal or snake	☐		
Suicide	☐	Drowning	☐	Other known cause, specify	

I certify that provisions of *Cap*. 75 have been observed.

Name ..... Date ..... Signature .....
(Police Officer or Magistrate)

CAUSE OF DEATH

INFORMANT

13. NAME .....
First Name Middle Name *Father's or husband's name

14. CAPACITY OF INFORMANT
RELATIVE ☐ VILLAGE ELDER ☐ Other, specify .....

15. DATE ..... 16. SIGNATURE OF INFORMANT .....

REGISTRATION ASSISTANT

17. DATE ..... 18. REGISTRATION ASSISTANT FOR: 19. SIGNATURE
Day/Month/Year *(Name of Sub-location)*

....

REGISTRAR

20. SUB-COUNTY ..... 21. REGISTRATION No. .....

22. DATE ..... 23. NAME ..... 24. SIGNATURE .....

*If the deceased was a married woman, husband's name can be written, +cross the appropriate box, thus [x]

GPK (SP) 7105—80m Bks.—8/14

APPENDIX A4: FORM BDA1



FORM BDA 1

REPUBLIC OF KENYA

THE REGISTRATION OF BIRTHS AND DEATHS ACT

(Cap. 149)

APPLICATION FOR REGISTRATION OF BIRTH OF A CITIZEN OF KENYA OCCURRING ABROAD

The following information concerning the birth must be supplied:-

1. FULL NAME OF CHILD	Baptismal or given Name (s)	Middle or tribal Name	Son Of Daughter of	Surname or Tribal Name of Father of Child
2. DATE OF BIRTH	Date of Month :	Month : Year	3. SEX OF CHILD	Male .. I Female .. 2
4. FULL NAME FATHER OF CHILD	Baptismal or given Name (s)	Middle or tribal name	Son of	Surname or Tribal Name of his Father
5. FULL NAME MOTHER OF CHILD	Baptismal or given Name (s)	Middle or tribal name	Daughter of	Maiden Surname or Tribal Name of her Father
6. EXACT PLACE AND COUNTRY OF BIRTH				
7. NORMAL RESIDENCE IN KENYA OF MOTHER				

08. CERTIFICATES

A—*Informant*

I certify that I am (State relationship to child or capacity in which information given) .....

.....

and that the above information is correct to the best of my knowledge.

Signature .....Full Name.....

Address .....Date …….

B.-By member of Kenya Mission abroad.

I am satisfied from evidence produced to me and inquiries which I have made that the above information is correct to the best of my knowledge.

Signature .....

Designation and Address……..

……

……..

APPENDIX A5: FORM BDA2

REPUBLIC OF KENYA

FORM BDA 2

APPLICATION FOR REGISTRATION OF DEATH OF A CITIZEN OF KENYA OCCURRING ABROAD

THE FOLLOWING INFORMATION CONCERNING THE DECEASED MUST BE SUPPLIED

1.Full Name of Deceased	Baptismal or Given Name(s) Middle or Tribal Name  Surname, or Tribal Name Son of of Father Daughter of	
2. Date of Death	Date of Month Month Year	3. Sex of Deceased Male 1 ☐ Female 2 ☐
4. Age of Deceased	Years (If under one year state in Months ..... or Days).....)	5. Occupation of Deceased
6. Exact Place and Country of Death		
7. Deceased's Normal Residence in Kenya		

8. If Death certified by Medical Practitioner
A. Cause of Death-Enter one cause per line

		Interval between onset and death.
1. Immediate cause	(a).....	.....
Due to	(b)	.....
Due to	(c)	.....

II. Other significant conditions.

B. Name and Address of certifying Doctor .....

.....

9. If death not certified by Medical Practitioner state apparent cause of death .....

.....

.....

.....

10. CERTIFICATES

(a) Informant.

I certify that I am *(State relationship to deceased or capacity in which information given)*.....

.....

and that the above information is correct to the best of my knowledge.

Signature ....Full Name ....

Address .....Date .....

(b) By member of Kenya Mission abroad.
I am satified from evidence produced to me and inquiries which I have made that the above information is correct 'to the best of my knowledge.

Signature.....

Designation and Address.....

.....

(Before completing this form please read the notes on the other side)

Pg 1 of 2

APPENDIX A6: BIRTH TEMPLATE

Indicate all current births and Late cases registered within one year after the date of occurrence

Date of Birth (dd-mm-yy)	Sex *(Indicate whether male or female)*	Nature of birth *(Indicate whether born alive or dead)*	Place of birth *(Indicate the name of facility or Sublocation of birth)*	Type of place *(Indicate whether Home or Health Institution)*	Age of the mother *(indicate the age of the mother at the birth of the child)*	Marital status	Nationality of the mother	Ocupation of the mother	Mother's level of Education	Place of Residence *(indicate the sub county where the mother residence)*	Date of Registration (dd-mm-yy)	Entry Number

APPENDIX A7: DEATH TEMPLATE

Key in all the deaths (Both Late and Current) that were registered in this month in your Sub County												
Name of Deceased *(Indicate full names of the deceased)*	ID Number *(Indicate the ID number where applicable*	Date of Death (dd-mm-yy)	Sex *(Indicate whether male or female)*	Age *(Indicate number eg 1,2,3)*	Unit of age *(Days, Months or Years)*	Marital status	Place of death *(Indicate the name of exact place of death)*	Type of place *(Indicate whether Home or Health*	Place of usual residence	Cause of death *(Indicate the underlying cause of death)*	Date of Registration (dd-mm-yy)	Entry Number

B. REGISTERED BIRTHS BY NATIONAL AND COUNTY, 2018–2022

APPENDIX B1: PERCENTAGE OF REGISTERED BIRTHS BY PLACE OF OCCURRENCE, NATIONAL AND COUNTY, 2018–2022

	2018			2019			2020			2021			2022		
National/County	Health Facility	Home	Total	Health Facility	Home	Total	Health Facility	Home	Total	Health Facility	Home	Total	Health Facility	Home	Total
KENYA	94.7	5.3	1,138,654	95.6	4.4	1,186,144	97.7	2.3	1,126,762	97.8	2.2	1,200,190	99.0	1.0	1,233,053
Mombasa	97.7	2.3	32,963	94.2	5.8	35,994	98.9	1.1	30,459	98.8	1.2	32,680	108.2	0.8	32,015
Kwale	87.0	13.0	21,531	86.7	13.3	22,965	94.1	5.9	19,498	92.3	7.7	21,291	107.3	5.3	18,644
Kilifi	89.4	10.6	42,112	94.3	5.7	45,949	96.1	3.9	41,226	96.0	4.0	42,633	107.6	2.3	45,979
Tana River	77.7	22.3	4,766	76.7	23.3	5,380	86.4	13.6	4,889	85.4	14.6	6,305	97.3	10.8	5,189
Lamu	87.4	12.6	3,513	90.1	9.9	3,958	95.1	4.9	3,526	96.4	3.6	4,413	106.8	3.3	3,883
Taita Taveta	94.6	5.4	8,189	96.5	3.5	8,448	97.8	2.2	8,197	95.8	4.2	8,065	105.4	1.8	8,092
Garissa	91.4	8.6	13,592	93.8	6.2	12,983	97.6	2.4	10,432	97.4	2.6	15,201	98.1	6.5	15,622
Wajir	79.6	20.4	9,412	66.0	34.0	6,327	84.7	15.3	5,900	84.7	15.3	9,141	95.8	10.5	7,487
Mandera	80.2	19.8	10,532	87.9	12.1	12,342	86.9	13.1	8,224	90.9	9.1	10,167	99.0	8.8	7,470
Marsabit	89.5	10.5	6,665	95.8	4.2	8,346	96.6	3.4	7,894	97.2	2.8	10,185	106.1	1.9	9,655
Isiolo	95.7	4.3	5,660	94.5	5.5	5,816	98.6	1.4	5,301	98.4	1.6	5,657	108.1	1.3	5,388
Meru	99.5	0.5	32,391	99.3	0.7	31,883	99.6	0.4	34,584	99.4	0.6	33,684	109.0	0.5	31,254
Tharaka Nithi	96.5	3.5	8,509	96.3	3.7	7,363	98.5	1.5	8,341	98.6	1.4	10,074	107.6	1.5	8,941
Embu	95.3	4.7	14,156	97.2	2.8	14,042	96.7	3.3	13,392	96.4	3.6	12,501	103.2	3.2	11,629
Kitui	85.8	14.2	29,650	92.0	8.0	25,520	96.0	4.0	22,953	95.1	4.9	24,123	103.3	4.9	21,614
Machakos	96.9	3.1	31,063	98.1	1.9	27,655	98.4	1.6	25,141	98.4	1.6	27,828	103.3	1.3	24,542
Makueni	98.5	1.5	18,117	99.1	0.9	18,247	99.5	0.5	19,002	99.5	0.5	19,631	110.0	0.5	19,470
Nyandarua	96.0	4.0	11,660	96.6	3.4	11,196	98.3	1.7	11,918	97.7	2.3	12,058	106.7	2.3	10,161
Nyeri	98.4	1.6	15,614	99.0	1.0	15,788	99.0	1.0	16,689	99.1	0.9	16,316	109.5	1.0	14,869
Kirinyaga	98.4	1.6	11,531	98.9	1.1	11,507	99.1	0.9	13,220	99.2	0.8	13,811	106.1	0.9	12,196
Murang'a	93.0	7.0	19,280	95.6	4.4	19,046	95.5	4.5	20,994	96.7	3.3	21,840	105.6	3.8	17,970
Kiambu	99.0	1.0	70,147	99.4	0.6	71,923	99.4	0.6	69,483	99.3	0.7	60,663	108.7	0.6	63,997
Turkana	90.0	10.0	13,291	90.9	9.1	15,665	90.5	9.5	16,667	93.0	7.0	17,337	110.2	0.5	16,246
West Pokot	92.7	7.3	9,549	95.1	4.9	10,756	98.2	1.8	13,333	98.3	1.7	15,523	106.4	0.1	14,109
Samburu	89.5	10.5	4,132	92.9	7.1	4,952	98.8	1.2	4,012	95.1	4.9	5,178	108.6	0.3	4,435
Trans Nzoia	77.5	22.5	22,371	81.8	18.2	25,052	87.0	13.0	22,463	87.8	12.2	23,195	108.1	0.5	22,141
Uasingishu	97.6	2.4	26,813	98.5	1.5	29,080	99.8	0.2	33,911	99.4	0.6	34,809	104.4	0.0	32,729
Elgeto Marakwet	97.5	2.5	11,246	98.2	1.8	10,564	98.7	1.3	11,026	98.9	1.1	12,494	107.9	0.1	11,371
Nandi	82.2	17.8	15,530	94.5	5.5	17,921	96.7	3.3	16,209	96.1	3.9	18,313	108.6	0.2	17,014
Baringo	98.5	1.5	10,998	99.0	1.0	12,487	99.6	0.4	12,731	99.5	0.5	14,336	113.2	0.0	12,065
Laikipia	96.3	3.7	14,491	96.7	3.3	16,932	98.7	1.3	14,283	98.1	1.9	16,897	112.9	0.2	15,048
Nakuru	96.4	3.6	55,569	96.7	3.3	68,156	98.7	1.3	57,507	98.7	1.3	62,019	109.8	0.1	58,248
Narok	84.4	15.6	14,914	94.0	6.0	18,838	93.1	6.9	20,765	92.8	7.2	25,468	110.4	0.4	21,505
Kajiado	95.9	4.1	21,552	98.0	2.0	25,084	97.9	2.1	27,354	96.3	3.7	30,312	111.7	0.2	31,695
Kericho	96.0	4.0	21,425	98.0	2.0	33,166	99.3	0.7	23,121	99.4	0.6	28,677	107.0	0.0	26,493
Bomet	96.9	3.1	28,517	97.5	2.5	27,420	99.7	0.3	24,570	99.6	0.4	30,601	105.3	0.0	22,742
Kakamega	94.7	5.3	42,473	97.4	2.6	48,519	97.4	2.6	43,944	97.6	2.4	46,835	106.5	1.5	45,794
Vihiga	93.9	6.1	10,555	98.9	1.1	13,872	98.4	1.6	12,256	97.9	2.1	12,219	109.3	0.8	13,199
Bungoma	95.2	4.8	44,197	97.3	2.7	46,058	98.6	1.4	46,905	98.7	1.3	50,966	103.8	1.5	49,743
Busia	93.3	6.7	20,302	88.5	11.5	30,515	86.6	13.4	21,025	96.8	3.2	20,613	106.9	1.9	20,171
Siaya	91.9	8.1	34,516	99.6	0.4	29,988	99.9	0.1	28,967	99.8	0.2	27,836	112.2	0.1	27,280
Kisumu	97.6	2.4	35,033	98.8	1.2	32,275	98.7	1.3	31,351	99.1	0.9	35,061	109.3	0.4	30,679
Homa Bay	93.8	6.2	31,961	98.4	1.6	29,174	98.3	1.7	27,868	98.8	1.2	31,052	109.0	1.0	28,185
Migori	95.2	4.8	48,249	79.4	20.6	33,278	99.5	0.5	32,648	99.8	0.2	32,981	108.6	0.1	32,591
Kisii	95.6	4.4	32,830	93.8	6.2	27,846	98.9	1.1	32,336	99.7	0.3	30,596	109.9	0.2	30,908
Nyamira	99.5	0.5	12,587	83.4	16.6	10,868	99.8	0.2	12,995	99.9	0.1	19,463	107.2	0.1	19,272
NAIROBI	100.0	0.0	134,500	100.0	0.0	145,000	100.0	0.0	137,252	99.9	0.1	139,142	109.9	0.1	132,250

APPENDIX B2: REGISTERED BIRTHS BY SEX OF CHILD, NATIONAL AND COUNTY, 2018–2022

	2018			2019			2020			2021			2022		
National/ County	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Kenya	**581,547**	**557,107**	**1,138,654**	**603,774**	**582,370**	**1,186,144**	**575,454**	**551,308**	**1,126,762**	**612,434**	**587,756**	**1,200,190**	**626,812**	**606,241**	**1,233,053**
Mombasa	16,789	16,174	32,963	18,410	17,584	35,994	15,574	14,885	30,459	16,634	16,046	32,680	17,691	17,195	34,886
Kwale	11,093	10,438	21,531	11,622	11,343	22,965	10,027	9,471	19,498	10,840	10,451	21,291	10,887	10,107	20,994
Kilifi	21,461	20,651	42,112	23,086	22,863	45,949	20,581	20,645	41,226	21,269	21,364	42,633	24,958	25,576	50,534
Lamu	2,518	2,248	4,766	2,818	2,562	5,380	2,506	2,383	4,889	3,259	3,046	6,305	2,931	2,681	5,612
Tana River	1,835	1,678	3,513	2,006	1,952	3,958	1,812	1,714	3,526	2,294	2,119	4,413	2,221	2,055	4,276
Taita Taveta	4,031	4,158	8,189	4,264	4,184	8,448	4,234	3,963	8,197	4,187	3,878	8,065	4,370	4,298	8,668
Garissa	6,688	6,904	13,592	6,763	6,220	12,983	5,358	5,074	10,432	7,987	7,214	15,201	8,519	7,809	16,328
Wajir	4,672	4,740	9,412	3,311	3,016	6,327	3,116	2,784	5,900	4,659	4,482	9,141	4,065	3,892	7,957
Mandera	5,674	4,858	10,532	6,895	5,447	12,342	4,418	3,806	8,224	5,324	4,843	10,167	4,341	3,716	8,057
Marsabit	3,508	3,157	6,665	4,378	3,968	8,346	4,135	3,759	7,894	5,471	4,714	10,185	5,689	4,743	10,432
Isiolo	2,907	2,753	5,660	3,017	2,799	5,816	2,678	2,623	5,301	2,905	2,752	5,657	2,977	2,921	5,898
Meru	16,803	15,588	32,391	16,611	15,272	31,883	17,662	16,922	34,584	17,139	16,545	33,684	17,718	16,514	34,232
Tharaka Nithi	4,394	4,115	8,509	3,743	3,620	7,363	4,299	4,042	8,341	5,102	4,972	10,074	5,012	4,739	9,751
Embu	7,347	6,809	14,156	7,098	6,944	14,042	6,867	6,525	13,392	6,194	6,307	12,501	6,308	6,063	12,371
Kitui	13,904	15,746	29,650	13,414	12,106	25,520	11,757	11,196	22,953	12,265	11,858	24,123	11,927	11,449	23,376
Machakos	15,116	15,947	31,063	13,414	14,242	27,656	12,749	12,392	25,141	14,374	13,454	27,828	12,835	12,832	25,667
Makueni	9,253	8,864	18,117	9,393	8,854	18,247	9,785	9,217	19,002	10,158	9,473	19,631	10,880	10,635	21,515
Nyandarua	5,928	5,732	11,660	5,585	5,611	11,196	6,118	5,800	11,918	5,960	6,098	12,058	5,563	5,513	11,076
Nyeri	7,820	7,794	15,614	7,667	8,121	15,788	8,590	8,099	16,689	8,275	8,041	16,316	8,334	8,094	16,428
Kirinyaga	5,866	5,665	11,531	5,896	5,610	11,506	6,780	6,440	13,220	7,040	6,771	13,811	6,632	6,415	13,047
Murang'a	9,805	9,475	19,280	9,602	9,444	19,046	10,565	10,429	20,994	11,253	10,587	21,840	9,996	9,667	19,663
Kiambu	36,653	33,494	70,147	36,884	35,039	71,923	35,573	33,910	69,483	30,698	29,965	60,663	35,623	34,284	69,907
Turkana	6,996	6,295	13,291	8,147	7,518	15,665	8,452	8,215	16,667	8,968	8,369	17,337	9,277	8,702	17,979
West Pokot	5,042	4,507	9,549	5,597	5,159	10,756	6,890	6,443	13,333	7,920	7,603	15,523	7,818	7,210	15,028
Samburu	2,164	1,968	4,132	2,583	2,369	4,952	2,125	1,887	4,012	2,733	2,445	5,178	2,502	2,329	4,831
Trans Nzoia	11,461	10,910	22,371	12,926	12,126	25,052	11,376	11,087	22,463	11,636	11,559	23,195	12,319	11,723	24,042
Uasingishu	14,101	12,712	26,813	14,747	14,333	29,080	17,288	16,623	33,911	17,848	16,961	34,809	17,343	16,840	34,183
Elgeyo Marakwet	5,882	5,364	11,246	5,347	5,217	10,564	5,647	5,379	11,026	6,457	6,037	12,494	6,356	5,917	12,273
Nandi	8,165	7,365	15,530	9,214	8,707	17,921	8,356	7,853	16,209	9,265	9,048	18,313	9,388	9,120	18,508
Baringo	5,923	5,075	10,998	6,472	6,015	12,487	6,392	6,339	12,731	7,497	6,839	14,336	7,118	6,544	13,662
Laikipia	7,552	6,939	14,491	8,699	8,233	16,932	7,401	6,882	14,283	8,551	8,346	16,897	8,724	8,281	17,005
Nakuru	27,952	27,617	55,569	34,877	33,279	68,156	29,433	28,074	57,507	31,176	30,843	62,019	32,790	31,222	64,012
Narok	7,536	7,378	14,914	8,773	10,065	18,838	10,772	9,993	20,765	13,029	12,439	25,468	12,290	11,541	23,831
Kajiado	11,174	10,378	21,552	12,746	12,338	25,084	13,719	13,635	27,354	14,124	16,188	30,312	17,779	17,695	35,474
Kericho	11,235	10,190	21,425	16,841	16,325	33,166	11,802	11,319	23,121	14,683	13,994	28,677	14,225	14,137	28,362
Bomet	14,429	14,088	28,517	14,076	13,344	27,420	12,756	11,814	24,570	15,905	14,696	30,601	12,455	11,501	23,956
Kakamega	21,810	20,663	42,473	24,551	23,968	48,519	22,562	21,382	43,944	23,628	23,207	46,835	24,849	24,620	49,469
Vihiga	5,410	5,145	10,555	6,931	6,941	13,872	6,084	6,172	12,256	6,304	5,915	12,219	7,332	7,198	14,530
Bungoma	22,140	22,057	44,197	23,697	22,361	46,058	23,787	23,118	46,905	26,014	24,952	50,966	26,202	26,187	52,389
Busia	10,378	9,924	20,302	15,649	14,866	30,515	10,726	10,299	21,025	10,585	10,028	20,613	11,052	10,905	21,957
Siaya	16,844	17,672	34,516	15,024	14,964	29,988	14,688	14,279	28,967	14,667	13,169	27,836	15,528	15,103	30,631
Kisumu	18,000	17,033	35,033	15,936	16,339	32,275	16,046	15,305	31,351	17,973	17,088	35,061	17,054	16,603	33,657
Homa Bay	15,671	16,290	31,961	14,949	14,225	29,174	14,332	13,536	27,868	15,575	15,477	31,052	15,681	15,327	31,008
Migori	24,907	23,342	48,249	16,981	16,297	33,278	16,692	15,956	32,648	17,026	15,955	32,981	18,113	17,302	35,415
Kisii	17,380	15,450	32,830	14,027	13,819	27,846	16,656	15,680	32,336	15,644	14,952	30,596	17,327	16,681	34,008
Nyamira	6,327	6,260	12,587	5,262	5,606	10,868	6,642	6,353	12,995	9,949	9,514	19,463	10,265	10,403	20,668
Nairobi	69,003	65,497	134,500	73,845	71,155	145,000	69,646	67,606	137,252	71,990	67,152	139,142	73,548	71,952	145,500

APPENDIX B3: REGISTERED LIVE BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2022

National/ County	Under 15		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55+		Not stated		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Kenya	**1,166**	**1,224**	**67,428**	**69,955**	**178,637**		**155,614**	**160,369**	**106,919**	**109,847**	**55,523**	**57,091**	**12,914**	**13,293**	**1,147**	**1,195**	**84**	**68**	**14**	**16**	**22,071**	**22,013**	**1,221,444**
Mombasa	10	6	860	904	4,250	4,322	4,989	5,171	3,799	3,998	1,993	1,975	457	472	39	32	3	2	0	1	446	437	34,166
Kwale	16	14	1,071	1,152	2,822	3,020	2,528	2,574	1,861	2,067	987	1,061	233	263	40	40	3	3	0	0	467	569	20,791
Kilifi	27	39	2,643	2,572	7,561	7,516	6,973	6,458	4,659	4,629	2,227	2,187	486	518	94	76	2	5	0	1	570	614	49,857
Tana River	3	3	283	318	770	855	651	716	456	463	255	260	65	73	12	20	2	2	1	1	177	217	5,603
Lamu	0	1	174	186	553	602	508	564	342	429	243	226	71	61	8	8	0	0	0	0	136	129	4,241
Taita Taveta	2	4	451	443	1,183	1,210	1,062	1,055	787	816	473	468	143	144	10	16	0	1	0	0	157	193	8,618
Garissa	3	1	454	462	2,505	2,774	2,094	2,293	1,407	1,524	874	909	213	255	15	21	0	0	0	0	240	277	16,321
Wajir	0	0	168	194	956	1,014	1,154	1,188	874	940	440	401	157	154	15	12	0	0	0	0	128	162	7,957
Mandera	1	1	315	331	1,046	1,207	1,205	1,392	683	771	232	301	185	255	6	8	0	0	0	0	43	75	8,057
Marsabit	4	4	459	529	1,241	1,427	1,143	1,368	755	841	388	517	111	163	23	25	3	2	0	0	607	794	10,404
Isiolo	2	1	355	344	873	889	674	722	499	491	280	290	47	46	8	7	1	0	0	0	180	185	5,894
Meru	25	24	2,718	2,995	4,617	5,072	3,767	3,963	2,820	2,974	1,763	1,757	339	374	21	23	4	0	0	1	365	426	34,048
Tharaka Nithi	5	9	639	663	1,495	1,592	1,140	1,201	803	834	444	487	114	129	8	11	1	0	0	0	82	73	9,730
Embu	7	6	649	695	1,653	1,757	1,519	1,617	1,161	1,131	690	684	203	211	12	16	0	0	0	0	97	95	12,203
Kitui	15	24	1,855	1,877	3,830	4,023	2,664	2,750	1,684	1,828	933	937	208	209	15	24	0	0	0	0	136	134	23,146
Machakos	13	10	1,084	1,124	3,798	3,839	3,332	3,289	2,406	2,419	1,230	1,224	265	282	21	14	1	0	0	0	480	445	25,276
Makueni	21	27	1,190	1,284	3,570	3,695	2,749	2,785	1,826	1,746	851	904	191	162	14	11	0	0	0	0	137	184	21,347
Nyan-darua	3	3	568	540	1,647	1,749	1,310	1,310	966	1,015	669	641	195	183	23	21	1	0	0	2	51	48	10,945
Nyeri	1	7	515	581	2,206	2,368	2,046	2,087	1,723	1,654	1,117	1,129	318	343	18	24	0	1	1	0	53	59	16,251
Kirinyaga	2	8	739	758	1,925	1,925	1,510	1,629	1,157	1,213	779	806	216	197	13	16	1	0	0	0	23	34	12,951
Muranga	4	9	1,025	1,057	2,732	2,891	2,281	2,335	1,836	1,868	1,198	1,204	382	394	22	24	0	1	0	0	125	128	19,516
Kiambu	18	19	1,987	2,118	9,545	9,874	9,911	10,366	7,183	7,372	3,701	3,832	942	991	60	74	5	3	0	2	635	578	69,216
Turkana	9	14	1,134	1,259	2,482	2,625	2,027	2,120	1,458	1,561	799	774	196	208	29	26	3	1	2	1	538	575	17,841
West Pokot	21	19	1,036	1,148	2,003	2,203	1,460	1,514	895	901	350	386	85	69	11	11	2	0	0	0	1,298	1,407	14,819

APPENDIX B3: REGISTERED LIVE BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2022 *(Continued)*

National/ County	Under 15		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55+		Not stated		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Samburu	14	13	435	483	821	820	587	646	296	344	144	150	26	21	3	8	0	3	0	0	2	1	4,817
Trans Nzoia	14	27	1,904	1,936	3,547	3,699	2,642	2,840	1,887	1,973	1,045	1,062	262	247	20	31	4	2	0	1	368	403	23,914
Uasin Gishu	18	17	1,431	1,449	4,808	4,871	4,547	4,771	3,108	3,056	1,738	1,839	437	409	45	45	3	5	1	1	679	697	33,975
Elgeyo Marakwet	22	12	828	921	1,912	2,081	1,526	1,648	894	889	462	449	72	80	10	6	1	1	0	0	166	177	12,157
Nandi	12	11	1,196	1,261	2,867	2,893	2,295	2,322	1,419	1,409	723	764	170	178	25	24	0	3	0	0	388	386	18,346
Baringo	14	23	854	855	2,026	2,159	1,637	1,785	935	1,041	473	539	87	91	11	12	1	2	0	0	495	587	13,627
Laikipia	8	9	876	962	2,536	2,609	2,028	2,056	1,443	1,532	861	907	236	247	19	22	1	0	0	1	252	289	16,894
Nakuru	26	24	3,231	3,439	9,556	9,954	7,901	8,313	5,416	5,633	3,211	3,309	785	767	75	70	5	0	0	0	951	956	63,622
Narok	52	55	1,916	2,002	3,910	4,199	2,617	2,711	1,648	1,797	765	853	193	213	31	26	1	3	0	1	395	387	23,775
Kajiado	98	74	1,568	1,662	5,517	5,368	4,876	5,003	3,103	3,115	1,370	1,366	319	268	32	52	2	2	3	0	778	706	35,282
Kericho	39	38	1,970	2,044	4,679	4,644	3,503	3,349	2,134	2,178	1,060	1,003	199	200	24	20	1	0	0	0	483	459	28,027
Bomet	16	10	1,593	1,683	3,787	4,031	3,306	3,553	1,701	1,722	788	814	142	182	10	21	4	2	0	0	46	67	23,478
Kakamega	46	39	3,570	3,525	7,172	7,226	5,419	5,508	3,676	3,783	1,853	1,844	370	382	20	22	0	0	0	0	2,256	2,256	48,967
Vihiga	12	10	1,088	1,041	2,058	2,210	1,528	1,530	1,198	1,160	575	635	159	159	5	5	0	0	0	0	511	532	14,416
Bungoma	47	64	4,083	4,061	7,950	8,151	6,160	6,000	4,067	3,872	1,797	1,950	405	439	22	17	0	0	0	0	1,449	1,432	51,966
Busia	14	21	1,568	1,472	3,332	3,369	2,662	2,728	1,791	1,740	832	882	160	195	7	9	0	0	0	0	383	438	21,603
Siaya	29	36	2,125	2,148	4,849	4,895	3,780	4,015	2,463	2,524	1,262	1,314	237	252	18	13	1	0	0	0	176	179	30,316
Kisumu	55	41	1,860	1,977	5,105	5,214	4,369	4,489	2,900	2,988	1,454	1,468	239	258	17	14	1	0	0	0	422	384	33,255
Homa Bay	113	110	2,396	2,445	5,104	5,126	3,726	3,872	2,291	2,461	1,237	1,211	230	218	15	20	1	2	0	0	160	159	30,897
Migori	96	119	2,797	2,835	5,877	6,044	4,083	4,302	2,659	2,905	1,277	1,346	281	291	25	19	2	0	0	0	147	187	35,292
Kisii	90	91	2,690	2,878	5,405	5,481	4,099	4,196	2,557	2,671	1,071	1,151	163	163	19	18	1	3	1	0	552	631	33,931
Nyamira	83	74	1,780	1,804	3,199	3,312	2,559	2,356	1,611	1,592	634	654	120	94	13	5	0	7	0	0	389	349	20,635
Nairobi	36	53	3,297	3,538	17,357	18,051	21,067	21,909	15,682	15,977	7,975	8,221	1,800	1,783	144	156	23	12	5	3	3,452	2,513	143,054

APPENDIX B4: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2021

National/ County	Under 15		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		Not stated		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Kenya	**1,534**	**1,596**	**72,348**	**75,464**	**172,961**	**179,994**	**147,649**	**153,744**	**103,602**	**106,857**	**50,317**	**52,766**	**12,250**	**12,915**	**1,183**	**1,150**	**71**	**79**	**25,841**	**27,869**	**1,200,190**
Mombasa	11	1	796	825	4,045	4,345	4,886	4,967	3,574	3,672	1,836	1,849	402	471	39	38	1	0	456	466	32,680
Kwale	17	13	1,134	1,074	2,939	3,080	2,553	2,709	1,990	2,081	988	1,001	259	289	31	41	2	2	538	550	21,291
Kilifi	22	26	2,177	2,064	6,772	6,624	5,694	5,777	3,906	3,921	1,725	1,824	466	440	65	49	1	2	536	542	42,633
Tana River	1	10	320	366	892	930	762	812	496	534	288	276	54	73	6	19	1	3	226	236	6,305
Lamu	2	3	227	232	598	651	480	543	407	425	236	256	61	82	13	11	2	0	93	91	4,413
Taita Taveta	4	2	416	425	1,098	1,215	923	1,002	742	786	441	449	122	133	12	13	0	1	120	161	8,065
Garissa	6	9	477	489	1,915	2,085	1,724	1,975	1,524	1,749	803	847	235	220	41	44	4	7	485	562	15,201
Wajir	4	1	120	134	1,176	1,120	1,332	1,444	877	894	472	539	182	163	14	12	2	1	303	351	9,141
Mandera	1	1	261	242	1,243	1,397	1,095	1,241	1,188	1,242	525	540	227	313	12	6	0	0	291	342	10,167
Marsabit	8	4	478	514	1,167	1,385	1,123	1,281	732	783	358	434	121	144	18	18	4	5	705	903	10,185
Isiolo	4	3	368	389	824	861	604	685	458	467	218	233	47	55	5	5	0	0	224	207	5,657
Meru	21	27	2,735	2,900	4,351	4,422	3,351	3,439	2,593	2,702	1,409	1,501	346	324	18	23	2	3	1,719	1,798	33,684
Tharaka Nithi	8	7	785	745	1,472	1,598	1,155	1,152	802	887	501	474	126	121	16	12	0	0	107	106	10,074
Embu	8	5	815	798	1,816	1,850	1,476	1,412	1,193	1,194	717	659	186	180	16	18	1	0	79	78	12,501
Kitui	43	29	2,318	2,418	3,933	4,081	2,520	2,620	1,791	1,802	876	889	182	208	23	18	0	0	172	200	24,123
Machakos	16	31	1,468	1,567	3,965	4,259	3,537	3,676	2,573	2,715	1,191	1,324	284	306	23	20	0	2	397	474	27,828
Makueni	22	27	1,378	1,458	3,148	3,362	2,333	2,482	1,550	1,692	747	803	163	161	6	15	0	1	126	157	19,631
Nyandarua	13	11	629	615	1,854	1,833	1,414	1,443	1,155	1,083	712	689	237	206	28	21	0	0	56	59	12,058
Nyeri	5	10	587	632	2,285	2,403	1,985	1,998	1,721	1,660	1,035	1,116	319	335	24	28	0	0	80	93	16,316
Kirinyaga	8	8	824	875	2,017	2,080	1,597	1,594	1,255	1,300	801	879	226	247	13	13	0	0	30	44	13,811
Muranga	7	8	1,262	1,326	2,981	3,240	2,490	2,607	2,012	2,090	1,261	1,365	398	442	52	40	0	1	124	134	21,840
Kiambu	15	14	1,899	1,956	8,592	8,892	8,679	8,823	6,384	6,436	3,107	3,210	738	819	56	73	0	0	495	475	60,663
Turkana	14	22	1,156	1,247	2,393	2,516	1,917	2,014	1,379	1,538	709	754	211	207	26	29	3	0	561	641	17,337
West Pokot	26	35	1,497	1,640	2,555	2,713	1,705	1,738	1,132	1,130	498	444	86	111	9	9	1	3	94	97	15,523
Samburu	19	18	568	599	801	875	541	605	296	368	166	196	27	32	1	7	1	0	25	33	5,178
Trans Nzoia	32	37	1,921	1,982	3,407	3,365	2,507	2,488	1,788	1,800	940	939	237	247	35	18	1	1	691	759	23,195

APPENDIX B4: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2021 *(Continued)*

National/ County	Under 15		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		Not stated		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Uasin Gishu	18	32	1,649	1,735	4,912	5,221	4,416	4,635	3,175	3,232	1,590	1,679	404	424	35	39	5	3	757	848	34,809
Elgeyo Marakwet	14	21	1,003	1,094	2,058	2,093	1,453	1,593	884	929	353	428	78	93	8	4	0	2	186	200	12,494
Nandi	19	12	1,521	1,541	2,841	2,906	2,076	2,166	1,326	1,343	687	699	164	180	22	15	1	2	391	401	18,313
Baringo	13	26	987	1,156	2,203	2,460	1,701	1,778	1,036	1,031	468	517	102	101	7	14	1	0	321	414	14,336
Laikipia	16	15	1,048	1,054	2,573	2,614	1,891	2,021	1,452	1,467	820	886	246	220	19	18	0	0	281	256	16,897
Nakuru	40	44	3,611	3,673	9,521	9,678	7,630	7,634	5,447	5,426	2,954	2,945	741	730	72	70	0	2	827	974	62,019
Narok	89	83	2,422	2,530	4,005	4,317	2,613	2,629	1,683	1,803	731	792	196	197	25	34	4	4	671	640	25,468
Kajiado	82	75	1,616	1,514	5,027	4,186	4,437	3,772	2,735	2,442	1,129	1,055	246	217	35	27	1	4	880	832	30,312
Kericho	49	41	2,266	2,420	4,644	4,765	3,173	3,445	2,161	2,176	859	941	219	207	26	24	0	1	597	663	28,677
Bomet	25	28	1,896	1,894	4,299	4,471	5,004	5,688	2,113	2,336	754	818	217	225	53	48	9	5	326	392	30,601
Kakamega	63	67	3,823	4,026	7,038	7,088	5,189	5,352	3,811	3,713	1,674	1,768	425	441	35	26	1	3	1,148	1,144	46,835
Vihiga	18	14	1,007	1,044	1,853	1,947	1,314	1,414	1,047	1,117	467	532	123	142	8	10	1	1	77	83	12,219
Bungoma	62	70	3,631	3,851	6,263	6,545	4,744	4,805	2,987	3,107	1,425	1,456	312	363	24	20	2	1	5,502	5,796	50,966
Busia	24	25	1,463	1,570	3,079	3,239	2,535	2,692	1,589	1,679	724	795	176	149	10	13	0	0	428	423	20,613
Siaya	39	47	2,113	2,315	4,118	4,710	3,280	3,476	2,170	2,353	953	1,165	203	230	12	12	0	0	281	359	27,836
Kisumu	56	68	2,191	2,301	5,405	5,644	4,525	4,670	2,877	3,102	1,367	1,436	233	271	15	10	0	0	419	471	35,061
Homa Bay	174	146	2,712	2,736	4,873	4,986	3,668	3,596	2,344	2,365	1,052	1,075	224	235	23	24	0	0	407	412	31,052
Migori	151	162	3,211	3,378	5,485	5,766	3,609	3,971	2,205	2,306	884	967	175	203	17	12	1	1	217	260	32,981
Kisii	110	145	2,696	2,780	4,546	4,799	3,676	3,909	2,345	2,444	947	922	144	156	17	17	1	1	470	471	30,596
Nyamira	84	72	1,678	1,846	2,999	3,133	2,204	2,346	1,495	1,456	554	569	95	131	15	14	4	0	386	382	19,463
Nairobi	51	41	3,188	3,494	16,980	18,244	20,128	21,625	15,202	16,079	7,365	7,831	1,585	1,671	103	99	14	17	2,536	2,889	139,142

APPENDIX B5: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2020

National/ County	<15		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-55		>55		Not Stated	Grand Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male		
National	**1,047**	**1,067**	**60,659**	**63,193**	**167,337**	**175,305**	**139,708**	**145,415**	**103,517**	**107,594**	**47,660**	**49,484**	**12,603**	**13,201**	**1,126**	**1,241**	**75**	**80**	**17,576**	**18,874**	**36,450**	**1,126,762**
Mombasa	8	11	675	735	3,918	3,917	4,413	4,667	3,346	3,575	1,651	1,744	425	475	25	25	0	0	424	425	849	30,459
Kwale	5	14	955	1,033	2,740	2,812	2,384	2,593	1,753	1,868	825	833	277	298	25	44	1	4	506	528	1,034	19,498
Kilifi	24	19	2,147	2,079	6,496	6,469	5,180	5,214	3,974	4,012	1,657	1,612	567	540	56	69	1	2	543	565	1,108	41,226
Tana River	2	2	255	242	689	737	555	648	439	388	200	223	62	75	16	11	0	0	165	180	345	4,889
Lamu	0	2	160	212	488	505	437	431	306	330	198	200	67	65	10	14	0	0	48	53	101	3,526
Taita Taveta	4	2	403	428	1,116	1,176	945	1,047	764	788	402	424	152	151	9	14	0	3	168	201	369	8,197
Garissa	2	5	300	297	1,475	1,595	1,221	1,285	1,109	1,195	604	612	208	208	28	30	4	3	123	128	251	10,432
Wajir	1	2	100	135	636	753	724	825	609	620	303	337	121	161	9	13	0	1	281	269	550	5,900
Mandera	0	0	132	205	1,024	1,091	949	1,118	846	996	317	427	191	200	20	16	5	1	322	364	686	8,224
Marsabit	3	1	420	446	1,040	1,087	946	1,094	645	707	315	337	108	128	14	18	3	1	265	316	581	7,894
Isiolo	7	3	296	283	749	834	622	642	522	512	231	210	41	46	8	9	0	0	147	139	286	5,301
Meru	34	29	2,746	2,860	5,041	5,415	3,833	4,090	3,099	3,105	1,602	1,570	315	336	28	27	2	1	222	229	451	34,584
Tharaka	3	5	501	516	1,250	1,318	905	1,041	762	805	408	430	125	109	16	7	0	0	72	68	140	8,341
Embu	7	4	694	728	1,936	1,978	1,557	1,708	1,269	1,351	724	776	255	218	20	27	1	0	62	77	139	13,392
Kitui	36	26	1,682	1,765	3,941	4,175	2,609	2,770	1,753	1,800	820	846	179	202	22	13	2	4	152	156	308	22,953
Machakos	7	14	1,085	1,153	3,852	3,919	3,292	3,356	2,460	2,542	1,109	1,136	249	255	12	19	1	1	325	354	679	25,141
Makueni	14	13	999	1,028	3,307	3,513	2,306	2,443	1,634	1,685	637	726	170	192	18	19	1	2	131	164	295	19,002
Nyandarua	2	6	496	527	1,746	1,892	1,375	1,444	1,168	1,204	709	691	194	227	29	30	2	0	79	97	176	11,918
Nyeri	2	3	532	570	2,277	2,434	1,978	2,096	1,819	1,890	1,083	1,186	311	306	29	24	2	1	66	80	146	16,689
Kirinyaga	4	2	696	716	1,824	1,926	1,470	1,507	1,301	1,416	844	831	204	258	13	24	0	1	84	99	183	13,220
Murang'A	7	9	1,041	1,072	3,104	3,119	2,394	2,412	2,079	2,089	1,247	1,276	368	391	26	28	0	1	163	168	331	20,994
Kiambu	7	12	2,092	2,021	9,779	10,155	9,699	10,338	7,098	7,614	3,604	3,755	941	968	54	68	2	2	634	640	1,274	69,483
Turkana	7	7	951	1,077	2,246	2,310	2,000	1,959	1,521	1,562	677	670	166	230	19	28	0	1	628	608	1,236	16,667
West Pokot	16	12	1,104	1,200	2,055	2,209	1,386	1,509	1,008	1,006	389	433	98	110	14	12	2	2	371	397	768	13,333
Samburu	8	9	419	448	603	717	373	406	262	275	99	122	20	28	6	3	0	1	97	116	213	4,012
Trans Nzoia	15	21	1,617	1,568	3,341	3,441	2,545	2,643	1,858	1,881	877	887	267	262	29	30	2	4	536	639	1,175	22,463
Uasin Gishu	18	15	1,424	1,505	4,732	5,054	4,400	4,466	3,258	3,380	1,513	1,564	435	407	33	48	5	1	805	848	1,653	33,911

APPENDIX B5: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2020 *(Continued)*

National/ County	<15		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-55		>55		Not Stated	Grand Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male		
Elgeyo Marakwet	12	7	747	733	1,905	1,964	1,255	1,445	883	926	358	342	106	102	10	14	0	0	103	114	217	11,026
Nandi	8	8	1,034	1,142	2,502	2,601	1,873	2,028	1,352	1,434	569	568	171	191	24	20	1	1	319	363	682	16,209
Baringo	13	15	759	797	2,100	2,068	1,558	1,567	1,069	1,068	440	489	145	122	15	10	1	2	239	254	493	12,731
Laikipia	7	10	762	743	2,149	2,367	1,601	1,785	1,299	1,277	678	752	186	222	8	19	0	0	192	226	418	14,283
Nakuru	20	30	2,763	2,876	8,778	9,201	6,985	7,221	5,332	5,588	2,730	2,913	724	765	76	67	3	1	663	771	1,434	57,507
Narok	33	39	1,545	1,626	3,305	3,661	2,206	2,301	1,488	1,489	557	638	193	231	22	37	2	7	642	743	1,385	20,765
Kajiado	57	51	1,228	1,237	4,316	4,260	3,788	3,787	2,467	2,557	1,053	1,009	217	241	26	40	0	3	483	534	1,017	27,354
Kericho	34	36	1,610	1,637	3,674	3,784	2,762	2,828	1,809	1,902	703	757	179	255	19	15	3	0	526	588	1,114	23,121
Bomet	20	11	1,338	1,437	4,167	4,496	3,109	3,347	2,146	2,299	686	801	148	139	13	14	3	0	184	212	396	24,570
Kakamega	28	22	3,243	3,447	6,837	7,266	4,938	5,212	3,608	3,723	1,537	1,640	396	397	34	25	2	2	759	828	1,587	43,944
Vihiga	9	15	841	877	1,949	1,901	1,455	1,333	1,053	1,058	489	536	138	123	16	17	0	2	222	222	444	12,256
Bungoma	61	45	3,600	3,800	7,562	7,780	5,237	5,474	3,760	3,731	1,584	1,633	429	426	44	25	3	2	838	871	1,709	46,905
Busia	23	25	1,506	1,534	3,174	3,425	2,416	2,562	1,738	1,779	694	728	233	189	36	26	9	8	470	450	920	21,025
Siaya	41	40	2,155	2,220	4,486	4,868	3,489	3,431	2,417	2,462	1,015	1,026	261	252	20	17	1	1	394	371	765	28,967
Kisumu	43	49	1,816	1,891	4,797	5,091	3,901	4,247	2,828	2,824	1,251	1,250	239	242	11	9	2	1	417	442	859	31,351
Homabay	103	116	2,106	2,295	4,201	4,615	3,328	3,298	2,269	2,389	893	950	232	225	23	32	2	2	379	410	789	27,868
Migori	110	146	2,860	2,917	5,371	5,536	3,619	3,790	2,302	2,489	932	916	204	249	15	29	2	1	541	619	1,160	32,648
Kisii	103	82	2,560	2,630	4,916	5,265	3,872	4,128	2,503	2,719	946	970	169	199	15	18	1	1	595	644	1,239	32,336
Nyamira	46	27	995	1,044	2,149	2,322	1,571	1,484	1,044	1,125	299	368	63	64	12	6	1	0	173	202	375	12,995
Nairobi	33	45	3,269	3,461	17,594	18,283	20,247	20,395	15,488	16,159	7,201	7,340	1,654	1,721	99	131	3	9	2,018	2,102	4,120	137,252

APPENDIX B7: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2019

National/ County	<15		15-19		20-24		25-29		30-34		34-39		40-44		45-49		50-54		Not Stated		TOTAL		Grand Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
National	1,232	1,278	68,890	71,578	172,287	181,906	149,796	151,768	106,327	109,153	47,963	49,808	13,903	14,000	1,515	1,597	169	130	20,288	22,556	582,370	603,774	1,186,144
Mombasa	18	21	1,065	1,091	4,368	4,784	5,098	5,430	3,861	3,896	1,826	1,830	472	532	42	49	1	2	833	775	17,584	18,410	35,994
Kwale	14	12	1,414	1,404	3,189	3,334	2,694	2,890	2,159	2,134	856	861	322	323	37	41	7	3	651	620	11,343	11,622	22,965
Kilifi	22	20	2,711	2,721	6,828	6,969	5,981	5,956	4,245	4,411	1,673	1,602	696	684	73	72	5	3	629	648	22,863	23,086	45949
Tana River	6	5	313	316	728	783	614	723	406	487	191	194	75	94	15	17	1	0	213	199	2,562	2,818	5,380
Lamu	2	2	187	196	491	514	494	521	435	421	191	177	74	90	11	19	0	1	67	65	1,952	2,006	3,958
Taita Taveta	3	2	476	467	1,189	1,238	1,033	1,018	813	794	408	442	102	131	6	7	1	1	153	164	4,184	4,264	8448
Garissa	0	2	266	302	1,528	1,634	1,641	1,696	1,416	1,518	635	716	360	400	53	114	2	11	319	370	6,220	6,763	12,983
Wajir	0	0	71	99	711	813	597	661	607	634	279	281	165	165	21	15	4	1	561	642	3,016	3,311	6,327
Mandera	0	0	175	210	1,264	1,682	1,300	1,683	1,070	1,326	453	529	234	319	20	44	5	2	926	1,100	5,447	6,895	12342
Marsabit	5	2	447	494	1,100	1,154	983	1,091	726	805	262	368	152	141	25	16	1	0	267	307	3,968	4,378	8,346
Isiolo	6	3	352	364	795	924	690	721	532	566	257	234	69	94	19	14	0	0	79	97	2,799	3,017	5,816
Meru	37	38	2,973	3,216	4,564	4,795	3,249	3,651	2,571	2,738	1,279	1,396	293	306	20	24	0	1	286	446	15,272	16,611	31883
Tharaka	5	7	496	497	1,043	1,124	856	915	702	674	355	367	87	87	14	9	1	0	61	63	3,620	3,743	7,363
Embu	3	14	768	819	2,103	2,126	1,687	1,721	1,290	1,343	785	757	212	206	19	17	2	0	75	95	6,944	7,098	14,042
Kitui	25	36	1,916	2,254	4,092	4,502	2,795	3,040	1,787	2,015	991	1,040	240	247	37	37	3	2	220	241	12,106	13,414	25520
Machakos	13	6	1,260	1,365	4,207	4,524	4,507	3,021	2,507	2,571	1,117	1,281	247	277	15	9	0	0	369	360	14,242	13,414	27,656
Makueni	13	16	1,126	1,146	3,137	3,430	2,251	2,300	1,442	1,562	638	704	153	135	8	17	1	0	85	83	8,854	9,393	18,247
Nyandarua	5	1	526	530	1,613	1,558	1,294	1,329	1,151	1,088	680	731	208	203	16	19	1	0	117	126	5,611	5,585	11196
Nyeri	2	2	580	604	2,145	2,271	1,896	2,083	2,130	1,262	980	1,051	293	282	23	31	0	0	72	81	8,121	7,667	15,788
Kirinyaga	10	3	607	646	1,540	1,618	1,188	1,349	1,152	1,095	663	731	195	174	11	11	0	0	244	269	5,610	5,896	11,506
Murang'A	6	3	1,033	1,056	2,613	2,661	2,148	2,210	1,958	1,896	1,092	1,194	353	354	31	29	0	2	210	197	9,444	9,602	19046
Kiambu	17	20	2,344	2,505	10,412	11,062	10,019	10,645	7,155	7,214	3,423	3,566	825	890	72	77	7	7	765	898	35,039	36,884	71,923
Turkana	16	4	1,073	1,097	1,988	2,194	1,856	1,936	1,300	1,433	576	656	163	175	26	27	2	3	518	622	7,518	8,147	15,665
West Pokot	15	12	913	1,066	1,648	1,696	1,157	1,242	754	825	297	330	106	120	19	14	4	0	246	292	5,159	5,597	10756
Samburu	7	12	426	446	699	772	527	521	317	381	130	149	47	32	6	7	1	2	209	261	2,369	2,583	4,952
Trans Nzoia	24	24	1,857	2,057	3,604	3,914	2,798	3,036	2,098	2,194	1,040	995	328	296	29	42	2	3	346	365	12,126	12,926	25,052
Uasin Gishu	11	9	1,200	1,262	4,547	4,746	3,644	3,795	2,610	2,702	1,258	1,172	367	319	36	31	3	1	657	710	14,333	14,747	29080

APPENDIX B7: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2019 *(Continued)*

National/ County	<15		15-19		20-24		25-29		30-34		34-39		40-44		45-49		50-54		Not Stated		TOTAL		Grand Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Elgeyo Marakwet	7	9	707	739	1,703	1,733	1,338	1,402	892	892	325	330	104	86	8	5	2	0	131	151	5,217	5,347	10,564
Nandi	20	11	1,306	1,408	2,608	2,879	2,089	2,132	1,424	1,472	623	605	191	199	26	27	0	1	420	480	8,707	9,214	17,921
Baringo	24	12	757	805	1,938	2,048	1,560	1,673	979	1,062	460	525	108	149	16	21	1	2	172	175	6,015	6,472	12487
Laikipia	8	15	910	982	2,510	2,702	1,958	2,031	1,520	1,559	824	861	237	244	22	25	0	5	244	275	8,233	8,699	16,932
Nakuru	22	29	3,515	3,596	10,285	10,990	8,272	8,558	6,115	6,536	2,997	3,161	881	783	114	87	3	2	1,075	1,135	33,279	34,877	68,156
Narok	46	47	1,578	1,396	3,213	2,767	2,247	1,949	1,405	1,240	587	501	194	177	33	25	1	3	761	668	10,065	8,773	18838
Kajiado	53	59	1,190	1,235	3,838	3,966	3,521	3,540	2,218	2,329	875	939	210	212	28	26	1	1	404	439	12,338	12,746	25,084
Kericho	39	69	2,707	2,639	4,951	5,211	4,118	4,238	2,548	2,654	994	976	252	263	28	51	1	0	687	740	16,325	16,841	33,166
Bomet	31	29	2,188	2,364	4,555	4,792	3,226	3,309	2,047	2,196	740	757	211	242	31	28	3	0	312	359	13,344	14,076	27420
Kakamega	25	46	3,600	3,807	7,352	7,672	5,461	5,480	4,199	4,118	1,736	1,876	540	508	52	44	14	13	989	987	23,968	24,551	48,519
Vihiga	5	7	1,014	1,032	2,044	2,030	1,680	1,617	1,204	1,175	592	662	143	160	5	12	2	0	252	236	6,941	6,931	13,872
Bungoma	52	53	3,708	3,938	7,051	7,348	5,072	5,265	3,488	3,589	1,515	1,490	406	456	38	38	9	6	1,022	1,514	22,361	23,697	46058
Busia	26	48	2,310	2,368	4,734	4,940	3,659	3,789	2,438	2,640	1,004	1,017	288	287	23	23	2	0	382	537	14,866	15,649	30,515
Siaya	119	94	2,422	2,413	4,227	4,360	3,996	3,952	2,455	2,481	1,181	1,113	260	262	13	15	1	0	290	334	14,964	15,024	29,988
Kisumu	47	56	2,238	2,046	5,311	5,210	4,322	4,040	2,799	2,908	1,066	1,095	234	207	23	12	2	0	297	362	16,339	15,936	32275
Homabay	111	138	2,538	2,755	4,444	4,739	3,276	3,307	2,301	2,432	899	882	235	219	12	19	0	0	409	458	14,225	14,949	29,174
Migori	137	139	2,611	2,742	4,667	4,909	3,500	3,586	2,499	2,648	943	1,015	384	423	137	137	53	32	1,366	1,350	16,297	16,981	33,278
Kisii	105	88	2,368	2,339	4,132	4,115	3,243	3,332	2,008	2,109	678	760	444	396	88	85	6	4	747	799	13,819	14,027	27846
Nyamira	29	29	910	791	1,592	1,518	1,307	1,214	846	745	311	291	63	70	5	9	2	2	541	593	5,606	5,262	10,868
Nairobi	41	24	3,738	3,953	18,986	21,155	22,954	22,170	15,748	16,383	7,278	7,598	1,680	1,581	109	99	12	14	609	868	71,155	73,845	145,000

APPENDIX B7: REGISTERED BIRTHS BY AGE OF MOTHER, NATIONAL AND BY COUNTY, 2018

National/ County	< 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Not Stated	Grand Total
Kenya	**4,214**	**134,184**	**330,605**	**300,873**	**210,822**	**100,949**	**27,403**	**4,354**	**747**	**24,503**	**1,138,654**
001 Mombasa	88	1,969	8,992	9,536	7,373	3,444	937	116	26	482	32,963
002 Kwale	21	2,853	6,236	5,644	3,825	1,713	672	84	4	479	21,531
003 Kilifi	33	5,334	12,762	10,832	7,650	2,783	1,285	123	31	1,279	42,112
004 Tana River	4	588	1,375	1,155	801	390	149	29	5	270	4,766
005 Lamu	8	386	941	827	661	345	164	19	2	160	3,513
006 Taita Taveta	8	380	1,601	2,719	2,353	875	109	9	0	135	8,189
007 Garissa	224	2,151	2,516	2,671	2,785	2,263	437	88	1	456	13,592
008 Wajir	0	661	1,917	2,773	1,973	1,195	516	89	0	288	9,412
009 Mandera	4	369	2,726	2,869	2,409	1,093	530	45	5	482	10,532
010 Marsabit	10	666	2,030	1,743	1,183	510	269	34	5	215	6,665
011 Isiolo	3	698	1,666	1,285	1,067	463	189	25	11	253	5,660
012 Meru	59	6,105	9,329	7,396	5,594	2,587	514	46	0	761	32,391
013 Tharaka Nithi	14	1,096	2,702	2,109	1,536	844	188	20	0	0	8,509
014 Embu	16	1,603	4,171	3,444	2,742	1,486	415	41	7	231	14,156
015 Kitui	66	3,743	8,980	8,326	5,259	2,604	537	24	0	111	29,650
016 Machakos	24	1,520	7,611	9,574	8,376	3,607	264	15	1	71	31,063
017 Makueni	89	2,399	6,372	4,493	2,878	1,309	301	30	1	245	18,117
018 Nyandarua	5	1,080	3,311	2,847	2,387	1,347	419	55	0	209	11,660
019 Nyeri	6	1,095	4,270	4,199	3,478	2,014	470	36	1	45	15,614
020 Kirinyaga	1	1,291	3,058	2,783	2,339	1,334	346	37	4	338	11,531
021 Murang'a	10	2,188	5,580	4,724	3,826	2,139	617	71	1	124	19,280
022 Kiambu	103	4,971	21,301	20,922	13,846	6,860	1,498	166	25	455	70,147
023 Turkana	20	1,721	3,710	3,441	2,291	909	318	113	5	763	13,291
024 West Pokot	12	1,739	3,106	2,170	1,441	534	175	30	2	340	9,549
025 Samburu	12	740	1,276	883	603	188	67	13	5	345	4,132
026 Trans Nzoia	34	3,318	6,986	5,359	3,670	1,685	540	69	9	701	22,371
027 Uasin Gishu	25	3,652	7,204	6,768	4,721	2,803	1,009	214	3	414	26,813
028 Elgeyo Marakwet	31	1,518	3,988	2,780	1,758	668	144	20	1	338	11,246
029 Nandi	6	1,957	3,931	3,952	2,888	1,802	751	131	0	112	15,530
030 Baringo	17	1,323	3,541	2,985	1,853	800	181	29	0	269	10,998
031 Laikipia	19	1,581	4,593	3,547	2,614	1,202	423	41	5	466	14,491
032 Nakuru	58	5,759	16,647	14,760	10,143	5,153	1,572	230	11	1,236	55,569
033 Narok	46	2,356	4,818	3,596	2,034	870	355	298	4	537	14,914
034 Kajiado	7	1,068	6,259	5,883	5,204	2,324	709	98	0	0	21,552
035 Kericho	56	2,188	7,304	6,385	3,412	1,140	245	17	6	672	21,425
036 Bomet	43	5,014	7,414	7,069	4,931	3,040	809	197	0	0	28,517
037 Kakamega	131	7,001	13,798	10,269	6,467	2,911	766	68	9	1,053	42,473
038 Vihiga	46	1,535	3,259	2,440	1,642	820	210	36	6	561	10,555
039 Bungoma	115	7,159	14,016	10,412	6,598	3,249	1,000	144	42	1,462	44,197
040 Busia	52	3,336	6,426	4,872	3,221	1,243	329	38	31	754	20,302
041 Siaya	903	5,663	10,309	8,743	5,326	2,417	545	88	15	507	34,516
042 Kisumu	74	5,980	10,475	8,821	5,754	2,530	715	235	21	428	35,033
043 Homa Bay	276	5,239	9,338	8,555	5,129	2,147	595	51	2	629	31,961
044 Migori	1,060	6,680	11,912	11,191	9,731	5,434	1,450	294	3	494	48,249
045 Kisii	259	4,747	9,956	8,212	4,792	1,948	896	449	413	1,158	32,830
046 Nyamira	39	2,085	4,738	3,360	1,607	578	147	9	0	24	12,587
047 Nairobi	77	7,679	36,154	41,549	28,651	13,349	2,626	240	24	4,151	134,500

APPENDIX B8: REGISTERED BIRTHS BY MARITAL STATUS OF MOTHER, NATIONAL AND COUNTY, 2018–2022

National/ County	Not Stated	Primary	Secondary	Tertiary	University	Grand Total	Not Stated	Primary	Secondary	Tertiary	University	Grand Total
National	**83,697**	**289,712**	**362,016**	**145,785**	**351,843**	**1,233,053**	**6.8**	**23.5**	**29.4**	**11.8**	**28.5**	**1,233,053**
Mombasa	2,324	12,629	12,076	5,801	2,056	34,886	2.8	4.4	3.3	4.0	0.6	34,886
Kwale	2,507	14,060	2,952	1,231	244	20,994	3.0	4.9	0.8	0.8	0.1	20,994
Kilifi	5,770	29,025	9,713	5,411	615	50,534	6.9	10.0	2.7	3.7	0.2	50,534
Tana River	2,583	2,065	726	215	23	5,612	3.1	0.7	0.2	0.1	0.0	5,612
Lamu	742	2,124	1,054	298	58	4,276	0.9	0.7	0.3	0.2	0.0	4,276
Taita Taveta	642	3,413	3,184	1,228	201	8,668	0.8	1.2	0.9	0.8	0.1	8,668
Garissa	15,414	459	221	173	61	16,328	18.4	0.2	0.1	0.1	0.0	16,328
Wajir	7,036	810	86	18	7	7,957	8.4	0.3	0.0	0.0	0.0	7,957
Mandera	6,720	960	374	2	1	8,057	8.0	0.3	0.1	0.0	0.0	8,057
Marsabit	7,725	1,550	665	379	113	10,432	9.2	0.5	0.2	0.3	0.0	10,432
Isiolo	1,579	2,169	1,448	558	144	5,898	1.9	0.7	0.4	0.4	0.0	5,898
Meru	1,347	13,539	12,546	5,317	1,483	34,232	1.6	4.7	3.5	3.6	0.4	34,232
Tharaka Nithi	178	3,362	4,058	1,585	568	9,751	0.2	1.2	1.1	1.1	0.2	9,751
Embu	110	3,671	5,681	2,161	748	12,371	0.1	1.3	1.6	1.5	0.2	12,371
Kitui	410	9,488	8,539	4,156	783	23,376	0.5	3.3	2.4	2.9	0.2	23,376
Machakos	577	6,364	12,415	4,970	1,341	25,667	0.7	2.2	3.4	3.4	0.4	25,667
Makueni	398	6,432	10,495	3,537	653	21,515	0.5	2.2	2.9	2.4	0.2	21,515
Nyandarua	145	3,277	6,001	1,422	231	11,076	0.2	1.1	1.7	1.0	0.1	11,076
Nyeri	175	3,032	8,042	4,104	1,075	16,428	0.2	1.0	2.2	2.8	0.3	16,428
Kirinyaga	88	3,628	6,597	2,227	507	13,047	0.1	1.3	1.8	1.5	0.1	13,047
Muranga	450	5,812	10,071	2,797	533	19,663	0.5	2.0	2.8	1.9	0.2	19,663
Kiambu	1,699	12,650	33,809	16,449	5,300	69,907	2.0	4.4	9.3	11.3	1.5	69,907
Turkana	1,159	314	200	47	16,259	17,979	1.4	0.1	0.1	0.0	4.6	17,979
West Pokot	164	491	175	68	14,130	15,028	0.2	0.2	0.0	0.0	4.0	15,028
Samburu	280	79	66	31	4,375	4,831	0.3	0.0	0.0	0.0	1.2	4,831
Trans Nzoia	36	656	837	247	22,266	24,042	0.0	0.2	0.2	0.2	6.3	24,042
Uasin Gishu	9	325	586	367	32,896	34,183	0.0	0.1	0.2	0.3	9.3	34,183
Elgeyo Marakwet	31	268	411	166	11,397	12,273	0.0	0.1	0.1	0.1	3.2	12,273
Nandi	24	476	725	231	17,052	18,508	0.0	0.2	0.2	0.2	4.8	18,508
Baringo	433	283	595	239	12,112	13,662	0.5	0.1	0.2	0.2	3.4	13,662
Laikipia	222	512	906	351	15,014	17,005	0.3	0.2	0.3	0.2	4.3	17,005
Nakuru	128	1,561	2,791	983	58,549	64,012	0.2	0.5	0.8	0.7	16.6	64,012
Narok	226	1,092	733	208	21,572	23,831	0.3	0.4	0.2	0.1	6.1	23,831
Kajiado	504	779	1,466	853	31,872	35,474	0.6	0.3	0.4	0.6	9.1	35,474
Kericho	37	646	792	303	26,584	28,362	0.0	0.2	0.2	0.2	7.6	28,362
Bomet	-	479	431	235	22,811	23,956	0.0	0.2	0.1	0.2	6.5	23,956
Kakamega	1,375	17,713	19,634	9,539	1,208	49,469	1.6	6.1	5.4	6.5	0.3	49,469
Vihiga	873	4,840	6,285	2,163	369	14,530	1.0	1.7	1.7	1.5	0.1	14,530
Bungoma	2,374	18,905	23,576	6,462	1,072	52,389	2.8	6.5	6.5	4.4	0.3	52,389
Busia	1,322	9,284	7,909	2,880	562	21,957	1.6	3.2	2.2	2.0	0.2	21,957
Siaya	633	13,814	12,368	3,255	561	30,631	0.8	4.8	3.4	2.2	0.2	30,631
Kisumu	978	10,697	14,075	6,065	1,842	33,657	1.2	3.7	3.9	4.2	0.5	33,657
Homabay	396	13,371	12,699	3,910	632	31,008	0.5	4.6	3.5	2.7	0.2	31,008
Migori	847	16,372	13,524	3,955	717	35,415	1.0	5.7	3.7	2.7	0.2	35,415
Kisii	1,247	7,798	17,414	5,532	2,017	34,008	1.5	2.7	4.8	3.8	0.6	34,008
Nyamira	1,398	3,552	13,329	1,955	434	20,668	1.7	1.2	3.7	1.3	0.1	20,668
Nairobi	10,382	24,886	59,736	31,701	18,795	145,500	12.4	8.6	16.5	21.7	5.3	145,500

APPENDIX B9: REGISTERED BIRTHS BY LEVEL OF EDUCATION OF MOTHER BY NATIONAL AND COUNTY, 2022

National/ County	Not Stated	Primary	Secondary	Tertiary	University	Grand Total
National	**83,697**	**289,712**	**362,016**	**145,785**	**351,843**	**1,233,053**
Mombasa	2,324	12,629	12,076	5,801	2,056	34,886
Kwale	2,507	14,060	2,952	1,231	244	20,994
Kilifi	5,770	29,025	9,713	5,411	615	50,534
Tana River	2,583	2,065	726	215	23	5,612
Lamu	742	2,124	1,054	298	58	4,276
Taita Taveta	642	3,413	3,184	1,228	201	8,668
Garissa	15,414	459	221	173	61	16,328
Wajir	7,036	810	86	18	7	7,957
Mandera	6,720	960	374	2	1	8,057
Marsabit	7,725	1,550	665	379	113	10,432
Isiolo	1,579	2,169	1,448	558	144	5,898
Meru	1,347	13,539	12,546	5,317	1,483	34,232
Tharaka Nithi	178	3,362	4,058	1,585	568	9,751
Embu	110	3,671	5,681	2,161	748	12,371
Kitui	410	9,488	8,539	4,156	783	23,376
Machakos	577	6,364	12,415	4,970	1,341	25,667
Makueni	398	6,432	10,495	3,537	653	21,515
Nyandarua	145	3,277	6,001	1,422	231	11,076
Nyeri	175	3,032	8,042	4,104	1,075	16,428
Kirinyaga	88	3,628	6,597	2,227	507	13,047
Muranga	450	5,812	10,071	2,797	533	19,663
Kiambu	1,699	12,650	33,809	16,449	5,300	69,907
Turkana	1,159	314	200	47	16,259	17,979
West Pokot	164	491	175	68	14,130	15,028
Samburu	280	79	66	31	4,375	4,831
Trans Nzoia	36	656	837	247	22,266	24,042
Uasin Gishu	9	325	586	367	32,896	34,183
Elgeyo Marakwet	31	268	411	166	11,397	12,273
Nandi	24	476	725	231	17,052	18,508
Baringo	433	283	595	239	12,112	13,662
Laikipia	222	512	906	351	15,014	17,005
Nakuru	128	1,561	2,791	983	58,549	64,012
Narok	226	1,092	733	208	21,572	23,831
Kajiado	504	779	1,466	853	31,872	35,474
Kericho	37	646	792	303	26,584	28,362
Bomet	-	479	431	235	22,811	23,956
Kakamega	1,375	17,713	19,634	9,539	1,208	49,469
Vihiga	873	4,840	6,285	2,163	369	14,530
Bungoma	2,374	18,905	23,576	6,462	1,072	52,389
Busia	1,322	9,284	7,909	2,880	562	21,957
Siaya	633	13,814	12,368	3,255	561	30,631
Kisumu	978	10,697	14,075	6,065	1,842	33,657
Homabay	396	13,371	12,699	3,910	632	31,008
Migori	847	16,372	13,524	3,955	717	35,415
Kisii	1,247	7,798	17,414	5,532	2,017	34,008
Nyamira	1,398	3,552	13,329	1,955	434	20,668
Nairobi	10,382	24,886	59,736	31,701	18,795	145,500

C. REGISTERED DEATHS BY NATIONAL AND COUNTY, 2018–2022

APPENDIX C1: REGISTERED DEATHS BY PLACE OF OCCURRENCE, NATIONAL AND COUNTY, 2018-2022

Region/ County	2018			2019			2020			2021			2022		
	Community	Health Facility	Total	Community	Health Facility	Total	Community	Health Facility	TOTAL	Community	Health Facility	TOTAL	Community	Health Facility	TOTAL
Kenya	**41.2**	**58.8**	**192,019**	**42.8**	**57.2**	**191,495**	**46.4**	**53.6**	**185,385**	**47.5**	**52.5**	**231,944**	**47.0**	**53.0**	**213,210**
Mombasa	44.3	55.7	5,856	33.6	66.4	6,158	37.4	62.6	5,819	38.6	61.4	6,636	34.0	66.0	6,081
Kwale	50.0	50.0	2,629	51.2	48.8	2,980	49.0	51.0	2,965	53.3	46.7	3,491	49.5	50.5	3,393
Kilifi	45.4	54.6	5,477	51.8	48.2	5,341	51.5	48.5	5,180	56.4	43.6	6,202	53.0	47.0	6,651
Tana River	63.7	36.3	559	57.6	42.4	502	64.2	35.8	528	57.4	42.6	606	55.1	44.9	548
Lamu	51.8	48.2	427	48.9	51.1	444	47.5	52.5	478	57.1	42.9	627	52.9	47.1	561
Taita Taveta	58.4	41.6	1,780	62.2	37.8	1,743	58.6	41.4	1,666	59.9	40.1	2,337	58.5	41.5	2,063
Garissa	39.2	60.8	633	58.9	41.1	717	47.4	52.6	626	64.8	35.2	637	58.6	41.4	753
Wajir	76.1	23.9	464	96.5	3.5	720	76.6	23.4	333	87.5	12.5	567	85.3	14.7	613
Mandera	80.6	19.4	504	90.9	9.1	438	89.8	10.2	315	92.1	7.9	495	89.1	10.9	387
Marsabit	67.6	32.4	648	71.1	28.9	799	67.3	32.7	679	64.2	35.8	791	70.3	29.7	925
Isiolo	49.4	50.6	620	53.5	46.5	570	52.7	47.3	581	45.5	54.5	715	48.7	51.2	801
Meru	42.3	57.7	7,247	37.8	62.2	6,565	42.5	57.5	6,243	48.7	51.3	7,782	48.1	51.9	8,046
Tharaka Nithi	40.7	59.3	1,852	42.8	57.2	1,535	39.7	60.3	2,072	41.3	58.7	2,669	42.7	57.3	2,368
Embu	35.6	64.4	3,639	44.9	55.1	3,608	42.2	57.8	3,438	45.3	54.7	3,860	46.6	53.4	3,832
Kitui	52.9	47.1	5,238	48.2	51.8	4,177	54.8	45.2	4,900	51.4	48.6	5,970	54.1	45.8	6,070
Machakos	44.2	55.8	7,063	45.4	54.6	10,200	51.4	48.6	6,533	54.8	45.2	9,306	57.8	42.2	7,969
Makueni	46.2	53.8	4,870	44.6	55.4	4,272	46.5	53.5	4,276	50.0	50.0	5,865	50.0	50.0	5,541
Nyandarua	65.4	34.6	2,786	63.6	36.4	2,553	54.8	45.2	10,279	64.6	35.4	2,950	66.7	33.3	2,646
Nyeri	38.9	61.1	5,067	39.5	60.5	4,774	49.5	50.5	2,213	40.9	59.1	6,662	40.1	59.8	5,814
Kirinyaga	40.9	59.1	3,250	45.5	54.5	2,970	43.5	56.5	2,200	41.7	58.3	4,370	43.5	56.4	3,872
Murang'a	64.0	36.0	5,721	64.0	36.0	7,652	60.7	39.3	4,665	61.5	38.5	8,169	62.8	37.2	6,884
Kiambu	43.1	56.9	10,720	49.2	50.8	10,373	49.5	50.5	8,228	55.2	44.8	12,702	52.0	48.0	11,915
Turkana	35.8	64.2	1,814	26.8	73.2	2,041	30.7	69.3	1,923	36.6	63.4	2,041	34.0	66.0	2,134
West Pokot	22.0	78.0	1,074	27.2	72.8	789	27.3	72.7	1,171	24.9	75.1	1,356	28.6	71.4	1,179
Samburu	37.9	62.1	348	36.9	63.1	328	23.1	76.9	320	18.6	81.4	440	29.5	70.5	556
Trans Nzoia	47.8	52.2	3,699	50.2	49.8	4,378	55.3	44.7	3,957	57.5	42.5	4,819	53.0	47.0	4,753
Uasin Gishu	16.7	83.3	7,039	22.9	77.1	7,005	23.7	76.3	6,493	26.3	73.7	8,155	26.0	73.9	6,866
Elgeyo Marakwet	54.4	45.6	1,372	53.8	46.2	1,132	48.9	51.1	1,186	50.6	49.4	1,600	51.8	48.2	1,310
Nandi	56.7	43.3	2,293	53.7	46.3	2,691	54.0	46.0	2,365	55.3	44.7	3,403	53.4	46.6	2,682
Baringo	31.6	68.4	1,583	29.9	70.1	1,224	33.0	67.0	1,105	36.7	63.3	1,533	34.2	65.4	1,363
Laikipia	40.8	59.2	2,404	44.2	55.8	2,315	41.9	58.1	2,301	37.9	62.1	3,167	42.5	57.5	2,718
Nakuru	41.1	58.9	9,761	45.4	54.6	9,009	43.7	56.3	9,697	44.6	55.4	12,476	44.1	55.9	10,668
Narok	36.8	63.2	1,187	46.6	53.4	1,557	52.3	47.7	1,499	50.0	50.0	2,081	53.9	46.1	1,936
Kajiado	34.6	65.4	1,866	44.9	55.1	1,692	33.9	66.1	2,213	40.1	59.9	3,026	35.9	64.1	2,829
Kericho	32.8	67.2	3,780	26.5	73.5	3,494	26.8	73.2	3,441	25.8	74.2	4,233	25.8	74.2	3,888
Bomet	38.7	61.3	2,780	29.5	70.5	2,729	25.5	74.5	2,545	30.8	69.2	3,206	30.4	69.6	2,854
Kakamega	61.0	39.0	9,355	66.6	33.4	9,720	69.1	30.9	8,900	70.7	29.3	11,265	70.2	29.8	10,671
Vihiga	74.1	25.9	3,945	79.5	20.5	4,024	79.6	20.4	3,911	77.6	22.4	5,038	75.7	24.3	4,650
Bungoma	59.1	40.9	6,509	55.6	44.4	7,265	51.4	48.6	6,446	54.7	45.3	8,398	54.2	45.8	8,242
Busia	58.0	42.0	4,187	63.4	36.6	4,498	56.6	43.4	3,837	62.8	37.2	4,476	60.4	39.6	4,426
Siaya	63.6	36.4	6,105	47.5	52.5	6,028	66.8	33.2	5,627	64.3	35.7	7,180	62.2	37.8	6,278
Kisumu	44.7	55.3	6,920	46.1	53.9	6,431	49.3	50.7	6,567	47.1	52.9	7,579	43.8	56.2	6,362
Homa Bay	43.7	56.3	3,800	48.0	52.0	3,077	58.4	41.6	3,154	59.5	40.5	3,861	53.1	46.9	3,615
Migori	39.1	60.9	3,170	41.0	59.0	2,800	37.7	62.3	2,820	42.7	57.3	3,548	41.2	58.8	3,207
Kisii	31.9	68.1	6,782	36.3	63.7	7,065	35.2	64.8	6,283	34.0	66.0	8,118	34.8	65.2	7,388
Nyamira	43.9	56.1	1,789	48.0	52.0	1,417	60.3	39.7	1,740	63.0	37.0	2,439	59.5	40.5	2,447
Nairobi	0.0	100.0	21,407	1.4	98.6	19,695	27.1	72.9	21,667	22.9	77.1	25,097	23.1	76.9	22,455

APPENDIX C2: REGISTERED DEATHS BY AGE, SEX, NATIONAL AND COUNTY, 2022

COUNTY	Under 1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Not Stated	
	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Fe-male	Male	Female	Male	Fe-male	Male
NATIONAL	**9,984**	**10,542**	**3,593**	**4,275**	**1,448**	**1,826**	**1,282**	**1,715**	**1,685**	**2,594**	**2,179**	**4,071**	**2,894**	**5,088**	**3,931**	**6,259**	**4,398**	**7,286**	**3,916**	**7,164**	**4,266**	**7,125**	**3,966**	**6,540**	**3,449**	**5,855**	**5,241**	**7,591**	**4,833**	**7,044**	**6,892**	**8,989**	**27,317**	**24,224**	**1,579**	**2,169**
MOMBASA	515	554	135	136	35	44	30	47	44	80	69	122	87	131	133	165	153	201	172	212	156	234	154	239	109	181	181	238	135	190	167	214	389	309	52	68
KWALE	183	223	63	68	24	24	21	23	33	46	31	43	35	53	56	62	52	72	59	87	67	82	53	90	54	86	87	126	102	153	142	184	378	396	52	83
KILIFI	424	447	109	110	38	63	45	50	54	76	62	107	83	140	106	139	122	148	97	150	123	154	101	166	65	164	191	214	192	266	284	319	900	855	44	43
TANA RIVER	28	41	10	7	7	0	7	4	6	7	11	9	15	13	11	5	9	15	14	24	13	15	5	21	7	22	6	28	10	20	11	30	30	71	3	13
LAMU	26	37	5	5	2	6	1	3	1	3	7	9	3	13	14	12	8	15	14	18	8	22	8	23	11	21	14	25	16	26	20	32	42	63	12	16
TAITA TAVETA	74	95	19	23	7	3	8	8	9	11	13	28	19	46	21	51	28	62	28	70	31	58	36	75	39	55	46	93	52	110	82	111	331	274	19	28
GARISSA	20	24	8	6	3	2	7	5	4	6	5	14	11	14	18	22	19	24	23	30	23	35	24	32	12	30	20	62	16	49	20	38	32	81	5	9
WAJIR	5	9	2	2	0	0	0	1	2	2	1	2	5	11	19	17	13	18	25	29	25	31	23	38	19	43	26	60	16	33	11	34	17	68	4	2
MANDERA	1	1	0	1	1	2	0	0	2	3	2	3	4	4	5	14	11	14	13	15	9	15	5	20	8	16	21	34	9	22	8	27	23	67	1	6
MARSABIT	17	13	9	9	5	6	4	4	7	8	5	7	13	20	17	35	20	36	26	38	24	48	26	36	22	36	29	48	26	26	40	52	65	127	9	12
ISIOLO	18	24	10	10	3	3	3	3	9	3	15	15	11	27	19	42	25	34	13	45	21	37	9	32	18	22	32	41	7	39	15	33	65	81	7	10
MERU	120	125	62	56	33	47	36	65	60	85	78	145	58	199	127	246	148	334	137	299	135	297	157	310	110	242	177	338	197	332	324	454	1,203	1,169	47	94
THARAKA NITHI	52	48	23	32	6	15	10	14	13	20	20	38	24	45	32	74	35	82	40	74	39	90	51	95	35	85	50	93	46	101	74	132	386	360	15	19
EMBU	161	171	55	57	19	19	19	21	22	46	23	63	28	88	41	111	72	139	62	133	57	124	54	106	73	126	86	143	77	151	116	201	650	507	7	4
KITUI	300	381	75	112	22	50	29	33	45	67	42	80	55	107	88	117	72	127	78	143	107	139	84	154	77	155	99	167	104	178	224	296	1,157	1,040	25	41
MAKUENI	322	356	84	107	28	43	37	49	37	62	64	138	72	208	116	233	151	247	145	256	130	236	142	208	115	199	181	315	159	308	277	413	1,271	1,096	56	108
NYAN-DARUA	284	273	53	81	31	26	23	22	30	36	35	61	70	99	77	101	103	151	75	134	97	193	106	144	53	129	119	188	132	200	189	294	970	886	38	38
NYERI	138	161	43	60	11	19	7	18	14	31	28	47	19	46	26	81	42	61	30	57	44	79	47	73	46	91	54	89	40	75	86	112	433	416	9	13
KIRINYAGA	112	109	32	45	11	16	18	29	17	35	28	75	29	72	42	100	84	122	115	157	109	160	136	170	120	197	163	262	145	221	225	358	1,229	1,038	15	18
MURANGA	168	108	34	54	24	13	11	23	12	40	21	69	26	57	43	90	51	113	68	142	83	146	68	138	77	137	95	131	87	149	161	177	702	530	10	14
KIAMBU	151	158	73	77	29	40	16	24	27	58	28	88	42	110	60	169	89	217	82	257	91	252	108	217	102	217	137	253	126	254	291	430	1,385	1,184	16	26
TURKANA	804	717	170	211	52	59	41	56	67	99	115	275	135	365	189	408	228	474	250	462	254	414	205	430	209	359	259	387	212	309	355	456	1,581	1,168	57	83
WEST POKOT	174	208	95	99	26	41	12	31	20	20	36	40	51	59	58	52	47	60	48	55	51	60	49	49	26	37	38	52	46	35	67	44	152	114	44	38

APPENDIX C2: REGISTERED DEATHS BY AGE, SEX, NATIONAL AND COUNTY, 2022 *(Continued)*

COUNTY	Under 1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Not Stated	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
SAMBURU	138	140	32	38	11	13	12	17	22	21	16	26	11	24	31	39	13	49	21	31	28	30	24	30	20	30	19	30	16	26	24	33	64	77	7	16
TRANS NZOIA	35	28	15	4	3	7	4	10	7	6	6	18	9	11	17	27	12	18	13	23	12	19	14	22	5	12	22	19	13	13	11	22	41	50	2	6
UASIN GISHU	278	322	113	124	32	59	39	49	47	76	74	107	78	114	100	124	129	156	84	155	87	130	59	116	77	114	96	149	93	142	119	161	601	481	27	41
ELGEYO MARAK-WET	90	103	152	172	105	106	61	98	91	140	100	175	129	178	166	253	179	253	156	263	201	275	185	218	123	202	230	276	175	193	188	245	564	585	97	139
NANDI	29	37	18	14	5	8	7	14	15	17	11	30	30	33	15	45	27	40	12	30	32	49	17	34	15	24	35	55	36	52	55	50	203	187	7	22
BARINGO	148	119	32	51	13	27	16	27	23	22	29	39	31	55	36	76	50	105	38	75	52	85	42	69	34	75	50	109	58	88	84	97	394	386	22	25
LAIKIPIA	50	56	15	19	15	16	8	10	15	23	10	31	13	30	20	46	21	33	21	51	20	51	20	39	14	30	36	42	26	47	43	59	160	151	53	69
NAKURU	101	129	38	49	9	18	9	17	11	20	24	43	24	60	41	67	60	104	45	82	39	90	50	73	30	95	62	72	64	97	89	158	403	370	31	44
NAROK	861	819	180	213	64	72	45	71	88	137	104	226	155	293	197	298	246	394	208	367	179	394	206	336	176	289	228	299	206	274	308	400	1,190	961	89	95
KAJIADO	33	37	31	19	20	26	23	24	15	39	30	53	31	53	45	70	47	76	27	67	28	63	28	61	29	47	36	49	48	53	55	71	209	233	71	89
KERICHO	257	269	60	58	22	29	16	24	26	30	35	83	46	81	55	111	66	111	57	99	64	87	59	86	39	57	61	64	52	66	76	68	246	218	24	27
BOMET	251	263	49	43	15	30	20	13	43	42	45	61	76	104	71	119	83	128	60	117	84	118	73	105	42	84	93	140	96	110	94	172	507	487	21	29
MACHA-KOS	96	97	41	52	22	21	28	24	37	41	37	57	58	74	61	78	70	70	39	86	51	104	50	95	32	54	62	112	78	94	88	124	368	325	41	87
KAKAME-GA	514	482	204	267	82	111	90	108	95	163	107	190	152	217	221	302	199	366	174	373	204	367	181	323	178	272	263	395	310	349	319	425	1,365	1,195	36	72
VIHIGA	80	87	48	54	23	33	18	32	29	39	25	59	42	73	58	137	66	154	72	165	82	171	65	161	55	146	121	196	134	255	159	247	791	725	18	30
BUNGOMA	452	479	223	205	85	102	73	117	91	131	95	163	137	156	176	236	151	227	122	241	165	269	143	217	136	202	201	341	176	269	204	291	988	888	34	56
BUSIA	172	199	140	195	53	57	58	48	33	80	45	69	67	88	66	101	64	136	53	111	55	116	68	103	71	101	134	154	133	142	169	165	605	514	30	31
SIAYA	190	187	182	203	77	84	50	70	46	102	61	79	79	115	111	186	134	218	95	193	111	169	86	148	80	121	149	155	157	158	250	266	1,068	724	78	96
KISUMU	187	184	109	165	55	64	53	70	51	89	85	144	116	168	144	227	157	295	108	246	150	206	98	175	110	138	203	201	166	205	240	244	763	622	56	68
HOMA BAY	43	53	67	65	39	52	31	38	37	51	54	63	76	92	91	104	91	128	58	130	83	96	67	94	56	84	84	134	80	133	149	150	557	420	32	33
MIGORI	129	152	73	92	38	59	26	40	46	51	44	68	47	74	64	104	68	103	41	96	55	94	56	90	44	76	61	66	58	100	77	122	398	479	10	6
KISII	238	286	96	125	42	51	44	71	75	125	96	126	118	184	169	228	181	272	123	242	137	246	110	199	95	156	214	307	172	280	266	302	889	825	134	164
NYAMIRA	33	34	22	45	13	15	15	21	21	27	24	53	45	57	65	102	66	90	50	101	55	92	49	80	37	81	46	99	64	94	75	98	300	286	38	54
NAIROBI	1,482	1,697	484	635	188	225	151	169	186	278	283	630	429	827	593	833	636	994	625	933	595	883	565	800	544	715	624	740	470	557	561	578	1,252	1,135	74	84

APPENDIX C3: REGISTERED DEATHS BY AGE, SEX, NATIONAL AND COUNTY, 2021

NATIONAL/COUNTY	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Not Stated	TOTAL
NATIONAL	**20,421**	**7,075**	**3,239**	**3,207**	**4,636**	**6,370**	**8,225**	**10,911**	**11,906**	**11,415**	**12,136**	**10,884**	**11,473**	**14,840**	**14,939**	**17,848**	**57,965**	**4,454**	**231,944**
MOMBASA	933	221	78	69	155	174	253	297	415	426	424	402	383	476	463	453	875	139	6,636
KWALE	367	74	50	43	69	81	108	128	177	142	166	170	139	224	258	322	846	127	3,491
KILIFI	699	241	92	110	133	169	216	230	248	227	281	281	254	429	447	549	1,447	149	6,202
TANA RIVER	62	26	5	8	9	7	27	37	42	32	23	28	25	48	35	52	99	41	606
LAMU	61	8	5	5	7	11	27	27	36	31	23	32	18	54	51	69	125	37	627
TAITA TAVETA	234	43	12	17	31	49	52	80	98	102	110	119	110	131	185	188	708	68	2,337
GARISSA	33	8	2	2	6	15	24	30	41	38	50	40	51	67	51	69	104	6	637
WAJIR	17	4	1	1	3	7	19	25	37	52	46	42	48	66	36	56	102	5	567
MANDERA	2	4	2	0	4	5	17	25	25	51	25	28	50	46	36	39	128	8	495
MARSABIT	30	10	6	5	9	15	28	42	44	54	47	64	55	86	50	65	148	33	791
ISIOLO	37	6	8	7	17	16	37	46	42	40	50	37	50	78	50	58	118	18	715
MERU	222	98	57	73	132	202	254	375	454	407	435	408	376	548	556	711	2,239	235	7,782
THARAKA NITHI	111	57	24	19	36	65	95	108	91	133	144	128	141	173	171	233	801	139	2,669
EMBU	332	97	34	42	71	74	112	180	217	180	211	175	204	224	249	289	1,140	29	3,860
KITUI	722	145	70	85	120	131	150	213	200	209	263	254	196	337	339	459	1,983	94	5,970
MACHAKOS	801	100	69	81	124	220	291	401	480	418	429	407	474	562	658	751	2,803	237	9,306
MAKUENI	596	100	43	54	84	121	156	196	247	208	254	223	251	351	414	532	1,968	67	5,865
NYANDARUA	309	62	25	20	58	55	92	85	129	118	124	132	136	174	203	236	978	14	2,950
NYERI	274	84	35	37	74	95	121	190	242	287	323	353	413	480	442	686	2,459	67	6,662
KIRINYAGA	250	85	27	25	51	99	113	160	205	235	238	235	249	262	297	398	1,423	18	4,370
MURANGA	362	122	64	65	90	130	150	230	298	333	387	334	372	492	617	814	3,230	79	8,169
KIAMBU	1,181	294	147	120	190	406	483	607	660	682	705	614	695	745	788	1,031	3,243	111	12,702
TURKANA	290	120	61	56	70	93	104	129	122	121	93	91	83	108	77	125	233	65	2,041
WEST POKOT	320	71	19	30	44	43	66	67	74	55	63	66	47	60	53	53	170	55	1,356
SAMBURU	36	8	12	9	15	23	17	37	21	27	31	15	28	31	24	27	64	15	440
TRANS NZOIA	441	219	82	90	131	167	188	221	278	239	216	189	197	297	260	288	1,158	158	4,819
UASIN GISHU	317	247	171	211	241	329	331	468	422	485	500	495	473	627	550	571	1,583	134	8,155
ELGEYO MARAKWET	104	42	15	16	26	33	57	73	72	60	92	56	65	128	109	131	488	33	1,600
NANDI	275	126	48	45	57	90	123	132	159	166	156	139	126	204	182	248	1,039	88	3,403
BARINGO	94	45	20	22	21	33	62	76	85	57	62	57	67	85	87	137	366	157	1,533
LAIKIPIA	438	76	29	26	48	59	91	136	140	125	151	154	149	189	157	296	851	52	3,167
NAKURU	1,823	347	112	162	234	370	448	628	730	636	625	583	640	686	686	925	2,668	173	12,476
NAROK	163	69	42	37	63	81	97	100	116	96	134	106	71	133	120	118	468	67	2,081
KAJIADO	410	93	43	34	86	103	133	172	184	165	142	149	154	162	159	188	534	115	3,026
KERICHO	532	111	38	61	98	133	170	244	192	189	217	203	174	244	233	297	1,060	37	4,233
BOMET	242	88	40	46	82	133	129	176	149	129	181	147	123	172	185	244	891	49	3,206
KAKAMEGA	937	496	254	195	246	303	388	536	499	546	578	458	557	707	770	796	2,891	108	11,265
VIHIGA	144	119	61	55	71	77	128	206	226	238	254	222	243	337	419	458	1,717	63	5,038
BUNGOMA	894	490	231	216	251	243	270	407	382	360	438	310	379	504	502	435	1,969	117	8,398
BUSIA	357	271	124	91	114	125	144	185	183	166	176	164	177	274	308	323	1,224	70	4,476
SIAYA	363	354	189	132	150	156	223	320	371	300	307	263	264	398	441	614	2,193	142	7,180
KISUMU	471	292	158	133	200	203	300	412	450	361	356	287	326	464	529	634	1,830	173	7,579
HOMA BAY	103	93	54	78	103	95	182	193	218	178	203	137	181	208	277	340	1,170	48	3,861
MIGORI	266	169	61	83	96	120	170	199	186	192	188	142	145	195	189	243	864	40	3,548
KISII	605	148	96	134	193	262	294	430	418	404	416	314	372	628	545	631	1,969	259	8,118
NYAMIRA	73	60	18	38	46	64	113	147	134	135	139	97	144	167	130	199	644	91	2,439
NAIROBI	3,088	1,032	405	319	477	885	1,172	1,505	1,667	1,580	1,660	1,534	1,598	1,779	1,551	1,467	2,954	424	25,097

APPENDIX C4: REGISTERED DEATHS BY AGE, SEX, NATIONAL AND COUNTY, 2020

	National/County	UNDER 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	Not stated	TOTAL
	KENYA	**19,356**	**5,708**	**6,079**	**9,572**	**17,260**	**19,727**	**18,819**	**20,154**	**24,044**	**41,435**	**3,231**	**185,385**
1	Mombasa	962	214	172	282	567	690	724	742	744	634	88	5,819
2	Kwale	356	109	149	140	242	267	254	319	481	541	107	2,965
3	Kilifi	731	201	264	291	391	404	462	550	755	1,059	72	5,180
4	Tana River	30	20	10	29	50	60	58	73	71	94	33	528
5	Lamu	43	15	6	22	39	47	47	42	93	103	21	478
6	Taita Taveta	176	45	20	56	108	153	168	194	243	499	4	1,666
7	Garissa	37	11	11	24	82	99	82	95	89	94	2	626
8	Wajir	8	1	1	6	26	50	46	69	46	72	8	333
9	Mandera	2	1	3	6	38	40	43	50	42	86	4	315
10	Marsabit	39	11	15	26	71	86	71	83	108	144	25	679
11	Isiolo	27	5	11	24	81	89	76	86	70	109	3	581
12	Meru	242	73	134	318	569	737	680	756	967	1,647	120	6,243
13	Tharaka Nithi	105	61	57	100	134	199	215	252	296	602	51	2,072
14	Embu	340	71	84	141	272	333	369	364	472	952	40	3,438
15	Kitui	543	118	169	228	349	371	420	416	680	1,535	71	4,900
16	Machakos	681	118	114	264	545	730	614	704	854	1,779	130	6,533
17	Makueini	536	66	98	148	307	349	357	403	628	1,332	52	4,276
18	Nyandarua	793	203	184	385	716	1,034	1,058	1,163	1,562	3,105	76	10,279
19	Nyeri	121	23	30	75	128	199	231	243	342	808	13	2,213
20	Kirinyaga	177	26	38	78	155	234	214	253	311	691	23	2,200
21	Murang'a	286	100	85	156	271	403	454	481	754	1,609	66	4,665
22	Kiambu	1,066	192	169	390	703	894	907	827	1,051	1,929	100	8,228
23	Turkana	331	134	133	168	242	230	181	156	148	163	37	1,923
24	West Pokot	263	67	89	92	112	89	94	96	106	110	53	1,171
25	Samburu	40	9	16	25	45	42	45	25	31	33	9	320
26	Trans Nzoia	505	139	160	266	390	426	351	427	444	788	61	3,957
27	Uasin Gishu	271	222	296	509	728	811	796	815	864	1,068	113	6,493
28	Elgeyo Marakwet	98	26	38	47	99	81	105	142	176	353	21	1,186
29	Nandi	217	49	55	125	234	234	200	248	262	684	57	2,365
30	Baringo	92	29	37	66	116	103	120	103	147	264	28	1,105
31	Laikipia	190	49	53	110	203	221	237	283	286	624	45	2,301
32	Nakuru	1,524	254	258	506	916	1,108	998	946	1,133	1,932	122	9,697
33	Narok	135	44	78	117	149	194	142	131	164	306	39	1,499
34	Kajiado	316	60	56	122	266	303	266	229	233	315	47	2,213
35	Kericho	432	85	94	166	375	342	334	329	434	787	63	3,441
36	Bomet	335	76	95	174	248	240	247	239	303	574	14	2,545
37	Kakamega	828	337	408	460	750	852	810	963	1,153	2,199	140	8,900
38	Vihiga	104	82	91	130	275	404	370	450	681	1,270	54	3,911
39	Bungoma	848	289	313	393	598	602	605	667	727	1,330	74	6,446
40	Busia	347	219	205	212	322	327	340	400	498	899	68	3,837
41	Siaya	280	340	262	294	535	537	408	468	809	1,615	79	5,627
42	Kisumu	436	295	329	397	753	774	562	641	821	1,444	115	6,567
43	Homa Baya	96	87	117	170	342	374	293	337	479	800	59	3,154
44	Migori	307	132	123	185	324	313	235	295	332	519	55	2,820
45	Kisii	486	129	188	351	635	620	577	772	797	1,483	245	6,283
46	Nyamira	56	30	50	102	208	223	157	223	232	400	59	1,740
47	Nairobi	3,518	841	711	1,196	2,551	2,809	2,796	2,604	2,125	2,051	465	21,667

APPENDIX C5: REGISTERED DEATHS BY AGE, SEX, NATIONAL AND COUNTY, 2019

		under 1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		NOT STATED		
	COUNTY	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	TOTAL
	Kenya	**10,091**	**10,739**	**3,536**	**4,082**	**1,679**	**2,087**	**1,390**	**1,873**	**1,661**	**2,531**	**2,327**	**3,543**	**3,038**	**4,617**	**4,418**	**6,109**	**3,931**	**5,858**	**4,001**	**6,298**	**3,717**	**5,847**	**3,315**	**5,244**	**3,790**	**5,625**	**4,156**	**5,969**	**4,597**	**6,527**	**5,672**	**7,522**	**22,782**	**20,289**	**1,079**	**1,555**	**191,495**
	Coast	**1,250**	**1,399**	**337**	**383**	**156**	**165**	**118**	**137**	**135**	**195**	**239**	**277**	**317**	**356**	**405**	**417**	**372**	**433**	**387**	**506**	**314**	**520**	**276**	**515**	**344**	**514**	**445**	**595**	**462**	**662**	**519**	**693**	**1,592**	**1,637**	**32**	**64**	**17,158**
1	Mombasa	580	647	131	176	60	67	49	45	53	75	95	107	132	140	161	179	166	205	132	227	129	215	99	191	140	184	151	193	156	197	135	185	399	357	0	0	6,158
2	Kwale	164	196	71	60	35	42	18	24	32	25	52	38	47	67	68	54	80	60	71	67	54	78	46	88	57	95	75	93	70	143	94	150	259	323	27	57	2,980
3	KILIFI	361	408	101	123	44	48	38	52	43	69	65	94	110	103	126	123	88	106	120	131	80	153	82	142	87	149	164	187	164	217	193	227	573	570	0	0	5,341
4	Tana River	27	33	13	9	7	3	3	3	1	6	10	9	6	5	13	7	5	13	15	17	12	19	9	18	8	23	10	29	5	15	19	23	39	56	5	7	502
5	Lamu	29	27	7	3	3	1	1	5	0	4	5	4	9	8	7	8	9	5	10	12	8	13	10	19	13	16	6	15	14	15	20	19	56	63	0	0	444
6	Taita Taveta	89	88	14	12	7	4	9	8	6	16	12	25	13	33	30	46	24	44	39	52	31	42	30	57	39	47	39	78	53	75	58	89	266	268	0	0	1,743
	North Eastern	**41**	**29**	**10**	**9**	**6**	**11**	**3**	**6**	**3**	**12**	**15**	**16**	**29**	**32**	**64**	**52**	**60**	**65**	**68**	**81**	**55**	**85**	**90**	**102**	**57**	**84**	**56**	**148**	**40**	**82**	**30**	**100**	**100**	**223**	**3**	**8**	**1,875**
7	GARISSA	29	23	7	7	2	4	0	2	1	4	3	14	8	18	23	20	19	20	21	27	16	33	32	34	19	28	20	51	20	37	12	32	33	96	2	0	665
8	WAJIR	12	5	3	2	0	4	0	0	0	0	2	0	16	5	21	18	31	30	29	39	25	30	54	48	22	36	23	71	10	14	8	45	41	76	0	0	703
9	MANDERA	0	1	0	0	4	3	3	4	2	8	10	2	5	9	20	14	10	15	18	15	14	22	4	20	16	20	13	26	10	31	10	23	26	51	1	8	437
	Eastern	**1,410**	**1,469**	**292**	**380**	**148**	**193**	**128**	**195**	**219**	**335**	**290**	**563**	**422**	**766**	**664**	**1,007**	**675**	**994**	**643**	**1,061**	**529**	**997**	**489**	**875**	**603**	**950**	**614**	**1,031**	**703**	**1,189**	**1,031**	**1,448**	**4,584**	**4,133**	**298**	**398**	**31,726**
10	MARSABIT	16	17	10	11	4	3	5	8	2	3	6	7	15	13	29	30	26	21	24	26	20	30	18	37	31	28	15	45	27	43	34	39	38	103	6	9	799
11	ISIOLO	12	14	3	4	4	3	3	3	6	8	7	12	15	17	21	23	24	26	15	20	9	29	8	26	16	25	17	22	11	22	9	26	57	51	1	1	570
12	MERU	148	123	40	50	29	40	33	39	55	90	69	140	81	195	156	276	149	273	153	283	116	237	123	207	145	228	144	230	159	244	206	330	850	846	28	50	6,565
13	THARAKA NITHI	65	36	18	30	12	11	6	9	12	12	11	25	17	21	25	40	22	38	32	50	28	52	15	43	31	52	29	71	32	71	49	67	243	233	10	17	1,535
14	EMBU	224	192	56	69	27	28	10	27	26	35	28	71	38	82	58	126	61	112	63	125	52	121	54	104	63	100	62	88	76	137	122	136	535	500	0	0	3,608
15	KITUI	245	259	57	63	23	37	17	17	37	53	31	55	60	79	80	83	91	94	63	97	67	95	61	90	48	115	62	108	96	151	186	205	670	631	21	30	4,177
16	Machakos	460	545	63	100	27	46	43	55	54	89	105	187	147	288	202	326	233	320	233	343	176	297	160	268	205	292	207	318	203	325	295	450	1,505	1,165	210	258	10,200
17	MAKUENI	240	283	45	53	22	25	11	37	27	45	33	66	49	71	93	103	69	110	60	117	61	136	50	100	64	110	78	149	99	196	130	195	686	604	22	33	4,272
	Central	**1,319**	**1,394**	**372**	**392**	**120**	**135**	**118**	**158**	**125**	**238**	**232**	**474**	**247**	**619**	**439**	**841**	**489**	**901**	**471**	**980**	**555**	**899**	**489**	**822**	**533**	**947**	**528**	**874**	**669**	**1,141**	**867**	**1,445**	**4,675**	**3,703**	**48**	**63**	**28,322**
18	NYANDARUA	169	178	24	26	11	13	12	20	18	36	21	33	16	45	31	70	35	64	52	70	42	61	42	64	52	74	42	71	59	94	52	151	413	392	0	0	2,553
19	NYERI	141	154	45	45	17	18	9	23	13	25	32	72	31	90	62	116	65	121	83	149	85	137	91	165	81	178	94	162	117	218	184	284	889	757	9	12	4,774
20	KIRINYAGA	115	134	48	56	15	18	11	16	11	31	17	43	27	53	44	89	49	100	41	117	51	95	48	88	61	118	66	108	75	130	93	135	510	357	0	0	2,970
21	MURANGA	241	278	68	89	9	22	24	35	26	52	62	96	49	130	113	201	128	237	99	252	122	244	100	207	111	257	127	257	184	331	249	455	1,532	1,226	16	23	7,652
22	KIAMBU	653	650	187	176	68	64	62	64	57	94	100	230	124	301	189	365	212	379	196	392	255	362	208	298	228	320	199	276	234	368	289	420	1,331	971	23	28	10,373
	Rift Valley	**2,437**	**2,496**	**710**	**837**	**384**	**456**	**331**	**461**	**435**	**639**	**567**	**829**	**686**	**1,083**	**969**	**1,354**	**860**	**1,232**	**919**	**1,248**	**914**	**1,228**	**681**	**1,099**	**789**	**1,054**	**847**	**1,140**	**931**	**1,236**	**1,151**	**1,463**	**4,173**	**3,827**	**378**	**540**	**40,384**
23	TURKANA	220	212	76	93	37	37	34	36	21	33	41	30	44	56	65	68	59	55	60	62	48	53	35	44	25	42	49	39	46	22	50	41	91	62	29	26	2,041
24	WEST POKOT	99	97	31	22	11	18	6	13	11	14	12	18	12	18	14	24	9	16	12	17	21	20	8	21	11	24	9	14	19	14	18	22	51	37	12	14	789
25	SAMBURU	11	12	3	4	2	1	0	4	7	8	1	4	8	13	12	17	15	10	11	13	7	9	6	12	8	10	10	13	5	9	10	15	24	29	1	4	328
26	TRANS NZOIA	312	305	98	113	45	70	42	60	52	50	69	94	89	98	110	131	106	131	107	125	100	108	68	120	88	104	78	100	91	126	105	117	479	427	33	27	4,378
27	UASIN GISHU	160	188	103	123	80	99	81	129	106	176	108	199	152	246	177	250	154	245	190	248	193	219	162	228	185	211	182	240	171	266	178	237	547	571	79	122	7,005
28	ELGEYO MARAKWET	21	14	8	16	5	7	7	8	9	15	13	18	10	27	17	41	15	30	19	41	30	51	16	30	30	26	35	44	37	55	47	55	167	135	14	19	1,132
29	NANDI	99	80	45	49	29	23	21	17	21	54	40	42	35	66	58	81	48	51	53	81	43	80	35	62	49	72	54	79	66	88	86	116	404	353	45	66	2,691
30	BARINGO	54	58	21	19	8	14	7	13	14	15	12	25	29	25	27	38	23	39	24	38	24	44	20	25	16	35	24	42	26	35	53	50	159	138	11	19	1,224
31	LAIKIPIA	122	95	39	45	17	23	14	19	18	23	26	34	26	50	46	69	40	75	43	56	43	66	30	66	44	71	44	57	59	100	87	112	323	278	21	34	2,315
32	NAKURU	821	909	140	168	53	59	46	67	60	101	107	185	133	214	207	302	204	314	207	298	184	269	159	237	141	225	170	244	217	240	278	335	841	765	49	60	9,009
33	NAROK	46	55	20	39	40	21	20	12	27	19	28	26	25	49	48	57	35	48	27	48	41	52	24	63	24	32	29	51	27	43	41	57	132	186	26	39	1,557
34	KAJIADO	129	128	25	27	14	19	5	27	19	26	29	36	41	47	44	62	41	58	45	48	40	50	35	44	33	50	36	52	39	43	30	49	129	141	16	35	1,692
35	KERICHO	195	176	52	51	24	28	12	24	36	54	53	68	50	107	93	129	67	98	69	97	88	126	53	83	81	100	74	94	69	112	104	140	438	360	30	59	3,484
36	BOMET	148	167	49	68	19	37	36	32	34	51	28	50	32	67	51	85	44	62	52	76	52	81	30	64	54	52	53	71	59	83	64	117	388	345	12	16	2,729
	Western	**1,005**	**997**	**895**	**980**	**411**	**564**	**304**	**377**	**250**	**382**	**304**	**422**	**418**	**490**	**528**	**689**	**387**	**626**	**442**	**783**	**376**	**708**	**382**	**595**	**495**	**769**	**572**	**831**	**597**	**887**	**730**	**885**	**3,207**	**2,843**	**144**	**232**	**25,507**
37	KAKAMEGA	235	273	421	487	199	231	112	142	93	106	120	162	165	206	192	274	160	231	183	317	170	284	156	240	177	270	228	327	246	347	265	319	1,191	1,046	60	85	9,720
38	VIHIGA	43	46	86	71	36	39	32	38	22	45	33	44	56	69	68	104	60	129	45	130	53	124	63	92	68	153	88	174	100	213	136	224	690	586	21	43	4,024
39	BUNGOMA	528	425	216	232	105	181	111	131	94	150	84	132	122	127	173	186	111	149	141	206	100	208	93	165	147	206	153	208	166	183	187	205	794	749	36	61	7,265
40	BUSIA	199	253	172	190	71	113	49	66	41	81	67	84	75	88	95	125	56	117	73	130	53	92	70	98	103	140	103	122	85	144	142	137	532	462	27	43	4,498
	Nyanza	**969**	**983**	**525**	**594**	**266**	**341**	**249**	**327**	**311**	**446**	**381**	**463**	**544**	**725**	**859**	**975**	**513**	**894**	**539**	**876**	**470**	**737**	**415**	**621**	**489**	**707**	**644**	**798**	**708**	**803**	**911**	**942**	**3,497**	**2,872**	**176**	**248**	**26,818**
41	SIAYA	136	194	187	218	88	103	64	78	60	84	78	85	119	134	165	186	114	197	100	183	90	156	110	96	133	146	123	135	165	167	230	197	943	723	16	25	6,028
42	KISUMU	258	241	118	136	76	89	48	72	74	105	99	124	131	184	231	280	116	242	144	222	99	177	125	147	89	164	170	176	166	201	244	236	744	568	65	70	6,433
43	HOMABAY	53	71	61	66	29	30	31	44	52	52	55	55	71	92	112	113	57	118	61	102	64	70	36	75	47	64	77	84	91	90	138	111	412	344	20	29	3,077
44	MIGORI	81	104	65	70	23	33	32	35	36	55	55	67	59	94	92	117	55	99	71	105	58	86	38	89	44	71	50	68	55	82	71	96	282	261	36	65	2,800
45	KISII	386	328	80	90	43	78	70	95	71	125	70	108	131	184	212	240	150	185	127	193	131	191	93	171	148	218	196	277	199	225	194	248	955	834	8	11	7,065
46	NYAMIRA	55	45	14	14	7	8	4	3	18	25	24	24	33	37	47	39	21	53	36	71	28	57	13	43	28	44	28	58	32	38	34	54	161	142	31	48	1,417
47	**Nairobi**	**1,660**	**1,972**	**395**	**507**	**188**	**222**	**139**	**212**	**183**	**284**	**299**	**499**	**375**	**546**	**490**	**774**	**575**	**713**	**532**	**763**	**504**	**673**	**493**	**615**	**480**	**600**	**450**	**552**	**487**	**527**	**433**	**546**	**954**	**1,051**	**0**	**2**	**19,695**

APPENDIX C6: REGISTERED DEATHS BY AGE, SEX, NATIONAL AND COUNTY, 2018

	Under 1		1 - 4		5 - 14		15 - 24		25 - 34		35 - 44		45 - 54		55 - 74		75+		
County	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	TOTAL
Kenya	**10,598**	**9,752**	**3,958**	**3,345**	**4,558**	**3,680**	**7,017**	**5,316**	**11,383**	**9,026**	**13,671**	**9,578**	**12,518**	**8,788**	**23,020**	**16,485**	**19,595**	**19,731**	**192,019**
Coast	**1,277**	**1,084**	**325**	**258**	**336**	**267**	**522**	**369**	**805**	**756**	**1,081**	**813**	**1,075**	**631**	**2,462**	**1,712**	**1,595**	**1,360**	**16,728**
Mombasa	553	485	111	99	108	72	233	150	329	295	452	353	469	282	735	507	346	277	5,856
Kwale	139	140	76	41	74	62	65	67	101	123	139	118	153	90	432	300	284	225	2,629
Kilifi	414	342	109	98	117	106	151	117	226	241	286	212	265	170	844	630	601	548	5,477
Tana River	41	21	10	9	16	12	13	10	33	27	48	28	46	20	106	48	47	24	559
Lamu	26	17	5	4	4	2	23	3	31	20	33	19	20	6	61	47	60	46	427
Taita Taveta	104	79	14	7	17	13	37	22	85	50	123	83	122	63	284	180	257	240	1,780
North eastern	**25**	**21**	**16**	**15**	**25**	**18**	**36**	**14**	**102**	**72**	**168**	**106**	**166**	**99**	**300**	**144**	**190**	**84**	**1,601**
Garissa	20	19	12	12	18	13	22	6	51	41	70	43	66	25	106	42	44	23	633
Wajir	0	0	2	0	2	1	4	4	13	19	38	33	45	53	85	58	81	26	464
Mandera	5	2	2	3	5	4	10	4	38	12	60	30	55	21	109	44	65	35	504
Eastern	**1,294**	**1,247**	**407**	**346**	**491**	**403**	**908**	**633**	**1,608**	**1,229**	**2,236**	**1,601**	**2,269**	**1,500**	**4,260**	**2,634**	**4,176**	**3,935**	**31,177**
Marsabit	27	25	5	0	8	6	15	11	45	24	56	28	62	36	114	57	79	50	648
Isiolo	40	19	22	4	11	9	9	16	49	33	50	33	63	33	109	43	40	37	620
Meru	119	128	73	66	95	92	278	115	490	237	594	283	531	269	1,163	702	1,015	997	7,247
Tharaka Nithi	92	59	12	16	12	11	60	29	95	44	128	96	123	69	298	158	265	285	1,852
Embu	269	246	38	37	66	34	101	58	174	110	236	134	223	119	538	297	446	513	3,639
Kitui	358	323	78	80	106	94	167	129	237	196	271	245	296	229	597	451	726	655	5,238
Machakos	76	153	82	87	119	103	184	189	372	446	638	609	732	562	913	513	770	515	7,063
Makueni	313	294	97	56	74	54	94	86	146	139	263	173	239	183	528	413	835	883	4,870
Central	**1,267**	**1,342**	**455**	**346**	**366**	**309**	**709**	**440**	**1,433**	**850**	**1,872**	**1,200**	**1,722**	**1,147**	**3,803**	**2,539**	**3,591**	**4,153**	**27,544**
Nyandarua	183	192	43	35	41	20	85	37	118	78	171	96	149	106	329	239	402	462	2,786
Nyeri	174	166	46	44	46	38	83	50	193	109	285	203	342	178	802	517	806	985	5,067
Kirinyaga	138	143	30	37	35	41	66	39	151	79	241	137	216	137	513	334	374	539	3,250
Murang'a	177	191	70	40	55	53	117	39	247	101	350	164	317	165	964	534	1,033	1,104	5,721
Kiambu	595	650	266	190	189	157	358	275	724	483	825	600	698	561	1,195	915	976	1,063	10,720
Rift valley	**2,473**	**2,430**	**925**	**790**	**973**	**736**	**1,517**	**1,202**	**2,436**	**2,038**	**2,864**	**2,079**	**2,733**	**1,992**	**4,529**	**3,527**	**3,822**	**3,934**	**41,000**
Turkana	167	142	65	54	55	57	82	70	119	105	119	123	102	85	150	165	78	76	1,814
West Pokot	110	95	48	21	39	20	73	40	61	59	85	36	70	28	88	73	70	58	1,074
Samburu	6	5	3	7	10	10	11	10	25	21	26	18	31	17	60	42	39	7	348
Trans Nzoia	305	245	108	98	111	69	121	90	182	160	230	160	208	135	415	317	321	424	3,699
Uasin Gishu	253	343	234	184	224	163	326	267	459	410	566	420	549	450	651	578	521	441	7,039
Elgeyo Marakwet	26	32	18	9	20	18	49	30	58	60	90	55	91	49	252	181	173	161	1,372
Nandi	128	120	33	28	37	40	68	43	100	89	145	134	177	135	237	231	289	259	2,293
Baringo	76	75	28	28	28	34	55	41	83	61	100	64	112	78	231	140	177	172	1,583
Laikipia	117	102	34	33	42	25	67	51	118	78	170	102	123	124	354	204	316	344	2,404
Nakuru	756	766	192	195	199	120	332	267	584	494	661	531	641	477	1,001	803	818	924	9,761
Narok	68	65	33	33	42	47	50	64	99	72	90	55	85	44	98	61	98	83	1,187
Kajiado	140	115	39	40	43	43	75	56	129	96	148	93	127	84	187	151	149	151	1,866
Kericho	189	226	58	42	79	50	127	125	267	221	255	182	243	144	443	326	334	469	3,780
036 Bomet	132	99	32	18	44	40	81	48	152	112	179	106	174	142	362	255	439	365	2,780
Western	**1,049**	**998**	**695**	**579**	**838**	**658**	**865**	**655**	**1,291**	**996**	**1,576**	**961**	**1,389**	**890**	**2,969**	**2,120**	**2,655**	**2,812**	**23,996**
Kakamega	360	329	286	230	360	246	384	281	543	423	703	433	608	394	1,113	805	908	949	9,355
Vihiga	69	85	43	53	79	55	100	73	181	115	248	122	258	142	691	406	597	628	3,945
Bungoma	375	393	221	180	263	216	257	209	340	269	391	269	314	235	708	510	675	684	6,509
Busia	245	191	145	116	136	141	124	92	227	189	234	137	209	119	457	399	475	551	4,187
Nyanza	**1,070**	**967**	**744**	**615**	**841**	**649**	**1,087**	**1,062**	**2,023**	**1,749**	**2,242**	**1,537**	**1,750**	**1,301**	**3,079**	**2,556**	**2,563**	**2,731**	**28,566**
Siaya	203	167	195	107	193	117	174	152	450	336	384	276	279	177	649	571	702	973	6,105
Kisumu	265	217	178	126	200	143	338	270	546	449	616	381	488	379	760	560	573	431	6,920
Homa Bay	64	69	77	62	108	82	131	120	302	238	351	208	292	161	445	375	329	386	3,800
Migori	101	111	132	141	110	129	144	199	225	246	290	202	130	171	252	266	176	145	3,170
Kisii	384	358	143	152	188	150	243	277	376	371	462	372	441	331	707	606	602	619	6,782
Nyamira	53	45	19	27	42	28	57	44	124	109	139	98	120	82	266	178	181	177	1,789
Nairobi	**2,143**	**1,663**	**391**	**396**	**688**	**640**	**1,373**	**941**	**1,685**	**1,336**	**1,632**	**1,281**	**1,414**	**1,228**	**1,618**	**1,253**	**1,003**	**722**	**21,407**

APPENDIX C7: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2022

NATIONAL/COUNTY	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Not Stated	TOTAL
NATIONAL	**20,526**	**7,868**	**3,274**	**2,997**	**4,279**	**6,250**	**7,982**	**10,190**	**11,684**	**11,080**	**11,391**	**10,506**	**9,304**	**12,832**	**11,877**	**15,881**	**51,541**	**3,748**	**213,210**
Mombasa	1,069	271	79	77	124	191	218	298	354	384	390	393	290	419	325	381	698	120	6,081
Kwale	406	131	48	44	79	74	88	118	124	146	149	143	140	213	255	326	774	135	3,393
Kilifi	871	219	101	95	130	169	223	245	270	247	277	267	229	405	458	603	1,755	87	6,651
Tana River	69	17	7	11	13	20	28	16	24	38	28	26	29	34	30	41	101	16	548
Lamu	63	10	8	4	4	16	16	26	23	32	30	31	32	39	42	52	105	28	561
Taita Taveta	169	42	10	16	20	41	65	72	90	98	89	111	94	139	162	193	605	47	2,063
Garissa	44	14	5	12	10	19	25	40	43	53	58	56	42	82	65	58	113	14	753
Wajir	14	4	0	1	4	3	16	36	31	54	56	61	62	86	49	45	85	6	613
Mandera	2	1	3	0	5	5	8	19	25	28	24	25	24	55	31	35	90	7	387
Marsabit	30	18	11	8	15	12	33	52	56	64	72	62	58	77	52	92	192	21	925
Isiolo	42	20	6	6	12	30	38	61	59	58	58	41	40	73	46	48	146	17	801
Meru	245	118	80	101	145	223	257	373	482	436	432	467	352	515	529	778	2,372	141	8,046
Tharaka Nithi	100	55	21	24	33	58	69	106	117	114	129	146	120	143	147	206	746	34	2,368
Embu	332	112	38	40	68	86	116	152	211	195	181	160	199	229	228	317	1,157	11	3,832
Kitui	681	187	72	62	112	122	162	205	199	221	246	238	232	266	282	520	2,197	66	6,070
Machakos	678	191	71	86	99	202	280	349	398	401	366	350	314	496	467	690	2,367	164	7,969
Makueni	557	134	57	45	66	96	169	178	254	209	290	250	182	307	332	483	1,856	76	5,541
Nyandarua	299	103	30	25	45	75	65	107	103	87	123	120	137	143	115	198	849	22	2,646
Nyeri	221	77	27	47	52	103	101	142	206	272	269	306	317	425	366	583	2,267	33	5,814
Kirinyaga	276	88	37	34	52	90	83	133	164	210	229	206	214	226	236	338	1,232	24	3,872
Muranga	309	150	69	40	85	116	152	229	306	339	343	325	319	390	380	721	2,569	42	6,884
Kiambu	1,521	381	111	97	166	390	500	597	702	712	668	635	568	646	521	811	2,749	140	11,915
Turkana	382	194	67	43	40	76	110	110	107	103	111	98	63	90	81	111	266	82	2,134
West Pokot	278	70	24	29	43	42	35	70	62	52	58	54	50	49	42	57	141	23	1,179
Samburu	63	19	10	14	13	24	20	44	30	36	31	36	17	41	26	33	91	8	556
Trans Nzoia	600	237	91	88	123	181	192	224	285	239	217	175	191	245	235	280	1,082	68	4,753

APPENDIX C7: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2022 *(Continued)*

NATIONAL/COUNTY	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Not Stated	TOTAL
Uasin Gishu	193	324	211	159	231	275	307	419	432	419	476	403	325	506	368	433	1,149	236	6,866
Elgeyo Marakwet	66	32	13	21	32	41	63	60	67	42	81	51	39	90	88	105	390	29	1,310
Nandi	267	83	40	43	45	68	86	112	155	113	137	111	109	159	146	181	780	47	2,682
Baringo	106	34	31	18	38	41	43	66	54	72	71	59	44	78	73	102	311	122	1,363
Laikipia	230	87	27	26	31	67	84	108	164	127	129	123	125	134	161	247	773	75	2,718
Nakuru	1,680	393	136	116	225	330	448	495	640	575	573	542	465	527	480	708	2,151	184	10,668
Narok	70	50	46	47	54	83	84	115	123	94	91	89	76	85	101	126	442	160	1,936
Kajiado	526	118	51	40	56	118	127	166	177	156	151	145	96	125	118	144	464	51	2,829
Kericho	514	92	45	33	85	106	180	190	211	177	202	178	126	233	206	266	994	50	3,888
Bomet	193	93	43	52	78	94	132	139	140	125	155	145	86	174	172	212	693	128	2,854
Kakamega	996	471	193	198	258	297	369	523	565	547	571	504	450	658	659	744	2,560	108	10,671
Vihiga	167	102	56	50	68	84	115	195	220	237	253	226	201	317	389	406	1,516	48	4,650
Bungoma	931	428	187	190	222	258	293	412	378	363	434	360	338	542	445	495	1,876	90	8,242
Busia	371	335	110	106	113	114	155	167	200	164	171	171	172	288	275	334	1,119	61	4,426
Siaya	377	385	161	120	148	140	194	297	352	288	280	234	201	304	315	516	1,792	174	6,278
Kisumu	371	274	119	123	140	229	284	371	452	354	356	273	248	404	371	484	1,385	124	6,362
Homabay	96	132	91	69	88	117	168	195	219	188	179	161	140	218	213	299	977	65	3,615
Migori	281	165	97	66	97	112	121	168	171	137	149	146	120	127	158	199	877	16	3,207
Kisii	524	221	93	115	200	222	302	397	453	365	383	309	251	521	452	568	1,714	298	7,388
Nyamira	67	67	28	36	48	77	102	167	156	151	147	129	118	145	158	173	586	92	2,447
Nairobi	3,179	1,119	413	320	464	913	1,256	1,426	1,630	1,558	1,478	1,365	1,259	1,364	1,027	1,139	2,387	158	22,455

APPENDIX C8: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2021

NATIONAL/COUNTY	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Not Stated	TOTAL
NATIONAL	**20,421**	**7,075**	**3,239**	**3,207**	**4,636**	**6,370**	**8,225**	**10,911**	**11,906**	**11,415**	**12,136**	**10,884**	**11,473**	**14,840**	**14,939**	**17,848**	**57,965**	**4,454**	**231,944**
MOMBASA	933	221	78	69	155	174	253	297	415	426	424	402	383	476	463	453	875	139	6,636
KWALE	367	74	50	43	69	81	108	128	177	142	166	170	139	224	258	322	846	127	3,491
KILIFI	699	241	92	110	133	169	216	230	248	227	281	281	254	429	447	549	1,447	149	6,202
TANA RIVER	62	26	5	8	9	7	27	37	42	32	23	28	25	48	35	52	99	41	606
LAMU	61	8	5	5	7	11	27	27	36	31	23	32	18	54	51	69	125	37	627
TAITA TAVETA	234	43	12	17	31	49	52	80	98	102	110	119	110	131	185	188	708	68	2,337
GARISSA	33	8	2	2	6	15	24	30	41	38	50	40	51	67	51	69	104	6	637
WAJIR	17	4	1	1	3	7	19	25	37	52	46	42	48	66	36	56	102	5	567
MANDERA	2	4	2	0	4	5	17	25	25	51	25	28	50	46	36	39	128	8	495
MARSABIT	30	10	6	5	9	15	28	42	44	54	47	64	55	86	50	65	148	33	791
ISIOLO	37	6	8	7	17	16	37	46	42	40	50	37	50	78	50	58	118	18	715
MERU	222	98	57	73	132	202	254	375	454	407	435	408	376	548	556	711	2,239	235	7,782
THARAKA NITHI	111	57	24	19	36	65	95	108	91	133	144	128	141	173	171	233	801	139	2,669
EMBU	332	97	34	42	71	74	112	180	217	180	211	175	204	224	249	289	1,140	29	3,860
KITUI	722	145	70	85	120	131	150	213	200	209	263	254	196	337	339	459	1,983	94	5,970
MACHAKOS	801	100	69	81	124	220	291	401	480	418	429	407	474	562	658	751	2,803	237	9,306
MAKUENI	596	100	43	54	84	121	156	196	247	208	254	223	251	351	414	532	1,968	67	5,865
NYANDARUA	309	62	25	20	58	55	92	85	129	118	124	132	136	174	203	236	978	14	2,950
NYERI	274	84	35	37	74	95	121	190	242	287	323	353	413	480	442	686	2,459	67	6,662
KIRINYAGA	250	85	27	25	51	99	113	160	205	235	238	235	249	262	297	398	1,423	18	4,370
MURANGA	362	122	64	65	90	130	150	230	298	333	387	334	372	492	617	814	3,230	79	8,169
KIAMBU	1,181	294	147	120	190	406	483	607	660	682	705	614	695	745	788	1,031	3,243	111	12,702
TURKANA	290	120	61	56	70	93	104	129	122	121	93	91	83	108	77	125	233	65	2,041
WEST POKOT	320	71	19	30	44	43	66	67	74	55	63	66	47	60	53	53	170	55	1,356
SAMBURU	36	8	12	9	15	23	17	37	21	27	31	15	28	31	24	27	64	15	440
TRANS NZOIA	441	219	82	90	131	167	188	221	278	239	216	189	197	297	260	288	1,158	158	4,819

APPENDIX C8: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2021 *(Continued)*

NATIONAL/COUNTY	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Not Stated	TOTAL
UASIN GISHU	317	247	171	211	241	329	331	468	422	485	500	495	473	627	550	571	1,583	134	8,155
ELGEYO MARAKWET	104	42	15	16	26	33	57	73	72	60	92	56	65	128	109	131	488	33	1,600
NANDI	275	126	48	45	57	90	123	132	159	166	156	139	126	204	182	248	1,039	88	3,403
BARINGO	94	45	20	22	21	33	62	76	85	57	62	57	67	85	87	137	366	157	1,533
LAIKIPIA	438	76	29	26	48	59	91	136	140	125	151	154	149	189	157	296	851	52	3,167
NAKURU	1,823	347	112	162	234	370	448	628	730	636	625	583	640	686	686	925	2,668	173	12,476
NAROK	163	69	42	37	63	81	97	100	116	96	134	106	71	133	120	118	468	67	2,081
KAJIADO	410	93	43	34	86	103	133	172	184	165	142	149	154	162	159	188	534	115	3,026
KERICHO	532	111	38	61	98	133	170	244	192	189	217	203	174	244	233	297	1,060	37	4,233
BOMET	242	88	40	46	82	133	129	176	149	129	181	147	123	172	185	244	891	49	3,206
KAKAMEGA	937	496	254	195	246	303	388	536	499	546	578	458	557	707	770	796	2,891	108	11,265
VIHIGA	144	119	61	55	71	77	128	206	226	238	254	222	243	337	419	458	1,717	63	5,038
BUNGOMA	894	490	231	216	251	243	270	407	382	360	438	310	379	504	502	435	1,969	117	8,398
BUSIA	357	271	124	91	114	125	144	185	183	166	176	164	177	274	308	323	1,224	70	4,476
SIAYA	363	354	189	132	150	156	223	320	371	300	307	263	264	398	441	614	2,193	142	7,180
KISUMU	471	292	158	133	200	203	300	412	450	361	356	287	326	464	529	634	1,830	173	7,579
HOMA BAY	103	93	54	78	103	95	182	193	218	178	203	137	181	208	277	340	1,170	48	3,861
MIGORI	266	169	61	83	96	120	170	199	186	192	188	142	145	195	189	243	864	40	3,548
KISII	605	148	96	134	193	262	294	430	418	404	416	314	372	628	545	631	1,969	259	8,118
NYAMIRA	73	60	18	38	46	64	113	147	134	135	139	97	144	167	130	199	644	91	2,439
NAIROBI	3,088	1,032	405	319	477	885	1,172	1,505	1,667	1,580	1,660	1,534	1,598	1,779	1,551	1,467	2,954	424	25,097

APPENDIX C9: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2020

	National/County	UNDER 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	Not stated	TOTAL
	KENYA	**19,356**	**5,708**	**6,079**	**9,572**	**17,260**	**19,727**	**18,819**	**20,154**	**24,044**	**41,435**	**3,231**	**185,385**
1	Mombasa	962	214	172	282	567	690	724	742	744	634	88	5,819
2	Kwale	356	109	149	140	242	267	254	319	481	541	107	2,965
3	Kilifi	731	201	264	291	391	404	462	550	755	1,059	72	5,180
4	Tana River	30	20	10	29	50	60	58	73	71	94	33	528
5	Lamu	43	15	6	22	39	47	47	42	93	103	21	478
6	Taita Taveta	176	45	20	56	108	153	168	194	243	499	4	1,666
7	Garissa	37	11	11	24	82	99	82	95	89	94	2	626
8	Wajir	8	1	1	6	26	50	46	69	46	72	8	333
9	Mandera	2	1	3	6	38	40	43	50	42	86	4	315
10	Marsabit	39	11	15	26	71	86	71	83	108	144	25	679
11	Isiolo	27	5	11	24	81	89	76	86	70	109	3	581
12	Meru	242	73	134	318	569	737	680	756	967	1,647	120	6,243
13	Tharaka Nithi	105	61	57	100	134	199	215	252	296	602	51	2,072
14	Embu	340	71	84	141	272	333	369	364	472	952	40	3,438
15	Kitui	543	118	169	228	349	371	420	416	680	1,535	71	4,900
16	Machakos	681	118	114	264	545	730	614	704	854	1,779	130	6,533
17	Makueini	536	66	98	148	307	349	357	403	628	1,332	52	4,276
18	Nyandarua	793	203	184	385	716	1,034	1,058	1,163	1,562	3,105	76	10,279
19	Nyeri	121	23	30	75	128	199	231	243	342	808	13	2,213
20	Kirinyaga	177	26	38	78	155	234	214	253	311	691	23	2,200
21	Murang'a	286	100	85	156	271	403	454	481	754	1,609	66	4,665
22	Kiambu	1,066	192	169	390	703	894	907	827	1,051	1,929	100	8,228
23	Turkana	331	134	133	168	242	230	181	156	148	163	37	1,923
24	West Pokot	263	67	89	92	112	89	94	96	106	110	53	1,171
25	Samburu	40	9	16	25	45	42	45	25	31	33	9	320
26	Trans Nzoia	505	139	160	266	390	426	351	427	444	788	61	3,957
27	Uasin Gishu	271	222	296	509	728	811	796	815	864	1,068	113	6,493
28	Elgeyo Marakwet	98	26	38	47	99	81	105	142	176	353	21	1,186
29	Nandi	217	49	55	125	234	234	200	248	262	684	57	2,365
30	Baringo	92	29	37	66	116	103	120	103	147	264	28	1,105
31	Laikipia	190	49	53	110	203	221	237	283	286	624	45	2,301
32	Nakuru	1,524	254	258	506	916	1,108	998	946	1,133	1,932	122	9,697
33	Narok	135	44	78	117	149	194	142	131	164	306	39	1,499
34	Kajiado	316	60	56	122	266	303	266	229	233	315	47	2,213
35	Kericho	432	85	94	166	375	342	334	329	434	787	63	3,441
36	Bomet	335	76	95	174	248	240	247	239	303	574	14	2,545
37	Kakamega	828	337	408	460	750	852	810	963	1,153	2,199	140	8,900
38	Vihiga	104	82	91	130	275	404	370	450	681	1,270	54	3,911
39	Bungoma	848	289	313	393	598	602	605	667	727	1,330	74	6,446
40	Busia	347	219	205	212	322	327	340	400	498	899	68	3,837
41	Siaya	280	340	262	294	535	537	408	468	809	1,615	79	5,627
42	Kisumu	436	295	329	397	753	774	562	641	821	1,444	115	6,567
43	Homa Baya	96	87	117	170	342	374	293	337	479	800	59	3,154
44	Migori	307	132	123	185	324	313	235	295	332	519	55	2,820
45	Kisii	486	129	188	351	635	620	577	772	797	1,483	245	6,283
46	Nyamira	56	30	50	102	208	223	157	223	232	400	59	1,740
47	Nairobi	3,518	841	711	1,196	2,551	2,809	2,796	2,604	2,125	2,051	465	21,667

APPENDIX C10: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2019

COUNTY CODE	COUNTY	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	NOT STATED	GRAND TOTAL
		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	
	Kenya	**20830**	**7618**	**3766**	**3263**	**4192**	**5870**	**7655**	**10527**	**9789**	**10299**	**9564**	**8559**	**9415**	**10125**	**11124**	**13194**	**43071**	**2634**	**191495**
	Coast	**2649**	**720**	**321**	**255**	**330**	**516**	**673**	**822**	**805**	**893**	**834**	**791**	**858**	**1040**	**1124**	**1212**	**3229**	**96**	**17168**
1	Mombasa	1227	307	127	94	128	202	272	340	371	359	344	290	324	344	353	320	756	0	6158
2	Kwale	360	131	77	42	57	90	114	122	140	138	132	134	152	168	213	244	582	84	2980
3	KILIFI	769	224	92	90	112	159	213	249	194	251	233	224	236	351	381	420	1143	0	5341
4	Tana River	60	22	10	6	7	19	11	20	18	32	31	27	31	39	20	42	95	12	502
5	Lamu	56	10	4	6	4	9	17	15	14	22	21	29	29	21	29	39	119	0	444
6	Taita Taveta	177	26	11	17	22	37	46	76	68	91	73	87	86	117	128	147	534	0	1743
	North Eastern	**70**	**19**	**17**	**9**	**15**	**31**	**61**	**116**	**125**	**149**	**140**	**192**	**141**	**204**	**122**	**130**	**323**	**11**	**1875**
7	GARISSA	52	14	6	2	5	17	26	43	39	48	49	66	47	71	57	44	129	2	717
8	WAJIR	17	5	4	0	0	2	21	39	61	68	55	102	58	94	24	53	117	0	720
9	MANDERA	1	0	7	7	10	12	14	34	25	33	36	24	36	39	41	33	77	9	438
	Eastern	**2879**	**672**	**341**	**323**	**554**	**853**	**1188**	**1671**	**1669**	**1704**	**1526**	**1364**	**1553**	**1645**	**1892**	**2479**	**8717**	**696**	**31726**
10	MARSABIT	33	21	7	13	5	13	28	59	47	50	50	55	59	60	70	73	141	15	799
11	ISIOLO	26	7	7	6	14	19	32	44	50	36	38	34	41	39	33	36	108	2	570
12	MERU	271	90	69	72	145	209	276	432	422	436	353	330	373	374	403	536	1696	78	6565
13	THARAKA NITHI	101	48	23	15	24	36	38	65	60	82	80	58	83	100	103	116	476	27	1535
14	EMBU	416	125	55	37	61	99	120	184	173	188	173	158	163	150	213	258	1035	0	3608
15	KITUI	504	120	60	34	90	86	139	163	185	160	162	151	163	170	247	391	1301	51	4177
16	Machakos	1005	163	73	98	143	292	435	528	553	576	473	428	497	525	528	745	2670	468	10200
17	MAKUENI	523	98	47	48	72	99	120	196	179	177	197	150	174	227	296	325	1290	55	4272
	Central	**2713**	**764**	**255**	**276**	**363**	**706**	**866**	**1280**	**1390**	**1451**	**1454**	**1311**	**1480**	**1402**	**1810**	**2312**	**8378**	**111**	**28322**
18	NYANDARUA	347	50	24	32	54	54	61	101	99	122	103	106	126	113	153	203	805	0	2553
19	NYERI	295	90	35	32	38	104	121	178	186	232	222	256	259	256	335	468	1646	21	4774
20	KIRINYAGA	249	104	33	27	42	60	80	133	149	158	146	136	179	174	205	228	867	0	2970
21	MURANGA	519	157	31	59	78	158	179	314	365	351	366	307	368	384	515	704	2758	39	7652
22	KIAMBU	1303	363	132	126	151	330	425	554	591	588	617	506	548	475	602	709	2302	51	10373
	Rift Valley	**4933**	**1547**	**840**	**792**	**1074**	**1396**	**1769**	**2323**	**2092**	**2167**	**2142**	**1780**	**1843**	**1987**	**2167**	**2614**	**8000**	**918**	**40384**
23	TURKANA	432	169	74	70	54	71	100	133	114	122	101	79	67	88	68	91	153	55	2041
24	WEST POKOT	196	53	29	19	25	30	30	38	25	29	41	29	36	23	33	40	88	26	789
25	SAMBURU	23	7	3	4	15	5	21	29	25	24	16	18	18	23	14	25	53	5	328
26	TRANS NZOIA	617	211	115	102	102	163	187	241	237	232	208	188	192	178	217	222	906	60	4378
27	UASIN GISHU	348	226	179	210	282	307	398	427	399	438	412	390	396	422	437	415	1118	201	7005
28	ELGEYO MARAKWET	35	24	12	15	24	31	37	58	45	60	81	46	56	79	92	102	302	33	1132
29	NANDI	179	94	52	38	75	82	101	139	99	134	123	97	121	133	154	202	757	111	2691
30	BARINGO	112	40	22	20	29	37	54	65	62	62	68	45	51	66	61	103	297	30	1224
31	LAIKIPIA	217	84	40	33	41	60	76	115	115	99	109	96	115	101	159	199	601	55	2315
32	NAKURU	1730	308	112	113	161	292	347	509	518	505	453	396	366	414	457	613	1606	109	9009
33	NAROK	101	59	61	32	46	54	74	105	83	75	93	87	56	80	70	98	318	65	1557
34	KAJIADO	257	52	33	32	45	66	88	106	99	93	90	79	83	88	82	79	270	51	1692
35	KERICHO	371	103	52	36	90	121	157	222	165	166	214	136	181	168	181	244	798	89	3494
36	BOMET	315	117	56	68	85	78	99	136	106	128	133	94	106	124	142	181	733	28	2729
	Western	**2002**	**1875**	**975**	**681**	**632**	**726**	**908**	**1217**	**1013**	**1225**	**1084**	**977**	**1264**	**1403**	**1484**	**1615**	**6050**	**376**	**25507**
37	KAKAMEGA	508	908	430	254	199	282	371	466	391	500	454	396	447	555	593	584	2237	145	9720
38	VIHIGA	89	157	75	70	67	77	125	172	189	175	177	155	221	262	313	360	1276	64	4024
39	BUNGOMA	963	448	286	242	244	216	249	359	280	347	308	258	353	361	349	392	1543	97	7265
40	BUSIA	452	362	184	115	122	151	163	220	173	203	145	168	243	225	229	279	994	70	4498
	Nyanza	**1952**	**1119**	**607**	**576**	**757**	**844**	**1269**	**1834**	**1407**	**1415**	**1207**	**1036**	**1196**	**1442**	**1511**	**1853**	**6369**	**424**	**26818**
41	SIAYA	330	405	191	142	144	163	253	351	311	283	246	206	279	258	332	427	1666	41	6028
42	KISUMU	499	254	165	120	179	223	315	511	358	366	276	272	253	346	367	480	1312	135	6431
43	HOMABAY	124	127	59	75	104	110	163	225	175	163	134	111	111	161	181	249	756	49	3077
44	MIGORI	185	135	56	67	91	122	153	209	154	176	144	127	115	118	137	167	543	101	2800
45	KISII	714	170	121	165	196	178	315	452	335	320	322	264	366	473	424	442	1789	19	7065
46	NYAMIRA	100	28	15	7	43	48	70	86	74	107	85	56	72	86	70	88	303	79	1417
47	Nairobi	3632	902	410	351	467	798	921	1264	1288	1295	1177	1108	1080	1002	1014	979	2005	2	19695

APPENDIX C11: REGISTERED DEATHS BY AGE, NATIONAL AND COUNTY, 2018

Region/ County	Under 1	1 - 4	5 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 74	75+	Total
Kenya	**20350**	**7303**	**8238**	**12333**	**20409**	**23249**	**21306**	**39505**	**39326**	**192019**
Coast	**2361**	**583**	**603**	**891**	**1561**	**1894**	**1706**	**4174**	**2955**	**16728**
Mombasa	1038	210	180	383	624	805	751	1242	623	5856
Kwale	279	117	136	132	224	257	243	732	509	2629
Kilifi	756	207	223	268	467	498	435	1474	1149	5477
Tana River	62	19	28	23	60	76	66	154	71	559
Lamu	43	9	6	26	51	52	26	108	106	427
Taita Taveta	183	21	30	59	135	206	185	464	497	1780
North Eastern	**46**	**31**	**43**	**50**	**174**	**274**	**265**	**444**	**274**	**1601**
Garissa	39	24	31	28	92	113	91	148	67	633
Wajir		2	3	8	32	71	98	143	107	464
Mandera	7	5	9	14	50	90	76	153	100	504
Eastern	**2541**	**753**	**894**	**1541**	**2837**	**3837**	**3769**	**6894**	**8111**	**31177**
Marsabit	52	5	14	26	69	84	98	171	129	648
Isiolo	59	26	20	25	82	83	96	152	77	620
Meru	247	139	187	393	727	877	800	1865	2012	7247
Tharaka Nithi	151	28	23	89	139	224	192	456	550	1852
Embu	515	75	100	159	284	370	342	835	959	3639
Kitui	681	158	200	296	433	516	525	1048	1381	5238
Machakos	229	169	222	373	818	1247	1294	1426	1285	7063
Makueni	607	153	128	180	285	436	422	941	1718	4870
Central	**2609**	**801**	**675**	**1149**	**2283**	**3072**	**2869**	**6342**	**7744**	**27544**
Nyandarua	375	78	61	122	196	267	255	568	864	2786
Nyeri	340	90	84	133	302	488	520	1319	1791	5067
Kirinyaga	281	67	76	105	230	378	353	847	913	3250
Murang'a	368	110	108	156	348	514	482	1498	2137	5721
Kiambu	1245	456	346	633	1207	1425	1259	2110	2039	10720
Rift Valley	**4903**	**1715**	**1709**	**2719**	**4474**	**4943**	**4725**	**8056**	**7756**	**41000**
Turkana	309	119	112	152	224	242	187	315	154	1814
West Pokot	205	69	59	113	120	121	98	161	128	1074
Samburu	11	10	20	21	46	44	48	102	46	348
Trans Nzoia	550	206	180	211	342	390	343	732	745	3699
Uasingishu	596	418	387	593	869	986	999	1229	962	7039
Elgeyo Marakwet	58	27	38	79	118	145	140	433	334	1372
Nandi	248	61	77	111	189	279	312	468	548	2293
Baringo	151	56	62	96	144	164	190	371	349	1583
Laikipia	219	67	67	118	196	272	247	558	660	2404
Nakuru	1522	387	319	599	1078	1192	1118	1804	1742	9761
Narok	133	66	89	114	171	145	129	159	181	1187
Kajiado	255	79	86	131	225	241	211	338	300	1866
Kericho	415	100	129	252	488	437	387	769	803	3780
Bomet	231	50	84	129	264	285	316	617	804	2780
Western	**2047**	**1274**	**1496**	**1520**	**2287**	**2537**	**2279**	**5089**	**5467**	**23996**
Kakamega	689	516	606	665	966	1136	1002	1918	1857	9355
Vihiga	154	96	134	173	296	370	400	1097	1225	3945
Bungoma	768	401	479	466	609	660	549	1218	1359	6509
Busia	436	261	277	216	416	371	328	856	1026	4187
Nyanza	**2037**	**1359**	**1490**	**2149**	**3772**	**3779**	**3051**	**5635**	**5294**	**28566**
Siaya	370	302	310	326	786	660	456	1220	1675	6105
Kisumu	482	304	343	608	995	997	867	1320	1004	6920
Homa Bay	133	139	190	251	540	559	453	820	715	3800
Migori	212	273	239	343	471	492	301	518	321	3170
Kisii	742	295	338	520	747	834	772	1313	1221	6782
Nyamira	98	46	70	101	233	237	202	444	358	1789
Nairobi	3806	787	1328	2314	3021	2913	2642	2871	1725	21407

APPENDIX C12: CAUSES OF DEATH BY AGE AND SEX AT HEALTH FACILITY, 2022

CAUSES OF DEATH	Under 1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Not Stated		TOTAL
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Pneumonia	989	1,047	388	473	102	117	65	71	74	93	91	101	140	161	176	218	184	256	187	282	179	262	159	280	123	219	223	354	195	305	359	450	1,433	1,488	92	117	11,453
Cardiopulmonary and Cardiorespiratory Arrest	475	518	125	169	81	74	60	71	82	92	140	125	159	159	249	273	283	293	279	330	281	364	236	372	248	354	337	449	336	404	431	483	1,377	1,270	90	107	11,176
Respiratory Infections	1,116	1,093	119	147	35	46	40	40	40	60	58	89	70	106	105	133	147	156	152	174	141	164	131	179	115	135	179	213	142	219	169	251	610	626	66	74	7,340
Cancer	9	9	20	17	13	19	25	24	28	31	25	34	72	43	121	69	205	82	252	113	316	190	299	228	258	223	376	303	248	297	272	370	399	602	36	25	5,653
Injuries	71	92	52	50	29	30	24	49	37	129	53	322	65	398	69	358	64	335	59	290	64	223	50	172	31	147	64	162	50	103	61	136	159	232	16	50	4,296
Hypertension	22	29	15	11	7	6	2	7	13	8	11	17	39	41	53	49	68	62	95	84	95	119	104	116	131	133	197	186	174	190	248	273	924	634	19	30	4,212
Anaemia	105	119	124	160	62	98	82	79	81	89	75	74	112	54	140	89	152	99	104	97	138	117	96	96	85	83	113	143	72	137	102	170	327	354	36	44	4,108
Prematurity & Birth Asphyxia	1,749	1,892	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,641
Sepsis	629	563	55	63	19	17	21	22	27	19	27	20	47	28	48	33	44	52	36	51	43	49	48	60	31	65	67	85	49	74	87	100	271	260	26	22	3,158
Diarrhea	263	218	67	86	28	31	20	37	27	24	26	46	41	49	58	79	72	72	48	77	85	98	82	117	57	83	80	100	55	90	83	124	265	271	15	23	2,997
Diabetes	4	7	9	8	8	6	12	2	13	12	22	26	33	32	37	45	53	59	66	72	71	65	87	93	67	93	147	154	138	143	180	189	469	376	20	15	2,833
Tuberculosis	37	31	23	26	9	10	15	14	28	27	46	51	87	92	110	162	134	194	87	173	85	181	68	133	46	113	49	111	45	81	52	79	99	121	11	25	2,655
Road Traffic Accident	7	12	18	23	20	28	18	23	33	82	32	199	35	262	34	211	40	201	33	169	27	141	32	94	21	66	38	67	22	40	31	39	76	94	15	35	2,318
Menengitis	121	123	65	92	26	33	30	24	38	53	51	45	96	76	126	83	134	119	89	146	66	114	54	73	40	53	32	51	20	23	23	24	36	41	20	12	2,252
Heart Disease	74	92	27	14	18	16	22	19	26	31	16	19	34	23	42	28	50	49	41	30	36	39	45	54	50	45	73	70	77	73	108	104	360	260	17	13	2,095
HIV/AIDS	9	4	8	2	4	4	6	8	20	11	42	25	93	34	142	84	156	112	110	98	122	98	94	76	57	52	49	56	36	30	27	28	25	24	11	11	1,768
Kidney Diseases	15	23	9	4	7	5	10	11	23	12	19	18	26	26	29	33	37	40	36	34	43	54	56	59	52	55	65	85	56	82	82	109	169	249	9	11	1,653
Gastroenteritis	162	159	68	79	16	15	3	12	8	9	9	19	20	23	23	37	29	27	32	54	29	43	25	42	28	35	41	56	27	36	31	54	111	79	8	14	1,463
Malaria	75	86	98	147	54	70	33	43	18	29	33	27	17	31	26	23	21	26	12	41	19	38	20	17	15	27	21	34	17	26	22	20	84	105	7	23	1,405
Haemorrhage	21	21	3	10	6	6	1	9	18	18	41	51	46	55	54	54	49	69	22	67	17	37	23	53	22	33	20	50	16	22	22	23	54	57	11	10	1,091
Cerebrovascular Disease	3	6	13	17	8	9	8	6	15	9	5	11	8	8	16	13	16	19	20	21	31	30	18	22	21	36	37	45	38	36	60	60	207	164	11	7	1,054
Liver Failure	8	15	6	12	5	3	2	10	7	7	11	18	15	34	31	37	30	65	33	63	29	73	19	60	12	56	20	42	10	29	19	31	37	54	3	10	916
COVID-19	4	1	2	2	2	0	4	0	6	3	7	8	14	9	15	11	14	17	18	16	19	22	16	12	25	22	23	39	26	44	33	47	176	169	3	7	836
Stroke	4	1	0	1	0	2	1	3	3	1	3	2	3	1	9	8	11	12	16	18	14	19	24	19	14	19	30	34	40	31	42	52	200	151	9	8	805
Alcoholism	1	2	0	2	0	1	0	0	0	1	4	15	8	33	13	64	13	100	10	111	10	86	7	72	9	41	2	48	6	18	3	20	8	19	3	8	738
Asphyxia	0	0	85	74	12	17	5	9	11	8	13	23	13	35	11	39	17	29	9	25	7	27	8	9	4	12	7	16	5	12	6	6	20	24	50	74	722
Hepatitis	9	6	7	6	5	3	4	2	6	8	8	6	16	23	17	37	21	53	18	44	19	50	23	30	10	27	26	41	13	24	31	22	33	39	2	5	694
Liver Cirrhosis	1	2	0	3	2	1	2	0	2	5	2	19	20	21	23	34	17	57	12	55	22	49	20	39	12	34	20	43	10	28	17	31	24	26	3	11	667
Poisoning	5	5	9	19	5	13	10	14	24	25	13	53	18	52	19	57	15	57	9	49	4	35	7	31	7	20	6	12	2	8	1	3	14	16	2	10	649
Abdominal Wall Effect	5	5	4	9	5	0	0	6	8	10	6	30	15	30	9	32	16	36	9	33	8	23	10	21	8	13	8	20	6	12	8	12	16	14	6	4	457
Malnutrition	69	58	83	66	11	20	6	6	2	8	3	3	4	2	3	2	3	1	4	6	3	9	1	4	4	3	2	4	2	4	5	10	18	16	3	6	454
Asthma	8	6	6	1	2	2	3	0	5	1	6	4	5	3	10	14	9	16	10	11	11	17	12	16	10	9	13	18	14	14	14	22	51	51	3	3	400
Fire/Burns	8	14	47	55	12	9	2	4	5	6	8	15	6	20	13	13	11	18	4	11	7	8	2	7	3	3	3	7	5	5	4	6	12	16	1	3	373
Jaundice	60	90	7	1	5	4	0	8	1	2	3	3	2	4	2	5	2	4	2	3	2	16	14	6	4	7	4	12	11	14	12	10	16	19	0	2	357
Sudden Death	17	17	5	11	3	2	1	3	4	5	8	15	6	7	8	12	6	16	5	16	3	19	5	11	4	8	7	13	4	7	7	8	39	33	2	3	340
Gastritis	0	1	0	0	1	0	1	1	3	2	0	3	3	8	4	11	5	15	7	17	5	11	7	16	5	11	8	11	6	2	15	13	30	37	3	2	264
Suicide	0	2	0	1	0	0	4	11	5	9	2	16	0	22	5	16	2	24	2	20	2	13	3	15	2	5	1	8	4	2	3	1	4	6	2	2	214
Maternal Conditions	10	4	0	3	0	1	0	0	3	0	12	2	6	1	16	1	9	4	4	1	3	4	7	2	3	7	7	8	8	6	11	4	35	21	2	0	205
Bedsores	0	2	1	0	1	0	0	1	0	0	0	1	0	2	2	2	1	3	2	4	2	5	1	3	2	3	6	5	6	9	11	11	63	43	0	0	192
Other Causes	1,234	1,347	487	572	174	276	181	270	285	375	372	616	425	732	594	860	629	894	497	785	528	817	495	789	426	671	672	861	524	791	733	964	2,234	2,133	193	291	24,727
Grand Total	**7,399**	**7,722**	**2,055**	**2,436**	**797**	**994**	**723**	**919**	**1,029**	**1,314**	**1,303**	**2,171**	**1,819**	**2,740**	**2,462**	**3,329**	**2,769**	**3,743**	**2,431**	**3,691**	**2,586**	**3,729**	**2,408**	**3,498**	**2,062**	**3,021**	**3,073**	**4,016**	**2,515**	**3,471**	**3,425**	**4,359**	**10,485**	**10,194**	**826**	**1,117**	**112,631**

APPENDIX C13: CAUSES OF DEATH BY AGE AND SEX, 2021

CAUSES OF DEATH	Under 1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Not Stated		TOTAL
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Accident	3	5	4	5	11	10	5	5	9	42	9	71	13	79	16	72	12	65	13	57	13	50	9	44	9	33	13	48	13	25	18	33	60	62	1	14	951
Alcoholism	0	0	0	0	0	0	3	4	1	11	5	47	15	86	28	175	26	236	29	199	23	180	14	119	20	116	25	91	19	70	20	41	65	95	6	32	1,801
Anaemia	155	150	158	192	114	162	103	149	149	128	133	90	126	89	196	162	215	140	169	164	160	195	128	149	128	147	154	235	162	206	195	272	743	670	50	63	6,601
Asphyxia	1	0	11	11	3	3	7	12	14	21	18	60	25	57	20	77	11	70	19	50	12	42	11	28	9	18	6	20	9	6	3	12	14	22	8	32	742
Asthma	30	33	29	36	20	14	12	23	22	29	27	35	46	42	69	79	66	98	51	101	79	137	70	121	76	134	102	164	131	187	181	244	733	713	31	29	3,994
Cancer	44	48	36	40	36	40	61	72	67	98	105	95	151	131	306	216	394	276	468	333	565	479	541	540	585	594	720	824	704	935	739	1,136	2,010	2,363	129	127	16,008
Cardiopulmonary and Cardiorespiratory Arrest	540	593	138	153	49	62	55	73	61	85	109	122	137	178	208	236	239	262	245	286	253	329	253	354	251	336	304	478	315	435	367	467	1,013	1,025	87	106	10,204
Cerebral Vascular Diseases	28	45	14	20	13	21	8	19	6	16	11	10	20	22	23	24	22	33	21	28	17	27	26	34	26	33	58	54	54	49	56	65	223	185	12	9	1,332
COVID-19	18	13	4	11	6	7	5	6	12	9	22	30	56	35	79	67	108	106	98	146	119	241	157	262	196	333	247	481	278	443	326	504	760	984	51	54	6,274
Diabetes	16	22	11	11	11	11	17	14	29	23	50	34	50	62	84	84	103	131	107	118	172	179	171	205	248	262	340	368	348	431	452	489	1,500	1,191	50	53	7,447
Drowning	8	8	34	67	11	46	22	50	10	70	18	85	15	68	14	87	11	70	13	52	15	38	5	27	5	18	8	14	3	8	6	14	10	14	4	16	964
Gastroentritis	120	97	50	64	13	10	7	8	18	20	13	16	24	23	37	26	37	52	27	32	35	49	26	33	29	39	41	49	26	50	43	38	113	93	4	10	1,372
Haemorrage	8	12	2	7	6	7	0	7	10	12	19	23	39	61	36	51	30	55	15	41	15	37	11	29	6	23	16	27	8	22	13	22	49	39	6	9	773
Heart Diseases	175	187	53	53	39	32	46	62	56	76	68	49	82	77	103	99	121	122	105	151	119	159	125	174	149	181	196	301	221	268	280	305	1,005	813	52	64	6,168
HIV/AIDS	16	15	7	7	12	13	8	9	16	27	63	34	144	82	271	144	264	218	233	235	198	213	132	181	118	135	85	98	54	66	43	44	48	66	25	31	3,355
Hypertension	21	12	12	18	13	15	10	11	19	27	40	37	47	43	89	64	132	116	154	149	169	189	230	230	293	307	449	428	490	493	664	582	2,680	1,753	76	65	10,127
Injuries	16	22	38	51	27	38	28	44	33	166	46	480	65	520	50	509	52	396	35	288	51	253	26	122	17	127	24	117	20	79	18	49	33	75	13	94	4,022
Jaundice	55	69	16	19	3	7	6	5	3	9	3	8	13	14	8	8	14	7	8	18	10	18	15	16	8	10	16	29	21	29	23	32	141	125	5	14	805
Kidney & urinary tract infections	68	77	21	21	19	37	39	37	36	47	59	44	56	63	91	100	89	128	116	130	110	164	98	163	116	211	135	285	152	345	171	454	564	1,502	46	76	5,870
Liver Cirrhosis	9	18	7	9	5	5	11	11	11	16	22	33	24	49	46	88	59	125	45	137	51	141	41	103	44	92	44	89	43	83	44	63	74	119	15	27	1,803
Malaria	602	679	597	665	262	259	175	210	149	198	140	181	176	222	223	283	198	312	162	316	199	323	128	245	136	275	277	368	290	402	362	438	2,187	1,669	123	144	13,575
Malnutrition	54	60	52	61	14	5	9	10	9	14	7	7	7	9	11	18	10	18	7	13	7	18	7	20	11	13	5	18	12	14	20	17	120	104	9	11	801
Maternal Condition	0	0	0	0	0	0	1	0	9	0	19	0	24	0	38	0	36	0	13	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	153
Menengitis	116	125	67	56	30	41	37	43	44	48	48	56	86	77	110	105	120	118	103	118	84	115	61	59	34	40	29	50	23	28	15	32	40	51	21	24	2,254
Neonatal Conditions	381	409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	790
Neonatal Sepsis	51	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
Old Age	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	10	574	272	16	7	896
Pneumonia	2,131	2,236	779	902	207	243	166	200	203	262	212	275	281	379	435	579	457	745	387	794	455	871	411	840	493	895	678	1,197	741	1,213	1,047	1,619	5,009	4,856	242	313	32,753
Poisonings	6	4	11	13	7	11	7	10	37	51	30	75	21	89	23	81	17	86	10	53	6	35	8	27	5	30	4	23	9	10	8	10	11	18	6	16	868
Prematurity & Birth asphyxia	2,219	2,220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,439
Pulmonary Embolism	3	2	2	1	0	2	1	1	15	2	17	6	23	10	26	26	24	21	25	19	29	19	26	16	22	25	20	29	17	29	21	26	57	51	4	5	622
Respiratory Infections	856	893	103	117	34	41	31	43	53	74	69	79	86	107	127	165	153	195	131	195	146	229	139	245	164	263	231	312	225	296	235	316	666	826	75	119	8,039
Road Traffic Accidents	17	13	26	33	30	41	26	37	33	167	39	444	66	457	77	428	51	359	58	319	51	221	37	172	28	134	38	105	20	84	27	47	58	88	17	54	3,902
Sepsis	167	171	57	39	13	14	17	18	24	23	35	23	33	22	38	33	28	41	28	37	39	39	38	41	42	55	68	62	48	56	65	78	260	198	29	27	2,006
Stroke	14	11	8	7	6	8	6	5	8	9	18	11	16	16	33	25	40	36	30	36	55	66	44	69	54	72	98	118	153	150	195	245	900	621	19	27	3,229
Sudden Death	418	483	141	238	67	111	77	113	104	191	116	236	159	395	249	502	256	581	248	574	258	552	241	489	248	520	346	644	376	635	509	752	3,196	2,539	171	233	16,968
Suicide	0	0	0	0	0	0	18	36	26	65	34	133	23	191	21	198	15	174	20	134	14	100	8	65	16	76	16	38	13	32	10	25	26	39	4	22	1,592
Tetanus	22	17	5	15	2	5	7	7	6	12	10	15	10	14	11	31	11	31	14	29	16	30	11	17	10	26	19	46	18	34	26	36	132	151	14	16	876
Tuberculosis	41	29	31	33	18	22	18	22	34	49	60	82	115	182	202	355	206	408	149	435	182	469	105	371	98	310	119	302	108	276	113	274	385	556	42	78	6,279
Other causes	1,530	1,638	681	895	372	423	306	476	472	731	626	1,024	734	1,266	918	1,398	837	1,611	791	1,481	770	1,425	708	1,213	748	1,148	1,004	1,393	969	1,357	1,178	1,547	4,441	4,117	376	588	41,192
Grand Total	**9,959**	**10,462**	**3,205**	**3,870**	**1,473**	**1,766**	**1,355**	**1,852**	**1,808**	**2,828**	**2,320**	**4,050**	**3,008**	**5,217**	**4,316**	**6,595**	**4,464**	**7,442**	**4,147**	**7,268**	**4,504**	**7,632**	**4,061**	**6,823**	**4,442**	**7,031**	**5,935**	**8,905**	**6,093**	**8,846**	**7,510**	**10,338**	**29,900**	**28,065**	**1,845**	**2,609**	**231,944**

APPENDIX C14: CAUSES OF DEATH BY AGE AND SEX, 2020

CAUSES OF DEATH	Under 1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75+		Not stated		TOTAL		GRAND TOTAL
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Accident	3	4	4	5	7	20	11	66	19	100	15	75	13	59	9	29	8	32	13	17	3	10	105	417	522
Alcohol	0	0	0	0	0	0	12	46	26	198	33	351	30	250	22	193	25	100	24	57	6	37	178	1,232	1,410
Anaemia	160	152	145	190	231	278	238	191	349	224	316	257	261	266	243	314	306	366	592	532	46	47	2,887	2,817	5,704
Asphyxia	0	0	14	21	18	39	21	42	31	80	24	82	13	41	10	38	10	17	12	19	12	18	165	397	562
Asthma	29	34	17	24	33	30	41	52	104	98	109	174	100	206	165	259	263	385	572	585	32	38	1,465	1,885	3,350
Cancer	49	48	41	50	92	129	167	185	482	344	807	587	1,156	926	1,368	1,427	1,387	1,932	1,847	2,192	107	105	7,503	7,925	15,428
Cardiorespiratory failure/Cardio-pulmonary arrest	630	734	118	151	115	144	192	243	380	463	490	599	535	601	519	733	539	770	924	894	95	126	4,537	5,458	9,995
Cerebrovascular diseases	19	19	14	19	10	19	15	30	28	44	52	71	46	65	72	85	131	130	268	189	11	8	666	679	1,345
Covid 19	11	10	1	2	5	8	10	15	38	42	42	83	70	169	78	222	73	149	59	101	3	5	390	806	1,196
Diabetes	18	14	8	9	17	19	60	52	109	124	157	224	230	323	412	614	615	708	1,036	851	41	26	2,703	2,964	5,667
Drowning	19	22	52	91	50	144	33	193	31	201	19	145	24	99	12	64	13	41	9	19	12	27	274	1,046	1,320
Gastroentritis	100	96	43	40	12	17	32	30	57	70	79	94	66	108	72	121	76	100	140	111	9	8	686	795	1,481
Haemorrage	7	26	5	3	9	15	34	72	79	103	77	125	34	78	28	71	41	68	79	52	4	18	397	631	1,028
Heart diseases	133	153	50	29	70	77	103	115	155	176	175	214	221	270	243	363	307	394	746	562	31	38	2,234	2,391	4,625
HIV/AIDS	21	26	9	14	24	40	128	66	486	277	535	497	365	420	206	236	116	143	47	73	37	27	1,974	1,819	3,793
Hypertension	0	0	19	26	22	42	77	62	193	137	309	286	398	471	610	727	1,035	1,085	2,208	1,518	64	58	4,935	4,412	9,347
Injuries	20	31	34	36	35	92	76	392	101	746	81	509	41	294	48	182	27	110	44	90	7	59	514	2,541	3,055
Jaundice	77	88	17	13	15	16	11	16	31	30	16	30	25	26	26	42	43	72	143	137	9	9	413	479	892
Kidney and urinary tract infections	56	88	17	27	28	58	75	89	139	140	144	219	174	282	193	432	255	670	407	1,153	15	64	1,503	3,222	4,725
Liver cirrhosis	14	10	6	10	13	10	26	45	79	131	91	239	83	191	85	177	77	122	72	91	13	14	559	1,040	1,599
Malaria	538	560	541	596	496	526	282	342	395	455	324	486	225	463	295	463	454	552	1,597	1,122	103	107	5,250	5,672	10,922
Malnutrition	58	68	47	41	20	11	12	21	12	14	12	32	15	27	21	20	25	41	116	71	5	7	343	353	696
Maternal conditions	0	0	0	0	0	0	53	0	71	0	40	0	5	0	0	0	0	0	0	0	6	0	175	0	175
Menengitis	119	133	62	66	55	73	112	116	261	183	235	248	164	176	80	111	53	62	45	34	19	19	1,205	1,221	2,426
Old age	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	5	374	188	6	5	393	198	591
Neonatal conditions	568	573	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	568	573	1,141
Pneumonia	1,790	1,912	523	630	305	358	288	399	582	692	615	992	588	1,090	593	1,136	879	1,428	3,078	2,465	150	196	9,391	11,298	20,689
Poisoning	10	1	10	15	17	21	58	111	37	159	19	122	16	79	14	32	9	26	12	16	3	15	205	597	802
Prematurity & Birth Asphyxia	2,280	2,502	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,280	2,502	4,782
Pulmonary Embolism	4	3	6	1	1	4	20	14	42	20	62	29	30	34	38	26	31	33	54	42	1	5	289	211	500
Respiratory infections	963	828	96	87	83	90	101	132	193	236	255	320	225	310	232	370	294	441	413	518	59	64	2,914	3,396	6,310
Road traffic accidents	17	13	27	32	73	116	68	586	116	868	79	681	67	393	59	244	48	133	57	84	10	62	621	3,212	3,833
Sepsis	56	45	21	36	22	36	46	40	63	62	49	61	66	79	78	99	97	110	180	163	18	15	696	746	1,442
Stroke	0	0	3	3	6	8	21	16	28	35	59	54	94	82	114	152	264	281	708	493	20	8	1,317	1,132	2,449
Sudden death	357	395	131	163	138	203	171	357	296	753	386	909	365	816	450	909	620	989	2,488	1,835	105	152	5,507	7,481	12,988
Suicide	0	0	6	8	16	53	50	195	40	329	26	254	25	128	20	82	19	57	22	24	8	26	232	1,156	1,388
Tetanus	13	11	9	8	16	16	9	35	14	41	17	43	19	57	15	46	36	73	109	90	6	9	263	429	692
Tuberclosis	25	29	16	24	36	46	114	138	354	485	402	801	303	759	177	548	208	519	264	484	29	55	1,928	3,888	5,816
Other causes	1,273	1,291	502	624	514	717	853	1,448	1,398	2,381	1,327	2,356	1,137	1,952	1,147	1,833	1,423	2,080	3,082	2,722	232	407	12,888	17,811	30,699
Grand Total	**9,437**	**9,919**	**2,614**	**3,094**	**2,604**	**3,475**	**3,620**	**5,952**	**6,819**	**10,441**	**7,478**	**12,249**	**7,229**	**11,590**	**7,754**	**12,400**	**9,820**	**14,224**	**21,841**	**19,594**	**1,337**	**1,894**	**80,553**	**104,832**	**185,385**

APPENDIX C15: CAUSES OF DEATH BY AGE AND SEX, 2019

	UNDER 1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Not Stated		TOTAL	
DISEASES	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Alcohol	0	0	0	0	1	4	3	1	3	3	9	26	7	69	23	148	16	136	13	175	15	122	18	98	4	78	15	74	13	69	4	45	31	86	6	16	181	1,150
Anaemia	168	185	188	194	102	156	104	115	96	101	113	81	124	99	163	111	158	81	134	117	136	139	113	131	129	115	129	161	147	199	173	183	563	563	35	41	2,775	2,772
Asthma	27	34	27	27	15	15	18	24	26	16	21	25	41	29	61	59	48	68	51	78	58	107	47	101	80	101	80	115	115	171	143	210	646	512	11	20	1,515	1,712
Birth Asphyxia	1,931	1,795	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,931	1,795
Cancer	60	66	29	44	48	46	43	54	50	70	104	79	163	121	270	198	265	198	410	315	466	393	472	438	556	620	559	711	681	862	709	948	1,777	2,140	67	83	6,729	7,386
Cardiac Arrest	45	60	7	13	7	6	14	12	5	10	9	12	21	25	31	25	29	38	29	46	40	41	34	36	33	31	35	42	43	53	36	56	142	117	12	15	572	638
Cardio Pulmonary & Respiratory Diseases	396	409	115	123	44	66	50	50	55	67	63	74	97	94	118	134	131	122	111	137	130	159	126	162	141	154	132	152	122	190	183	215	393	443	35	26	2,442	2,777
Diabetes	10	10	5	6	6	5	12	13	12	12	31	27	37	36	49	58	44	68	40	72	72	108	101	119	156	164	172	201	222	243	260	291	878	688	26	23	2,133	2,144
Drowning	7	7	32	48	15	35	13	34	11	35	12	36	10	48	6	44	8	44	4	36	2	24	2	16	2	18	2	10	4	9	3	6	10	9	1	5	144	464
Gatroenteritis	119	105	59	70	14	5	5	11	7	9	8	9	19	23	43	25	37	21	21	44	22	36	17	29	31	35	26	30	20	35	37	39	127	90	6	6	618	622
Haemorrage	3	1	1	2	0	2	0	1	6	3	10	7	9	24	17	17	7	13	5	10	8	6	1	7	4	9	2	6	9	3	2	4	15	22	1	1	100	138
Heart Diseases	121	106	35	35	27	20	30	26	37	55	32	26	38	38	57	65	61	63	51	62	65	74	48	69	57	96	85	106	95	108	114	161	465	398	7	13	1,425	1,521
Hiv	35	30	17	19	7	22	30	22	39	30	109	52	215	94	383	217	304	254	298	282	228	260	113	184	104	134	76	106	63	62	52	42	61	70	29	27	2,163	1,907
Hypertension	50	44	18	13	13	12	15	12	19	19	44	42	58	64	100	86	105	114	127	153	165	153	178	221	227	235	274	323	355	351	500	503	1,984	1,351	32	43	4,264	3,739
Injuries	55	87	28	49	26	32	16	43	37	120	73	236	66	311	73	287	66	254	52	253	41	162	37	107	25	107	27	92	28	75	38	58	71	117	7	21	766	2,411
Jaundice	34	61	4	7	6	7	5	5	1	8	4	3	6	4	8	4	4	7	9	13	6	11	11	13	8	19	9	13	15	11	20	15	75	50	5	5	230	256
Kidney And Urinary Tract Infections	7	8	4	6	0	6	1	3	2	5	5	6	5	7	14	17	9	22	6	24	11	27	14	21	17	40	19	79	20	115	41	168	127	672	2	12	304	1,238
Liver Cirrhosis	1	6	0	6	2	1	2	4	11	12	11	12	13	28	25	56	30	44	17	65	28	50	19	45	26	70	23	47	16	53	20	47	46	75	3	6	293	627
Malaria	618	650	656	741	348	434	167	243	140	187	155	172	176	183	236	250	141	251	151	268	125	255	112	218	135	232	174	271	197	267	285	312	1,713	1,206	92	123	5,621	6,263
Malnutrition	62	65	63	66	14	16	11	19	9	9	3	14	8	9	13	18	8	16	15	19	10	13	5	14	11	18	11	19	10	28	22	26	115	99	1	9	391	477
Maternal Conditions	0	0	0	0	7	0	15	0	28	0	43	0	46	0	86	0	61	0	39	0	17	0	12	0	18	0	0	0	0	0	0	0	0	0	51	0	423	0
Menengitis	144	138	72	71	38	35	31	64	45	62	60	61	104	97	175	124	132	119	152	147	104	132	61	83	49	70	42	47	29	39	29	26	71	77	10	14	1,348	1,406
Neonatal Conditions	191	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	219
Old Age	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	13	9	279	141	2	3	297	154
Other Causes	2,618	2,963	1,120	1,321	518	658	484	679	606	996	874	1,449	1,122	1,749	1,444	2,175	1,334	2,018	1,307	2,030	1,101	1,783	1,009	1,658	1,115	1,725	1,329	1,818	1,354	1,931	1,507	2,125	5,904	5,493	370	607	25,116	33,178
Pneumonia	1,986	2,200	632	766	205	274	134	136	123	166	168	174	166	258	281	377	251	377	261	437	243	418	207	404	243	392	271	419	297	482	550	718	2,912	2,331	105	133	9,035	10,462
Poisonings	7	1	4	8	6	3	4	7	16	27	11	51	16	56	13	52	16	55	7	33	4	28	4	14	5	15	4	15	4	8	4	6	9	20	1	2	135	401
Respiratory Infections	689	729	132	176	43	57	39	58	51	50	47	70	72	73	115	122	95	106	106	133	110	144	103	92	115	126	98	135	104	120	113	182	391	422	28	36	2,451	2,831
Sepsis	261	260	30	27	17	9	9	12	19	18	19	28	25	18	28	27	29	37	23	39	28	30	32	26	29	39	37	40	26	51	49	63	159	136	9	7	829	867
Stroke	6	11	6	7	12	5	3	5	4	12	10	10	12	10	22	17	34	19	33	33	41	37	38	56	48	56	91	102	139	134	203	160	802	485	10	22	1,514	1,181
Sudden Death	355	407	170	147	67	76	67	94	92	168	104	193	120	233	209	369	187	412	193	398	194	376	194	351	231	391	229	438	276	436	361	489	2,392	1,687	73	141	5,514	6,806

APPENDIX C17: TOP TEN CAUSES OF DEATH IN COUNTIES, 2022

001 MOMBASA COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	518
2	Pneumonia	305
3	Respiratory Infections	266
4	Diarrhea	229
5	Prematurity & Birth Asphyxia	214
6	Cancer	192
7	Sepsis	179
8	Hypertension	178
9	Road Traffic Accident	122
10	Diabetes	112
	Other Causes	1,811
	GRAND TOTAL	4,126

002 KWALE COUNTY

	DISEASES	TOTAL
1	Pneumonia	155
2	Hypertension	112
3	Prematurity & Birth Asphyxia	104
4	Injuries	97
5	Anaemia	91
6	Respiratory Infections	77
7	Cardiopulmonary and Cardiorespiratory Arrest	71
8	Sepsis	59
9	Kidney Diseases	42
10	Diabetes	38
	Other Causes	907
	GRAND TOTAL	1,753

003 KILIFI COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	433
2	Pneumonia	348
3	Prematurity & Birth Asphyxia	247
4	Respiratory Infections	214
5	Anaemia	150
6	Hypertension	108
7	Sepsis	105
8	Injuries	89
9	HIV/AIDS	81
10	Cancer	70
	Other Causes	1,350
	GRAND TOTAL	3,195

004 TANA RIVER COUNTY

	DISEASES	TOTAL
1	Pneumonia	38
2	Respiratory Infections	28
3	Cardiopulmonary and Cardiorespiratory Arrest	24
4	Road Traffic Accident	16
5	Hypertension	13
6	Menengitis	12
7	Prematurity & Birth Asphyxia	9
8	Tuberculosis	8
9	Injuries	8
10	Cancer	5
	Other Causes	90
	GRAND TOTAL	251

005 LAMU COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	89
2	Pneumonia	22
3	Respiratory Infections	18
4	Diarrhea	8
5	Anaemia	7
6	Prematurity & Birth Asphyxia	6
7	Hypertension	6
8	Injuries	6
9	Cancer	5
10	Diabetes	4
	Other Causes	97
	GRAND TOTAL	268

006 TAITA TAVETA COUNTY

	DISEASES	TOTAL
1	Hypertension	167
2	Pneumonia	76
3	Respiratory Infections	53
4	Road Traffic Accident	46
5	Cardiopulmonary and Cardiorespiratory Arrest	45
6	Diabetes	37
7	Cancer	35
8	Anaemia	20
9	Prematurity & Birth Asphyxia	15
10	Tuberculosis	13
	Other Causes	363
	GRAND TOTAL	870

007 GARISSA COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	57
2	Pneumonia	20
3	Injuries	16
4	Hypertension	15
5	Respiratory Infections	14
6	Diabetes	13
7	Sepsis	10
8	Anaemia	8
9	COVID-19	7
10	Diarrhea	7
	Other Causes	152
	GRAND TOTAL	319

008 WAJIR COUNTY

	DISEASES	TOTAL
1	Pneumonia	8
2	Kidney Diseases	7
3	Sudden Death	6
4	Hypertension	6
5	Cardiopulmonary and Cardiorespiratory Arrest	5
6	Cancer	3
7	Diabetes	3
8	Road Traffic Accident	3
9	Respiratory Infections	2
10	Drowning	2
	Other Causes	47
	GRAND TOTAL	92

009 MANDERA COUNTY

	DISEASES	TOTAL
1	Sudden Death	10
2	Cancer	4
3	Diabetes	4
4	Hypertension	3
5	Respiratory Infections	3
6	Pneumonia	2
7	Asthma	2
8	Gunshot Wounds	2
9	Heart Disease	2
10	Stroke	1
	Other Causes	10
	GRAND TOTAL	43

010 MARSABIT COUNTY

	DISEASES	TOTAL
1	Pneumonia	58
2	Respiratory Infections	21
3	Road Traffic Accident	13
4	Diabetes	12
5	Tuberculosis	12
6	Hypertension	11
7	Cancer	10
8	Sudden Death	9
9	Anaemia	7
10	Menengitis	6
	Other Causes	112
	GRAND TOTAL	271

011 ISIOLO COUNTY

	DISEASES	TOTAL
1	Pneumonia	33
2	Tuberculosis	30
3	Hypertension	27
4	Menengitis	24
5	Gunshot Wounds	23
6	COVID-19	23
7	Anaemia	18
8	Injuries	16
9	Road Traffic Accident	14
10	HIV/AIDS	13
	Other Causes	203
	GRAND TOTAL	424

012 MERU COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	1,009
2	Pneumonia	368
3	Respiratory Infections	335
4	Cancer	220
5	Injuries	131
6	Sepsis	108
7	Diarrhea	108
8	Anaemia	98
9	Road Traffic Accident	77
10	Tuberculosis	74
	Other Causes	1,721
	GRAND TOTAL	4,249

APPENDIX C17: TOP TEN CAUSES OF DEATH IN COUNTIES, 2022 (CONTINUED)

013 THARAKA NITHI COUNTY

	DISEASES	TOTAL
1	Diarrhea	178
2	Cardiopulmonary and Cardiorespiratory Arrest	154
3	Injuries	87
4	Pneumonia	75
5	Respiratory Infections	75
6	Tuberculosis	55
7	Sepsis	53
8	Cancer	46
9	Hypertension	44
10	Anaemia	35
	Other Causes	589
	GRAND TOTAL	1,391

014 EMBU COUNTY

	DISEASES	TOTAL
1	Pneumonia	263
2	Cancer	171
3	Hypertension	115
4	Sepsis	93
5	Diabetes	78
6	Road Traffic Accident	63
7	HIV/AIDS	60
8	Tuberculosis	57
9	Anaemia	55
10	Menengitis	51
	Other Causes	1092
	GRAND TOTAL	2,098

015 KITUI COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	674
2	Pneumonia	232
3	Prematurity & Birth Asphyxia	163
4	Anaemia	107
5	Hypertension	107
6	Road Traffic Accident	104
7	Respiratory Infections	93
8	Cancer	81
9	Sepsis	77
10	Injuries	66
	Other Causes	1145
	GRAND TOTAL	2,849

016 MACHAKOS COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	928
2	Pneumonia	226
3	Respiratory Infections	207
4	Injuries	144
5	Diarrhea	132
6	Sepsis	87
7	Anaemia	69
8	Prematurity & Birth Asphyxia	66
9	Menengitis	61
10	Cancer	57
	Other Causes	1,439
	GRAND TOTAL	3,416

017 MAKUENI COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	381
2	Pneumonia	352
3	Anaemia	159
4	Hypertension	134
5	Respiratory Infections	127
6	Diabetes	105
7	Sepsis	100
8	Cancer	96
9	Injuries	86
10	Road Traffic Accident	83
	Other Causes	1,232
	GRAND TOTAL	2,855

018 NYANDARUA COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	163
2	Respiratory Infections	69
3	Pneumonia	66
4	Injuries	46
5	Diarrhea	39
6	COVID-19	29
7	Road Traffic Accident	28
8	Prematurity & Birth Asphyxia	26
9	Hypertension	24
10	Cancer	21
	Other Causes	391
	GRAND TOTAL	902

019 NYERI COUNTY

	DISEASES	TOTAL
1	Hypertension	410
2	Cancer	359
3	Pneumonia	357
4	Diabetes	210
5	Respiratory Infections	165
6	Cardiopulmonary and Cardiorespiratory Arrest	164
7	Sepsis	142
8	Heart Disease	136
9	Anaemia	128
10	Road Traffic Accident	91
	Other Causes	1,407
	GRAND TOTAL	3,569

020 KIRINYAGA COUNTY

	DISEASES	TOTAL
1	Pneumonia	276
2	Cardiopulmonary and Cardiorespiratory Arrest	198
3	Cancer	148
4	Hypertension	116
5	Diabetes	110
6	Anaemia	101
7	Injuries	70
8	Tuberculosis	62
9	Prematurity & Birth Asphyxia	59
10	Cerebrovascular Disease	53
	Other Causes	1046
	GRAND TOTAL	2,239

021 MURANG'A COUNTY

	DISEASES	TOTAL
1	Pneumonia	378
2	Cardiopulmonary and Cardiorespiratory Arrest	294
3	Injuries	182
4	Hypertension	129
5	Respiratory Infections	120
6	Diabetes	94
7	Road Traffic Accident	87
8	Anaemia	83
9	Sepsis	76
10	Cancer	73
	Other Causes	1,121
	GRAND TOTAL	2,637

022 KIAMBU COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	761
2	Pneumonia	445
3	Injuries	361
4	Respiratory Infections	350
5	Diarrhea	343
6	Prematurity & Birth Asphyxia	243
7	Hypertension	237
8	Sepsis	207
9	Menengitis	201
10	Tuberculosis	185
	Other Causes	2,572
	GRAND TOTAL	5,905

023 TURKANA COUNTY

	DISEASES	TOTAL
1	Pneumonia	244
2	Anaemia	113
3	Prematurity & Birth Asphyxia	76
4	Malaria	73
5	HIV/AIDS	71
6	Gastroenteritis	65
7	Respiratory Infections	64
8	Tuberculosis	64
9	Road Traffic Accident	35
10	Sepsis	33
	Other Causes	603
	GRAND TOTAL	1,441

024 WEST POKOT COUNTY

	DISEASES	TOTAL
1	Prematurity & Birth Asphyxia	179
2	Pneumonia	135
3	Malaria	51
4	Anaemia	41
5	Heart Disease	30
6	Road Traffic Accident	25
7	Respiratory Infections	24
8	Menengitis	23
9	Tuberculosis	22
10	Cancer	20
	Other Causes	312
	GRAND TOTAL	862

APPENDIX C17: TOP TEN CAUSES OF DEATH IN COUNTIES, 2022 (CONTINUED)

025 SAMBURU COUNTY

	DISEASES	TOTAL
1	Pneumonia	53
2	Hypertension	34
3	Tuberculosis	30
4	HIV/AIDS	29
5	Anaemia	25
6	Prematurity & Birth Asphyxia	20
7	Cancer	12
8	Diarrhea	11
9	Liver Cirrhosis	11
10	Menengitis	10
	Other Causes	167
	GRAND TOTAL	402

026 TRANS NZOIA COUNTY

	DISEASES	TOTAL
1	Pneumonia	321
2	Diarrhea	276
3	Cardiopulmonary and Cardiorespiratory Arrest	180
4	Prematurity & Birth Asphyxia	149
5	Cancer	69
6	Respiratory Infections	68
7	Anaemia	66
8	Injuries	66
9	Malaria	66
10	Hypertension	59
	Other Causes	974
	GRAND TOTAL	2,294

027 UASIN GISHU COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	524
2	Cancer	420
3	Pneumonia	387
4	Respiratory Infections	300
5	Injuries	254
6	Anaemia	177
7	Sepsis	173
8	Diarrhea	141
9	Heart Disease	133
10	Hypertension	103
	Other Causes	2,570
	GRAND TOTAL	5,182

028 ELGEYO MARAKWET COUNTY

	DISEASES	TOTAL
1	Respiratory Infections	113
2	Cardiopulmonary and Cardiorespiratory Arrest	67
3	Pneumonia	50
4	Tuberculosis	26
5	Cancer	24
6	Injuries	20
7	Sepsis	17
8	Haemorrhage	17
9	Menengitis	17
10	Diarrhea	16
	Other Causes	280
	GRAND TOTAL	647

029 NANDI COUNTY

	DISEASES	TOTAL
1	Pneumonia	173
2	Respiratory Infections	109
3	Cardiopulmonary and Cardiorespiratory Arrest	75
4	Anaemia	68
5	Injuries	66
6	Prematurity & Birth Asphyxia	58
7	Cancer	37
8	Road Traffic Accident	36
9	Hypertension	32
10	Menengitis	26
	Other Causes	595
	GRAND TOTAL	1,275

030 BARINGO COUNTY

	DISEASES	TOTAL
1	Pneumonia	143
2	Cardiopulmonary and Cardiorespiratory Arrest	73
3	Not Stated	40
4	Cancer	38
5	Diabetes	31
6	Hypertension	27
7	Tuberculosis	27
8	Malaria	25
9	Anaemia	24
10	Road Traffic Accident	22
	Other Causes	467
	GRAND TOTAL	917

031 LAIKIPIA COUNTY

	DISEASES	TOTAL
1	Pneumonia	323
2	Diabetes	84
3	Cardiopulmonary and Cardiorespiratory Arrest	78
4	Cancer	76
5	Hypertension	68
6	Respiratory Infections	58
7	Menengitis	53
8	Prematurity & Birth Asphyxia	43
9	Road Traffic Accident	32
10	Tuberculosis	31
	Other Causes	749
	GRAND TOTAL	1,595

032 NAKURU COUNTY

	DISEASES	TOTAL
1	Respiratory Infections	1,122
2	Pneumonia	710
3	Prematurity & Birth Asphyxia	316
4	Hypertension	309
5	Road Traffic Accident	307
6	Cardiopulmonary and Cardiorespiratory Arrest	293
7	Cancer	234
8	Diabetes	211
9	Not Stated	149
10	Heart Disease	139
	Other Causes	2,317
	GRAND TOTAL	6,107

033 NAROK COUNTY

	DISEASES	TOTAL
1	Pneumonia	122
2	Respiratory Infections	76
3	Haemorrhage	47
4	Menengitis	37
5	Cardiopulmonary and Cardiorespiratory Arrest	33
6	Tuberculosis	32
7	Injuries	31
8	Cancer	27
9	Hypertension	22
10	Anaemia	19
	Other Causes	466
	GRAND TOTAL	912

034 KAJIADO COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	263
2	Diarrhea	216
3	Pneumonia	193
4	Injuries	137
5	Respiratory Infections	72
6	Prematurity & Birth Asphyxia	68
7	Cancer	51
8	Tuberculosis	46
9	Sepsis	45
10	Anaemia	40
	Other Causes	723
	GRAND TOTAL	1,854

035 KERICHO COUNTY

	DISEASES	TOTAL
1	Pneumonia	445
2	Respiratory Infections	339
3	Cancer	179
4	Prematurity & Birth Asphyxia	177
5	Cardiopulmonary and Cardiorespiratory Arrest	142
6	Anaemia	98
7	Tuberculosis	95
8	Hypertension	81
9	Menengitis	74
10	Kidney Diseases	74
	Other Causes	1256
	GRAND TOTAL	2,960

036 BOMET COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	235
2	Respiratory Infections	211
3	Pneumonia	187
4	Cancer	125
5	Diarrhea	67
6	Injuries	63
7	Tuberculosis	52
8	Heart Disease	46
9	Sepsis	45
10	Anaemia	42
	Other Causes	956
	GRAND TOTAL	2,029

APPENDIX C17: TOP TEN CAUSES OF DEATH IN COUNTIES, 2022 (CONTINUED)

037 KAKAMEGA COUNTY

	DISEASES	TOTAL
1	Respiratory Infections	461
2	Pneumonia	239
3	Malaria	179
4	Injuries	179
5	Anaemia	126
6	Sepsis	120
7	Cardiopulmonary and Cardiorespiratory Arrest	103
8	Hypertension	94
9	Prematurity & Birth Asphyxia	93
10	Diarrhea	89
	Other Causes	1582
	GRAND TOTAL	3,265

038 VIHIGA COUNTY

	DISEASES	TOTAL
1	Pneumonia	116
2	Cardiopulmonary and Cardiorespiratory Arrest	94
3	Respiratory Infections	79
4	Diarrhea	68
5	Hypertension	64
6	Road Traffic Accident	60
7	Anaemia	53
8	Injuries	41
9	Cancer	40
10	Diabetes	37
	Other Causes	516
	GRAND TOTAL	1,168

039 BUNGOMA COUNTY

	DISEASES	TOTAL
1	Pneumonia	482
2	Prematurity & Birth Asphyxia	258
3	Anaemia	226
4	Hypertension	203
5	Respiratory Infections	193
6	Cardiopulmonary and Cardiorespiratory Arrest	153
7	Malaria	122
8	Cancer	115
9	Menengitis	105
10	Heart Disease	96
	Other Causes	1916
	GRAND TOTAL	3,869

040 BUSIA COUNTY

	DISEASES	TOTAL
1	Pneumonia	177
2	Respiratory Infections	164
3	Anaemia	113
4	Road Traffic Accident	104
5	Malaria	96
6	Hypertension	84
7	Prematurity & Birth Asphyxia	81
8	Cancer	71
9	Diabetes	65
10	Gastroenteritis	55
	Other Causes	797
	GRAND TOTAL	1,807

041 SIAYA COUNTY

	DISEASES	TOTAL
1	Anaemia	253
2	Cardiopulmonary and Cardiorespiratory Arrest	246
3	Pneumonia	232
4	Injuries	136
5	Malaria	103
6	Respiratory Infections	78
7	Prematurity & Birth Asphyxia	63
8	Menengitis	58
9	Tuberculosis	55
10	Diabetes	46
	Other Causes	1,148
	GRAND TOTAL	2,418

042 KISUMU COUNTY

	DISEASES	TOTAL
1	Respiratory Infections	301
2	Pneumonia	295
3	Cardiopulmonary and Cardiorespiratory Arrest	275
4	Diarrhea	231
5	Anaemia	177
6	Injuries	172
7	Hypertension	133
8	Cancer	128
9	HIV/AIDS	116
10	Sepsis	105
	Other Causes	1,748
	GRAND TOTAL	3,681

043 HOMABAY COUNTY

	DISEASES	TOTAL
1	Anaemia	168
2	Pneumonia	145
3	HIV/AIDS	110
4	Cardiopulmonary and Cardiorespiratory Arrest	91
5	Hypertension	84
6	Respiratory Infections	83
7	Malaria	70
8	Cancer	64
9	Heart Disease	58
10	Road Traffic Accident	41
	Other Causes	823
	GRAND TOTAL	1,737

044 MIGORI COUNTY

	DISEASES	TOTAL
1	Anaemia	230
2	Pneumonia	167
3	Malaria	157
4	Cancer	95
5	Prematurity & Birth Asphyxia	93
6	Injuries	85
7	Diabetes	59
8	Menengitis	54
9	Cardiopulmonary and Cardiorespiratory Arrest	52
10	Respiratory Infections	49
	Other Causes	894
	GRAND TOTAL	1,935

045 KISII COUNTY

	DISEASES	TOTAL
1	Pneumonia	558
2	Cardiopulmonary and Cardiorespiratory Arrest	368
3	Injuries	255
4	Anaemia	253
5	Respiratory Infections	241
6	Cancer	235
7	Heart Disease	143
8	Tuberculosis	126
9	Prematurity & Birth Asphyxia	124
10	Diabetes	106
	Other Causes	2,516
	GRAND TOTAL	4,925

046 NYAMIRA COUNTY

	DISEASES	TOTAL
1	Pneumonia	132
2	Cardiopulmonary and Cardiorespiratory Arrest	60
3	Anaemia	43
4	Cancer	38
5	Tuberculosis	37
6	Hypertension	36
7	Diabetes	31
8	Malaria	29
9	Road Traffic Accident	26
10	Injuries	25
	Other Causes	559
	GRAND TOTAL	1,016

047 NAIROBI COUNTY

	DISEASES	TOTAL
1	Cardiopulmonary and Cardiorespiratory Arrest	1,719
2	Cancer	1,608
3	Pneumonia	1,321
4	Injuries	961
5	Respiratory Infections	791
6	Sepsis	747
7	Tuberculosis	468
8	Diarrhea	464
9	Hypertension	454
10	Prematurity & Birth Asphyxia	414
	Other Causes	8,745
	GRAND TOTAL	17,692


Turkana
Marsabit
Mandera
Wajir
West Pokot
Samburu
Trans Nzoia
Elgeyo Marakwet
Bungoma
Baringo
Uasin Gishu
Isiolo
Kakamega
Nandi
Laikipia
Meru
Vihiga
Kisumu
Tharaka Nithi
Nyandarua
Kericho
Nyeri
Nakuru
Kirinyaga
Embu
Garissa
Nyamira
Bomet
Kisii
Muranga
Kiambu
Narok
Nairobi
Machakos
Kitui
Tana River
Kajiado
Makueni
Lamu
Kilifi
Taita Taveta
Mombasa
Kwale



Civil Registration Services (CRS)

Ministry of Interior and National Administration
P.O Box 49179-00100, Nairobi Kenya
Telephone: +254202691109
Email: secretary@crs.go.ke.
Website: crs.go.ke