VITAL STATISTICS REPORT 2022

NATIONAL CIVIL REGISTRATION AUTHORITY (NCRA)

SIERRA LEONE

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Preface

Civil Registration is a continuous, permanent, universal and compulsory recording of the occurrence and characteristics of Vital Events, that include Births, Deaths, Stillbirths, Causes of Deaths, Marriages, Divorces, Adoptions, Nullities and other civil events about the population as provided by law. Civil Registration and Vital Statistics are interconnected components with one informing the other and data generated to describe the characteristics of the Vital Events registered. Births, Deaths, Marriages, Divorces, Adoptions and Nullities are important Vital Events that describe the legal existence, permanent legal exit of an individual and also serve as a primary source of vital data about the population in which they occur. These Vital Statistics are instrumental for planning, monitoring, and evaluating various Government and developmental programmes and policies, including those related to primary healthcare, maternal and child health, education, public administration, local government planning, accountable service delivery hence a tool for development planning etc. Information collected through the registration process about Vital Events provides useful and important statistics for policy formulation and interventions.

The report for the year 2022 provides an overview of the Civil Registration and Vital Statistics System (CRVS) in the country and presents a compilation of data on registered births, deaths, infant deaths, stillbirths, marriage, divorce, and adoption, based on Civil Registration Records from across the country. Ideally, where there is full compliance with the principles and practice of Civil Registration among the population, an Annual Report on Vital Statistics containing detailed information about the characteristics of these events should be prepared for public consumption. Nevertheless, an attempt has been made to present a more detailed analysis as compared to previous unpublished Reports. However, the Cause of Death which is part of death registration, has not been included in this Report due to challenges with Cause-of-Death reporting, compounded by the limited number of Medical Practitioners, that by law are to certify the Cause of Death prior to its registration. There are also capacity issues with Medical Certification of Cause-of-Death and Verbal Autopsy.

NCRA would like to acknowledge with immense gratitude the support it has incessantly and predictably continued to receive from the Government of Sierra Leone for the CRVS and Identity Management in Sierra Leone. The NCRA further acknowledges the contribution of the Ministry of Health (MoH) towards the completion of Births and Deaths reports from health facilities to have a harmonised

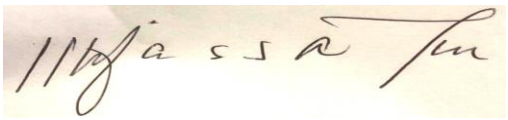
data on the two events. We appreciate the support of other MDAs that include the MoF, MIA, MLG&CA, MoPED, MoFAIC, NAO, OARG, Stat SL, EC-SL, MoSW, MoG&CA, NASSIT, NATCA, NRA, SLRSA, MoJ, MBSSE, MTHE, BSL, Sierra Leone Immigration Department, MoLSS, MoCT&I, MoICE, the ACC, MoD, SLP, NFF, NDLEA, SLCS, Chief Medical Examiner's Office, NaCSA, CSOs, Inter-Religious Council SL who in diverse ways contribute to the work of the NCRA.

A special appreciation goes to our Development Partners; the European Union, UNICEF, UNFPA, Irish Embassy, UNDP, WHO, UNECA, IOM, Plan International and others who have provided the NCRA with either technical support, capacity building or funding for the Improvement of CRVS and ID Management in Sierra Leone. We are further grateful to the UNFPA and the GoSL though the Ministry of Finance for supporting publication of this 2022 Vital Statistics Report.

The Management of the NCRA wishes to thank the Board of Authority, NCRA and the Ministry of Internal Affairs for their continued support and guidance in the conduct of the NCRA mandate in Sierra Loene.

Finally, my sincere appreciation goes to all Staff of the National Civil Registration Authority (Management, Support and Contract/Consultants) who have worked tirelessly to account for the various Vital Events culminating into the production of this 2022 Vital Statistics Report for Sierra Leone.

The production of this Report is in fulfilment of Section 26 (1) of the NCR Act of 2016 that mandates the Authority to "…. collect, compile, abstract and publish Vital Statistics".



Mohamed M. MASSAQUOI
Director General

Acronyms and Abbreviations

ACC	Anti - Corruption Commission
ASFR	Age-specific fertility rate
ASMR	Age-specific mortality rate
BSL	Bank of Sierra Leone
CBR	Crude birth rate
CDR	Crude death rate
CRVS	Civil registration and vital statistics
CSMF	Cause-specific mortality fraction
CSOs	Civil Society Organizations
D4H	Bloomberg Philanthropies Data for Health Initiative
DHMT	District Health Management Team
DHS	Demographic and Health Survey
ECA	(United Nations) Economic Commission for Africa
ECSL	Electoral Commission of Sierra Leone
IOM	International Organization for Migration
IMR	Infant Mortality Rate
MMR	Maternal Mortality Ratio
MCCD	Medical certification of cause of death
MBSSE	Ministry of Basic and Senior Secondary Education
MoCT&I	Ministry of Communication, Technology and Innovation
MoD	Ministry of Defense
MoF	Ministry of Finance
MoFAIC	Ministry of Foreign Affairs and International Cooperation
MoG&CA	Ministry of Gender and Children's Affairs
MoH	Ministry of Health
MIA	Ministry of Internal Affairs
MoICE	Ministry of Information and Civic Education
MoJ	Ministry of Justice
MLG&CA	Ministry of Local Government and Community Affairs
MoLSS	Ministry of Labour and Social Security
MoPED	Ministry of Planning and Economic Development
MoSW	Ministry of Social Welfare

MTHE	Ministry of Technical and Higher Education
NaCSA	National Commission for Social Action
NAO	National Authorizing Office
NASSIT	National Social Security and Insurance Trust
NatCA	National Communications Authority
NDLEA	National Drug Law Enforcement Agency
NFF	National Fire Force
NMR	Neonatal Mortality Rate
NRA	National Revenue Authority
OARG	Office of the Administrator and Registrar General
SLCS	Sierra Leone Correctional Service
SLP	Sierra Leone Police
SLRSA	Sierra Leone Road Safety Authority
STATS-SL	Statistics Sierra Leone
TFR	Total Fertility Rate
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
U5MR	Under-5 Mortality Rate
VA	Verbal Autopsy
VS	Vital Statistics
WHO	World Health Organization

Definitions

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.

Cause of Death: 'All those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced any such injuries'.[1] Symptoms and modes of dying, such as heart failure or respiratory failure, are not considered to be causes of death for statistical purposes (see 'ill-defined cause of death').

Completeness of Registration: The proportion of vital events that are registered. It is the number of registered vital events divided by an estimate of the actual number of vital events that occurred in the same population during a specific period of time.

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.

Death: 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, which are defined separately.

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.'[2] Note that this definition broadly includes all terminations of pregnancy other than live births, as defined above.

Ill-Defined Cause of Death: Any code that cannot or should not be used for the underlying cause of death (generally referring to 'R codes'). For instance, a 'mode

[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] 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.

of death' such as heart failure or kidney failure, symptoms such as back pain or depression, and risk factors such as high blood pressure are all uninformative, ill-defined codes for public health purposes.

Infant Mortality Rate (IMR): Probability (expressed as a rate per 1,000 live births) of a child born in a specific year or period dying before reaching the age of 1, if subject to age-specific mortality rates of that period.

Life Expectancy at Birth: The average number of years that a newborn could expect to live, if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country, territory, or geographic area.

Live Birth: 'The complete expulsion or extraction from the 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 live born (all live-born infants should be registered and counted as such, irrespective of gestational age or whether alive or dead at the time of registration, and if they die at any time following birth, they should also be registered and counted as deaths).'[3]

Maternal Death: 'The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.'[4]

Maternal Mortality Ratio (MMR): The number of maternal deaths during a given time period per 100,000 live births during the same time period.

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.

Sex Ratio at Birth: The number of male births for a specific area and during a specified period divided by the number of female births for the same area and period. The sex ratio is an important demographic indicator of the distribution of boys and girls at birth.

[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.
[4] World Health Organisation (2004). ICD-10. International Statistical Classification of Diseases and Related Health Problems., Tenth revision, second edition. Geneva.

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 population 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.'[5]

[5] 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.

Executive Summary

The 2022 Vital Statistics Report represents the first edition of a series of Annual Vital Statistics Reports to be published by NCRA. Births, Deaths and other Vital Events analysed in this Report are those that occurred and were registered in 2022, those that occurred in 2022 and registered in the subsequent year within the given grace period, and those that occurred in the earlier years but were registered in 2022.

The 2022 birth registration completeness rate was estimated at 52.1 percent. On the other hand, the death registration completeness was estimated at 13.4 percent out of a projected population of about 8.4 million. The data were analysed by age of mother at birth, sex of the child, place of birth, age at death, sex of decedent, place of death, etc.

The data set for this report covers all sixteen administrative areas of the country. However, analyses of the data are done and results produced largely at District levels. Though the Report covers 2022, some trend analyses are done using data from 2020 to 2022 for some key indicators of interest.

Birth, Death and Marriage registration data are a source of fertility, mortality and nuptial indicators respectively. Indicators such as crude birth rate, total fertility rate, mean age at birth, marriage rate, mean age at marriage and infant mortality, under-five mortality, and Crude death rates can be produced through reports of the above-mentioned events.

Births

The summary statistics on fertility show that there was a total of 225,501 live births that occurred in 2022, as compared to 225,433 and 213,723 in 2021 and 2020 respectively. The sex ratio at birth for 2022 (97.2) is slightly higher than that for 2020 (96.4) and 2021 (94.0).

The Completeness Rate for 2022 (52.1) was slightly less than that for 2021 by about 1%.

The findings of this report suggest that levels of fertility have not changed much for the years under review. The total fertility rate is still in the region of 6 children per woman, the same rate as that recorded in the 2015 Census. The crude birth rate and the general fertility rate have also remained roughly the same. The mean age at childbearing is in the region of 27 years.

Summary Statistics on Fertility by Year of Occurrence

Indicator	2020	2021	2022
Reported live births (number)	213,723	225,433	225,501
Males	104,898	109,230	111,124
Females	108,825	116,203	114,377
Completeness Rate (%)	*51.79*	*53.3*	*52.1*
Males	51.66	52.5	52.2
Females	51.92	54.1	52.0
Sex ratio at birth	96.4	94	97.2
Mean age of mothers at birth	27.3	27	27.1
Crude birth rate (per 1,000 population)			
Adjusted births	50.9	50.9	51
Unadjusted births	26.4	27.2	26.5
Total fertility rate (births per woman)			
Adjusted births	6.14	6.1	6.13
Unadjusted births	3.18	3.26	3.20

Deaths

The registered deaths for the three years 2020-2022 have shown a slight reduction year in year out as shown in the summary table on mortality below. This is consistent with the death Completeness rate for the respective years, 18.0% (2020), 17.0 % (2021) and 13.4% (2022). This is a case for serious research to know why, despite the presence of registration facilities in the 16 administrative Districts, death registration is low and seems to be on the decline.

From the summary table below, it can be deduced that under-5 mortality rate also reduced drastically from 250 (2020) to 184 (2021) and slightly to 170 (2022). For the three years under review, more male deaths were recorded than female deaths.

Summary Statistics on Mortality by Year of Occurrence

Indicator	2020	2021	2022
Reported deaths (number)	20499	19739	16523
Males	11074	10534	9072
Females	9425	9205	7451
Completeness Rate (%)	18	17	13.4
Males	19	17.7	15.1
Females	17	16.2	12.6
Crude death rate (per 1,000 population)	14.3	14.3	14.8
Under-5 mortality rate (per 1,000 live births)	251	184	170

Marriages, Divorces and Adoptions

There are several marriage types in Sierra Leone, namely: Civil, Customary, Christian, and Islamic, that ae currently registered with the NCRA and analysed in this report. A total of 1,876 people got their marriages registered, emanating from 938 solemnized marriages in 2022, as compared to 825 solemnized marriages in 2021. The crude marriage rate per 1000 population was almost the same for both years.

There were 27 divorces registered in 2022 as compared to 15 in 2021. For 2022, the average age at divorce was 53.5 for males and 49.4 for females; when compared to 2021, the average age for males and females was 47.4 and 41.4 respectively.

For the year 2022, the NCRA registered a total of 233 cases of Adoption. The registration accounted for 147 (63.1%) females and 86 (36.9%) males. Comparatively for 2021, 195 adoption cases were registered by the Authority with males and females accounting for 42 and 52 percent respectively.

Summary Statistics on Marriages, Divorces and Adoptions by Year of Registration

Indicator	**2021**	**2022**
Number of registered marriages	*825*	*938*
Crude marriage rate (per 1,000 population)	*0.2*	*0.22*
Average age at marriage		
Males	*40.9*	*39*
Females	*33.8*	*33*
Number of registered divorces	*15*	*27*
Average age at divorce		
Males	*47.4*	*53.5*
Females	*41.4*	*49.4*
Number of registered adoptions	*195*	*233*
Males	*80*	*86*
Females	*115*	*147*

Chapter 1.Introduction and Methodology

1.1 Introduction

Vital Statistics data are the collection of statistics on vital events such as Births, Deaths and Foetal Deaths, Marriages, Separations, Divorces, Annulment/Nullification of Marriage, Adoptions, Legitimation and Recognition.

Vital Statistics reports provide fundamental demographic and epidemiological measures that are needed in planning across multiple sectors. These include education, labour and health. Birth and death information from Civil Registration is critical for a wide range of Government programmes. In the health sector, Vital Statistics form the core of a country's health information system (WHO, 2010c). Vital Statistics, including those dealing with causes of death, are also central to measuring progress in achieving the UN Sustainable Development Goals (SDGs).

The most important reason for developing and publishing a Vital Statistics Report is the need of the public, the Government and Civil Society etc for transparency and accountability including taking decisions that are informed by reliable data. Such information is important for monitoring trends of key population indicators in the country and studying regional variations. Are there, for example, subnational areas or population groups with particularly high death rates? Is the birth rate changing and, if so, among which age groups?

The production and availability of a Vital Statistics Report is a key step towards stimulating and guiding Civil Registration improvements. Putting Vital Statistics into the public domain demonstrates transparency and openness to scrutiny. At the national level, Vital Statistics that reflect the complete state of the Civil Registration System may stimulate the Government to increase investment for improving the system. In general, a report is a good opportunity to learn from experience and can inform improvement efforts, including through the national CRVS coordination mechanisms. At the international level, producing a report can also facilitate reporting to international data collection systems, including the United Nations Statistics Division's Demographic Yearbook System as well as measuring progress towards attaining SDGs.

The importance accorded to Civil Registration by the global community can be seen from the SDGs. First, improving CRVS is an SDG target in its own right. Target 16.9 calls for providing 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. Civil Registration and cause-of-death data are a necessity for monitoring key outcome indicators, such as

maternal mortality and non-communicable disease-related deaths. They are also key to a strategy for effecting progress in other indicators, such as social inclusion and access to education.

The Report is organised in the following main chapters:

Chapter 2 The Civil Registration System

Chapter 3 Data Quality, Timeliness of Registration and Registration Completeness

Chapter 4 Births

Chapter 5 Deaths

Chapter 6 Marriages, Divorces and Adoptions

Chapter 7 Summary Tables

1.2 Data Sources and Methodology

Data on births, deaths, stillbirths, and cause of death are obtained from the Ministry of Health and Sanitation facilities and in communities across the country. The data is then processed by the District Registration Officers of the NCRA for onward submission to the HQ for the compilation, analysis and production of Vital Statistics Reports. The Population and Housing Census data is obtained from Statistics Sierra Leone for use in the computation of some indicators, whilst the data on marriages, divorces and adoptions are primarily collected from the duty bearers solemnising the event i.e OARG, Churches, Mosques, Local Councils, Local Courts Administration, etc by the NCRA staff deployed in the respective Districts and at the National Headquarters.

Statistical software packages were used by the Directorate of Vital Statistics and Research of NCRA to input, process, clean and analyse data obtained from the District Offices and health facilities across the country. Utilization of Pivot Tables in Excel aided the cleaning and generation of tables to identify gaps, duplicates and inconsistencies prior to analysis. In addition, the United Nations recommended principles and standardization of Vital Statistics measures was utilized throughout this Report to generate the findings.

The data set for this Report covers the entire administrative areas of the country. However, analyses of the data are done and results produced mainly at District level. The Report covers 2022, but some trend analyses are done using data from 2020 to 2022 for some key indicators of interest.

Birth, Death and Marriage registration data are a source of fertility, mortality, and nuptial indicators respectively. Indicators such as crude birth rate, total fertility rate,

mean age at birth, nuptial births, marriage rate, mean age at marriage and infant mortality, under-five mortality and Crude death rates can be produced through reports of the above-mentioned events.

Births, deaths and other Vital Events analysed in this Report are those that occurred and were registered in 2022, those that occurred in 2022 and registered in the subsequent year within the given grace period, and those that occurred in the earlier years but were registered in 2022.

The analysis made use of the 2015 Population and Housing Census Projections for calculating some fertility and mortality indicators, as the 2021 Mid-term Census projections are not available for public use.

Chapter 2.The Civil Registration System

2.1 History

Sierra Leone has been involved in the registration of vital events for centuries. Registration of births, deaths, and marriages were routine administrative services with less recognition of the role of such data for interventions and transformation of the nation. The legislation that existed dates back to colonial times and for long years not updated to reflect the contemporary situation of the country and the world at large.

Since 2014, the Government of Sierra Leone has taken fundamental measures towards reforming and establishing an Integrated National Civil Registration and Vital Statistics (ICRVS) system in line with the resolutions of the African Ministers responsible for Civil Registration and the recommendations of the United Nations Economic Commission for Africa (UNECA) on CRVS systems. Accordingly, Government with the support of Development Partners, prepared a National Civil Registration Reform Policy that was endorsed by Cabinet in 2014. As per the directives of the policy, the National Civil Registration Act was promulgated in 2016, which established the National Civil Registration Authority (NCRA).

2.2 Legal Reforms

The 2016 National Civil Registration (NCR) Act of Sierra Leone under Section 26 (1) stipulates that the National Civil Registration Authority (NCRA) collects, compiles, abstracts and publishes Vital Statistics from the Civil Registration System. It further requires in Subsection 26 (2) for the NCRA to be regulated by the Minister to give effect of the provisions on Vital Statistics. The NCR Act puts as one of its objectives of providing accurate demographic information on Vital Events, such as Births, Adoptions, Marriages, Divorces, Deaths, etc. as stipulated under Section 14(c) and (d). In addition, under the functions of the Authority, NCRA is required to assist the Government in the definition of strategic rules and policies on Vital Statistics (Section 15 (c)) and also maintains Vital Statistics functions at Chiefdom, District, Regional and National levels (Section 15(d)). Accordingly, conducting Vital Statistics registration is one of the key functions and deliverables of the NCRA.

Following the "National Policy on Civil Registration Reform in Sierra Leone", a giant step taken by the Government in the Civil Registration Reform process was the adoption of the National Civil Registration Act (NCR Act 2016).

- The Act establishes the National Civil Registration Authority (NCRA) as a central national Authority for the coordination, management and harmonization/consolidation of all Civil Registration, Vital Statistics, and Identity Management Systems in Sierra Leone.
- The NCRA has as its mandate and responsibility the continuous, permanent, universal, and compulsory recording/registration of the occurrence and

characteristics of Vital Events including Births, Deaths, Marriages, Divorces, Nullities, Adoptions, Judicial Separations, Legitimization and Recognition; and ID Management throughout Sierra Leone as provided for in section 27 of the NCR Act 2016.

- Section 41 (3) of the NCR Act stipulates that "The personal registration data provided by the Integrated National Civil Registration System shall be the primary source of authoritative information as against other information systems providing administrative services to the population".

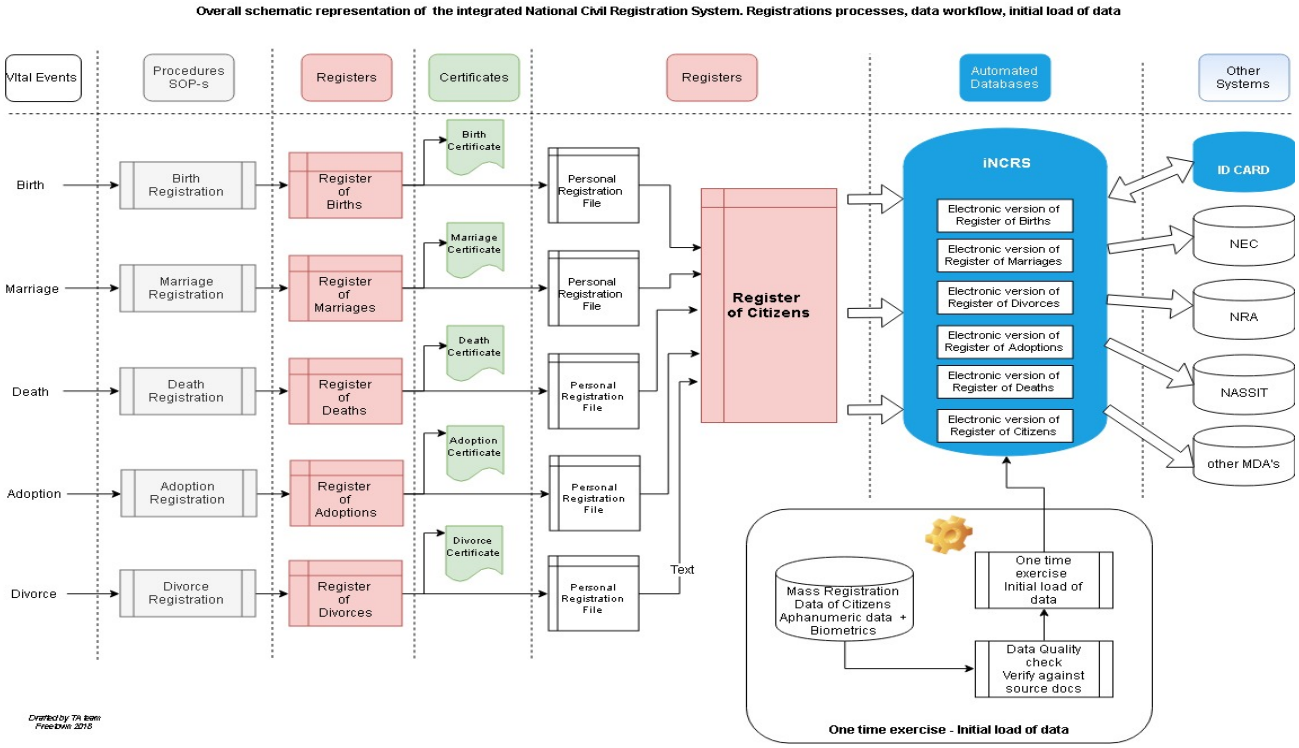
The establishment of NCRA enabled the consolidation of registration of Vital Events and National Identity Management under one umbrella. Though the Policy and legal frameworks are in place, draft Regulations and Administrative Directives have been done and now awaits Cabinet consideration and Parliamentary endorsement. The absence of these Regulations to some extent affects the effective operations of the intent of the NCR Act and the Policy.

2.3 Registration Processes and Information Flows

The National Civil Registration Authority (NCRA) currently operates 16 District registration offices and has assigned staff to every District Health Management Team (DHMT) across the country. Furthermore, having an institutional framework in place facilitates the smooth implementation of civil registration and vital statistics (CRVS) and identity management (ID-M) through a network of offices strategically placed across the country to ensure that services are brought closer to the people.

The Ministry of Health (health facilities) personnel provide the birth and death notification upon occurrence and reporting of births and deaths. The NCRA headquarters receives data from district registration officers in a digital format, process the data, and produces annual statistical reports. Vital events such as marriages, divorces, nullities, and adoptions are handled by other duty bearers, but once it is done, the events are registered with NCRA for the issuance of certificates and for the compilation and management of vital statistics. The figure 1 below shows CRVS business process, including key stakeholders and data flows:

Figure 1 CRVS Business Process, including key stakeholders and data flows



2.3.1 Current, Late or Delayed Registration

The National Civil Registration Act considers Births and Deaths registrations to be current when they are registered within the first ninety days of the occurrence of the event. All Births and Deaths that are registered after three (3) months but less than twelve (12) months of occurrence are referred to as Late, whilst those that are registered after twelve (12) months of occurrence are referred to as Delayed.

2.4 Organisation of Vital Statistics Production and Dissemination

Once the data are collected, the Directorate of Vital Statistics and Research within the NCRA processes the data for publication of the Report.

2.5 Incentives and Disincentives for Registration

People are more likely to register Vital Events if they are aware of the benefits that Civil Registration brings. In Sierra Leone, Civil Registration documents are the key to the following:

- Obtaining proof of place of Birth and place of registration
- Obtaining National Identification Number (NIN) to access services
- Determining citizenship by showing the place of Birth and origin of parents

• Obtaining proof of age in relation to rights and obligations that are conditional upon

reaching a certain age, such as schooling, enfranchisement, military duties and pension entitlements

• Providing evidence of identity and age for Marriage and sexual offences

• Obtaining a driver's licence, passport or other travel documents

• Obtaining evidence of death for use by the heirs of the deceased

• Opening a bank account, obtaining a loan or microcredit

Chapter 3. Data Quality, Timeliness of Registration, and Registration Completeness

There is a need to evaluate the quality of the civil registration data and check for errors. Errors are common in all systems, even the best, and may occur at any stage of the civil registration and vital statistics process, owing to reporting errors, clerical errors, misprints, errors in the computer code, tabulation errors, problems with the electricity supply, and perhaps corruption. Physical follow-ups to district offices were undertaken where necessary to fill the gaps and correct the errors identified. However, a routinely run quality assessment procedure is critical.

Timeliness of registration of recorded births for the year 2022 suggests that 95% accounted for Current registration, whilst the remainder accounted for both Late and Delayed registrations. Similarly, for the same year, 99% of all recorded deaths was currently registered, with the 1% shared between Late and Delayed registrations.

Completeness rate for births slightly increased from 2020 to 2021 by about 1.5%, and slightly decreased from 2021 to 2022 by 1.2%; whilst completeness rate for deaths declined from 2020 to 2022 from 17.4% to 13.4% respectively.

3.1 Data Quality

All data gaps were identified through the use of excel. Data inconsistencies such as the age of mothers below 12 years or above 50 years, Mothers with the marital status of married at age below 18, etc. are identified. NCRA HQ engages the district offices to assist with the correction of the data.

Physical follow-ups to district offices are undertaken where necessary to fill the gaps and correct the errors identified. This involves pulling off the forms and making corrections. Only errors that were introduced by the district office can be corrected at this stage. To correct the errors made by the health personnel, the district officers need to ensure that there are no gaps or errors upon receipt of the form and make corrections immediately.

3.2 Timeliness of Registration

According to the NCR Act of 2016, Births and Deaths registration is current if they are registered within the statutory deadline (0-90 days). A late registration is the registration of a Vital Event after the legally specified time period but within the grace period (3-12 months). Delayed registration is the registration of a Vital Event after the grace period has expired (over 1 year). For the purpose of this Report, Late and Delayed registrations are considered non-current.

Births and Deaths statistics, like crime statistics record events that are reported. Therefore, records of registration of Births and Deaths help to assess compliance level

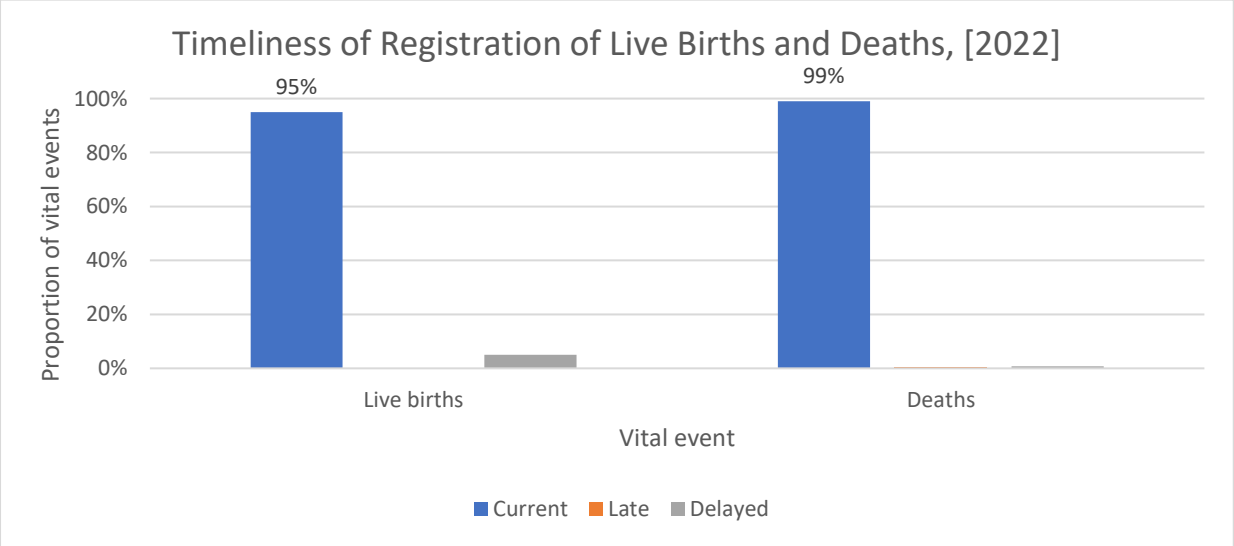
by citizens and non-citizens resident across Districts. It also shows Districts with low- or high-level compliance. Currently, all sixteen (16) Administrative Districts undertake current registration while NCRA HQ undertakes all Births registrations, i.e current and non-current. All registrations done at HQ level are reported under Western Urban District.

At national level, for 2022, 95% of all reported Births were done on current basis indicting that registration was done within the stipulated 90 days, while 5% of reported Births were non-current registrations. Similarly for all reported Deaths given the same year, 99% were done on current basis as compared to 1% that was non-current; as shown in figure 2.

Table 1 Number of Births and Deaths by Registration Timeliness, 2020, 2021 & 2022

Registration timeliness	2020		2021		2022	
	Live births	Deaths	Live births	Deaths	Live births	Deaths
Current	213,723	20,176	225,433	19,590	225,501	16,322
Late	422	205	203	42	15	76
Delayed	8,780	118	13,302	107	13,053	125
Grand total	222,925	20,499	238,938	19,739	238,569	16,523

Figure 2 Proportion (%) of Live Births and Deaths by Registration Timeliness



3.3 Completeness of Registration

Completeness is defined as the proportion of vital events (births, deaths, etc.) recorded by the CRVS system during a reference time period out of the total events estimated to have occurred in the study population over the same time period.

Calculating the Completeness Rate can be used to monitor the performance of the CRVS system in capturing all vital events and allows for adjustment of incomplete data. Completeness Rate is calculated as the number of vital events in a population that are recorded, divided by the estimated number of vital events that occurred in the same year. The value is multiplied by 100 to express completeness as a per cent:

$$\textbf{Completeness}\ (\%) = \frac{\textbf{Number of vital events recorded}}{\textbf{Estimated number of vital events}} \times \mathbf{100}$$

Population projections from the 2015 Population and Housing Census, including crude birth and death rates was used to estimate the number of vital events, thus:

Estimated Number of Expected Events = ((CBR or CDR × Total population size)/1000)

The number of vital events recorded was sourced from the civil registration database.

3.3.1 Birth Registration

Birth Completeness Rate is defined as the proportion of births recorded by the CRVS system during the reference time period out of the total births estimated to have occurred in the population over the same time period. The estimated number of births was sourced from Statistics Sierra Leone, 2015 census projections, including the crude birth rates for districts.

Thus, the completeness rate for births is calculated as:

$$\text{Completeness Rate for births} = \frac{\text{Number of recorded births}}{\text{Estimated number of live births}} \times 100$$

As shown in table 2, Completeness Rate for births slightly increased from 2020 to 2021 by about 1.5%, and slightly decreased from 2021 to 2022 by 1.2%. Completeness rate of 52.1% for births in 2022 implies that about an estimated 48% of the births may have occurred but not reported to the CRVS system; thus requires an adjustment in the absolute figures for the computation of indicators such as Crude Birth Rate and Total Fertility.

Table 2 Birth Registration Completeness by Year of Occurrence and Sex of Newborn

Year of occurrence	Reported live births			Estimated total live births			Completeness (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2020	104,898	108,825	213,723	203,057	209,605	412,662	51.7	51.9	51.8
2021	109,230	116,203	225,433	208,004	214,713	422,716	52.5	54.1	53.3
2022	111,124	114,377	225,501	212,940	219,809	432,748	52.2	52	52.1
Grand Total	325,251	339,406	664,657	624,000	644,126	1,268,126	52.1	52.7	52.4

Note: estimated total births were sourced from Statistics Sierra Leone, 2015 Population and Housing census projections

For 2022, the findings suggest that at national level, birth registration completeness was 52.1%. At district level, Pujehun, Moyamba and Kenema districts in that order recoded the highest registration completeness of 77.2%, 75.5% and 74.4% respectively, whilst Falaba (25.0%) and Kono (30.3%) recorded the least completeness rate; as highlighted in table 3.

Table 3 Birth Registration Completeness by Place of Occurrence and Sex of Newborn, 2022

Place of occurrence (District)	Number of live births by sex of newborn 2022		Total number of live births	Sex ratio at birth	Completeness Rate (%)
	Male	Female			
Bo	9,293	9,152	18,445	101.5	50.1
Bombali	5,447	5,837	11,284	93.3	46.6
Bonthe	3,480	3,529	7,009	98.6	56
Falaba	1,805	1,696	3,501	106.4	25
Kailahun	9,778	9,717	19,495	100.6	57.5
Kambia	6,437	6,154	12,591	104.6	53.3
Karene	4,307	4,336	8,643	99.3	50.7
Kenema	13,752	13,595	27,347	101.2	74.4
Koinadugu	3,371	3,619	6,990	93.1	50.3
Kono	5,135	5,206	10,341	98.7	30.3
Moyamba	7,455	7,704	15,159	96.8	75.5
Port Loko	9,686	9,594	19,280	101	59.3
Pujehun	8,468	8,688	17,156	97.5	77.2
Tonkolili	7,844	7,429	15,273	105.6	40.5
Western Area Rural	5,498	6,583	12,080	83.5	50.6
Western Area Urban	9,368	11,539	20,907	81.2	42.3
Sierra Leone	**111,124**	**114,377**	**225,501**	**97.2**	**52.1**

Note: estimated total births were sourced from Statistics Sierra Leone, 2015 Population and Housing census projections

3.3.2 Death Registration

The completeness rate for death is defined as the proportion of deaths recorded by the CRVS system during the reference time period out of the total deaths estimated to have occurred in the population over the same time period. The estimated

number of deaths was sourced from Statistics Sierra Leone, 2015 census projections, including the crude death rates for districts.

Thus, the completeness rate for death is calculated as:

$$\text{Completeness Rate for deaths} = \frac{\text{Number of recorded deaths}}{\text{Estimated number of deaths}} \times 100$$

As shown in table 4, Completeness Rate for deaths decreased from 2020 to 2022 from 17.4% to 13.4% respectively.

Generally, the low completeness rate for deaths suggests an adjustment in the absolute figures for the computation of indicators such as Crude Death Rate and Infant mortality rate (IMR).

Table 4 Death Completeness Rate by Year of Occurrence and Sex of Decedent

Year of occurrence	Recorded deaths			Estimated total deaths			Completeness (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2020	11,074	9,425	20,499	60,830	57,156	117,986	18.2	16.5	17.4
2021	10,534	9,205	19,739	62,296	58,535	120,831	16.9	15.7	16.3
2022	9,072	7,451	16,523	63,766	59,915	123,680	14.2	12.4	13.4
Grand Total	30,680	26,081	56,761	186,892	175,605	362,498	16.4	14.9	15.7

Note: estimated total deaths were sourced from Statistics Sierra Leone, 2015 Population and Housing census projections

Similarly for the year 2022, the data suggests that at district level, there was a significant difference in the death registration completeness rate for Western Area Urban (65.1%), as compared to the other districts. Kono and Port Loko districts recoded the least registration completeness of 2.2% and 2.6% respectively, as indicated in table 5.

Table 5 Death Completeness Rate by Place of Occurrence and Sex of Decedent, 2022

Place of occurrence (District)	Recorded deaths			Estimated total deaths			Completeness Rate (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bo	1,169	915	*2,084*	5,467	5,250	10,717	21.4	17.4	19.4
Bombali	416	331	*747*	2,980	2,742	5,723	14	12.1	13.1
Bonthe	133	109	*242*	1,551	1,428	2,979	8.6	7.6	8.1
Falaba	27	18	*45*	792	721	1512	3.4	2.5	3

Kailahun	260	222	*482*	8,012	8,128	16,139	3.2	2.7	3
Kambia	300	267	*567*	2,624	2,375	4,999	11.4	11.2	11.3
Karene	109	137	*246*	2,128	1,905	4,033	5.1	7.2	6.1
Kenema	878	677	*1,555*	7,238	6,351	13,589	12.1	10.7	11.4
Koinadugu	49	30	*79*	785	717	1,502	6.2	4.2	5.3
Kono	88	60	*148*	3,709	2,998	6,707	2.4	2	2.2
Moyamba	433	430	*863*	3,919	3,967	7,886	11	10.8	10.9
Port Loko	223	167	*390*	7,547	7,370	14,917	3	2.3	2.6
Pujehun	172	207	*379*	2,986	3,055	6,040	5.8	6.8	6.3
Tonkolili	460	396	*856*	4,416	4,177	8,593	10.4	9.5	10
Western Area Rural	889	881	*1,770*	4,757	4,258	9,015	18.7	20.7	19.6
Western Area Urban	3,466	2,604	*6,070*	4,855	4,473	9,329	71.4	58.2	65.1
Sierra Leone	**9,072**	**7,451**	**16,523**	**63,766**	**59,915**	**123,680**	**14.2**	**12.4**	**13.4**

Note: estimated total deaths were sourced from Statistics Sierra Leone, 2015 Population and Housing census projections

3.4 Data Adjustment for Incomplete Registration

If the number of recorded events in a population is significantly underreported, indicators for fertility and mortality will be incorrect and may have misleading effects on policies. The infant mortality rate (IMR) could be particularly affected by both since neither birth nor death may be recorded. The fertility level will be considered too low and the life expectancy too high (because too few deaths are registered). But if there are reasonably reliable estimates of the completeness of registration, indicators and absolute numbers may be adjusted for incompleteness.

For the year 2022, there were relatively low proportions of completeness rates for particularly deaths, which required the adjustment of the absolute figures to account for the unrecorded births and deaths that likely have occurred in the population over the same time period.

Tables 6 to 8 below show adjustment of live births and deaths, for the year 2022.

Table 6 Adjustment of Live Births by District of Occurrence and Sex of Newborn, 2022

Place of occurrence (District)	Male		Female		Total	
	Recorded births	Adjusted births	Recorded births	Adjusted births	Recorded births	Adjusted births
Bo	9,293	17,953	9,152	18,871	18,445	36,824
Bombali	5,447	11,779	5,837	12,416	11,284	24,195
Bonthe	3,480	6,170	3,529	6,342	7,009	12,511
Falaba	1,805	6,930	1,696	7,069	3,501	13,999

Kailahun	9,778	16,243	9,717	17,655	19,495	33,899
Kambia	6,437	11,525	6,154	12,110	12,591	23,635
Karene	4,307	8,411	4,336	8,626	8,643	17,037
Kenema	13,752	18,565	13,595	18,202	27,347	36,767
Koinadugu	3,371	6,872	3,619	7,036	6,990	13,908
Kono	5,135	17,050	5,206	17,090	10,341	34,140
Moyamba	7,455	9,687	7,704	10,392	15,159	20,079
Port Loko	9,686	15,614	9,594	16,887	19,280	32,501
Pujehun	8,468	10,826	8,688	11,385	17,156	22,211
Tonkolili	7,844	18,703	7,429	19,054	15,273	37,757
Western Area Rural	5,498	11,892	6,583	11,977	12,080	23,869
Western Area Urban	9,368	24,719	11,539	24,698	20,907	49,416
Sierra Leone	111,124	212,940	114,377	219,809	225,501	432,748

Table 7 Adjustment of Deaths by District of Occurrence and Sex of Decedent, 2022

Place of occurrence (District)	Male		Female		Total	
	Recorded deaths	Adjusted deaths	Recorded deaths	Adjusted deaths	Recorded deaths	Adjusted deaths
Bo	1,169	5,467	915	5,250	*2,084*	10,717
Bombali	416	2,980	331	2,742	*747*	5,723
Bonthe	133	1,551	109	1,428	*242*	2,979
Falaba	27	792	18	721	*45*	1,512
Kailahun	260	8,012	222	8,128	*482*	16,139
Kambia	300	2,624	267	2,375	*567*	4,999
Karene	109	2,128	137	1,905	*246*	4,033
Kenema	878	7,238	677	6,351	*1,555*	13,589
Koinadugu	49	785	30	717	*79*	1,502
Kono	88	3,709	60	2,998	*148*	6,707
Moyamba	433	3,919	430	3,967	*863*	7,886
Port Loko	223	7,547	167	7,370	*390*	14,917
Pujehun	172	2,986	207	3,055	*379*	6,040
Tonkolili	460	4,416	396	4,177	*856*	8,593
Western Area Rural	889	4,757	881	4,258	*1,770*	9,015
Western Area Urban	3,466	4,855	2,604	4,473	*6,070*	9,329
Sierra Leone	**9,072**	**63,766**	**7,451**	**59,915**	**16,523**	**123,680**

Table 8 Adjustment of Deaths By Age Group and Sex of Decedent, 2022

Age at death (years)	Male		Female		Total	
	Recorded deaths	Adjusted deaths	Recorded deaths	Adjusted deaths	Recorded deaths	Adjusted deaths
<1	1,193	2,541	1,106	2,405	2,299	4,946
1-4	886	7,335	867	6,868	1,753	14,203
5-9	219	8,691	229	8,165	448	16,856
10-14	174	7,837	117	7,367	291	15,204
15-19	237	6,510	188	6,114	425	12,624
20-24	287	5,930	278	5,573	565	11,504
25-29	357	5,194	378	4,877	735	10,071
30-34	391	4,391	360	4,131	751	8,522
35-39	477	3,678	419	3,456	896	7,133
40-44	477	2,983	334	2,801	811	5,784
45-49	603	2,373	395	2,229	998	4,601
50-54	516	1,826	321	1,719	837	3,545
55-59	544	1,386	295	1,302	839	2,689
60-64	580	1,062	331	999	911	2,061
65-69	521	766	375	721	896	1,487
70-74	469	533	319	503	788	1,036
75-79	436	345	275	323	711	668
>80	705	383	864	362	1,569	746
Grand Total	9,072	63,766	7,451	59,915	16,523	123,680

Chapter 4. Births

Data collection on Birth registration includes all births that were recorded with the National Civil Registration Authority (NCRA). Births analysed in this report are those that occurred and were registered in 2022, those that occurred in 2022 and registered in the subsequent year within the given grace period, and those that occurred in the earlier years but were registered in 2022. However, for the purpose of the analysis, only births that occurred within the reference year are considered.

Table 9 shows that there was a total of 225,501 live births that occurred in 2022, as compared to 225,433 and 213,723 in 2021 and 2020 respectively. The sex ratio at birth for 2022 (97.2) is slightly higher than that for 2020 (96.4) and 2021 (94.0); suggesting that there are more female births than male births.

The Completeness Rate for 2022 (52.1) was slightly less than that for 2021 by about 1%.

Also, the findings of this report suggest that levels of fertility have not changed much for the years under review. The total fertility rate for the adjusted births is still in the region of 6 children per woman, the same rate as that recorded in the 2015 Census. The crude birth rate and the general fertility rate have also remained roughly the same. The mean age at childbearing is in the region of 27 years. Using the unadjusted figures for births, the TFR is in the region of 3 children per woman for the three years under review.

Table 9 Summary Statistics on Fertility by Year of Occurrence

Indicator	2020	2021	2022
Reported live births (number)	213,723	225,433	225,501
Males	104,898	109,230	111,124
Females	108,825	116,203	114,377
Completeness Rate (%)	*51.79*	*53.3*	*52.1*
Males	51.66	52.5	52.2
Females	51.92	54.1	52.0
Sex ratio at birth	96.4	94	97.2
Mean age of mothers at birth	27.3	27	27.1
Crude birth rate (per 1,000 population)			
Adjusted births	50.9	50.9	51
Unadjusted births	26.4	27.2	26.5
Total fertility rate (births per woman)			
Adjusted births	6.14	6.1	6.13
Unadjusted births	3.18	3.26	3.20

4.1 Live Births by Place of Occurrence

Table 10 below gives the detailed Completeness Rate for the year 2022. It indicates that at national level, Completeness was 52.1%. At district level, Pujehun, Moyamba

and Kenema districts in that order recorded the highest 77.2%, 75.5% and 74.4%, whilst Falaba (25.0%) and Kono districts (30.3%) recorded the least Completeness Rates.

Table 10 Reported Live Births by Place of Occurrence and Sex of Newborn, 2022

Place of occurrence (District)	Number of live births by sex of newborn, 2022		Total number of live births	Sex ratio at birth	Completeness Rate (%)
	Male	Female			
Bo	9,293	9,152	18,445	101.5	50.1
Bombali	5,447	5,837	11,284	93.3	46.6
Bonthe	3,480	3,529	7,009	98.6	56.0
Falaba	1,805	1,696	3,501	106.4	25.0
Kailahun	9,778	9,717	19,495	100.6	57.5
Kambia	6,437	6,154	12,591	104.6	53.3
Karene	4,307	4,336	8,643	99.3	50.7
Kenema	13,752	13,595	27,347	101.2	74.4
Koinadugu	3,371	3,619	6,990	93.1	50.3
Kono	5,135	5,206	10,341	98.7	30.3
Moyamba	7,455	7,704	15,159	96.8	75.5
Port Loko	9,686	9,594	19,280	101.0	59.3
Pujehun	8,468	8,688	17,156	97.5	77.2
Tonkolili	7,844	7,429	15,273	105.6	40.5
Western Area Rural	5,498	6,583	12,080	83.5	50.6
Western Area Urban	9,368	11,539	20,907	81.2	42.3
Sierra Leone	**111,124**	**114,377**	**225,501**	**97.2**	**52.1**

4.2 Births by Age of Mother

The mean age of the mother at birth is 27 years. There were 235 mothers who had their children at an age lower than 15 years and 15 who were beyond 49 years.

Table 11 shows the distribution of reported births that occurred in 2022 by age of the mother. A comparison within age groups shows that high percentage (30 %) of live births were observed among the 20-24 age group, followed by 25-29 age group with a proportion of about 28 %.

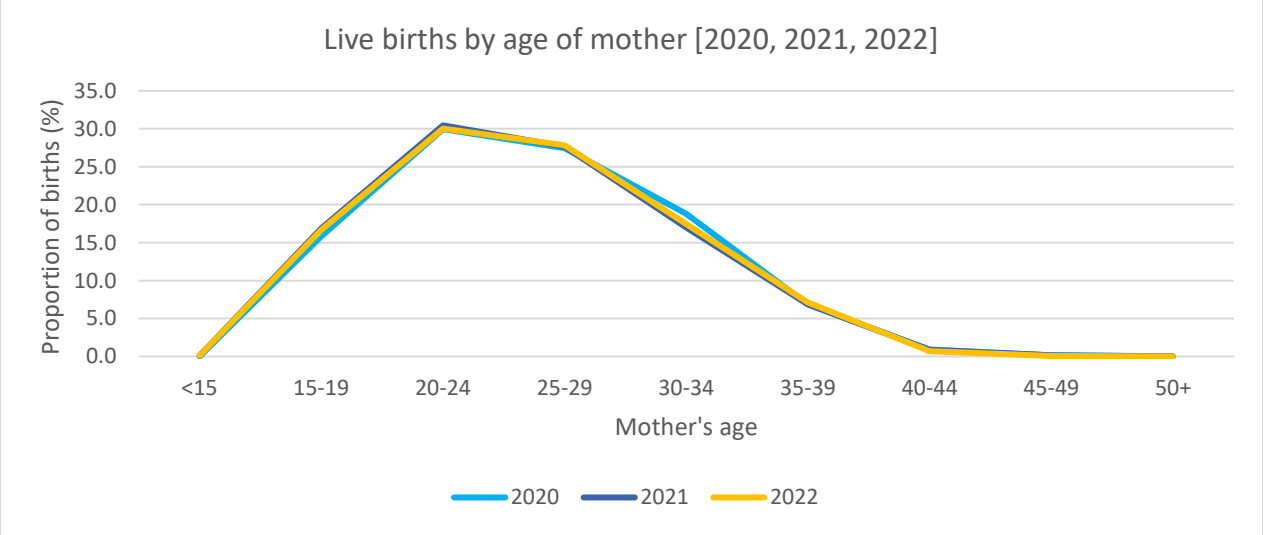
Table 11 Live Births by Age of Mother and Sex of Newborn, 2022

Mother's age/ group (years)	Live births by Sex of new born, 2022		Total number of live births
	Male	Female	
10	0	3	3
11	0	1	1
12	8	9	17
13	21	25	46
14	84	85	169
15	488	481	969
16	1,351	1,365	2,716
17	2,351	2,521	4,872
18	6,668	6,746	13,414

19	7,716	7,985	15,701
20–24	33,905	33,801	67,706
25–29	31,474	31,248	62,722
30–34	19,351	20,028	39,379
35–39	8,071	7,923	15,994
40–44	798	788	1,586
45–49	91	100	191
50+	5	10	15
Grand total	**112,382**	**113,119**	**225,501**

Figure 3 shows the proportion of live births by age of mother for the years 2020, 2021 and 2022. Generally, it is observed that the proportion of live births looks the same for all age groups, except for the age group 30-34 for the year 2020, that is slightly higher by about 1 %, as compared to the years 2021 (17.0 %) and 2022 (17.5 %).

Figure 3 Live Births by Age of Mother, 2020, 2021, 2022



4.4 Live Births by Site of Delivery

Of all the live births that were reported in 2022, over 95 % occurred in health facilities and the rest, about 4 %, occurred outside health facilities (Table 12). The high percentage of deliveries in health facilities has helped in achieving increased birth registration rates in the country as most expectant women get informed on the importance of registering their children's births during Anti Natal Care (ANC) visits. The NCRA took advantage of the high use of health facilities for delivery, and detailed Registrars in some of the facilities to register events on the spot.

Table 12 Live Births by Place of Occurrence and Site of Delivery, 2022

Place of Occurrence (District)	Site of Delivery		
	Health Facility Live Births	Outside Health Facility Live Births	Total Live Births
Bo	17,854	112	17,966
Bombali	11,825	598	12,423
Bonthe	7,013	129	7,142
Falaba	3,421	200	3,621
Kailahun	19,867	117	19,984
Kambia	10,824	810	11,634
Karene	7,799	15	7,814
Kenema	16,962	259	17,221
Koinadugu	6,661	100	6,761
Kono	12,665	146	12,811
Moyamba	11,929	1,918	13,847
Port Loko	18,717	892	19,609
Pujehun	17,559	91	17,650
Tonkolili	12,319	1043	13,362
Western Area Rural	14,953	1005	15,958
Western Area Urban	25,532	2,166	27,698
Sierra Leone	**215,900**	**9,601**	**225,501**

4.5 Crude Birth Rate

The crude birth rate (CBR) is the number of live births per 1,000 population over a given period (usually one year). When combined with the crude death rate and net migration, crude birth rates can tell us how much the population is increasing or decreasing. They can also help with planning and resource allocation by providing important information such as how many children will be entering school in the coming years, or how many adults will be entering the workforce.

Table 13 below shows the district estimates of live births per 1,000 area residents in Sierra Leone for the year 2022. Western Area Urban recorded the least followed by Western Area Rural, Karene and Bombali districts, whilst Tonkilili district accounted for the highest, followed by Kambia district.

Table 13 Crude Birth Rate (CBR) by Place of Occurrence, 2022

Place of Occurrence (District)	Unadjusted		Adjusted	
	Total reported live births 2022	CBR (per 1,000 population)	Total adjusted live births	CBR (per 1,000 population)
Bo	18,445	26.6	36,824	53.2
Bombali	11,284	23.2	24,195	49.8
Bonthe	7,009	29.9	12,511	53.3
Falaba	3,501	14.2	13,999	56.9
Kailahun	19,495	29.7	33,899	51.7
Kambia	12,591	30.4	23,635	57.1
Karene	8,643	25.3	17,037	49.8
Kenema	27,347	38.2	36,767	51.3

Koinadugu	6,990	28.6	13,908	56.9
Kono	10,341	17.3	34,140	57.0
Moyamba	15,159	39.6	20,079	52.4
Port Loko	19,280	30.3	32,501	51.1
Pujehun	17,156	41.2	22,211	53.3
Tonkolili	15,273	24.0	37,757	59.3
Western Area Rural	12,080	22.8	23,869	45.0
Western Area Urban	20,907	16.6	49,416	39.2
Sierra Leone	**225,501**	**26.5**	**432,748**	**50.9**

Note: Population data were sourced from Statistics Sierra Leone, 2015 census projections

4.6 Age-Specific Fertility Rates

Age-Specific Birth Rate (ASBR) is defined as the number of resident live births to women in a specific age group for a specific area during a specified period, divided by the total population of women in the same age group for that area and period, multiplied by 1,000.

Age-Specific Birth Rate, ASBR = $\frac{\text{Number of resident live births to women in a specific age group}}{\text{Number of women in the same age group}} \times 1{,}000$

Table 14 below shows the unadjusted and adjusted Age-Specific Birth Rates for the listed age group of mothers in the year 2022. Taking the possibility of reporting incompleteness into consideration, the absolute values of the reported births was subjected to adjustment using the registration completeness rate. The estimates from these adjustments are presented in the table below.

Table 14 Age-Specific Fertility Rates by Age Group of Mother, 2022

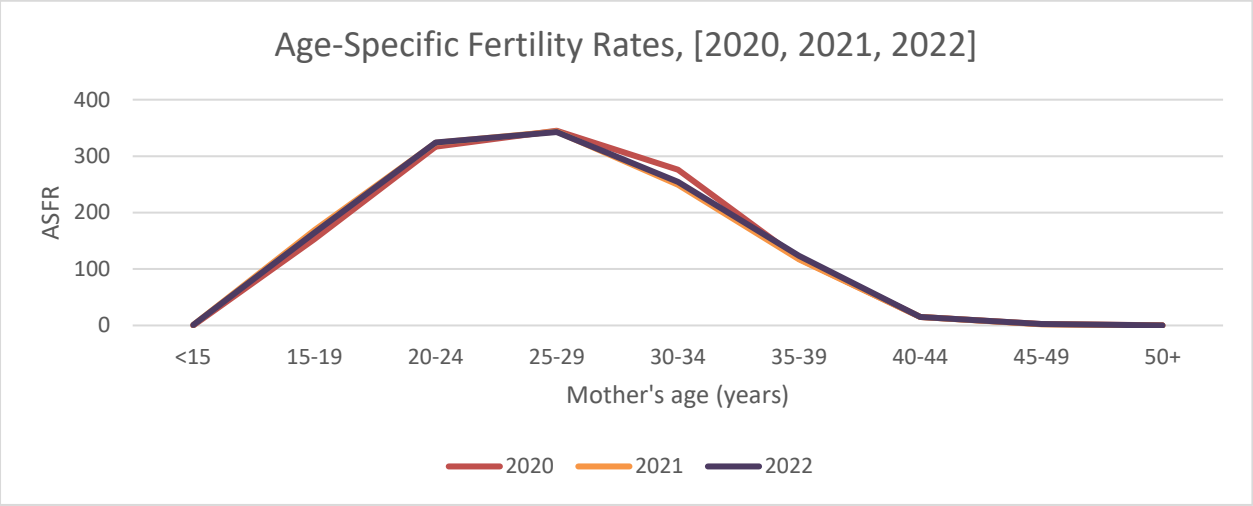
Mother's age group (years)	Unadjusted		Adjusted	
	Total number of live births	ASFR	Total number of live births	ASFR
10–14	236	0.44	452	0.85
15–19	37673	85.57	72309	164.24
20–24	67706	168.77	129955	323.94
25–29	62722	178.60	120388	342.79
30–34	39379	132.50	75584	254.32
35–39	15993	64.29	30697	123.41
40–44	1586	7.86	3044	15.09
45–49	191	1.19	367	2.28
50+	15	0.04	29	0.07

Note: Population data were sourced from Statistics Sierra Leone, 2015 census projections

As shown in figure 4, Age-Specific Fertility trend across all age groups generally experience little or no change given the three years under review. A second prominent issue regarding the trend of ASFRs is the varying peaks of the fertility

schedules. Peaks in fertility schedule in Sub-Saharan Africa would normally occur early at age group 20-24, suggesting early childbearing leading to high levels of fertility. Peaks occurring at age 25-29 are regarded as late peaks, indicating late childbearing and lower fertility levels. The age group 25-29 recorded the highest fertility rate across the three years, which suggests that women are more likely to give birth at older ages.

Figure 4 Age-Specific Fertility Rates (ASFRs) by Year of Occurrence of Birth



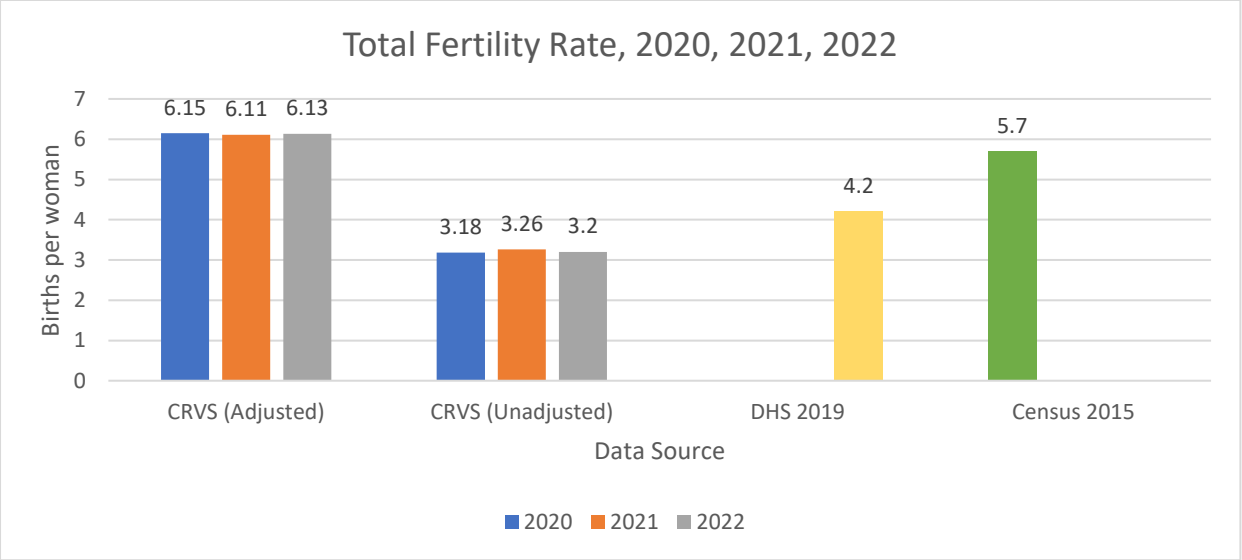
4.7 Total Fertility Rate

The total fertility rate (TFR) is the average number of children a woman would give birth to during her lifetime if she were to pass through her childbearing years experiencing present-day age-specific fertility rates.

Figure 5 below shows TFR from CRVS for the years 2020, 2021 and 2022. TFR trend across the three years under review generally experience little or no change, with a TFR in the region of 6 births per woman. Evaluating the TFR from CRVS against the Census 2015 and the DHS 2019 (a survey of limited households), marked variations are noted. There are often challenges associated with the fertility data especially the period data meant for calculating the basic ASFRs. The reported rates in the 2015 Census were very low, the lowest recorded in any of the censuses since 1963. This discrepancy may have resulted from the omission of births which occurred in the last 12 months prior to that census.

Adjustments of the reported rates from CRVS are justified on the basis that incompleteness exist in the recorded data, especially the ASFRs. The Unadjusted TFRs from figure 5 suggest low births per woman for the period under review, justifying the low registration completeness rate for these years.

Figure 5 Total Fertility Rate by Year of Occurrence of Birth



Chapter 5. Deaths

The death registration analysed in this report covers all deaths that occurred and were registered in the country during the reference year and deaths that occurred in earlier years that have not previously been registered. To ensure that all reported deaths are included in the analysis, deaths that occurred in the reference year but were registered in the subsequent year were included provided the registration was done within the specified period (within 90 days of occurrence) or before data extraction was done. However, analysis of indicators, such as Infant Mortality Rate (IMR), Crude Death Rate (CDR), etc, focus on deaths that occurred during the reference year irrespective of when they were registered. Foreigners who died within the country are also included even if their usual place of residence was outside the country.

The registered deaths for the three years 2020-2022 have shown a slight reduction year in year out. This is shown in table 15 below where there were more deaths registered in 2020 than 2021. This is consistent with the death Completeness rate for the respective years, 17.4 (2020), 16.3 (2021) and 13.4 (2022). This is a case for serious research to know why despite the establishment of National Civil Registration Authority with offices in all of the 16 administrative districts death registration seems to be on the decline.

Also from table **15**, it can be deduced that under-5s mortality rate also reduced drastically from 251 (2020) to 184 (2021) and increased slightly to 170 (2022). For the three years under review, more male deaths were registered than female deaths.

Table 15 Summary Statistics on Mortality by Year of Occurrence

Indicator	2020	2021	2022
Registered deaths (number)	20499	19739	16523
Males	11074	10534	9072
Females	9425	9205	7451
Registration completeness (%)	17.4	16.3	13.4
Males	18.2	16.9	14.2
Females	16.5	15.7	12.4
Crude death rate (per 1,000 population)	14.6	14.6	14.6
Under-5 mortality rate (per 1,000 live births)	251	184	170

5.1 Deaths by Place of Occurrence and Sex of Decedent, 2022

The deaths by place of occurrence shows number of deaths recorded at district of usual residence of the decedent. The statistics was analysed at district and national

levels. The district level analysis as indicated in Table 16 shows that Western Area Urban (65.1%) has the highest completeness rate for deaths than any of the other districts; this was followed by Bo district (27.9%) and then Western Area Rural district (25%). Port Loko recorded the lowest completeness rate with 2.3%.

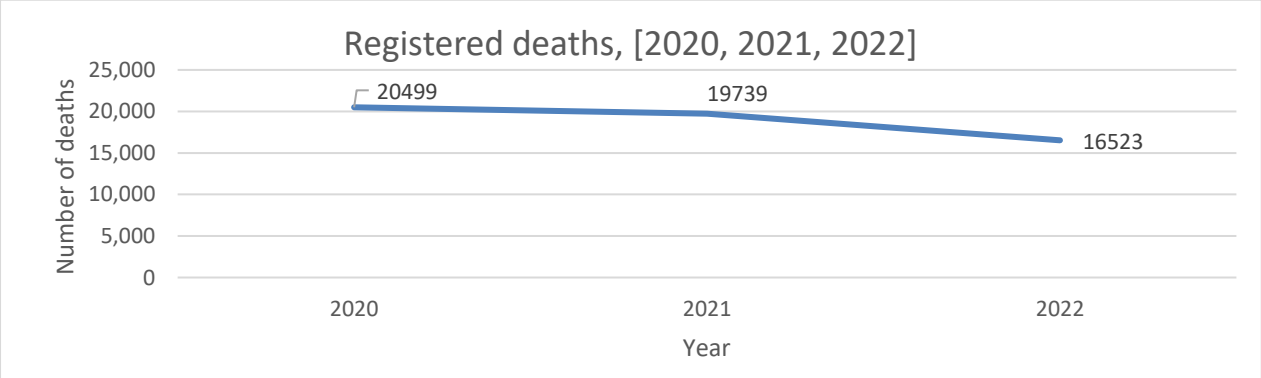
Table 16 Deaths by Place of Occurrence and Sex of Decedent, 2022

Place of occurrence (District)	Sex of Decedent 2022		Total Number of Deaths Recorded	Completeness Rate (%)
	Male	Female		
Bo	1,169	915	*2,084*	27.9
Bombali	416	331	*747*	11.0
Bonthe	133	109	*242*	8.6
Falaba	27	18	*45*	3.1
Kailahun	260	222	*482*	3.0
Kambia	300	267	*567*	11.4
Karene	109	137	*246*	4.1
Kenema	878	677	*1,555*	17.3
Koinadugu	49	30	*79*	2.6
Kono	88	60	*148*	3.0
Moyamba	433	430	*863*	10.9
Port Loko	223	167	*390*	2.3
Pujehun	172	207	*379*	6.3
Tonkolili	460	396	*856*	10.0
Western Area Rural	889	881	*1,770*	25.0
Western Area Urban	3,466	2,604	*6,070*	65.1
Sierra Leone	**9,072**	**7,451**	**16,523**	**13.4**

Note: Population data were sourced from Statistics Sierra Leone, 2015 census projections

Figure 6 below is a line graph depicting the trend of deaths registered by year of occurrence. As could be seen from the graph, there has been a decline of deaths registration over the three-year period under review.

Figure 6 Deaths by Year of Occurrence



5.2 Deaths by Place and Site of Occurrence

Table 17 reveals the distribution of deaths by place and site of occurrence in 2022. At national level, death registered at site of occurrence showed more health facility deaths (53 %) than outside health facility deaths (47 %).

At the district level, Western Area Urban and Bo districts recorded the highest health facility deaths, with 4,040 and 1,252 respectively. However, despite Western Area Urban having the highest proportion of facility deaths, it does also report the highest deaths occurring outside health facilities, followed by Western Area Rural and Bo districts in that order.

Table 17 Deaths by Place of Occurrence and Site of Occurrence, 2022

Place of occurrence (District)	Site of Occurrence		Total Deaths 2022
	Health Facility Deaths	Outside Health Facility Deaths	
Bo	1252	832	**2084**
Bombali	282	465	**747**
Bonthe	175	67	**242**
Falaba	7	38	**45**
Kailahun	241	241	**482**
Kambia	142	425	**567**
Karene	104	142	**246**
Kenema	766	789	**1555**
Koinadugu	57	22	**79**
Kono	132	16	**148**
Moyamba	210	653	**863**
Port Loko	191	199	**390**
Pujehun	228	151	**379**
Tonkolili	506	350	**856**
Western Area Rural	404	1366	**1770**
Western Area Urban	4040	2030	**6070**
Sierra Leone	**8737**	**7786**	**16523**

5.3 Deaths by Age and Sex of Decedent

The age and sex distribution of deaths varies considerably depending on the overall level of mortality in a country, which determines the risk of dying at each age, and the size of the population currently alive at each age. Irrespective of level of mortality, the number of deaths should gradually increase from the age of 5 years onwards.

The death by age of decedent for the various age categories as shown in the Table 18 below reveals that the number of death of children below one year old is higher than all other age categories. This was followed by those in the ages of 1-4 years and

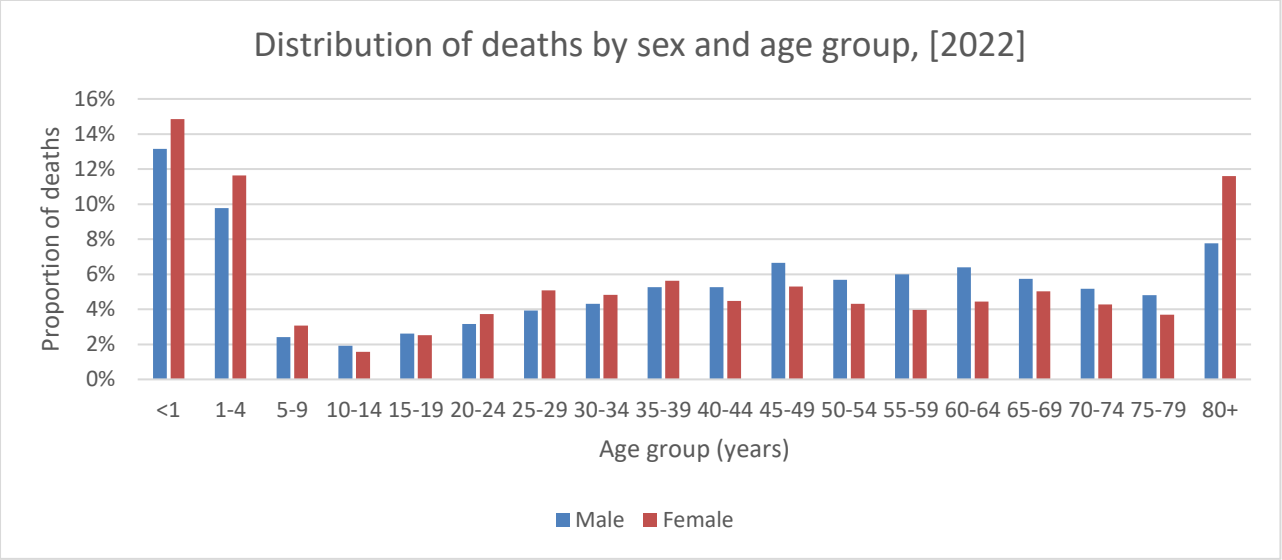
then the aged above 80 years. Also, relatively high deaths occurred among adults between ages 45-49 and among the ages 60-64 years. However, as expected, a relative low death within the age categories of 10-14 years and 15-19 years are observed. Generally, there are more male deaths compared to their female counterparts for the year under review. This trend is also the same for male deaths below one year old.

Table 18 Deaths by Age and Sex of Decedent, 2022

Age of decedent (years)	Male	Female	Grand Total 2022
<1	1193	1106	**2299**
1-4	886	867	**1753**
5-9	219	229	**448**
10-14	174	117	**291**
15-19	237	188	**425**
20-24	287	278	**565**
25-29	357	378	**735**
30-34	391	360	**751**
35-39	477	419	**896**
40-44	477	334	**811**
45-49	603	395	**998**
50-54	516	321	**837**
55-59	544	295	**839**
60-64	580	331	**911**
65-69	521	375	**896**
70-74	469	319	**788**
75-79	436	275	**711**
>80	705	864	**1569**
Grand Total	**9072**	**7451**	**16523**

Figure 7 shows the distribution of deaths by sex and age of decedent, 2022. The data reveals that the death toll is highest for infants (< 1 yr), followed by the age group 1-4 in both sexes, with females slightly higher by 2 % point for each of the two groups. Out of a total of 9,072 male deaths, 8 percent of them were in the age group 80+ years and 13 percent were less than a year old. The comparable figure for females was 12 percent and 15 percent respectively. The percent distribution for males and females was almost the same in the age groups more than 4(1-4) to age group 40-44. From age groups, 45-49 to 75-79 higher percentages of deaths were observed for males than females.

Figure 7 Deaths by Sex and Age of Decedent, 2022



5.4 Crude Death Rate

As a mortality indicator, the crude death rate (CDR) is the simplest measure of population health status. It is a measure of the number of deaths relative to the size of that population during a given period, usually one year. It is expressed in numbers of deaths per 1,000 population per year.

As shown in Table 19, the Crude Death Rate (CDR) was 14.6 deaths per 1,000 population, but it was slightly higher among males (15.3) than among females (13.9). At the district level, the highest CDR per 1,000 population was estimated in Kailahun (24.6), followed by Port Loko (23.5), Moyamba (20.6) and Kenema (19.0), while Koinadugu and Falaba recorded the lowest, with 6.1 deaths each per 1,000 population. For the three years under review, as shown in figure 8, the CDR for males was in the region of 14 deaths per 1000 population of males, with a slight decline from 2020 to 2021, and a slight increase by 2022. Alternatively, the CDR for females is in the region of 13 deaths per 1000 population of females, with an increase from 2020 to 2021 and a further slight decrease by 2022.

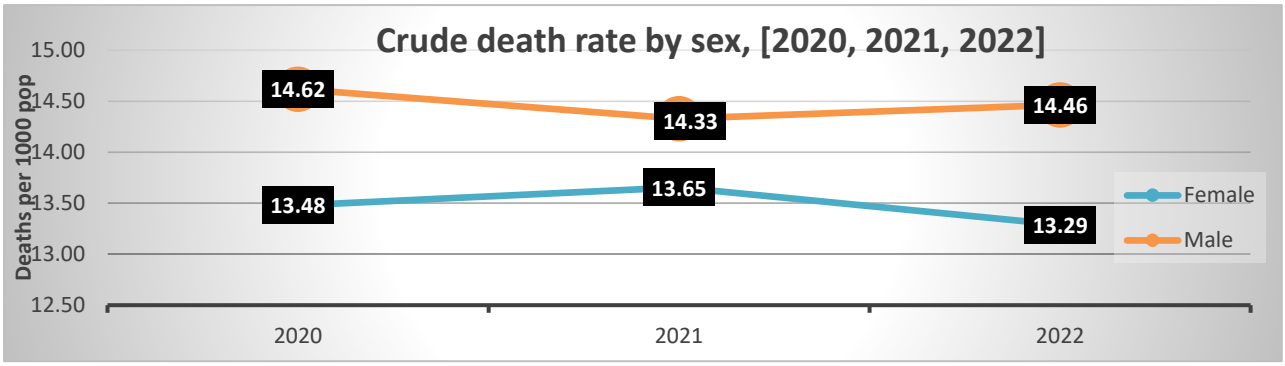
Table 19 Crude Death Rate (CDR) by Sex and District of Occurrence of Decedent, 2022

Place of occurrence (District)	Unadjusted Deaths Total	Adjusted Deaths 2022			CDR Using Adjusted Deaths		
		Male	Female	Total	Male	Female	Total
Bo	2,084	5,467	5,250	10,717	16.2	14.8	15.5
Bombali	747	2,980	2,742	5,723	12.6	11	11.8
Bonthe	242	1,551	1,428	2,979	13.4	12	12.7
Falaba	45	792	721	1,512	6.5	5.8	6.1
Kailahun	482	8,02	8,128	16,139	25.5	23.8	24.6

Kambia	567	2,624	2,375	4,999	13	11.2	12.1
Karene	246	2,128	1,905	4,033	12.6	11	11.8
Kenema	1,555	7,238	6,351	13,589	20	17.9	19
Koinadugu	79	785	717	1,502	6.5	5.8	6.1
Kono	148	3,709	2,998	6,707	12.4	10	11.2
Moyamba	863	3,919	3,967	7,886	21.2	20	20.6
Port Loko	390	7,547	7,370	14,917	24.7	22.3	23.5
Pujehun	379	2,986	3,055	6,040	14.7	14.3	14.5
Tonkolili	856	4,416	4,177	8,593	14	13	13.5
Western Area Rural	1,770	4,757	4,258	9,015	18	16	17
Western Area Urban	6,070	4,855	4,473	9,329	7.7	7.1	7.4
Sierra Leone	**16,523**	**63,766**	**59,915**	**123,680**	**15.3**	**13.9**	**14.6**

Note: Population data were sourced from Statistics Sierra Leone, 2015 census projections

Figure 8 Crude Death Rate by Sex and Year of Occurrence of Death



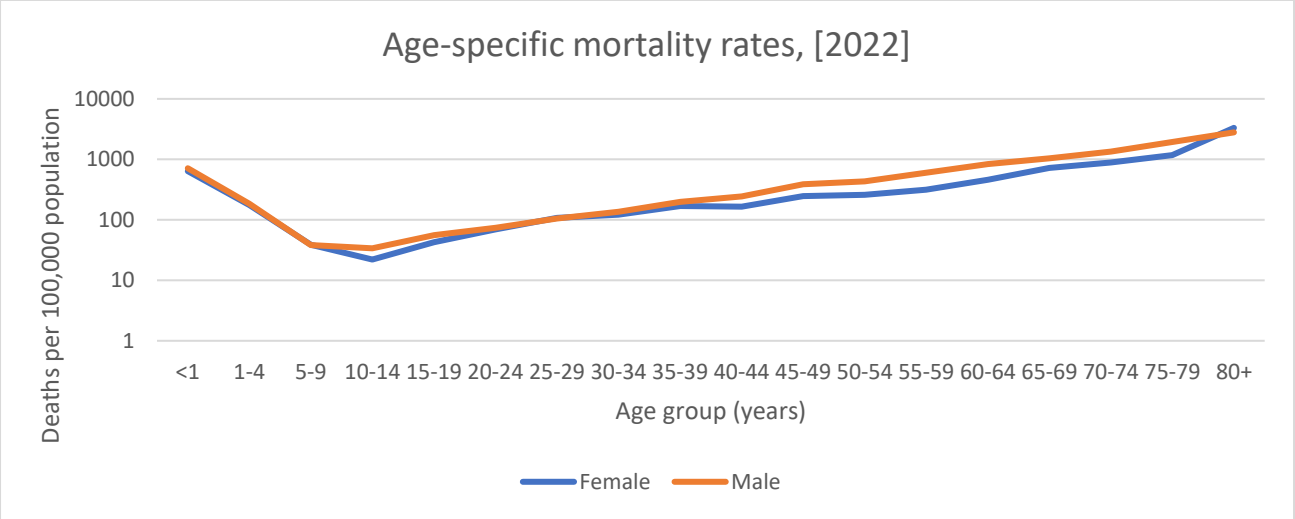
5.5 Age-Specific Mortality Rates

The age-specific mortality rate (ASMR) is the number of deaths for a specific age or age group in a specific area during a specified period divided by the population of the same age or age group in the same area and period. The ASDR in the population is defined as the probability of dying within a specific age group. The ASDR curve shows the mortality pattern of a population. In high-mortality populations, the curve approximately follows a 'U' shape, reflecting high childhood and old-age mortality. In low-mortality populations, the shape of the ASDR curve is like a 'J', reflecting high mortality among children under 5 years and much higher mortality at old ages. Any discrepancy from these shapes may reflect differences in the completeness of the reporting of deaths by age.

ASDRs from the CRVS are presented in Figure 9. The curve looks more like a 'J', regardless of any difference between males and females. Mortality seems to be high among younger (under 5 years) and older ages, and males at age 5 and above but less than 24 and males above age 39 are found to have a higher death rate than females, which may be attributed to the riskier activities and lifestyles in which males are often engaged.

Generally, the low completeness rate for deaths suggests an adjustment in the absolute figures for the computation of indicators such as Infant mortality rate (IMR).

Figure 9 Age-Specific Mortality Rates by Sex, 2022



5.6 Infant and Child Mortality

The neonatal mortality rate (NMR) is the number of deaths among live-born infants during the first 28 days of life per 1,000 live births over a specified time period. Mortality during the neonatal period (28 days of life) accounts for a large proportion of deaths and is a useful indicator of maternal and newborn neonatal health and care. Table 20 shows that neonatal mortality was estimated at 38 deaths per 1000 live births in 2022, as compared to 50 and 56 deaths in 2021 and 2020 respectively. The IMR was estimated at 96 deaths per 1,000 live births in 2022. The observed rate implies that about 96 out of every 1,000 newborn babies will die before reaching their first birthday. A similar pattern also exists, with a big difference between the year 2021 (107 per 1,000) and 2020 (139 per 1,000).

The mortality rate for children under 5 years of age was estimated at 170 deaths per 1,000 live births in 2022 (see Table 20). Under-five mortality for the year 2021 was 184 per 1,000 live births, compared to 251 per 1,000 live births for children born in the year 2020.

Generally, the table shows a decline in mortality rates from 2020 to 2022 for all three indicators discussed above.

Table 20 Infant and Child Mortality (deaths per 1,000 live births) by Year of Occurrence

Neonatal Morality				Infant Mortality			Under-5 Mortality		
Year of Occurrence	Death (Unadjusted)	Deaths (Adjusted)	NMR	Death (Unadjusted)	Deaths (Adjusted)	IMR	Death (Unadjusted)	Deaths (Adjusted)	U5MR
2020	1,210	6,954	56	3,004	17,264	139	5,413	31,109	251
2021	1,399	8,583	50	2,981	18,288	107	5,143	31,552	184
2022	910	6,791	38	2,299	17,157	96	4,052	30,239	170

Note: Population data were sourced from Statistics Sierra Leone, 2015 Population and Housing census projections

5.7 Foetal Deaths

A foetal death is a death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, and is sometimes referred to as a 'dead-born foetus' or 'stillbirth' which can either be fresh or macerated. The registration of foetal deaths is important in measuring pregnancy outcomes, women's health, and mortality occurring just before, during and shortly after birth.

The number of foetal deaths increased over time from 2020 to 2022. Sex wise distribution also shows that there were more male foetal deaths compared to their female counterparts, as shown in table 21.

Table 21 Foetal Deaths by Year of Occurrence and Sex of Foetus

Year of occurrence	Sex of foetus		Total number of foetal deaths
	Male	Female	
2020	831	467	1,298
2021	776	545	1,321
2022	1,218	980	2,198
Total	2,825	1,992	4,817

Chapter 6.Marriages, Divorces and Adoptions

6.1 Marriages

Marriage is an event that is regulated by statute and about which information is collected for legal and statistical purposes. Marriage is an institution recognized in Sierra Leone where two people of different sex are being united. The union may be done at the district administration offices, Office of Administrator and Registrar General, Mosque, or at the church.

There are several marriage types in Sierra Leone, namely: Civil, Customary, Christian, and Islamic, that is currently registered with the NCRA and analysed in this report.

As shown in table 22, a total of 1,876 people got their marriages registered, emanating from 938 solemnized marriages in 2022, as compared to 825 solemnized marriages in 2021. The crude marriage rate per 1000 population was almost the same for both years under review.

There were 27 divorces registered in 2022 as compared to 15 in 2021. For 2022, the average age at divorce was 53.5 for males and 49.4 for females; when compared to 2021, the average age for males and females was 47.4 and 41.4 respectively.

For the year 2022, the NCRA registered a total of 233 cases of Adoption. The registration accounted for 147 (63.1%) females and 86 (36.9%) males. Comparatively for 2021, 195 adoption cases were registered by the Authority with males and females accounting for 42 and 52 percent respectively.

Table 22 Summary Statistics on Marriages, Divorces and Adoptions by Year of Registration

Indicator	2021	2022
Number of registered marriages	*825*	938
Crude marriage rate (per 1,000 population)	*0.2*	*0.22*
Average age at marriage		
Males	*40.9*	*39*
Females	*33.8*	*33*
Number of registered divorces	*15*	*27*
Average age at divorce		
Males	*47.4*	53.5
Females	*41.4*	*49.4*
Number of registered adoptions	*195*	*233*
Males	*80*	*86*
Females	*115*	*147*

6.1.1 Registered Marriages by Year and Type

Figure 10 below shows registered marriages and crude marriage rates for 2020, 2021 and 2022. A total of 1,876 people got their marriages registered, emanating from 938 solemnized marriages in 2022, as compared to 825 and 261 solemnized marriages in 2021 and 2020 respectively. The crude marriage rate was almost the same for both years under review, with the year 2022 registering 0.22 marriages per 1000 population; suggesting that people are more likely not to register their marriages once the solemnization is done.

There are four types of marriages registered by law. Christian, Muslim, Civil and Customary. Of the total marriages for 2022, Christian marriages accounted for the highest at 34.8%, followed by Customary at 27.5%, Muslim 19.8% and Civil 17.9%; as shown in figure 11

Figure 10 Marriages by Year of Registration and Crude Marriage Rate

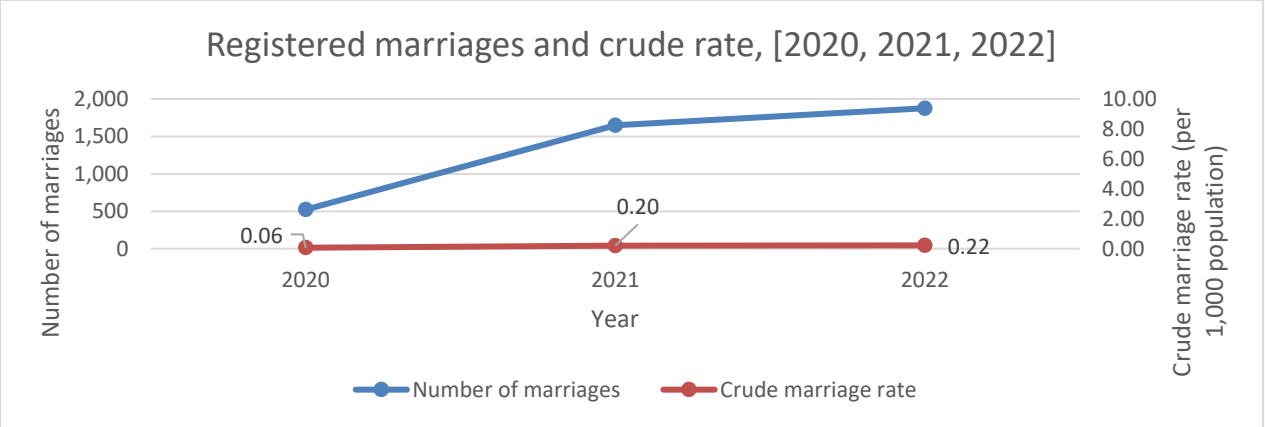
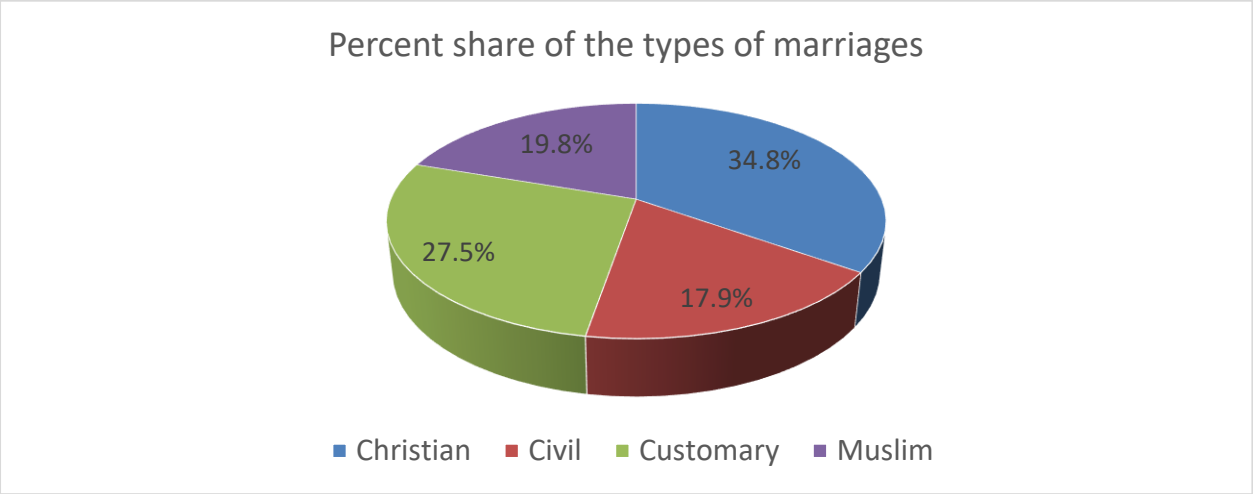


Figure 11 Marriages by Type of Marriage, 2022



6.1.2 Registered Marriages by Age of Husband and Wife at Marriage

Table 23 shows the distribution of marriages by age of husband and wife at marriage for 2022. The highlighted diagonal indicates the unions for which males and females

have the same age; whilst unions above the diagonal indicate ages for which the female is older than the male and unions below the diagonal indicate the ages for which the male is older than the female.

For 2022, the average age at marriage is 39 years for males and the comparable figure for females is about 33 years. In about 72 percent of the unions, males were older than their female counterparts, whilst in 8 percent of the unions, females were older than males and in 20 percent of the unions, both sexes had the same age.

Table 23 Registered Marriages by Age of Husband and Wife at Marriage, 2022

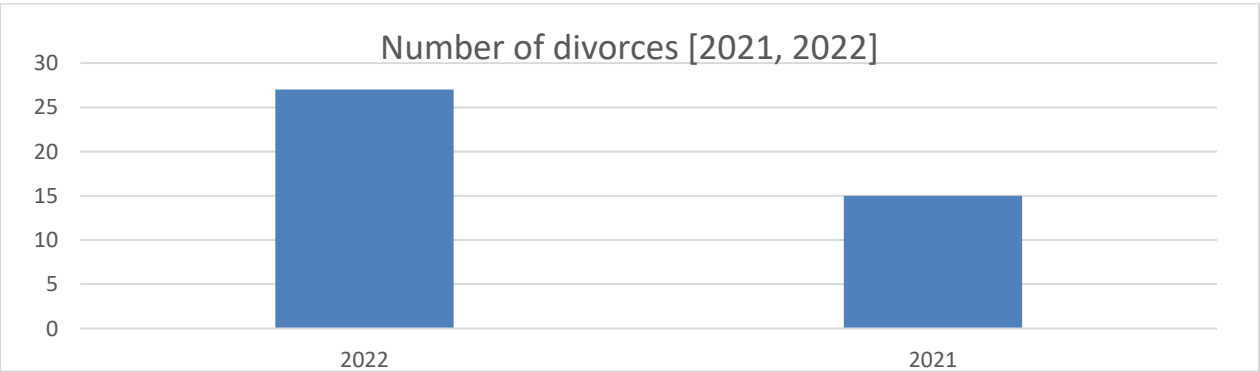
Age group of Groom (Years)	Age group of Bride (Years)											Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	
15-19	1	0	1	1	0	0	0	0	0	0	0	3
20-24	7	20	4	1	2	1	0	0	0	0	0	35
25-29	6	48	38	5	2	3	0	1	0	0	0	103
30-34	3	41	96	58	15	7	6	2	0	0	0	228
35-39	1	21	55	79	23	3	1	2	4	0	0	189
40-44	1	12	17	39	42	16	3	2	1	0	0	133
45-49	1	4	6	20	25	13	13	1	3	1	0	87
50-54	2	1	6	4	9	12	14	8	3	0	1	60
55-59	0	0	4	4	10	3	11	8	3	0	1	44
60-64	0	0	1	2	2	4	4	11	3	2	0	29
65+	0	0	0	1	1	4	5	3	4	3	6	27
Total	22	147	228	214	131	66	57	38	21	6	8	938

6.2 Divorces

6.2.1 Divorces by Year of Registration

Figure 12 shows the registered number of divorces for 2021 and 2022. 27 divorces were registered in 2022 as compared to 15 in 2021.

Figure 12 Divorces by Year of Occurrence



6.2.2 Divorces by Age of Husband and Wife

Similarly for divorces, Table 24 shows the distribution of divorces by age of husband and wife for 2022. The highlighted diagonal indicates the divorces for which males and females have the same age; whilst divorces above the diagonal indicate ages for which the female is older than the male and divorces below the diagonal indicate the ages for which the male is older than the female.

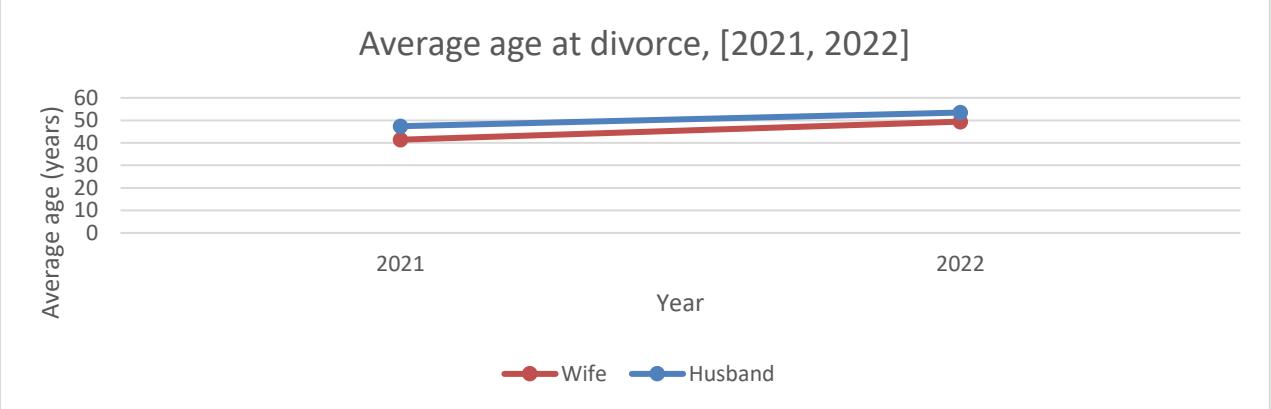
For 2022, the average age at divorce is 53.5 years for males and the comparable figure for females is about 49.4 years. In about 55 percent of the divorce cases, males were older than their female counterparts, whilst in 4 percent of the cases, females were older than males and in 41 percent of the cases, both sexes had the same age.

Table 24 Divorces by Age of Husband and Age of Wife, 2022

Age Group of Husband (Years)	Age Group of Wife (Years)								
	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
30-34	0	1	0	0	0	0	0	0	1
35-39	1	2	0	0	0	0	0	0	3
40-44	1	2	0	0	0	0	0	0	3
45-49	0	1	3	0	0	0	0	0	4
50-54	0	0	1	1	3	0	0	0	5
55-59	0	0	0	1	1	1	0	0	3
60-64	0	0	0	0	1	0	1	0	2
65+	0	0	0	0	0	1	1	4	6
Total	2	6	4	2	5	2	2	4	27

Figure 13 reveals the average age at divorce for husband and wife for 2021 and 2022. Comparing both years, the trend shows that divorces are more likely to occur at relatively older ages for both sexes for the years under review.

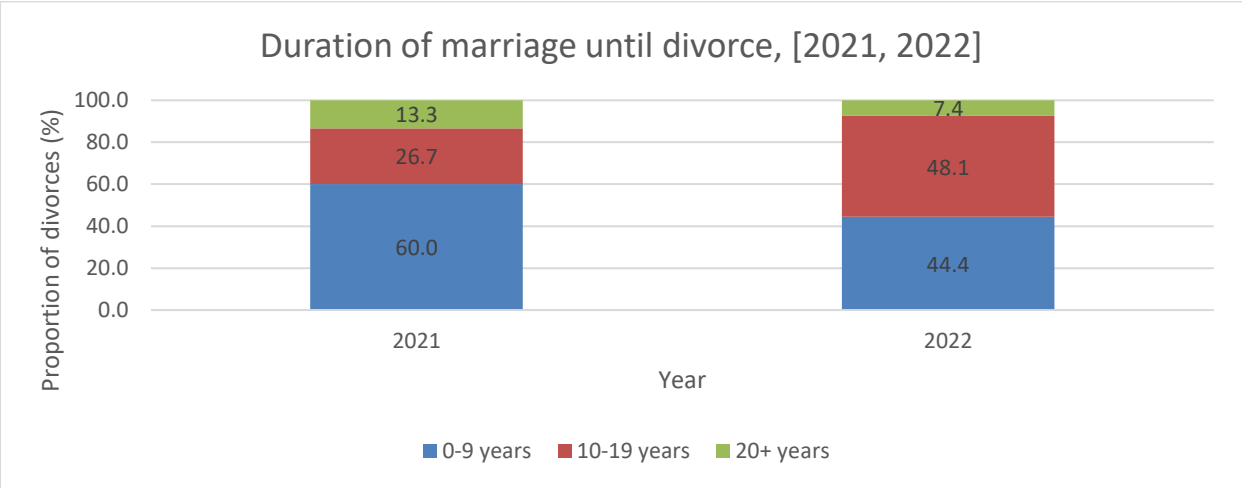
Figure 13 Average Age at Divorce by Sex and Year of Registration



6.2.3 Divorces by Duration of Marriage

On average, couples have had 10.5 years of marriage before they divorce in 2022, as compared to 10 years in 2021. Figure 14 below shows divorces by duration of marriage for 2022 and 2021. The findings suggest that the couples were more likely to divorce after fewer years of marriage for both years under review.

Figure 14 Divorces by Duration of Marriage and Year of Occurrence



6.3 Adoptions

Adoption refers to the legal and voluntary taking and treating of the child of other parents as one's own, as provided by the law of the country. It is regulated by statutory laws and about which data is collected for legal and statistical purposes.

Adoption is decreed by the High Court of Sierra Leone and registration is done by NCRA. Data is extracted from the Court Order filed with the National Civil Registration Authority for statistical purposes. Adoptions analysed in this Report are those that occurred and were registered in 2022 and those that occurred in the earlier years but were registered in 2022.

6.3.1 Age and Sex Differentials

For the year 2022, the NCRA registered a total of 233 cases of Adoption. The registration accounted for 147 (63.1%) females and 86 (36.9%) males, as shown in table 25.

Accordingly, the data depicts that out of the total number of registered adoption cases, 72 (30.9%) were within the ages of (10-14) years, followed by (1-4) and (5-9) years, with an equal share of 51 (21.9%) each; whilst infants (<1) recorded the least with 4.3 percent.

Table 25 Percent Share of Adoption by Age and Sex, 2022

Age group	Female		Male		Total	
	N	%	N	%	N	%
<1	5	50.0	5	50.0	10	4.3
1-4	31	60.8	20	39.2	51	21.9
5-9	31	60.8	20	39.2	51	21.9
10-14	45	62.5	27	37.5	72	30.9
15-18	35	71.4	14	28.6	49	21
Total	147	63.1	86	36.9	233	100

Chapter 7. Summary Tables

Table 26 Live Births, Deaths, and Infant and Child Deaths by Year of Occurrence

Year	Live births			Deaths			Infant and child (<5 years) deaths		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2020	104,898	108,825	213,723	11,074	9,425	20,499	2578	2835	5413
2021	109,230	116,203	225,433	10,534	9,205	19,739	2549	2594	5143
2022	111,124	114,377	225,501	9,072	7,451	16,523	1986	2066	4052

Table 27 Live Births, Deaths, and Infant and Child Deaths by District of Occurrence, 2022

Place of occurrence (District)	Live births			Deaths			Infant and child (<5 years) deaths		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bo	9,293	9,152	18,445	1,169	915	2,084	174	206	380
Bombali	5,447	5,837	11,284	416	331	747	25	35	60
Bonthe	3,480	3,529	7,009	133	109	242	45	61	106
Falaba	1,805	1,696	3,501	27	18	45	11	10	21
Kailahun	9,778	9,717	19,495	260	222	482	50	55	105
Kambia	6,437	6,154	12,591	300	267	567	64	63	127
Karene	4,307	4,336	8,643	109	137	246	68	40	108
Kenema	13,752	13,595	27,347	878	677	1,555	209	151	360
Koinadugu	3,371	3,619	6,990	49	30	79	89	112	201
Kono	5,135	5,206	10,341	88	60	148	68	57	125
Moyamba	7,455	7,704	15,159	433	430	863	126	142	268
Port Loko	9,686	9,594	19,280	223	167	390	18	95	113
Pujehun	8,468	8,688	17,156	172	207	379	159	93	252
Tonkolili	7,844	7,429	15,273	460	396	856	175	174	349
Western Area Rural	5,498	6,583	12,080	889	881	1,770	253	287	540
Western Area Urban	9,368	11,539	20,907	3,466	2,604	6,070	452	485	937
Sierra Leone	**111,124**	**114,377**	**225,501**	**9,072**	**7,451**	**16,523**	**1,986**	**2,066**	**4,052**

Table 28 Marriages by Type and by District, 2022

District	Type of Marriage				
	Christian	Civil	Customary	Muslim	Total
Bo	5	38	24	-	67
Bombali	-	9	14	-	23
Bonthe	4	-	3	2	9
Falaba	-	-	9	-	9
Kailahun	-	-	33	9	42
Kambia	-	1	-	2	3
Karene	-	-	9	-	9
Kenema	56	6	27	20	109
Koinadugu	-	-	7	1	8
Kono	5	16	16	-	37
Moyamba	-	3	13	1	17
Port Loko	7	-	3	16	26
Pujehun	-	-	12	-	12
Tonkolili	-	-	26	-	26
Western Area Rural	-	1	11	2	14
Western Area Urban	249	94	51	133	527
Sierra Leone	**326**	**168**	**258**	**186**	**938**

Table 29 Birth Registration Timeliness by District of Occurrence, 2022

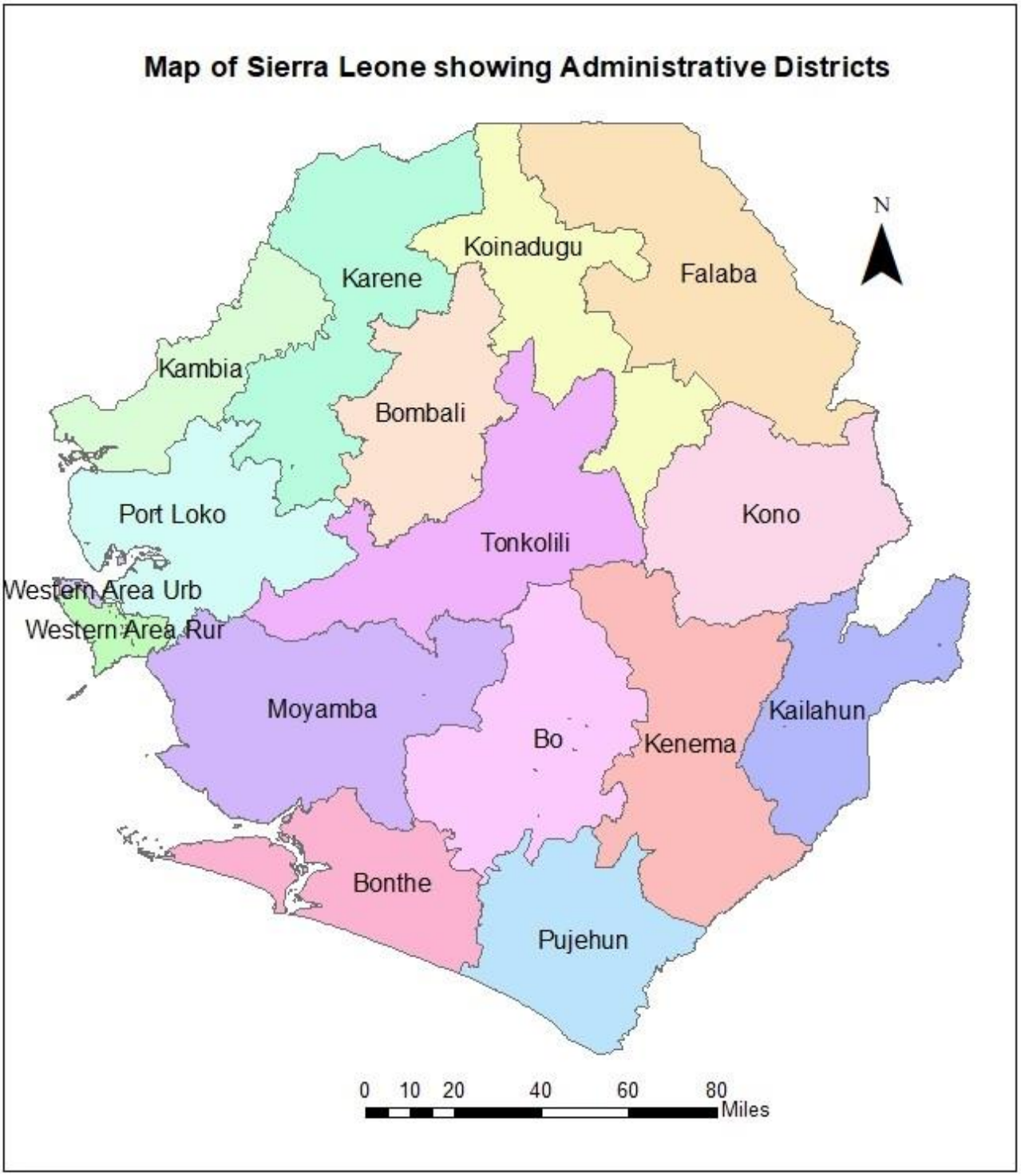
Place of occurrence (District)	CURRENT		LATE		DELAYED	
	Male	Female	Male	Female	Male	Female
Bo	9,293	9,152	-	-	-	-
Bombali	5,447	5,837	-	-	-	37
Bonthe	3,480	3,529	-	-	-	2
Falaba	1,805	1,696	-	-	-	-
Kailahun	9,778	9,717	-	-	-	-
Kambia	6,437	6,154	1	-	-	2
Karene	4,307	4,336	-	-	-	-
Kenema	13,752	13,595	-	-	-	-
Koinadugu	3,371	3,619	-	-	-	-
Kono	5,135	5,206	-	2	-	5
Moyamba	7,455	7,704	-	-	-	-
Port Loko	9,686	9,594	-	-	-	-
Pujehun	8,468	8,688	-	-	-	-
Tonkolili	7,844	7,429	-	-	-	5
Western Area Rural	5,498	6,583	-	-	-	3
Western Area Urban	9,368	11,539	9	3	5,649	6,708
Sierra Leone	**111,124**	**114,377**	**10**	**5**	**5,649**	**6,762**

Table 30 Death Registration Timeliness by District of Registration, 2022

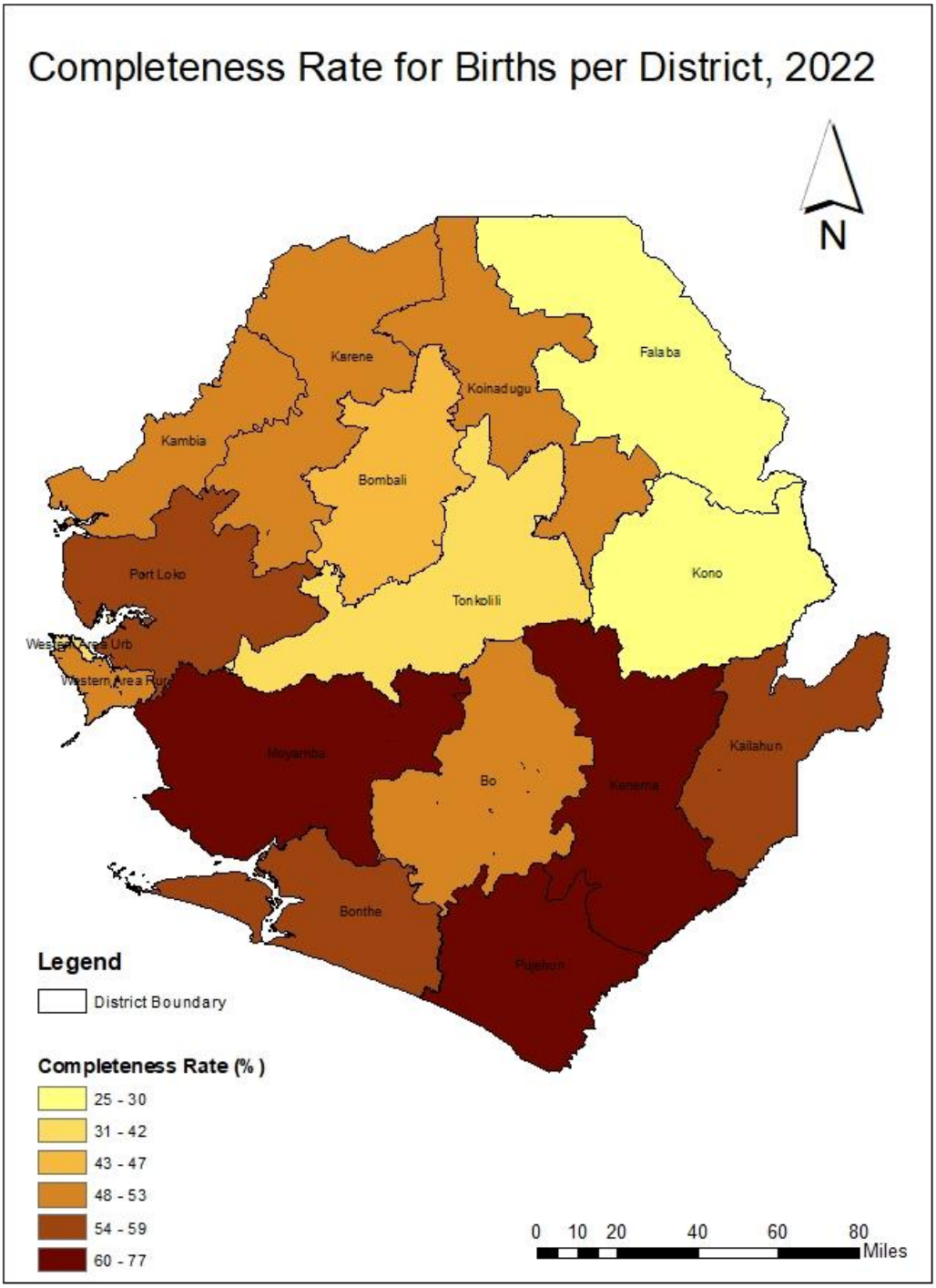
Place of occurrence (District)	CURRENT		LATE		DELAYED	
	Male	Female	Male	Female	Male	Female
Bo	1,169	910	-	-	-	-
Bombali	382	303	-	-	-	-
Bonthe	128	99	2	1	3	3
Falaba	27	18	-	-	-	-
Kailahun	259	222	-	-	-	-
Kambia	275	250	-	-	-	-
Karene	103	133	-	-	6	4
Kenema	878	677	-	-	-	-
Koinadugu	43	30	-	-	-	-
Kono	80	54	-	-	-	-
Moyamba	400	430	-	-	-	-
Port Loko	223	167	-	-	-	-
Pujehun	172	207	-	-	-	-
Tonkolili	459	394	-	-	-	-
Western Area Rural	875	863	-	-	1	-
Western Area Urban	3,402	2,690	49	24	75	33
Sierra Leone	**8,875**	**7,447**	**51**	**25**	**85**	**40**

Annexes

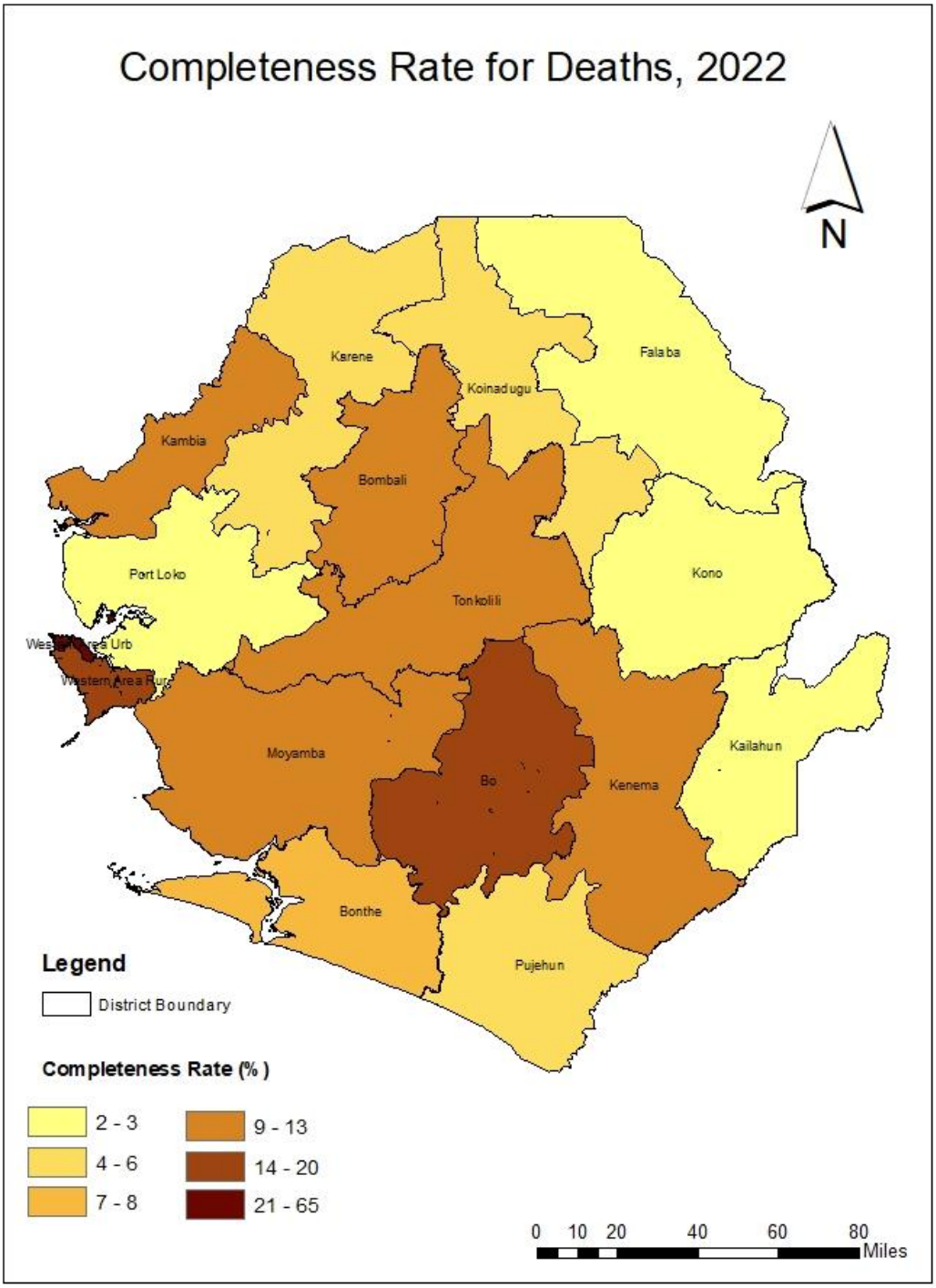
Annex 1: Map of Sierra Leone showing Administrative Districts



Annex 2: Completeness Rate for Births per District, 2022



Annex 3: Completeness Rate for Deaths per District, 2022



Annex 4: Delivering Progress update on the State of Civil Registration and Vital Statistics in Sierra Leone by the Director General - National Civil Registration Authority (NCRA) Mr. Mohamed Mubashir MASSAQUOI, at the Commemoration of the 6th Africa CRVS Day

Annex 5: Group photo of participants at the 2022 Vital Statistics report validation meeting held on the 21st and 22nd September, 2023

Annex 6: The NCRA Board