





Rwanda Vital Statistics Report 2024 is produced by the National Institute of Statistics of Rwanda (NISR). Additional information about this report may be obtained from NISR

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Foreword

This report was produced using data collected in 2024 to monitor progress toward attaining the targets outlined in the Sustainable Development Goals (SDGs), National strategy for transformation (NST2) and Sector Strategic Plans. It will therefore serve as a useful tool to inform relevant policies, guide decision-making, and support strategic interventions aimed at improving the CRVS system in Rwanda.

Vital statistics play a crucial role in generating fundamental demographic and epidemiological measures required for national planning across various sectors including population, education, and health. They are also indispensable for a wide range of government activities such as population registers, socio-economic systems and other administrative registers, as well as commercial enterprises including life insurance, telecommunications, banking operations and product marketing.

The data used in this report were generated from the National Centralized and Integrated Civil Registration and Vital Statistics (NCI-CRVS) system, a digitalized system established for the official registration of all legally recognized vital events in Rwanda. The NCI-CRVS system is operational at all levels, including health facilities, cells, sectors, districts, and Rwandan embassies in foreign countries.

Currently, the NCI-CRVS system captures detailed information on nine events provided for by the law governing persons and family in Rwanda. These events include births, deaths, marriages, divorces, annulments of marriages, adoptions, guardianships, child recognitions, and child legitimations.

To ensure the reliability of the results, the outputs were compared with census and survey-based data, including data from the Rwanda Demographic and Health Survey (RDHS) and the Rwanda Population and Housing Census (RPHC).

The compilation of this report was primarily undertaken by staff of the National Institute of Statistics of Rwanda (NISR) responsible for Vital Statistics. They collaborated with technical staff from the National Identification Agency (NIDA) and the Rwanda Biomedical Centre (RBC) to produce the initial draft. The draft report was then shared with key CRVS stakeholders for review, input and validation.

The 2024 Rwanda Vital Statistics Report provides information on births, deaths, causes of death, and marriages registered across the country. It is Rwanda's sixth vital statistics report, expected to serve as a valuable resource on the status of vital events registration in Rwanda and a key reference for future publications within the same scope

MURENZI Ivan

Director General of NISR

Acknowledgments

The successful completion of this report is the result of joint efforts of various staff members from different institutions and organizations. The National Institute of Statistics of Rwanda (NISR) wishes to acknowledge the contributions of all individuals and entities who played a role in strengthening Rwanda's civil registration and vital statistics (CRVS) system, ultimately leading to the production of this 2024 Vital Statistics Report.

First and foremost, we extend our gratitude to the Government of Rwanda and its entities including MINALOC, MoH, MINIJUST, MIGEPROF, NIDA, and RBC, for their sustained contributions to the development of the CRVS system in Rwanda.

We also express our appreciation to all the CRVS coordination structures, particularly the CRVS Steering Committee and the CRVS Technical Working Group, for endorsing strategic decisions that guide the operationalization of the CRVS system and its implementation in Rwanda.

A special acknowledgement is extended to key CRVS development partners, namely: the Vital Strategies-Bloomberg Philanthropies Data for Health Initiative, the United Nations Population Fund (UNFPA), World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) for their financial support, which has been instrumental in enhancing the CRVS system.

We extend our deepest appreciation to all civil registrars, particularly hospital directors of nursing and midwives, heads of health centers, sector executive secretaries, and cell executive secretaries, as well as other supporting CRVS actors, including health facility data managers, sector civil registration officers and district statisticians. Their daily efforts have been invaluable. Additionally, we recognize the district statisticians and district directors of good governance for their role in coordinating civil registration data collection at district level.

We also acknowledge the technical support provided by Vital Strategies and the World Health Organization (WHO) in collecting and reporting mortality statistics in accordance with international standards and guidelines. Their assistance in capacity building for NISR technical staff and improving data collection tools at health facilities and in communities has been a cornerstone in enhancing the quality of CRVS data.

Finally, a special word of appreciation goes to NISR staff, CRVS technical team members, and other technical staff, who dedicated their expertise and efforts to compiling and producing this report. Their commitment and collaboration have been essential to the successful completion of this report

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Acronyms and abbreviations

APAI-CRVS	Africa Programme For Accelerated Improvement Of Civil Registration And Vital Statistics
ASBR	Age-Specific Birth Rate
ASFR	Age-Specific Fertility Rate
ASMR	Age-Specific Mortality Rate
CBR	Crude Birth Rate
CDR	Crude Death Rate
CoD	Cause of Death
CR	Civil Registrar
CRO	Civil Registration Officer
CRVS	Civil Registration Officer Civil Registration and Vital Statistics
D4H	Data for Health
DHIS2	District Health Information Software 2
ENMR	Early Neonatal Mortality Rate
GFR	General Fertility Rate
HBCP	Home-Based Care Practitioner
HMIS	Health Management Information System
ICD-10	International Classification of Causes of Deaths, Version 10
IECMS	Integrated Electronic Case Management System
LNMR	Late Neonatal Mortality Rate
MAS2	Second Mortality Assessment Survey
MCCoD	Medical Certification of Cause of Death
MIGEPROF	Ministère du Gerne at de la Promotion de la Famille (Ministry of Gender and Family Promotion)
MINALOC	Ministère de L'Administration Locale (Ministry of Local Government)
MINIJUST	Ministry of Justice
MINIJUST MoH	
	Ministry of Justice
МоН	Ministry of Justice Ministry of Health
MoH NGO	Ministry of Justice Ministry of Health Non-Governmental Organizations
MoH NGO NIDA	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency
MoH NGO NIDA NISR	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda
MoH NGO NIDA NISR NMR	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate
MoH NGO NIDA NISR NMR NSDS	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics
MOH NGO NIDA NISR NMR NSDS RBC	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics Rwanda Biomedical Centre
MOH NGO NIDA NISR NMR NSDS RBC RPHC	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics Rwanda Biomedical Centre Rwanda Population and Housing Census
MoH NGO NIDA NISR NMR NSDS RBC RPHC TFR	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics Rwanda Biomedical Centre Rwanda Population and Housing Census Total Fertility Rate United Nations
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MoH NGO NIDA NISR NMR NSDS RBC RPHC TFR UN UNECA UNICEF VS VSR WHO EICV RDHS	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics Rwanda Biomedical Centre Rwanda Population and Housing Census Total Fertility Rate United Nations United Nations Economic Commission for Africa United Nations Children's Fund Vital Statistics Vital Statistics Report World Health Organization Enquête Intégrale sur les conditions de vie des ménages Rwanda Demographic and health survey
MoH NGO NIDA NISR NMR NSDS RBC RPHC TFR UN UNECA UNICEF VS VSR WHO EICV RDHS NCI-CRVS	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics Rwanda Biomedical Centre Rwanda Population and Housing Census Total Fertility Rate United Nations United Nations United Nations Economic Commission for Africa United Nations Children's Fund Vital Statistics Vital Statistics Vital Statistics Report World Health Organization Enquête Intégrale sur les conditions de vie des ménages Rwanda Demographic and health survey National Centralized and Integrated Civil Registration and Vital statistics System
MoH NGO NIDA NISR NMR NSDS RBC RPHC TFR UN UNECA UNICEF VS VSR WHO EICV RDHS	Ministry of Justice Ministry of Health Non-Governmental Organizations National Identification Agency National Institute of Statistics of Rwanda Neonatal Mortality Rate National Strategy for Development of Statistics Rwanda Biomedical Centre Rwanda Population and Housing Census Total Fertility Rate United Nations United Nations Economic Commission for Africa United Nations Children's Fund Vital Statistics Vital Statistics Report World Health Organization Enquête Intégrale sur les conditions de vie des ménages Rwanda Demographic and health survey



Definitions of key concepts

Age-Specific Fertility Rate (ASFR): The annual number of births to women of a specified age or 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.

Child Mortality Rate: The probability (expressed as a rate per 1,000 live births) of dying between the first and the fifth birthday.

Civil Registration: UN defines civil registration as "the continuous, permanent, compulsory and universal recording of the occurrence and characteristics of vital events pertaining to the population as provided through decree or regulation in accordance with the legal requirements of a country. This process establishes and provides legal documentation for such events.

Completeness of registration: The proportion of vital events that are registered. It is the number of registered vital events divided by 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 in numbers of births per 1,000 population per year.

Crude marriage rate: The crude marriage rate is the ratio of the number of marriages in a population during a reference period over the person-years lived by the population during the same period. It is expressed as marriages per 1,000 population.

Crude Death Rate (CDR): The number of deaths relative to the size of the population during a given period, usually one year. It is expressed in numbers 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 fetal deaths, which are defined separately.

Delayed registration: is a registration that arrives too late for inclusion in the annual (or monthly or quarterly) statistics; after one year of occurrence of the event, according to the law of the country.

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' in the International Classification of Diseases). For instance, a 'mode 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 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 one, if subject to age-specific mortality rates of that period.

Late registration: are vital events that are registered after the deadline for registration according to the law of the country, but before exceeding one year.

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).

Low Birth Weight (LBW) refers to the weight at birth of fewer than 2,500 grams (5.5 lbs.) as per World Health Organization definition.

Marriage is a special contract of permanent union between a man and a woman entered into in accordance with law for the establishment of conjugal and family life.

Neonatal Mortality Rate (NMR): Number of deaths during the first 28 completed days of life per 1,000 live births each year or 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 General Fertility Rate (GFR) is the number of resident live births for a specific area during a specified period divided by the female population age between 15 and 49 years (usually estimated at mid-year) for the same area and period multiplied by 1,000.

Timely registration: is the registration effected within the time stipulated by the law (30 days for births and death in Rwanda).

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 child-bearing years experiencing the same age-specific fertility rates.

Under-five mortality rate (U-5MR): Is the probability for a new-born to die before his/her fifth anniversary. Under-five mortality rate is the probability of dying between birth and exactly 5 years of age, expressed 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" (ibid., sect. 4.1.2).

Vital statistics system: A vital statistics system is defined as the total process of collecting information by civil registration or enumeration on the frequency of occurrence of specified and defined vital events, as well as relevant characteristics of the events themselves and the person or persons concerned, and (b) compiling, processing, analyzing, evaluating, presenting, and disseminating theses data in statistical form.

Executive summary

The National Institute of Statistics of Rwanda (NISR) under the fourth National Strategy for Development of Statistics (NSDS4), which is being implemented from 2024/25 to 2028/29, has identified the strengthening of administrative data collection systems including the Civil Registration and Vital Statistics System (CRVS) as a top priority. This initiative aims to complement official statistics derived from surveys and censuses in Rwanda.

To simplify registration services and advance the digitalization of the Civil Registration and Vital Statistics (CRVS) system, the National Centralized and Integrated CRVS (NCI-CRVS) system was launched and has been operational since August 2020. The integration with other existing systems has facilitated the efficient collection, storage and use of vital statistical data including the compilation of this report.

The report is structured into eight chapters as follows:

- 1. Introduction and methodology,
- 2. Civil registration system in Rwanda,
- 3. Data quality, timeliness and completeness of registration,
- 4. Birth statistics,
- 5. Death statistics,
- 6. Cause of death statistics,
- 7. Marriage statistics,
- 8. Summary tables,

To ensure the reliability of the findings, a comparative analysis was conducted using data from other sources. The analysis mainly focuses on vital events that occurred in 2024, as reflected in this report.

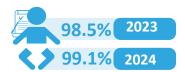
Birth statistics:

The comparison of registered births with estimated live births at national level indicates a slight increase:

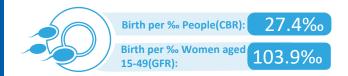
Birth Registration Completeness

90.0% 2023 90.3% 2024

Births registered within 30 days

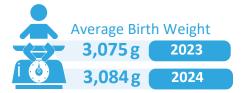


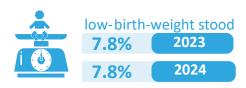
Fertility Indicators (2024)





weight at birth (2024)

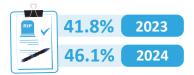






Death statistics:

Death Registration Completeness





Total Registered Deaths (2024)

36,021 2024





Death Occurrence Locations
Inside Health Facilities: 45.9%

Outside Health Facilities (Community): **54.1%**

Causes of death statistics:

The civil registration system use the ICD-10 full list to record the underlying cause of death:

Health Facilities: The results from ANACoD3 show a 64.7% of usable codes of Health facilities death recorded in 2024



64.5% 2023 64.7% 2024



9.4% external c auses (injuries)



42.9% communicable diseases



47.7% non-communicable diseases

Community Deaths: The results from CCVA show a 84.0% of usable codes of community death recorded in 2024



90.8% 2023 84.0% 2024



12.3% external c auses (injuries)



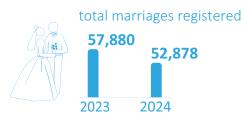
28.4% communicable diseases



59.3% non-communicable diseases

Marriage statistics:

Marriage statistics were computed based on legal marriages registered in 2024 where CRVS data generated:



This corresponds to anannual crude marriage rate equivalent to

4.3% in 2023 4% in 2024 Further analysis reveals that females under the age of 30 are more frequently married than their male counterparts, while males aged 30 and above predominate in marriage rates.

The most frequently chosen matrimonial regime is "Community of property" representing 96.2% of the total marriages

This report does not include divorce statistics as the system required to provide accurate information on divorces is currently under revision.

Introduction and Methodology

1.1. Introduction

An effective civil registration and vital statistics system serves as a critical foundation for the accurate planning of programs designed to promote the well-being of the citizens. The data collected from the registration of vital events are essential for planning social development initiatives, including the design and implementation of public health measures, maternal and child care, family planning, social security, education, housing and economic development. Detailed and precise vital statistics derived from civil registration enable the comparison and evaluation of disparities across regions, districts, provinces, and internationally among different countries.

Death records are of particular importance in public health, as they help to identify the magnitude and distribution of major disease problems, epidemics and pandemics. Information on causes of death is essential for medical research particularly in understanding and addressing major health issues such as cancer and heart diseases.

As a source of vital statistics, civil registration has multiple benefits for individuals, societies, and the government. For society, it provides the information needed for administrative applications, such as national identity programs and electoral polling. For individuals, it provides certified copies of registration records used as legal documents for evidentiary purposes. Additionally, it serves as the starting point for various operational programs, particularly in family planning, medical research, maternal and child care programs, historical demography, genetic studies and more.

The establishment of the vital events registration system is in line with the national development plan of Rwanda. Civil registration has administrative and legal use which is extended to statistical, demographic and epidemiological use. Furthermore, vital statistics serves as primary data source for the health sector in the implementation, monitoring and evaluation of different health interventions and epidemiological studies.

Measuring progress towards the realization of Sustainable Development Goals requires consistent and reliable source of data that aligns with the outlined indicators. The global 2030 development agenda explicitly recognizes and underlines the importance of individual and aggregate records and data on births and deaths in realization of basic human and civil rights. The Sustainable Development Goals (SDGs), attached on the vision of eradicating extreme poverty by 2030, prioritize as their first five transformative shifts the principle of "Leave no one behind." They emphasize the need to ensure that no individual is excluded or denied universal human rights and access to basic economic opportunities. Several SDGs indicators rely on data from civil registration to measure progress. The domestication of the SDGs in Rwanda has further reinforced the crucial role of CRVS data in monitoring successful implementation and measuring achievements.

The African Agenda 2063 similarly emphasizes social inclusiveness as a prerequisite for the continent's

growth and development. A fundamental challenge to the realization of these visions remains the fact that civil registration systems remain largely weak in most of the developing world. As a result, a majority of the population remains legally "invisible" in the eyes of the state, denying them the right to be recognized and planned for by their governments. This invisibility deprives individuals access to fundamental opportunities and services, as well as the ability to claim their rights or participate in governance processes.

Individual identity records and documents generated from a CRVS system play a crucial role in fulfilling the first fundamental human right that every individual is entitled at birth: the right to a name and an identity. This fundamental right serves as the basis for all other human and civil rights. Records of birth, marriage, divorce, and death derived from civil registration systems also provide a permanent, continuous, universal and reliable source of vital statistics. These data are essential for accurate and timely planning, resource allocation and for good governance. Furthermore, the measurement and monitoring of many SDG's indicators require vital statistical data on a continuous and timely basis.

Civil registration and vital statistics system in Rwanda is still in the process of development. As a result, similar to many other African countries, some of our people have been born and passedaway without leaving a trace in official records. However, efficient **In the absence of reliable CRVS system**, the need for vital statistics was met by conducting costly periodic surveys and decennial population censuses. While these methods produce reliable data, they are **practically** delayed compared to the CRVS system.

Despite that, an efficiently operating CRVS system enables a continuous supply of reliable data on vital events to support informed policymaking. Additionally, in the absence of reliable information on causes of death there is no solid basis to determine which diseases have major impacts on the population.

The production of this report adopted the vital statistics report production template, 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). The template serves as a comprehensive document which provides detailed background information that is useful and recommended by the UN in the preparation of the Vital Statistics Reports.

Vital events that are covered in this report are births, deaths, and marriages that took place in 2024 and reported via the CRVS system. The annual vital statistics report presents a great opportunity to learn from experience in terms of registration of births, deaths and causes of death and evaluate the quality of the available data in the country. This report is also expected to be a benchmark for the next reports and a reference source for further publications in the same scope

1.2. Objectives, Scope and organization of the report

1.2.1. General Objective

The main objective of producing this vital statistics report is to present the current status of vital events registration and providing critical insights to inform policies and decisions. It also aims to identify strengths and gaps within the system and to track the progress made toward achieving the target set under the Sustainable Development Goals (SDGs).

1.2.2. Specific objectives

- To assess the level of completeness of birth and death registration.
- To highlight limitations/challenges about data in terms of coverage, quality and timeliness for registration of civil events.
- To assess the level of reliability of demographic indicators obtained from CRVS data through comparison with indicators from other sources.

1.2.3. Scope of the report

The United Nations recommends that countries should register and collect information on the following vital events for civil registration and vital statistics purposes including Birth, Death, Fetal-death, Marriage, Divorce, Adoption, Annulment, Judicial separation, Legitimization (acknowledgment) and Recognition (judicial declarations of paternity) (UN, 2014).

In line with the Rwanda Vital Statistics Report, the following event were captured in this report, include the following:

- Birth,
- Death,
- · Cause of death,
- Marriage,

Currently, foetal deaths and judicial separation are not yet recorded in Rwanda, as recommended by the United Nations. However, integrating these records remains an aspirational goal for the future. The African Ministers responsible for civil registration have also recommended the recording of the four vital events. In line with these recommendations, the scope of the CRVS improvement process has been defined to focus on births, deaths, marriages and divorces which remain the highest priority vital events for recording. Against this background, and taking into consideration the significance of vital events in shaping policy within the Rwandan context, this report focuses on the following events that occurred and registered in 2024:

1.2.4. Organization of the report

The report is structured into eight chapters:

- **Chapter 1:** Introduction and methodology; presents the introduction and the general overview of the role of vital statistics, objectives, scope and organization of the report.
- Chapter 2: Civil registration system in Rwanda; describes Rwanda's civil registration system
 including history, legal background, administrative structure; organizational structure,
 registration process and information flows; organization of vital statistics production and
 dissemination plan; incentives and disincentives for civil registration and plans for further
 improvement of CRVS.
- **Chapter 3:** Data quality, timeliness, and completeness of registration; describes the quality, coverage and completeness of civil registration data.
- **Chapter 4:** Births statistics: give statistical data on births, disaggregated in accordance with various aspects and explanatory narratives.
- Chapter 5: Deaths statistics; give disaggregated statistics on deaths with explanatory narratives.
- Chapter 6: Cause of deaths statistics: give summarised statistics on causes of deaths.
- Chapter 7: Marriages statistics: give disaggregated statistics on marriages with explanatory narratives
- **Chapter 8:** Summary tables: include summarised tables and graphs from the civil registration and vital statistics system, based on the principles and recommendations.

Finally, the appendix showcases references and other informative attachments that are meaningful to the process of vital statistics data collection.

1.3. Country profile

1.3.1. Geography

Figure 1: ADMINISTRATIVE MAP OF RWANDA.



1.3.2. Economic performance

Rwanda's economy has tremendously recovered over the last two decades. Rwanda's Gross Domestic Product (GDP) has risen from \$ 16,626 million in 2023 to \$ 18,785 billion in 2024. Services contributed 48% to GDP, agriculture contributed 25% while industry contributed 21%. The remainder 7% was attributed to taxes and less subsidies on products (NISR, 2024).

The country registered an average GDP growth of around 8% per year over the last two decades. In the year 2024, GDP growth was 8.9% and the GDP per Head in current US Dollars was estimated at 1,029 from 1,054 in 2023.

1.3.3. Country demographic and social profile

The fifth Rwanda Population and Housing Census population projection for 2024 indicates that Rwanda's population is 13,798,561 of which 48.7% are male, and 51.3% are female. The 2022 Census results indicate that the Rwandan population is essentially young, with 45 percent of all Rwandans under-age of 18 and 27.1% are youth aged 16-30 years. The elderly population aged 60 and above represent 6.5% of the population. According to census estimates, the natural growth rate was 2.3% between 2012 and 2022 and 3.1% between 1978 and 1991. The low natural growth rate of 1.2% was observed between 1991 and 2002 due to the high number of deaths caused by the 1994 genocide perpetrated against Tutsi.

The population is projected to increase from 13.2 million in 2022 to 23.6 million (medium scenario) by 2052. A direct consequence of this change is the increase in population density. The current population density is 524 inhabitants per square kilometer 2023 and is expected to increase to about 903 (medium scenario) at the end of the projection period, 2052. The population is largely rural. The ratio of Rwandan urban-rural population indicates that there are approximately three urban residents (i.e. 30.7%) for every seven rural residents (69.3%).

Agriculture is widely practiced by a big share of the population in Rwanda. According to the fifth Rwanda population and housing census, around 2.3 million Rwanda's households (69% of private households) practice agricultural activities while around 1.7 million households (50% of private households) own at least one livestock. Access to electricity by private households in Rwanda amounts to 61% (47% on grid and 14% on solar panels).

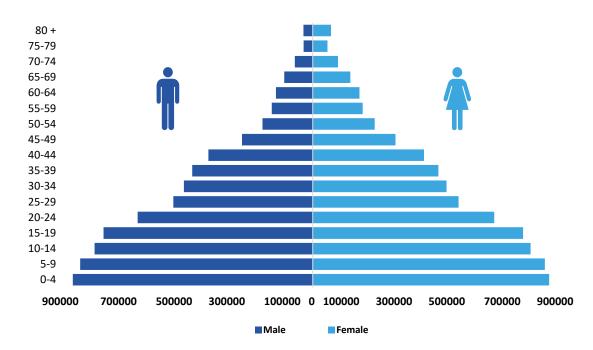


Figure 2: 5-Years Age-group Population Pyramid, 2024

Source: 5th RPHC projection 2024

The illiteracy rate in Rwanda has significantly declined for the past years. Following the PHC5, 79% of the population aged 15 years and above could read and write with understanding in any language. The same results show that 22.3% of the population have never been to school. The overall Net Attendance Rate (NAR) in primary level was 89.3% in 2022 and was higher among females than the male population. Net Attendance Rate (NAR)in secondary level of education was 22.3%. From a gender point of view, results indicate that females had the highest proportion in terms of NAR in secondary compared to males (25.8% and 18.8% respectively).

Approximately all Rwandans speak the same language, Kinyarwanda, which is the country's official first language, followed by English and French. Kiswahili, the third most common foreign language, is generally spoken in some areas of the districts bordering with other countries where this language is widely spoken, such as the Democratic Republic of the Congo and Tanzania. The sixth Rwanda Demographic Health Survey (RDHS) has shown that maternal mortality ratio has declined significantly to 203 deaths per 100,000 live births in 2019/20 down from 1,071 in 2000 while under-five mortality dropped to 45 deaths per 1000 in 2019/20 from 196 deaths per 1000 in 2000.

1.4. Data Sources and Methodology

1.4.1. Data sources

This report utilized data from the NCI-CRVS system, covering all events registered in 2024. Population census projections were employed as denominators for the computation of indicators. To account for the impact of a low completeness rate, CRVS data were adjusted, enabling the calculation of demographic indicators on births and deaths. The computed indicators were compared with census and survey findings (mainly Rwanda demographic and health surveys and Rwanda population and housing census) to evaluate the level of reliability. The analysis of community deaths used data from the Verbal Autopsy system, which is also integrated with the CRVS system and is currently operational countrywide. It is important to emphasize that the registration of vital events is free of charge. Events occurring within Rwanda are registered at health facilities, cells, sectors, or districts, depending on the location where they occur. For events taking place abroad, registration is done through embassies..

1.4.2. Methodology

The analysis of births and deaths data was conducted based on 413,017 births and 42,469 deaths registered in the NCI-CRVS system from January 2024 to the end of January 2025. In accordance with the law allowing a 30 days period for the timely registration of births and deaths, the data extraction process was extended by an additional month to ensure comprehensive coverage.

However, the calculation of completeness only took into account 341,029 births and 36,021 deaths that occurred in 2024, implying a combination of only timely and late registrations. Delayed registrations and events were excluded from the numerator during the calculation of the completeness rate. Data cleaning, table generation, and map production were carried out using R, Excel, STATA, and QGIS.

Some data limitations were encountered including missing values for variables such as the residence of deceased, individuals with unknown identities, duplicated birth records, and anomalies in mothers'age, child height, or child weight, among others.

The process of compiling this report was preceded by consulting available documents such as vital statistics reports from other countries, as well as other guiding documents. The compilation adopted the previous versions of Rwanda vital statistics reports.

Whenever a suspected erroneous record was identified, Civil registration staff were contacted via phone calls to clarify or otherwise make corrections, based on the source documents of the recorded information. The general observation revealed that most errors were related to typographical mistakes during data entry and were therefore corrected prior to data analysis.



Civil Registration System in Rwanda

2.1. History and Legal Background

In Rwanda, as in most African countries, registration of vital events started during the colonial period. However, the registration laws were only for the nationals of the colonial powers. The laws which were regulating civil registration in Rwanda evolved in connection with the stages of its political and administrative history. During the colonial period, from 1931 up to the end of 1961, under the decree of 4th May 1895, on the civil code of persons-book one, all Rwandans aged 18 years and above were issued identity cards known as identity booklet or "Ibuku". This card was written in Dutch and Kinyarwanda languages. Information entered into the booklet was a set of characteristics such as names, approximate date of birth, parent's names, sex, marital status, height, names of descendants, profession and ethnic or clan affiliation.

In the early days of independence, the registration of the civil status of the population in Rwanda was governed by the order issued by the Belgian Governor on the 25th July 1961. This order continued to be used after independence in 1962 with few amendments such as assigning the civil registration responsibilities to the Ministry of Internal Security. From the 27th of October 1988, the order was repealed and replaced by Law Nº 42/1988 which instituted the preliminary title and book one of the civil code. This law mandated the compulsory registration of vital events within Rwandan territory and abroad in embassies remained effective until 28th August 2016, when the new law No 32/2016 governing persons and family was enacted.

The law No 001/2020 of 02/02/2020 amending law No 32/2016 of 28/08/2016 governing persons and family was amended on 17th February 2020.

The amended law allowed digitalization and decentralization of birth and death registration at health facilities and cell level. The two orders were enacted namely: Presidential Order No 092/01 of 21/09/2020 determining responsibilities of the Executive Secretary of Cell which add registration of community births and deaths in cell duties and Ministerial Order N° 001/07.01 of 27/07/2020 determining the officer of the health facility with powers of civil registrar.

From June 2024, the Civil registration system is regulated by the law No 71/2024 of 26/06/2024 governing persons and family. This law also provides for ministerial orders determining modalities for late and delayed birth registration and an order determining an officer in charge of civil status in a health care facility. The two orders were enacted in March 2025 and being implemented.

-Figure 3: CRVS improvement timeline and key actions



During colonial period and early days of independence

From early days of independence up to 2016

After 2016

Projects ahead

 Year
 Before 1988
 1988 – 2016
 2016 – 2020
 2021 - 2024

Key Action Taken

- 1931 up to the end of 1961: under the decree of May 4, 1895, on the Civil Code of persons-book one, all Rwandans aged 18 years and above were issued identity cards known as identity booklet or "Ibuku".
- In the early days of independence, the registration of the civil status of the population in Rwanda was governed by the order issued by the Belgian Governor on the 25th of July 1961.
- 1962- 1988 civil registration responsibilities assigned to the Ministry of Internal Security.

- 1988- 2016: Law nº 42/1988 which instituted the Preliminary Title and Book One of the Civil Code.
- In 2005: law No 09/2005 of 14/07/2005 establishing NISR.
- In 2006: The responsibilities of civil registration were extended down to the sector level, where the sector Executive Secretary was added to the list of civil registrars.
- 2008: Launch of NPR and electronic ID system.
- 2011: Mandate of CR transferred to NDA, by law
- 2012: The process of modernizing and strengthening CRVS system undertaken.
- 2015: Operationalization of CRVS Web-based system to HF and sector level.
- 2016: Deployment of NPR to 416 sectors

- 2016: Law No 32/2016 governing persons and family enacted.
- MINALOC appointed to be the parent ministry for CR.
- Comprehensive assessment of CRVS system in Rwanda conducted.
- 2017: Elaboration of CRVS strategic plan 2017/18-2021/22.
- Undertaking the use of ICD-10 to collect data on cause of deaths within CRVS system.
- February 2020: Law No 32/2016 governing persons and family amended to allow registration of births and deaths to HFs and cells.
- Production of the first national vital statistics report.
- August 2020: Official launch of NCI-CRVS & undertaking official registration of birth and death at health facilities

- Strengthening official registration of birth and death at health facilities via NCI-CRVS system;
- Strengthening official registration of community births and deaths at cells administrative level via NCI-CRVS system;
- Strengthening official registration of other events (Marriages, divorces, marriage annulment, recognition, adoption, legitimization etc) at sector level via NCI-CRVS system;
- Strengthening official registration of all events at all Rwandan embassies via NCI-CRVS system;
- Maintaining annual production of vital statistics report.
- 2024: Law no 71/2024 of 26/06/2024 governing persons and family enacted

Continuous process of modernizing and strengthening CRVS system in Rwanda

2.2. Legal and Administrative Issues

Rwanda has a decentralized system of governance with 4 provinces and the City of Kigali, 30 districts; 416 sectors; 2,148 cells and 14,837 villages.

From independence until 2006 the lowest administrative office responsible for civil registration was the district level. With the second phase of the decentralization process in 2006, the responsibilities for civil registration were extended to the sector level. During this phase, the sector Executive Secretary was designated as a civil registrar, joining the list of officials authorized to perform civil registration duties. This reform aimed to bring essential services closer to the population.

From 2020, the Presidential order add community births and deaths registration in the responsibility of Cell executive secretary and Ministerial order determine the civil registrar for birth and death at health facilities.

As described in the earlier sections, the United Nations recommends that countries should register and collect information for a number of events for civil registration and vital statistics purposes: birth; death; foetal death; marriage; divorce; annulment; judicial separation; adoption; legitimation (acknowledgment); and recognition (judicial declarations of paternity) (UN, 2014). However, though the law catered for some of the legal issues, one of the persisting legal issues is that the law No 71/2024 of 26/06/2024 governing persons and family did not provide for the registration of foetal deaths as recommended by UN as only nine events (birth, deaths, marriages, divorces, adoption, recognition, guardianship, legitimization and marriage annulment) are currently declared to the civil registrar (art. 101). Second, while the registration of vital events is free of charge, certificates are provided upon request and require payment; which contributes to the low rate of certification for registered events. Third, the law provides a 30-day period for the timely registration for births and deaths, but it does not include provisions for penalties in cases of non-compliance with the legally mandated registration timeline. However, the law No 71/2024 has removed the requirements for a court order as proof of declaration for late or delayed death registration, a measure expected to enhance the completeness rate of registration.

2.2.1. Organizational structure

The success of the CRVS system largely depends on systematic and active coordination among all Ministries and organizations that directly or indirectly support or benefit from the system. Coordination of activities must be integrated into the CRVS systems from the start.

While coordination at the national level is crucial for the smooth management and operation of the CRVS system in a country, coordination at various other administrative levels is also important to ensure efficient maintenance of the system.

In Rwanda, the National Identification Agency (NIDA) currently under the Ministry of ICT is mandated to supervise and coordinate the civil registration system at the national level while the National Institute of Statistics of Rwanda as one of the major beneficiaries of the CRVS system (NISR) is concerned with coordinating the collection of vital statistics data and is one of the major beneficiaries of the CRVS system.

Table 1 below presents the coordination mechanisms of the CRVS system at different administrative levels that provide details of the composition of the committees and their main functions.

Table 1: CRVS organization and coordination mechanism in Rwanda, 2024

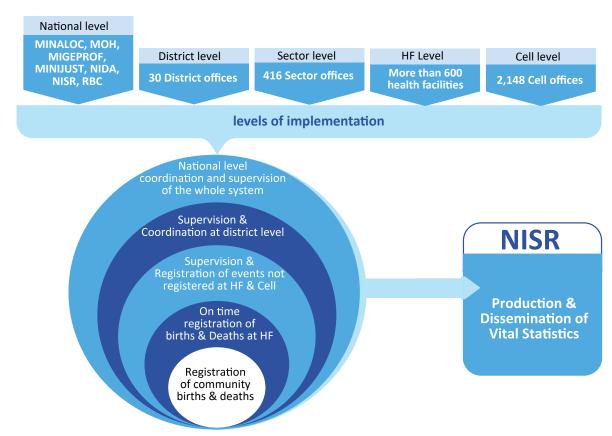
Coordination committee	Composition of committee	Main functions	
High-level Coordination Committee on Civil Registration and Vital Statistics To meet once a year	Chaired by Minister of Local Government Members: Minister of Health, Minister of Finance and Planning, Minister of Justice, Ministry of gender and family promotion	Provide oversight and policy guidance to the work of civil registration and vital statistics	
National CRVS Steering Committee To meet once every Quarter	Chaired by Permanent Secretary of Local Government Members: PS Ministry of health, PS Ministry of justice, PS Ministry of gender and family promotion, DG/NIDA, DG/NISR, DG/RBC, ES/ NCDA and special invitees depending on the nature of the meeting	Resource mobilization, Organize and conduct annual development partners meeting and approve reports from CRVS Core Technical Team	
CRVS Core Technical Team	Technicians in charge of civil registration and vital statistics from MINALOC, MINIJUST, MOH, MIGEPROF, DGIE, NIDA, NISR, RBC, NCDA, and special invitees depending on the nature of the meeting.	Coordinate the implementation of all policies related to CRVS and advise the CRVS steering committee on all matters related to CRVS.	
National mortality technical committee	Chaired by Director General of Clinical and Public Health services in the MoH and Co-Chaired by Chairman of Rwanda Medical and Dental Council. Members: MoH, RBC Heads of programs, RBC Epidemiologists, NISR, NIDA, MINALOC, Senior clinicians from Referral hospitals, WHO, CDC, Epidemiologists from Universities, Rwanda National Police, National Forensic Laboratory of Rwanda.	Coordinate all mortality activities and review mortality reports and ensure high quality of causes of death statistics are reported in compliance with global standards.	

Source: NISR, CRVSs National strategic plan, 2017/18-2021/22

2.2.2. The state of the CRVS system in Rwanda as of 2024

The status of the CRVS system in 2024 is characterized by an effort to strengthen the operationalization of the NCI-CRVS system modules, innovative approaches to improve the completeness of death registration, addressing data quality issues, and smoothing integration of such system with other CRVS-related systems. By the time this report was being compiled, all nine modules of the NCI CRVS system were operational at all relevant registration service points. The nine events currently registered through the NCI-CRVS system are: births, deaths, marriages, divorces, annulment of marriage, recognition of a child born out of wedlock, adoption, guardianship, and legitimization. It is important to note that each module corresponds to the electronic register of a particular event. Following the full digitalization of the CRVS system, the paper-based system has been entirely phased out.

Figure 4: Coordination and Supervisory procedures of CRVS System



Source: NISR, 2024

2.2.2.1.CRVS paper-based system

The paper-based system was phased out in 2023 after a full digitalization of the Civil Registration and Vital Statistics (CRVS) system. By law, a physical register could only be in operation for a period of six months following the launch of a related NCI-CRVS system module. In total, there are seven civil status registers, as stipulated in Article 67 of the law Nº 71/2024 of 26/06/2024:

- Register of birth records;
- Register of death records;
- Register of marriage records;
- Register of guardianship records;
- Register of acknowledgment of children born out of wedlock;
- Register of adoption records; and
- Register of divorces.

2.2.2.2. National Population Registry

The National Population Registry (NPR) was developed by NIDA to facilitate the issuance of the national identity card with 2D technology to those aged 16 years and above as well as hosting electronic population registration forms: first registration, change of marital status, change of address and death registration. Since 2015, the National Population Registry has been decentralized up to the Sector level where all 416 Civil Registration Officers (CROs) access and use it to serve people who need different population registration-related services and capture vital events mentioned above. This system also serves in validating and authenticating the identification of recorded people. With the development of NCI-CRVS, NPR was linked to the civil registration system where each event registered is instantly captured in NPR.

2.3.2.3. Rwanda Health Management Information System (R-HMIS)

The Rwanda Health Management Information System (HMIS) operates countrywide under the management of the Ministry of Health (MoH) to collect routine health information for epidemiological and other health-related use. With the introduction of NCI-CRVS, HMIS continued capturing aggregated information on births and deaths to provide denominators for counter-verification of NCI-CRVS registered births and deaths. This facilitates the monitoring and improvement of systems' performance.

2.2.2.4. CRVS web-based application

In Rwanda, reliable vital statistics have been derived from the national census and other periodic demographic and health surveys. Recognizing the importance of timely vital statistics and aligning with the objectives of the second and third National Strategy for the Development of Statistics (NSDS II & III), which prioritized the strengthening of administrative data production, particular emphasis was placed on enhancing the civil registration system as a source of vital statistics. As part of this strategic objective, the NISR initiated a web-based system in 2015 to facilitate the collection and storage of vital events registration data and enable the production of vital statistics reports. After the full operationalization of all modules of NCI-CRVS system, the CRVS web-based system was linked to NCI-CRVS establishing it as a single data entry point for vital events.

2.2.2.5. National Centralized and Integrated Civil Registration and Vital Statistics (NCI-CRVS) system

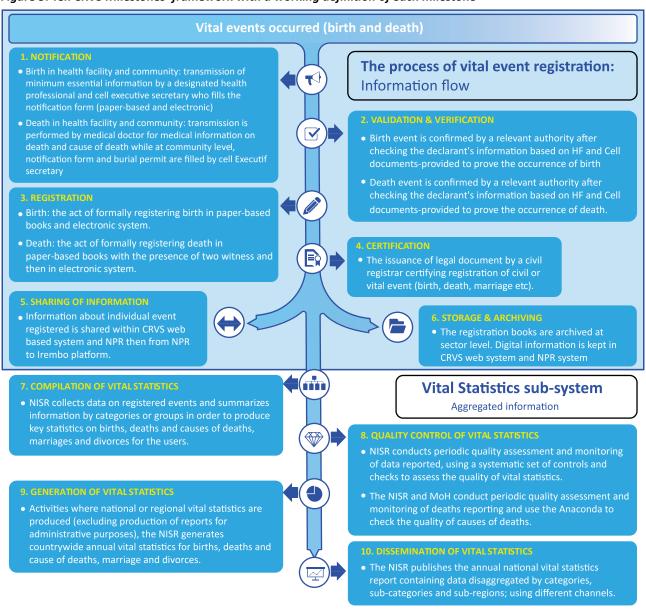
One of the major recommendations from the first National CRVS Strategic Plan elaborated in 2017 was to develop a national centralized and integrated CRVS system that responds to the needs of various institutions in CRVS data collection to cater for the existence of multiple systems working in silos and reduce related effort duplication. Thus, to enforce the implementation of the strategic plan, a new system (NCI-CRVS) was developed and initiated. This system has indeed the benefit of capturing vital events information at real-time and directly at the site of the occurrence of event where official registration takes place. It reduces the multiple recording of the same events into different systems as it provides for a single data entry point taking into consideration the requirements of other existing systems. The same system was linked to other legacy systems including the national population registry (NPR) for the backup of national identity production; CRVS web-based system for vital statistics production; the Rwanda Health Management Information System (R-HMIS) for public health and epidemiological-related needs; Verbal Autopsy for determination of community cause of death; and Irembo for issuance of certificates. The operationalization of NCI-CRVS was officially launched on August 10th, 2020, within all public and private health facilities on an incremental scale.

Currently, the system is operational at all categories of registration points including hospitals, health centers, clinics, and polyclinics; both public and private, administrative Cells, Sectors, District and Rwandan embassies abroad.

2.3. Registration processes and information flows

Figure 5 below summarizes registration process and information flow, taking into consideration the 10 milestones¹

Figure 5: Ten CRVS Milestones' framework with a working definition of each milestone

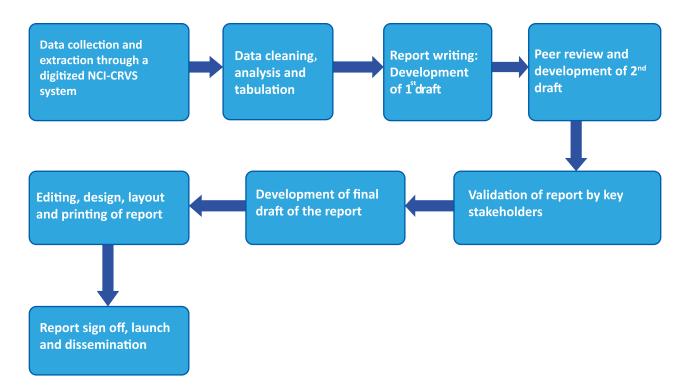


Refer to: https://gh.bmj.com/content/bmjgh/3/2/e000673.full.pdf for more information

2.4. Organization of vital statistics production and dissemination

In Rwanda vital statistics are regularly collected via the recording of registered vital events (births, deaths, marriage etc) in a digitalized CRVS system. Each year (starting by 2019), countrywide vital statistics reports are produced and disseminated through the NISR website and other platforms. More information on CRVS system coordination and implementation with involved stakeholders are displayed in Figure 6 below.

Figure 6: Organization process of vital statistics report production and dissemination



Source: NISR, 2024



Data quality, Timeliness and Completeness of Registration

3.1. Data quality assessment

According to the United Nations principles and recommendations of 2014, "the quality of vital statistics is measured according to completeness, accuracy, availability and timeliness". Consequently, quality control measures must be implemented to address these four dimensions of data quality. In this report, data quality issues observed included duplicates, typing errors in date of occurrence of events when compared to the registration dates, as well as erroneous or missing information, especially regarding causes of death etc.

Duplicate entries for births were identified using mother's ID number or the child's unique ID. Across all datasets, the respective unique identifier was used to check duplicated records. While some duplicates were obvious and easy to detect, others were more challenging to detect. All erroneous entries were addressed in accordance with the nature of the errors. For example, missing values were replaced with the term 'not stated' before conducting the analysis using statistical software.

3.2. Timeliness of registration

As per the Law nº 71/2024 of 26/06/2024 governing persons and family, a birth or death is said to be timely registered if its registration is done within 30 days of occurrence. The same law suggests a ministerial order for late and delayed birth registration, enacted in March 2025. In reporting, a late registration pertained to a vital event (such as a birth or death) that was registered after 30 days from its occurrence but within one year, whereas delayed registration refers to a birth or death registered after one year of occurrence. Findings from different versions of Rwanda vital statistics report show improvement in shares of timely registered births and deaths since 2019 up to 2024. Figure 7 illustrates the percentages of births and deaths registered within the legally prescribed time frames, compared to the overall number of registered events spanning from 2019 to 2024.

120 98.5 99.1 95.9 93.7 100 78 72.3 97.7 96.3 94.8 ğ 80 ė 60 68 68.6 62 40 20 0 2019 2020 2021 2022 2024 2023 Proportion of timely registered births Proportion of timely registered deaths

Figure 7: Proportions of timely registered births and deaths in %, 2019 to 2024

Source: CRVS system, 2019-2024

3.3 Data availability and completeness of registration

Calculating the completeness of registration can be used to monitor the performance of the CRVS system in capturing all vital events and support the adjustment of incomplete data. Completeness is defined as the proportion of actual vital events in a population that are registered, divided by the estimated number of vital events that occurred in the same year. Completeness

= Number of vital events registered Estimated number of vital events

To compute birth and death registration completeness, the denominators were sourced from the population and housing census reports while the numerators were generated by the CRVS system. Figure 8 shows changes in births and deaths registration completeness rates since 2019. It is essential to note that, following the Sustainable Development Goals, indicator 17,19.2: "Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100% birth registration and 80% death registration", the fixed targets were to achieve 100% birth registration completeness rate and 80% death registration completeness rate.

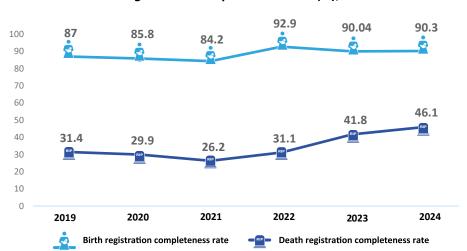


Figure 8: Birth and death registration completeness rates (%), 2019 to 2024

Source: CRVS system, 2024

3.4. Adjustment for incomplete registration

3.4.1. Fertility statistics

Achieving complete vital registration remains a challenge, especially for deaths. As illustrated in Figure 8 above, birth registration completeness at the national level remained relatively stable with rates 90.0% in 2023 and 90.3% in 2024. To mitigate the impact of incomplete birth registration on the resulting fertility indicators, the number of registered births were adjusted before the computation of indicators such as Age Specific Fertility Rate (ASFR), Total Fertility Rate (TFR), General Fertility Rate (GFR) and Crude Birth Rate (CBR). Using denominators sourced from 5-PHC projections that helped in finding out the birth registration completeness rate, adjusted birth numbers were obtained by dividing the actual registered numbers by the completeness rate. The following table 2 demonstrates an example.

Table 2: Adjustment for fertility statistics

	Famala	Unadjusted n	umbers, 2024	Adjusted numbers, 2024		
Mothers' age groups	Female population, 2024	Number of registered births	ASFR per 1,000	Number of births	ASFR per 1,000	
10-14	798,712	48	0.1	53	0.1	
15-19	771,098	20,246	26.3	22,421	29.1	
20-24	665,733	77,655	116.6	85,997	129.2	
25-29	534,990	81,641	152.6	90,411	169.0	
30-34	490,774	72,946	148.6	80,782	164.6	
35-39	460,496	55,964	121.5	61,976	134.6	
40-44	407,727	28,845	70.7	31,944	78.3	
45-49	303,747	3,524	11.6	3,903	12.8	
50-54	226,928	160	0.7	177	0.8	

Source: CRVS system, 2024

Considering the information provided in Table 2 above and having prior knowledge of denominators from the 5-PHC, where the total population number is 13,798,561; and given the available information on the number of females aged 15-49 years by 5 years age groups; adjusted TFR and GFR become 3.6 and 103.9 respectively (up from 3.2 and 93.8 when unadjusted) while adjusted CBR becomes 27.4 (up from 24.7 when unadjusted).

3.4.2. Mortality statistics

Several methods are used in determining total population estimates in cases where under-reporting occurs. When the number of registered events within a population is substantially underreported, mortality indicators may become inaccurate, leading to ineffective policies and decisions. Consequently, data adjustment is often necessary.

However, there is no consensus among experts on the matter of when to adjust or not to adjust data. Some argue that data should not be adjusted if completeness is between 50 - 90%. Others

are of the opinion that adjustment should always be performed. In our case, with the death registration completeness rate equivalent to 46.1%, there is no doubt that mortality indicators computed directly from the system-generated data can provide misleading results for policies and decisions. The adjusted number of deaths is found by dividing the registered number of deaths by the completeness rate. In this regard, the following formula was used to obtain reliable estimates of mortality indicators:

Adjusted number of deaths =
$$\frac{\text{Registered deaths}}{\text{Completeness rate}}$$

Table 3 demonstrates the use of the above-mentioned formula through the computation of the crude death rate.

Table 3: Adjusted and unadjusted values of CDR, 2019-2024

Indicator	2019	2020	2021	2022	2023	2024
Population size	12,374,397	12,663,116	12,955,763	13,246,394	13,499,066	13,798,561
Registered deaths (number)	23,771	22,634	19,797	25,567	32,853	36,021
Adjusted number of deaths	70,518	75,570	75,561	76,545	79,075	78,120
Unadjusted CDR (per 1000)	1.9	1.8	1.5	1.9	2.4	2.6
Adjusted CDR (per 1000)	5.9	6.0	5.8	5.8	5.8	5.7

Source: CRVS system, 4th PHC Projections and 5-PHC projections, 2024

3.5.Comparison with data from other sources

As a way of assessing the reliability of CRVS data, the results were compared with indicators from other sources. Table 4 shows the comparisons for selected mortality indicators.

Table 4: Comparing CRVS death indicators (adjusted) with the results from other sources

Indicates/	CRVS (adjusted)					RDHS	RDHS	MAS	PHC 2024	
Indicator/ 1000	2024	2023	2022	2021	2020	2019	2019/20	2014/15	2018	proj
Crude death rate	5.7	5.8	5.8	5.8	6.0	5.9	-	-	3.2	5.7
Neonatal mortality rate	19.2	20.3	25.4	23.7	23	23.5	19	20	14.1	-
Infant mortality rate	28.2	30.0	34.3	31.6	30	31.5	33	32	23.3	28.7
Under five mortality rates	39.4	38.6	40.9	37.4	37.1	38.5	45	50	32.3	35.5

Source: CRVS system, MAS, RDHS and PHC projections, 2024

4

Birth statistics

In accordance with the Law nº 71/2024 of 26/06/2024 governing persons and family in Rwanda, all live-born infants must be registered and counted, regardless of gestational age or their status at the time of registration. This chapter provides a detailed analysis of data on registered live births from January to December 2024. Table 5 presents a summary of birth statistics including late and delayed birth registrations.

Table 5: Status of Births registered following date of birth occurrence and date of registration, 2023-2024

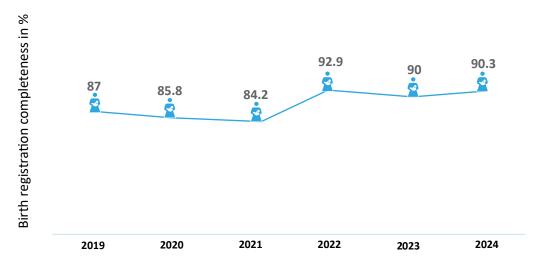
Registered birth	2024	2023
Born and registered in the reporting year	341,029	334,018
Registered in the reporting year while born in one year preceeding the reporting year	4,681	4,786
Registered in the reporting year while born in more than one year preceeding the reporting year	72,262	34,456
Total	417,972	373,260

Source: CRVS system, 2024

4.1. Completeness of birth registration

To obtain completeness, this report evaluates birth registration by comparing officially registered births (numerator) with estimated live births from the 5th Rwanda Population and Housing Census projections (denominator). The resulting percentage show a slight positive change in birth registration completeness rate, from 90.0% in 2023 to 90.3% in 2024. It is imperative to mention here that delayed registrations are excluded from the numerator while computing the completeness rate.

Figure 9: Evolution of birth registration completeness in %, 2019-2024



Source: CRVS system, 2024

Figure 9 above illustrates the overall completeness rates for birth registration, considering both timely and late registrations. Efforts are still required to achieve the SDGs 17.19.2.b which measures "the proportion of countries that have achieved 100% birth registration and 80% death registration". Figure 10 below shows areas to focus on to achieve universal registration of births.

7.1 9.7 10 13 14.2 15.8 1.14.5 1.4 5.3 19.1 23.8 Parcentage 88.4 88.7 89.2 79 67.8 62 2022 2024 2020 2021 2019 2023 Unregistered births as a share of expected births ■ Births registered after 30 days as a shareo f expected births ■ Births registeredw ithin 30 days as a shareo f expected births

Figure 10: Registered and unregistered births as shares (%) of expected births, 2024

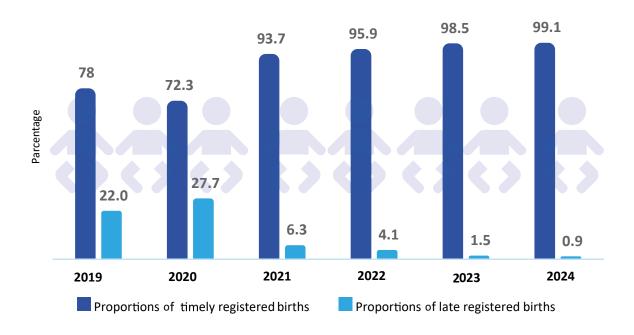
Source: CRVS system, 2024

4.2. Timeliness of birth registration

According to the law, birth registration must be completed within 30 days of occurrence to be considered timely. An order defining late and delayed registration has been enacted. For reporting purposes, this analysis considers births registered after 30 days but within one year, as late registrations. Births registered beyond one year are considered delayed registrations. The trend in timely birth registration from 2019 to 2024, as shown in Figure 11, indicates a significant improvement. The proportion of timely registered births increased from 78.0% in 2019 to 99.1% in 2024, while late registrations declined from 22.0% in 2019 to 0.9% in 2024.

The most significant improvement in timeliness of birth registration started in 2021 where timely registered births increased to 93.7% from 72.3% in 2020. Consequently, late registrations decreased.

Figure 11: Proportions of timely registered births in %, 2019 to 2024



Source: CRVS system, 2024

4.3. Live births registered by residence of mothers

As presented in table 6 below, the number of registered births varies significantly across Districts of maternal residence. Notably, the highest number of registered births were recorded in Gasabo (24,641), Nyagatare (18,521), Rubavu (15,976) and Bugesera (15,799) districts. In contrast, the lowest numbers are observed in Nyabihu (7,980), Ngororero (7,976) and Nyamagabe (7,906) districts.

Table 6: Registered live births by mothers' residence districts

Residence district	Number of live births				
District	Female	Male	Both sexes	Sex ratio at birth	
Bugesera	7,774	8,025	15,799	103.2	
Burera	4,779	4,768	9,547	99.8	
Gakenke	4,073	4,146	8,219	101.8	
Gasabo	12,153	12,488	24,641	102.8	
Gatsibo	6,868	7,121	13,989	103.7	
Gicumbi	5,318	5,550	10,868	104.4	
Gisagara	5,099	5,259	10,358	103.1	
Huye	4,632	4,751	9,383	102.6	
Kamonyi	5,908	5,844	11,752	98.9	
Karongi	4,002	3,989	7,991	99.7	
Kayonza	6,558	6,721	13,279	102.5	
Kicukiro	6,729	7,053	13,782	104.8	
Kirehe	6,597	6,564	13,161	99.5	
Muhanga	4,082	4,115	8,197	100.8	
Musanze	6,292	6,359	12,651	101.1	
Ngoma	5,255	5,497	10,752	104.6	
Ngororero	3,955	4,021	7,976	101.7	
Nyabihu	3,995	3,985	7,980	99.7	
Nyagatare	9,049	9,472	18,521	104.7	
Nyamagabe	3,923	3,983	7,906	101.5	
Nyamasheke	5,064	5,081	10,145	100.3	
Nyanza	4,372	4,433	8,805	101.4	
Nyarugenge	4,872	4,988	9,860	102.4	
Nyaruguru	4,039	4,016	8,055	99.4	
Rubavu	7,889	8,087	15,976	102.5	
Ruhango	3,919	4,128	8,047	105.3	
Rulindo	4,156	4,233	8,389	101.9	
Rusizi	6,332	6,622	12,954	104.6	
Rutsiro	4,185	4,456	8,641	106.5	
Rwamagana	6,608	6,625	13,233	100.3	
Foreign	92	80	172	87.0	
Total	168,569	172,460	341,029	102.3	

4.4. Registered births by place of occurrence and by the usual residence of mothers

Table 7 highlights variations between the place of birth occurrence and the mothers' usual districts of residence. The results indicate that 84.4% of all registered births occurred within the same districts as the mothers' usual place of residence. However, significant proportions of births taking place outside the mothers' usual residence districts were observed in Kicukiro and Kamonyi districts (49.8% and 42.2% respectively), whereas minimal proportions were recorded in Kirehe and Karongi districts (3.3%, 2.6% respectively). Further details are provided in the table below.

Table 7: Registered live births by place of occurrence and of usual residence of mothers, 2024

	Counts			Percentages			
	Same as district of	Another	Total	Same as district of	Another	Total	
	usual residence	district		usual residence	district		
All	287,759	53,270	341,029	84.4	15.6	100.0	
Bugesera	14,568	1,231	15,799	92.2	7.8	100.0	
Burera	7,404	2,143	9,547	77.6	22.4	100.0	
Gakenke	7,467	752	8,219	90.9	9.1	100.0	
Gasabo	16,130	8,511	24,641	65.5	34.5	100.0	
Gatsibo	13,282	707	13,989	94.9	5.1	100.0	
Gicumbi	10,246	622	10,868	94.3	5.7	100.0	
Gisagara	9,262	1,096	10,358	89.4	10.6	100.0	
Huye	8,348	1,035	9,383	89.0	11.0	100.0	
Kamonyi	6,789	4,963	11,752	57.8	42.2	100.0	
Karongi	7,783	208	7,991	97.4	2.6	100.0	
Kayonza	12,203	1,076	13,279	91.9	8.1	100.0	
Kicukiro	6,916	6,866	13,782	50.2	49.8	100.0	
Kirehe	12,730	431	13,161	96.7	3.3	100.0	
Muhanga	7,386	811	8,197	90.1	9.9	100.0	
Musanze	11,766	885	12,651	93.0	7.0	100.0	
Ngoma	10,073	679	10,752	93.7	6.3	100.0	
Ngororero	7,215	761	7,976	90.5	9.5	100.0	
Nyabihu	5,904	2,076	7,980	74.0	26.0	100.0	
Nyagatare	16,982	1,539	18,521	91.7	8.3	100.0	
Nyamagabe	7,412	494	7,906	93.8	6.2	100.0	
Nyamasheke	9,502	643	10,145	93.7	6.3	100.0	
Nyanza	7,320	1,485	8,805	83.1	16.9	100.0	
Nyarugenge	8,211	1,649	9,860	83.3	16.7	100.0	
Nyaruguru	7,076	979	8,055	87.8	12.2	100.0	
Rubavu	13,991	1,985	15,976	87.6	12.4	100.0	
Ruhango	6,484	1,563	8,047	80.6	19.4	100.0	
Rulindo	6,403	1,986	8,389	76.3	23.7	100.0	
Rusizi	12,356	598	12,954	95.4	4.6	100.0	
Rutsiro	7,087	1,554	8,641	82.0	18.0	100.0	
Rwamagana	9,291	3,942	13,233	70.2	29.8	100.0	
Foreign	172		172	0.0	100.0	100.0	

4.5. Registered live births by age group of mothers

Data from the CRVS system reveals significant variations in the proportion of registered live births across different maternal age groups. As illustrated in Figure 12, the largest share of registered births occurred among mothers aged 25-29 years (23.9%), followed closely by those aged 20-24 years (22.8%) and 30-34 years (21.4%). Together, these three age groups account the majority of registered births. A decline is observed in birth registrations for mothers aged 35 years and above, with proportions decreasing to 16.4% for 35-39 age group, 8.5% for 40-44 age group, and only 1.0% for 45-49 age group. Additionally, birth registrations among adolescent mothers aged 15-19 years remain low at 5.9%. This pattern suggests that the majority of births occur within the reproductive years (20-34) and fertility rates declining among older and young mothers. The lower birth rates among adolescents and women over 45 years may be influenced by a range of biological, social, and economic factors, including fertility limitations, health risks, and social norms regarding childbearing age in Rwanda.

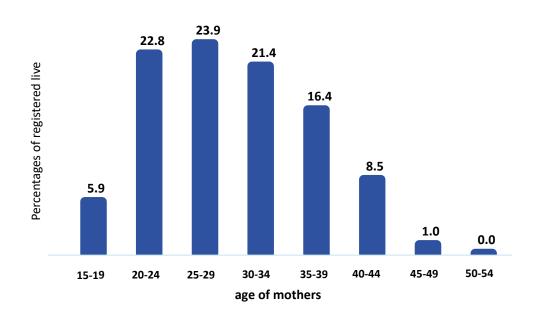


Figure 12: Percentages of registered live births by age of mothers

Source: CRVS system, 2024

4.6. Registered live births by type of pregnancy

CRVS system-generated data were analyzed to find out the rate of multiple births and the results revealed that out of 341,029 live births registered only 9,313 (2.7%) were multiple births (twins, triplet, etc) while the remaining share was single births. Across age groups, the rate of multiple births is high to females aged 30-34 while the rate of single birth is high to females aged 25-29. The details are further illustrated in Table 8.

Table 8: Percentages of Registered live births by age of mothers and type of pregnancy

Age	Single births	Multiple births	Total	Single births %	Multiple births %
<15	48	0	48	0.0	0.0
15-19	20,054	192	20,246	6.0	2.1
20-24	76,197	1,458	77,655	23.0	15.7
25-29	79,391	2,250	81,641	23.9	24.2
30-34	70,567	2,379	72,946	21.3	25.5
35-39	53,810	2,154	55,964	16.2	23.1
40-44	28,053	792	28,845	8.5	8.5
45-49	3,451	73	3,524	1.0	0.8
50+	145	15	160	0.0	0.2
Total	331,716	9,313	341,029	100.0	100.0

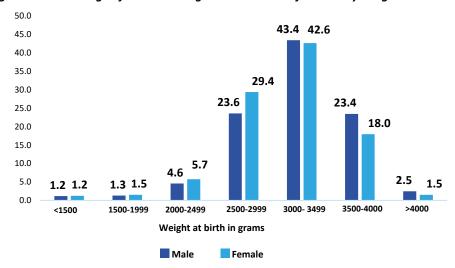
4.7. Registered live births by weight at birth

4.7.1. Live births by weight ranges

Weight at birth is a key indicator of a live-born infant's health status. Figure 13 illustrates the distribution of birth weights by range in 2024, with the highest concentration of births falling within the 3,000–3,499 gram range. This range also corresponds to the overall average birth weight of 3,084.1grams for both sexes. Further analysis indicates that in 2024, the average birth weight of female infants was slightly lower at 3,040.1 grams compared to the male infants, who averaged 3,127.1grams as observed in Table 9.

The proportion of low birth weight (<2,500 grams) and very low birth weight (<1,500 grams) remained relatively small, at 6.6% and 1.2%, respectively—both showing slight decrease compared to the 2023 levels of 7.8% and 1.3%. Regarding sex, female infants were more prevalent in weight ranges below 3,000–3,499 grams, while male infants were dominant in weight ranges of 3,000–3,499 grams and above.

Figure 13: Percentage of live births registered at health facilities by weight at birth and sex



4.7.2. Average weight at birth

Analysis of CRVS system data was used to determine the average birth weight by maternal age. As shown in Table 9 the overall average birth weight is 3,084.1 grams, with male infants averaging slightly higher at 3,127.1 grams, compared to 3,040.1 grams for female infants. Additionally, the average birth weight tends to be lower among live births from mothers aged 14–19 and 50–54, while it is slightly higher among births from mothers aged 30–44.

Table 9: Average weight at birth by mothers' age groups and child's sex

	Female	Male	Total
All	3,040.1	3,127.1	3,084.1
10-14	2,786.0	2,821.5	2,805.3
15-19	2,940.7	3,015.5	2,978.4
20-24	2,992.5	3,068.4	3,031.2
25-29	3,046.7	3,142.5	3,095.2
30-34	3,076.4	3,170.3	3,123.9
35-39	3,070.6	3,159.1	3,115.1
40-44	3,068.4	3,156.8	3,112.8
45-49	3,055.6	3,100.5	3,078.2
50-54	2,922.6	2,899.0	2,910.8

Source: CRVS system, 2024

4.8. Registered live births by birth order

Birth order refers to the order in which a child is born within a family, such as first-born or second-born. Birth order is often believed to have a profound and lasting effect on psychological development. To some extent, it may play an impactful role in the orientation and initiation of family planning-related policies and laws.

Figure 14 presents a comparison of the distribution of registered births by birth order in 2024 and 2023. Overall, first births remain the largest category in both years, although they decreased slightly from 34.6% in 2023 to 33.6% in 2024. In contrast, second births show a moderate increase from 24.8% to 26.0% over the same period. The share of third births remains unchanged at 17.6%. Fourth births rose from 10.8% to 11.0%, while fifth births edged down from 6.1% to 6.0%. Similarly, sixth births dropped slightly from 6.1% to 5.7%. These trends suggest a stable overall pattern of birth order, with first and second births continuing to account for the majority of registered births.

33.6 34.6 26.0 24.8 17.6 17.6 11.0 10.8 6.0 6.1 5.7 6.1 1.0 10.8 1

Birth Order

2024

Figure 14: Birth order (%) in 2024 compared to 2023

Source: CRVS system, 2024

4.9. Key fertility indicators

This section presents fertility indicators derived from CRVS system-generated data for 2024, including the crude birth rate (CBR), sex ratio at birth, general fertility rate (GFR), and total fertility rate (TFR). Since the completeness of birth registration in 2024 was insufficient to produce reliable indicators, some measures such as CBR, TFR, and GFR were calculated using adjusted data. Additionally, to assess the reliability of these indicators computed from CRVS data, a comparison with data from other sources was performed. A summary of the findings is provided in Table 10.

2023

Table 10: Summary comparison of fertility indicators from CRVS with other sources

			CRV	5			MAS	RDHS	5-PHC
Indicator	2019	2020	2021	2022	2023	2024	2018	2019/20	2022
TFR	3.8	3.7	3.5	3.7	3.6	3.6	3.7	4.1	3.6
GFR	110.8	108.7	106	106.6	104.9	103.9	108.7	134	105.5
CBR	29.1	28.8	28.4	27.7	27.5	27.4	27.6	31.8	27.8
Sex ratio at Birth	102.8	102.7	103.3	102.4	102.1	102.3	102	-	104.7
Average weight at birth in grams	3,100	3,108	3,112	3,081	3,075	3,084	-	-	-
Low birth weight (%)	7.4	7.1	6.5	7.7	7.8	7.8	-	-	-

4.9.1. Sex ratio at birth

The sex ratio at birth is defined as the number of male live births in a specific area during a specified period divided by the number of female live births for that area and period, multiplied by 100. The global sex ratio at birth typically ranges between 103 and 107 male births per 100 female births, which is considered the biologically normal range (United Nations Department of Economic and Social Affairs [UN DESA], 2023). A sex ratio below 100 indicates fewer male births than female births, which is uncommon. CRVS system-generated data for 2024 reveal a sex ratio at birth of 102.3. Further details on sex ratios by districts are provided in Table 6.

4.9.2. Crude birth rate (CBR)

The crude birth rate (CBR) is defined as the number of live births occurring within the population of a given geographical area during a given year, per 1,000 mid-year total population of that area during the same year. The term "crude" is used because this rate does not consider age or sex differences within the population. However, the indicator is widely used to indicate the overall effect of fertility and that it could be estimated easily with minimum data requirements. When combined with the crude death rate and net migration, crude birth rates can tell us about population growth or decline. Additionally, it serves as a tool for planning and resource allocation by providing important information such as the number of infants requiring vaccinations and child health care, the number of children expected to enter the education system in the coming years, or the number of individuals entering the workforce. The calculation of crude birth rate requires both the number of live births within a specific period and the total population located in the area under consideration for a period under consideration. Usually, the mid-year population is used as an estimate of the total population. CRVS system-generated data show an adjusted CBR of 27.4% in 2024 and (24.7% if unadjusted) implying 27.4 live births per 1,000 populations annually, regardless of age and sex differentials. Further details are displayed below in Table 11.

Table 11: Unadjusted and Adjusted crude birth rate, 2019-2024

Unadjusted		Adjusted			
Year	Total registered live births	CBR (Per 1,000 population)	Total estimated live births	CBR (Per 1,000 population)	
2024	341,029	24.7	377,548	27.4	
2023	334,018	24.7	370,964	27.5	
2022	341,122	25.8	367,312	27.7	
2021	310,249	23.9	368,251	28.4	
2020	312,678	24.7	364,342	28.8	
2019	313,398	25.3	360,388	28.4	

Source: CRVS system & 5th RPHC projections, 2024

4.9.3. General fertility rate

The general fertility rate is the number of live births for a specific area during a specified period divided by the female population aged between 15 and 49 years (usually estimated at mid-year) for the same area and period multiplied by 1,000. CRVS system-generated data show that the adjusted value of GFR was 104.9 in 2023, something implying 104.9 live births for every 1,000 women in childbearing age (15-49) annually.

4.9.4. Age-specific birth rate (ASFR)

The age-specific birth rate is defined as the number of live births to women within a specific age group in a given geographical 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. Figure 15 illustrates the Age-Specific Fertility Rates (ASFR) per 1,000 women. The data indicate that fertility rates are highest among women aged 25–39, with the peak occurring observed in the 25–29 age group (152.6 per 1,000). This suggests that the majority of births occur within this age range at the national level. Conversely, the fertility rates for females under 15 and those aged 50 and above are minimal, with ASFR values approaching zero.

152.6 148.6 121.5 70.7 26.3 15-19 20-24 25-29 30-34 35-39 40-44 45-49

Figure 15: Age Specific Fertility Rate per 1,000 women

Source: CRVS system, 2024

4.9.5. Total fertility rate (TFR)

TFR represents the number of children who would be born per woman, if they were to pass through the childbearing years bearing children according to a current schedule of age-specific fertility rates. The computation of TFR is the sum of the age-specific birth rates (usually for 5-year age groups between 15 and 49) for female residents of a specific area during a specified period multiplied by

5 (where the age-specific birth rates are 5-year birth rates). It can also be calculated as the sum of a 1-year age-specific birth rate for females aged between 15 and 49. TFR is also interpreted as the average number of children a hypothetical cohort of women would have at the end of their reproductive period during their lifetime if they were subject to experiencing the ASFRs of a given period. CRVS system generated data (adjusted) in 2024, show TFR equivalent to 3.6. Details on the computation of TFR are displayed in Table 5.



5

Deaths statistics

5.1. Background

Rwanda has adopted the United Nations Sustainable Development Goals (SDGs) which are grounded in the principle of leaving no one behind. Goal three of the SDGs aims to improve maternal and child health outcomes, eradicate infectious diseases, reduce premature mortality from non-communicable diseases and injuries and achieve universal health coverage by 2030. The East Africa Vision 2050 envisions a continent characterized by universal access to healthcare, the elimination of communicable disease-related deaths, zero maternal deaths and child deaths, and the capacity of countries to mobilize domestic resources for the prevention, detection and response to public health threats such as non-communicable diseases, youth health needs and malnutrition. The Health Sector Strategic Plan five (HSSP-V) further highlighted the role of the CRVS data in capturing birth and death to monitor the progress of infant and mortality reductions as well as ensure public health monitoring.

Information on the number of deaths and their causes plays an invaluable role in evaluating and tracking progress toward national, regional and international goals. Information on the mortality levels, trends and disparities are important for the identification of emerging diseases and health conditions, formulation of evidence-based health policies and monitoring of the population health status.

Mortality data are generated from the civil registration system which enables the continuous production of mortality statistics and contributes 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 facilities deaths registered at various registration offices, as well as the causes of death reported in the CRVS system. However, due to the under-reporting of deaths, the mortality statistics presented in this report should be used with caution. Only 36,021 deaths were registered in the civil registration system, the sole source of vital statistics data, and this figure was utilized for the mortality data analysis in this report. It is important to mention that Health facility deaths are electronically notified and registered in the presence of a declarant at the place of occurrence. Since August 2020, all health facilities have adopted the use of a digital registration system known as the National Centralized and Integrated CRVS system (NCI-CRVS) for the official registration of births and deaths at place of occurrence to improve registration completeness and service delivery.

5.2. Death registration

This section presents information on numbers of death registered in CRVS system. The number of deaths registered increased from 27,010 in 2022 to 40,704 deaths in 2024. Table 12 below presents the number of deaths registered, including late and delayed death registrations, from 2022 to 2024. It is imperative to note that, in calculating death registration completeness and other mortality indicators, only deaths that occurred and registered within the reporting year were considered. Delayed registrations are excluded from the numerator when calculating the completeness rate.

Table 12: Summary of death registration, 2022-2024

Indicator	2022	2023	2024
Number of registered deaths that occurred in the reporting year	25,567	32,853	36,021
Number of registered deaths that occurred during the year preceding the reporting year	1,115	1,337	1,880
Number of registered deaths that occurred more than one year prior to the reporting year	328	652	2,803
Total	27,010	34,842	40,704

Source: CRVS system, 2024

5.2.1. Death registration

As noted in section 3.3 of this report, knowing about the death registration completeness is essential for several reasons. From a civil registration perspective, knowing the completeness of death registration is important for the improvement of the health system. From a statistical perspective, estimating registration completeness enables adjustments to be made when calculating mortality rates and computing demographic indicators such as population projections, age-and-sex-specific mortality rates and population dynamics.

As shown in Table 13, the death registration completeness at the national level in 2024 is 46.1%. This figure is calculated by dividing the number of registered deaths (36,021, excluding delayed registrations) by the expected number of deaths based on the most recent Rwanda population and housing census projection, which estimates 78,120 deaths for 2024. Given the relatively low level of death registration completeness, using registration data directly to calculate key mortality indicators would be unreliable. Therefore, adjustments were made to estimate these indicators. Adjusting for incomplete registration is a standard practice and aligns with the UN Principles and Recommendations for a Vital Statistics System (2014), as outlined in section 3.4. Table 12 provides a summary of both registered deaths and adjusted values for key mortality indicators. For more detailed information on adjusted mortality indicators, refer to Chapter 3, Section 3.4.

Table 13: Summary mortality statistics, 2019 to 2024

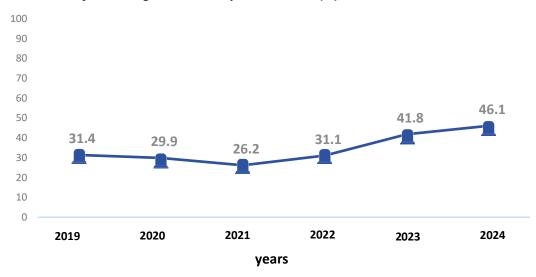
Indicator	2019	2020	2021	2022	2023	2024
Registered deaths (number)	23,791	22,634	19,797	25,536	32,853	36,021
Male	13,188	12,659	10,792	14,041	17,996	19,843
Female	10,603	9,975	9,005	11,495	14,857	16,178
Expected number of deaths (number)	75,712	75,624	75,653	82,241	78,561	78,121
Male	38,760	38,803	38,774	39,291	38,213	38,200
Female	36,952	36,821	36,879	42,950	40,348	39,921
Death registration completeness (%)	31.4	29.9	26.2	31.1	41.8	46.1
Male	34.0	32.6	27.8	35.7	47.1	51.9
Female	28.7	27.1	24.4	26.8	36.8	40.5
Crude death rate per 1,000 (Adjusted)	5.9	6	5.8	5.8	5.8	5.7
Under-5 mortality rate per 1,000 live births (Adjusted)	38.5	37.1	39.8	43.9	37.9	39.4
Sex-ratio at death	124	124.1	119.8	122.1	121.1	122.7

Source: CRVS system and 5th PHC (NISR), 2024

5.2.2. Death registration completeness

The completeness of death registration was found to be 46.1% at the national level a significant increase from 41.8% in 2023. Figure 16 shows trends in death registration completeness rates since 2019.

Figure 16: Trend of death registration completeness rate (%), 2019-2024



Source: CRVS system and 5th RPHC Projections, 2024

Figure 17 presents the trend in overall death registration completeness, considering both timely and late registrations. Although progress has been made, further efforts are needed to meet the targets set by SDG indicator 17.19.2.b, which aims for 80% death registration completeness. Figure 17 highlights key areas requiring attention to achieving this target.

53.9 58.5 68.9 68.6 70.1 73.8 Parcentage 09 1.2 1.6 9.9

8.4

17.8

2021

Figure 17: Registered and unregistered deaths as shares (%) of expected deaths, 2024

■ Unregistered deaths as a share of expected deaths

11.4

18.6

2020

■ Late registration of deaths as a share of expected deaths

■ Timely registered deaths as a share of expected deaths

Source: CRVS system, 2024

21.6

2019

5.2.3. Timeliness of death registration

Under the current law, death registration must be completed within 30 days of occurrence, which qualifies as timely registration in this report. Since the focus is on deaths that occurred in 2024, delayed registrations were not included in this section. For reporting purposes, late registration refers to deaths registered after 30 days but within one year. Figure 18 shows that 97.3% of deaths registered in 2024 were recorded within the required 30-day period. The same figure also indicates a slight decline in the proportion of timely death registration.

29.5

2022

44.9

2024

40.6

2023

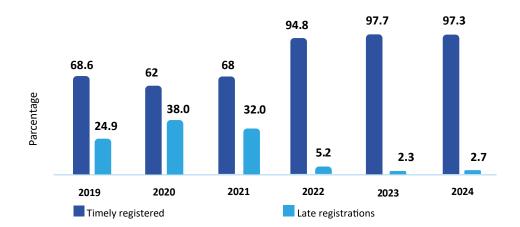


Figure 18: Proportion of timely registered deaths in %, 2019 to 2024

5.2.4. Registered Deaths by place of usual residence

Table 13 displays the number of deaths registered in the civil registration system categorized by the province of usual residence, alongside the estimated total population of each province. The highest number of registered deaths was recorded in the Eastern Province, followed by the Southern Province, while the lowest was observed in the City of Kigali. However, given the low completeness of death registration, these figures should be interpreted with caution. Ongoing efforts are being made to improve registration completeness and enhance the reliability of mortality data.

Table 14: Registered deaths by provinces with estimated population and by sex of decedent

Province of residence	Estimated	Number of re	Sex ratio at		
	Populations	Both sexes	Female	Male	death
Rwanda	13,798,567	36,021	16,178	19,843	122.7
Eastern Province	3,788,124	9,358	4,062	5,296	130.4
Kigali city	1,895,363	4,048	1,827	2,221	121.6
Northern Province	2,110,912	6,404	2,930	3,474	118.6
Southern Province	3,050,348	8,289	3,734	4,555	122.0
Western Province	2,953,820	7,543	3,482	4,061	116.6
Not stated		379	143	236	

Source: CRVS system, 2024

5.2.5. Registered deaths by place of occurrence and by residence district

Data from the CRVS system indicates that community deaths accounted for a higher proportion of registered deaths (19,493) compared to health facility deaths (16,528) in 2024. Community deaths made up 54.1% of total registered deaths, while health facility deaths represented 45.9%. This trend is largely attributed to the decentralization and digitalization of civil registration services at the cell level. A breakdown of registered deaths by place of occurrence and place of residence reveals that Gasabo District recorded the highest number of health facility deaths (1,139), whereas Gicumbi District had the highest number of community deaths (915). Further details are provided in Table 14 below:

Table 15: Distribution of registered deaths by place of occurrence and residence districts.

District name		Counts		Percent distribu	ution	
	Community	Health facility	Total	Community	Health facility	Total
All	19,493	16,528	36,021	54.1	45.9	100
Bugesera	792	684	1476	53.7	46.3	100
Burera	640	499	1139	56.2	43.8	100
Gakenke	712	577	1289	55.2	44.8	100
Gasabo	818	1,139	1957	41.8	58.2	100
Gatsibo	826	598	1424	58.0	42.0	100
Gicumbi	915	497	1412	64.8	35.2	100
Gisagara	464	443	907	51.2	48.8	100
Huye	687	490	1177	58.4	41.6	100
Kamonyi	718	554	1272	56.4	43.6	100
Karongi	447	414	861	51.9	48.1	100
Kayonza	698	583	1281	54.5	45.5	100
Kicukiro	367	728	1095	33.5	66.5	100
Kirehe	620	487	1107	56.0	44.0	100
Muhanga	704	445	1149	61.3	38.7	100
Musanze	801	672	1473	54.4	45.6	100
Ngoma	674	452	1126	59.9	40.1	100
Ngororero	594	376	970	61.2	38.8	100
Nyabihu	657	367	1024	64.2	35.8	100
Nyagatare	800	808	1608	49.8	50.2	100
Nyamagabe	601	367	968	62.1	37.9	100
Nyamasheke	693	448	1141	60.7	39.3	100
Nyanza	489	424	913	53.6	46.4	100
Nyarugenge	370	626	996	37.1	62.9	100
Nyaruguru	630	329	959	65.7	34.3	100
Rubavu	717	810	1527	47.0	53.0	100
Ruhango	519	425	944	55.0	45.0	100
Rulindo	701	390	1091	64.3	35.7	100
Rusizi	595	530	1125	52.9	47.1	100
Rutsiro	483	412	895	54.0	46.0	100
Rwamagana	728	608	1336	54.5	45.5	100
Not stated	33	346	379	8.7	91.3	100

5.2.6. Deaths registered by age and sex

Figure 19 shows the distribution of registered deaths (counts) by sex and age groups. Given the great proportion of young children in Rwanda's population and high risk of death at early ages of birth, it is not surprising that most deaths occur within the under 5-year-old age group. The number of

registered deaths is high among males compared to females across all age groups except at very old ages (80+). It is important also to mention here that a high number of infant male deaths compared to female deaths was observed. Despite low completeness of reporting, the figures indicated here below portray the mortality structure with respect to age and sex.

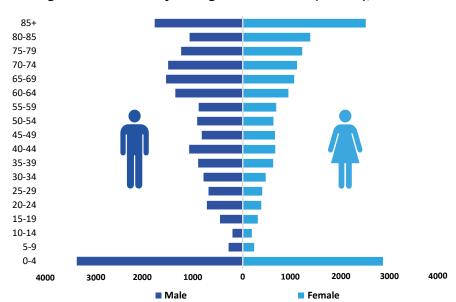


Figure 19: Age-Sex structure of all registered deaths (counts), 2024

Source: CRVS system, 2024

5.2.7. Age-sex distribution of registered deaths by place of residence

The age-sex distribution patterns across age groups display slight variations between urban areas compared to rural areas as displayed in Figures 20 and 21. A small difference is observed at older ages where the proportion of male deaths is lower than that of female deaths in rural areas.

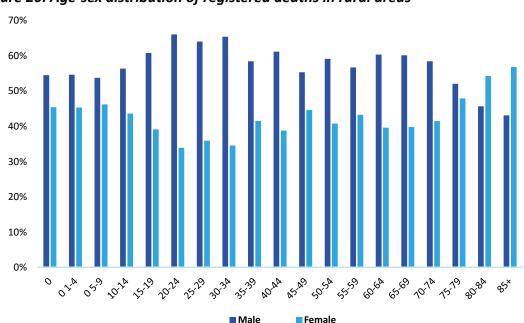


Figure 20: Age-sex distribution of registered deaths in rural areas

The same graph in urban areas shows almost the same distribution in rural areas except for the difference observed in very old age where in urban areas female deaths are higher compared to male deaths.

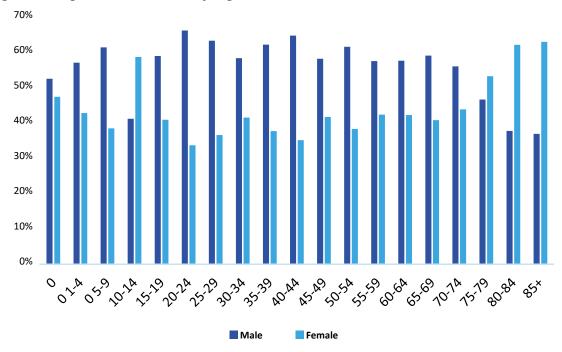


Figure 21: Age-sex distribution of registered deaths in urban areas

Source: CRVS system, 2024

5.2.8. Registered deaths by place of death and place of usual residence

The CRVS system generated data in 2024 indicates that among registered deaths, a high proportion occurred at the community level in rural areas (59.3%) compared to health facilities registered deaths (40.7%) while in urban areas, health facilities deaths represent 62% compared to the 38% at the community level.

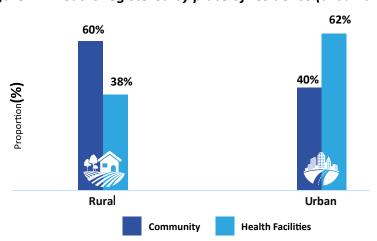


Figure 22: Deaths registered by place of residence (urban and rural) and place of occurrence.



6

Cause of Death Statistics

6.1. Background

Prior to October 2017, medical doctors in Rwanda were not trained in certifying causes of death according to international standards. The 2016 World Health Organization (WHO) International Medical Certificate of Cause of Death (MCCoD) was not used in health facilities and the quality of cause of death data was not advanced with many deaths attributed to ill-defined causes which are of little utility for public health decision making.

In response, the Ministry of Health issued a ministerial order to all health facilities requesting them to appropriately certify and report deaths using the MCCoD form, in line with the International Classification of Diseases (ICD), 10th Revision. Since 1st January 2018, this has been the reporting standard of diseases and health conditions that enables the comparison and sharing of health and mortality information. The WHO recommended the countries to use standardized tools in the District Health Information System (DHIS2) mortality module that has been linked to the CRVS system for better reporting and comparability with other mortality statistics.

Recording the cause of death is the subset of mortality module in the civil registration system in Rwanda. According to the amended law No 001/2020 of 02/02/2020 amending law No 32/2016 governing persons and family, the registration of death is done at sector office, at health facility, at Cell administration level and other designated registration points upon presentation of death notification form known as MCCoD. The National Centralized and Integrated Civil Registration and Vital Statistics (NCI-CRVS) system is used to collect, transmit and store death and causes of death information which supports the routine production of annual vital statistics.

The application of the ICD coding system facilitates the storage, retrieval and analysis of data and enables the systematic and standardized recording, analysis, interpretation, comparison and sharing of morbidity and mortality data within a population and across countries.

ICD-10 causes of death are categorized into 22 chapters, with each chapter grouping related diseases and conditions based on anatomical, pathological, or etiological similarities covering three broad groups of causes:

- Group 1: Infectious and parasitic diseases (i.e. HIV, tuberculosis, pneumonia, diarrhea, malaria, measles); maternal/perinatal causes (i.e. maternal haemorrhage, birth trauma); and malnutrition.
- Group 2: Non-communicable diseases (i.e. cancer, diabetes, heart disease, stroke); and mental health conditions (i.e. schizophrenia).
- Group 3: Injuries (i.e. road accidents, homicide, and suicide).

6.2. Medical certification of cause of death

To enhance the quality of cause-of-death statistics in Rwanda, the government initiated two major interventions: the integration of Medical Certification of Causes of Death (MCCoD) and International Classification of Disease (ICD 10) 2016 Edition, into healthcare settings to determine the underlying causes of death occurring in health facilities; and the introduction of verbal autopsy to better understand the patterns of causes of death for people who die outside of a health facility where no physician is available to certify death.

In this report, cause-of-death statistics are compiled from the civil registration system that uses the ICD-10 full list to record the underlying cause of death (UCOD) as reported by trained physicians on medical certification of causes of death (MCCoD) for deaths occurring in health facilities. Currently, all hospitals and clinics certify causes of death using the standardized MCCoD form and statistical coding according to the ICD-10 mortality coding system. A sum of 16,572 deaths were reported by relevant health facilities in the CRVS system, of which 14,907 deaths were medically certified using the standardized MCCoD form. Ideally, every death should have a medical determined cause of death. However, the majority of deaths recorded at healthcare centers lack proper medical certification due to a shortage of qualified doctors to certify deaths in accordance with WHO guidelines. In such cases, causes of death are determined using the Verbal Autopsy (VA) system.

When medical certification is incomplete or inaccurate, some deaths are classified under ill-defined causes with limited public health value often referred to as "unusable" or "garbage" codes. To address this, the ANACoD 3.0 (Analyzing Mortality Levels and Causes of Death) tool was used to systematically analyze mortality data and causes of death.

Figure 23 presents the age-sex distribution of deaths recorded at health facilities, highlighting that children under five account for the largest proportion of deaths among both females and males.

85+ 80-84 75-79 70-74 65-69 60-64 55-59 50-54 45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 5-9 2500 2000 1500 1000 500 500 1000 1500 2000 2500 Male Female

Figure 23: Age sex distribution (%) of deaths certified by health facilities.

6.2.1. Data quality and usability

The ongoing need for quality enhancements remains evident in the field of medical certification of the cause-of-death, in accordance with WHO standards. It is essential to continue the capacity building of certifiers using WHO standardized tools and quarterly MCCoD quality assessment on individual death certificates using the death certificate quality assessment tool to improve the quality of cause-of-death reported. To improve the quality of cause-of-death, the Ministry of Health, Rwanda Biomedical Centre, Rwanda Medical and Dental Council and other concerned stakeholders need a joint collaboration to reinforce strategic measures tailored to improve the quality, including MCCoD eLearning course for in-service medical doctors as a part of Continuous Professional Development (CPD) credits required for annual licensure.

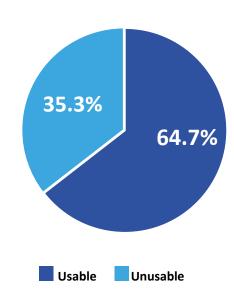


Figure 24: Distribution of institutional cause of death by usability, 2024.

Source: CRVS system, 2024

In 2020, WHO launched ANACoD3 (The Analyzing Mortality and Causes of Death 3), which is a tool for facilitating the analysis of mortality data. ANACoD3 is an online tool serving for monitoring quality and trends using cause-of-death data. It enables you to perform a comprehensive and systematic analysis of mortality and cause-of-death data. The tool automatically tabulates data and presents basic mortality measures in tables and figures. It highlights potential inconsistencies and errors in the data and estimates the completeness of reporting.

The ANACoD3 tool generates key indicators that help identify potential data quality issues while providing a range of comparable mortality statistics, including sex- and age-specific mortality rates, crude death rates, life expectancy at birth, distribution of causes of death based on the Global Burden of Disease (GBD) categories, the top 20 causes of death, and the proportion of ill-defined causes of death.

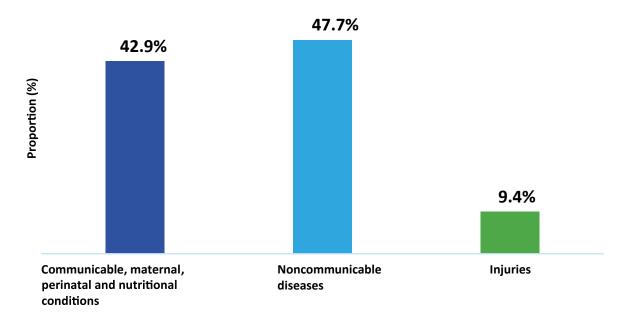
The analysis of the 2024 CRVS mortality data using ANACoD3 revealed that 64.7% of deaths were assigned to usable causes, consistent with the previous year. However, ill-defined causes of death remained high at approximately 35.3% (see Figure 24). The World Health Organization recommends

that ill-defined causes should not exceed 10% of deaths at age 65 and above and should be 5% for deaths among individuals below 65 age groups.

6.2.2. Distribution of usable death causes by three broad groups

As illustrated in Figure 25, the distribution of usable codes across three broad categories shows that non-communicable diseases account for the largest share of causes of death at 47.7% in 2024, up from 46% in 2023. Communicable diseases follow, representing 42.9% in 2024. Meanwhile, the proportion of deaths due to injuries and external causes declined from 11% in 2023 to 9.4% in 2024.

Figure 25: Distribution of usable death causes at health facilities by three main Broad Groups



Source: CRVS system, 2024

6.2.3. Deaths with defined causes in three broad groups by age and sex

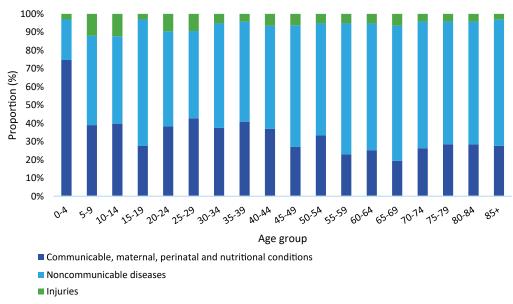
Mortality attributed to the three broad groups was tracked across various age categories for both males and females. The breakdown of causes of death within the three main broad groups reveals a trend among males where the proportion of deaths due to communicable diseases is decreasing while those from non-communicable diseases are rising across all age categories. Additionally, external causes and injuries were notably prevalent among males aged 20 to 29 compared to other groups.

100% 90% 80% 70% Proportion (%) 60% 50% 40% 30% 20% 10% 0% 25-29 20-24 45.49 50.54 55.59 60.64 65.69 10.74 15.79 80.84 30-34 35-39 Age group ■ Communicable, maternal, perinatal and nutritional conditions ■ Noncommunicable diseases ■ Injuries

Figure 26: Death causes recorded by health facilities in broad groups by age of Males

As illustrated in Figure 27, communicable diseases, perinatal and nutritional conditions, are most prevalent among females under the age of five but decline significantly thereafter. In contrast, non-communicable diseases are notably higher among females aged five and above, consistently representing the leading cause across all older age groups. Meanwhile, external causes of death remain relatively low across all age groups among females.

Figure 27: Death causes recorded by health facilities in broad groups by age of females



Mortality data in 2024 also show that the leading cause of death from health facility data ,both sexes and all ages combined were prematurity and low birth weight (10%), followed by birth asphyxia and birth trauma (4%), cerebrovascular diseases (3%) and others respectively. Details on top leading cause-of-death at health facilities can be found in annex 2 and 3.

6.3. Verbal autopsy for deaths occurring outside health facilities

Understanding the underlying causes of mortality can provide valuable insights into lifestyle patterns, enabling the enhancement of healthcare services and the reduction of preventable deaths across the country. This understanding facilitates an effective response to evolving epidemiological conditions.

Recognizing that approximately 70% of deaths occur outside healthcare facilities, a regulatory measure has been implemented to address this gap. This regulation authorizes Cell Executive Secretaries to register community deaths and conduct verbal autopsies in cases where medical professionals are unavailable to certify deaths using the MCCoD form. The integration of verbal autopsy with the civil registration and national identification systems has significantly improved both the quality and quantity of verbal autopsies conducted nationwide. As a result, verbal autopsy has become a routine community-level activity, with trained Cell Executive Secretaries regularly conducting and reporting verbal autopsies as part of their performance evaluation.

Consequently, by the end of 2024, a total of 13,703 verbal autopsies were conducted for 20,317 community deaths registered for deaths occurred and registered in the same period.

The report on causes of death from community settings marks the second publication since the nationwide rollout of Verbal Autopsy (VA) in June 2022. Verbal autopsy is a WHO-recommended method, which is used to collect mortality data and determine causes of death for cases not medically certified by doctors. The implementation of VA is mandated by by Presidential Order N° 001/01 of 06/02/2023 relating to the Sector, Cell and Village. Trained Cell Executive Secretaries conduct VA interviews using Android tablets or mobile phones equipped with Open Data Kit (ODK) and the WHO 2016 VA questionnaire. This questionnaire includes a series of questions to capture the signs and symptoms experienced by the deceased before death, enabling algorithm-based analysis to determine the cause of death for evidence-based decision-making.

The verbal autopsy results were analyzed using computerized diagnostic algorithms, providing a comprehensive summary of mortality patterns in the community. This analysis highlights the leading causes of death, major and specific mortality causes, neonatal mortality, external causes (injuries), and principal causes disaggregated by gender and other subcategories. Figure 28 illustrates the agesex distribution of community deaths for which verbal autopsies were performed, showing that females outnumber males in older age groups, whereas males are more prevalent in the younger age ranges.

85+ 80-85 75-79 70-74 65-69 60-64 55-59 50-54 45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 5-9 0-4 2000 1500 1000 500 500 1000 1500 2000 2500

Figure 28: Age sex distribution (%) of community deaths with VA conducted in 2024

The table 15 below provides a summary of verbal autopsies conducted for registered community deaths since the rollout of verbal autopsy as a routine system for reporting community cause-of-death data in July 2022. The 2023 Vital Statistics Report previously combined verbal autopsies from both 2022 and 2023. However, a decision was made to report only verbal autopsies for deaths that occurred within the reporting year for the purpose of a vital statistics report. As a result, a total of 13,703 verbal autopsies in 2024 were used for this report.

Female

Table 16: Summary of verbal autopsies conducted for community deaths, 2022-2024

Male

Indicator	2022	2023	2024
VA for deaths that occurred in the reporting year	1,889	8,369	13,703
VA for deaths that occurred before the reporting year	355	4,793	6,614
Total	2,244	13,162	20,317

The distribution of community deaths by major Global Burden of Disease (GBD) groups, as captured through verbal autopsy, indicates that non-communicable diseases accounted for 59.3% of total registered community deaths in 2024, a slight decrease from 61% in the previous year. Communicable diseases and injuries, though relatively lower, together represented 28.4% of deaths, reflecting a slight increase from the previous year. Deaths due to injuries rose to 12.3%, up from 10% in 2023. Further details on the composition of broad groups, and the leading causes of community deaths can be found in the annex 5.

6.3.1. Data quality and usability

Figure 29 illustrates the quality of community cause-of-death data from verbal autopsies, showing that 84% of reported deaths in 2024 were assigned to usable causes, down from 91% in 2023. Meanwhile, the proportion of unusable causes increased from 10% in the previous year to 16% in 2024. The World Health Organization recommends that ill-defined causes of death should remain below 10% for all community cause-of-death reported.

16.0

Figure 29: Distribution of community cause of death by usability, 2024

Usable

Source: CRVS system, 2024

As illustrated in Figure 30, the distribution of usable codes across three broad categories shows that in the community, non-communicable diseases account for the largest share of causes of death at 59.3% in 2024. Communicable diseases follow, representing 28.4% in 2024. Meanwhile, the proportion of deaths due to injuries and external causes accounts for 12.3% in 2024.

Unusable

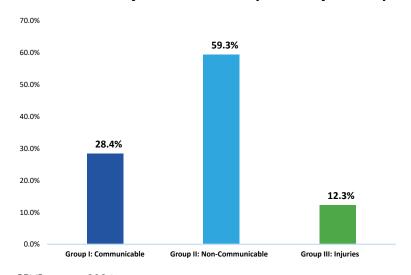


Figure 30: Distribution of usable community causes of death by broad groups

Source: CRVS system, 2024

The community death data identifies the leading individual causes of death for all ages. Annexes 4 and 5 display the top 20 leading causes of death contributing to the burden of disease in the community ranked by their cause-specific mortality fractions. This analysis of community deaths was conducted using computerized diagnostic algorithms used for analyzing verbal autopsy data.



7

Marriage statistics

This section provides an overview of marriages officially registered between January and December 2024, based on data extracted from the NCI-CRVS system. Only legally recognized marriages are included; other forms of consensual unions which are not registered in the CRVS system and are excluded. Additionally, due to the ongoing revision of the IECMS, statistics on divorces are not included in this report.

7.1. Legal marriages registered

Marriage is defined as the act, ceremony, and process through which the legal relationship between spouses is established. The legality of the union may be formalized by civil, religious, or other means recognized by the laws of each country. According to the current legislation in Rwanda, marriage is officiated by a civil registrar at a sector office, district office, or Rwandan embassy.

Data obtained from the NCI-CRVS system shows a decrease in the number of marriages registered in 2024 compared to 2023, from 57,880 to 52,878 marriages, equivalent to 9.5% of decrease. The comparison of registered marriages with the resident population size results in a crude marriage rate of 3.8%.

Table 17: Registered marriages, 2019-2024

Year	Number of marriages	Population	Crude marriage rate (‰)
2019	48,526	12,374,398	3.9
2020	30,859	12,663,116	2.4
2021	33,809	12,955,763	2.6
2022	35,529	13,246,394	2.7
2023	57,880	13,499,066	4.3
2024	52,878	13,798,561	3.8

Source: CRVS system, 2024.

7.1.1. Marriages registered by location of registration office

The data generated by NCI-CRVS system indicate that a total of 52,878 marriages were registered in 2024. The data further reveal that the highest numbers of marriages were recorded in Gasabo (5,543) and Gicumbi (2,550) districts, while the lowest numbers were observed in Rutsiro (1,394) and Burera (1,360) districts.

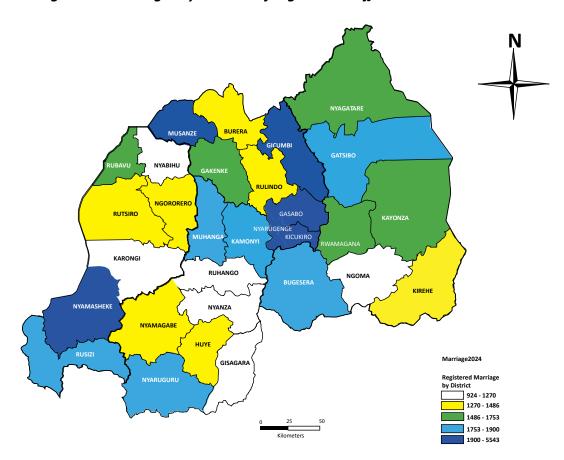


Figure 31: Registered Marriages by location of registration office

7.1.2. Marriages registered by age of bride and groom

The data generated by the NCI-CRVS system shows variations in marriage registrations based on the ages of brides and grooms at the time of marriage. Specifically, within the age interval of 21 to 29 years, the number of brides exceeds the number of grooms. However, the data indicate a reversed situation at age of 30 and above. These patterns are illustrated in Figure 32 below.

18,560 16,062 14,877 9,601 7,660 7,313 4,663 3,939

Age group

■ Groom ■ Bride

25-29

Figure 32: Marriages registered in 2024 by age of bride and groom

Source: CRVS system, 2024.

53

Below 21

21-24

2

The data generated by CRVS system were used to analyse the age differences between brides and grooms in registered marriages. The results indicated that the 25-29 age group represents the highest number of marriages for both males and females. Additionally, a significant proportion of marriages occur between males aged 25-29 and females aged 21-24, as well as between males aged 30-34 and females aged 25-29. Overall, the majority of marriages involve males aged 25-34 and females aged 21-29. In general, the number of marriages is higher among females compared to males under the age of 30, while for those aged 30 and above, the number of marriages is higher among males than females.

30-34

35-39

40+

Table 18: Groom and Bride age relationship at marriage date

	Age	Below 21	21-24	25-29	30-34	35-39	40+	Total
	Below 21	1	8	29	11	3	1	53
a	21-24	1	4,057	7,602	3,307	877	218	16,062
of Bride	25-29	0	1,527	7,280	6,797	2,188	768	18,560
of B	30-34	0	324	1,625	3,713	2,609	1,330	9,601
Age (35-39	0	83	376	864	1,553	1,787	4,663
Ğ	40+	0	17	98	185	430	3,209	3,939
	Total	2	6,016	17,010	14,877	7,660	7,313	52,878

Source: CRVS system, 2024.

7.1.3. Registered Marriages by matrimonial regime

According to the law in force, there are four types of matrimonial regimes in Rwanda. The community of property: a contract by which the spouses opt for marriage settlement based on joint ownership of all their property-movable as well as immovable and their present and their future charges; it is also a primary-default-regime. The limited community of property: a contract by which spouses agree to pool their respective properties owned on the day of marriage celebration, to constitute the basis of the acquests as well as the property acquired during marriage by a common or separate activity, donation, legacy or succession. The separation of property which is a contract by which spouses agree to contribute to the expenses of the household in proportion to their respective abilities while retaining the right of enjoyment, administration, and free disposal of their personal property. The matrimonial regime based on agreement drawn up by intending spouses: which is a contract by which intending spouses may choose matrimonial regime based on agreement drawn up by them if it is not contrary to the rules of public order and good morals of Rwandans.

The NCI-CRVS system generated data reveals that "community of property" was the preferred matrimonial regime for most couples in Rwanda, accounting for 96.2% of registered marriages in 2024. For more details, refer to Table 19.

Table 19: Registered marriages by matrimonial regime

Regime of marriage	Count	Percentage
Community of property regime	50,890	96.2
Limited Community of property regime	1233	2.3
Separation of property regime	753	1.4
The matrimonial regime based on agreement drawn up by intending spouses	2	0.0
Total	52,878	100.0

7.1.4. Groom and bride's education by marriage date

Table 19 reveals that the numbers of marriages are generally high between females and males with the same levels of education. Apart from intersection between similar education levels among couple members, the table shows that females with no education are more likely to marry males with primary education (296 cases) while they get rarely married with males with university level of education (3 cases).

Females with primary level of education are more likely to get married with males having similar education (19,874) or males with post-primary and lowers secondary education (1,197 and 1,219 cases, respectively). Females with upper secondary are more likely to get married with males having similar level of education (5,423 cases) or those who attended university (2,029 cases) while they are less likely to get married with males who never attended school (29 cases) or who attended preschool (51 cases). Females who attended university are more likely to get married with males having the same level of education (2,910 cases) or those with upper secondary (854) while they are less likely to get married with those who never attended or only attended the preschool (5 and 6 cases, respectively).

Table 20: Husband's and wife's education at marriage date

	Husl								
		None/ never	Preschool	Primary	Post- primary	Lower secondary	Upper Secondary	University or higher	Total
level	None/ never attended	2,775	74	735	118	1,946	344	1,470	7,462
<u>e</u>	Preschool	26	544	34	72	296	3	14	989
education	Primary	675	48	1,639	75	1,118	49	222	3,826
ıca	Post-primary	54	123	72	716	715	1	30	1,711
edı	Lower secondary	1,219	485	1,197	599	19,874	107	711	24,192
Wife's	Upper Secondary	190	5	41	6	115	2,910	854	4,121
Š	University or higher	1,409	29	331	51	1,305	2,029	5,423	10,577
	Total	6,348	1,308	4,049	1,637	25,369	5,443	8,724	52,878

Source: CRVS system, 2024

7.1.5. Marriage regime and levels of education

Table 20 shows that generally, community of property is the most frequently chosen marriage regime across all husbands' education levels. Across education levels, the table shows that community of property regime is most frequent among males who attended Primary or upper secondary 96.7% and less frequent among those who attended preschool (38.4%). Limited community of property is most frequent among males who never attended school (4.5%) and less frequent among those who attended Preschool (1.4%). The same table shows that separation of property is more frequent among males who attended university (2.4%) and less frequent among those who attended preschool (0.6%).

Table 21: Marriage regime and husband's education

	Husbands' education level (counts)							
	Lower	None/ never attended	Post- primary	Preschool	Primary	University or higher	Upper secondary	Total
Community of property regime	6,121	1,227	3,883	1,556	24,520	5,150	8,433	50,890
Limited Community of property regime	127	59	107	56	558	164	162	1,233
Separation of property regime	100	22	59	25	289	129	129	753
Marriage by mutual contract	0	0	0	0	2	0	0	2
Grand Total	6,348	1,308	4,049	1,637	25,369	5,443	8,724	52,878
		Husband's	education	level (pe	rcentages)			
Community of property regime	96.4	93.8	95.9	95.1	96.7	94.6	96.7	96.2
Limited Community of property regime	2.0	4.5	2.6	3.4	2.2	3.0	1.9	2.3
Separation of property regime	1.6	1.7	1.5	1.5	1.1	2.4	1.5	1.4
Marriage by mutual contract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 21 demonstrates that, among females, the community of property is the most frequently selected marital regime across all education levels. Specifically, the table shows that community of property regime is most prevalent among females with lower secondary education (97.0%) and less prevalent among those who never attended school (93.5%). In contrast, the limited community of property is most frequently observed among females with no formal education (5.4%) and less frequent among those who attended lower secondary (1.6%). Additionally, the separation of property is more frequent among females with university education (2.3%) and less frequent among those with preschool education (1.1%).

Table 22: Marriage regime and wife's education

	Husbands' education level (counts)							
	Lower	None/ never attended	Post- primary	Preschool	Primary	University or higher	Upper secondary	Total
Community of property regime	7239	925	3666	1628	23327	3884	10221	50890
Limited Community of property regime	119	53	104	55	570	141	191	1233
Separation of property regime	104	11	56	28	293	96	165	753
Marriage by mutual contract	0	0	0	0	2	0	0	2
Grand Total	7462	989	3826	1711	24192	4121	10577	52878
		Wife's 6	education l	evel (per	centages)			
Community of property regime	97.0	93.5	95.8	95.1	96.4	94.2	96.6	96.2
Limited Community of property regime	1.6	5.4	2.7	3.2	2.4	3.4	1.8	2.3
Separation of property regime	1.4	1.1	1.5	1.6	1.2	2.3	1.6	1.4
Marriage by mutual contract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

7.2. Crude marriage rate

The crude marriage rate is the number of marriages occurring among the population of a given geographical area during a given year, per 1,000 mid-year total population of the given geographical area during the same year. The crude marriage rate was 4.3 % in 2023 decline to 4 % in 2024.

7.3. Age specific marriage rate (ASMR)

Age specific marriage rate (ASMR) indicates the number of marriages per 1,000 people in a specific age group during a given year, providing insight into marriage patterns across different age brackets. For example, a rate of 34.7 for females implies that out of 1,000 women in a particular age group, approximately 35 women are married.

Figure 33 represents the age-specific marriage rate for grooms and brides across different age groups. The data indicates that marriage is most prevalent in the 25-29 age group for both genders. The marriage rate for 18-20 age group is almost negligible for both grooms and brides. Grooms maintain relatively higher marriage rates than brides beyond 30, while women tend to marry at younger ages

than men. In general, marriage rates decline significantly for both genders after the age of 40.

ders. The marriage rate for 18-20 age group is almost negligible for both grooms and brides. Grooms maintain relatively higher marriage rates than brides beyond 30, while women tend to marry at younger ages than men. In general, marriage rates decline significantly for both genders after the age of 40.

33.3 _ 34.7 Age Sepecific Marriage rate 31.1 31.5 19.6 17.3 12.1 10.1 8.9 4.5 5.3 3.1 1.0 2.8 0.00 .1 18-20 21-24 25-29 30-34 35-39 40-44 45-49 50-59 60+ Age groups Age Specific Marriage rate for Male

Age Specific Marriage rate for Female

Figure 33: Age Specific Marriage Rates

Source: CRVS system, 2024.



8

Summary Tables

8.1 Time series of registered events from 2019 to 2024*

Year	Births	Deaths	Marriages
2019	313,398	23,791	48,526
2020	312,678	22,634	30,859
2021	310,249	19,797	33,809
2022	341,122	25,567	35,529
2023	334018	32,853	57,880
2024	341,029	36,021	52,878

Source: CRVS system, 2024

8.2. Summary statistics on births (2019-2024)

Indicator	2019	2020	2021	2022	2023	2024
Registered live births (number)	313,398	312,678	310,249	341,122	334,018	341,029
Males	158,826	158,450	157,615	172,540	168,750	172,460
Females	154,572	154,228	152,634	168,582	165,268	168,569
Expected live births (number)	360,388	364,342	368,251	367,312	370,964	377,548
Males	182,857	184,863	186,847	187,873	188,851	192,203
Females	177,531	179,479	181,404	179,439	182,113	185,345
Registration completeness (%)	87.0	85.8	84.2	92.9	90.0	90.3
Males	86.9	85.7	84.4	91.8	89.4	89.7
Females	87.1	85.9	84.1	93.9	90.8	90.9
Sex ratio at birth	102.8	102.7	103.3	102.4	102.1	102.3
Adjusted Crude birth rate (per 1,000 population)	29.1	28.8	28.4	27.7	27.5	27.4
Total fertility rate (births per woman)	3.8	3.7	3.5	3.7	3.6	3.6

Source: CRVS system and 5th -RPHC Projections, 2024

^{*}The above numbers reflect the number of events that occurred and were registered in the same year

8.3. Summary mortality statistics, 2019 to 2024

Indicator	2019	2020	2021	2022	2023	2024
Registered deaths (number)	23,791	22,634	19,797	25,536	32,853	36,021
Male	13,188	12,659	10,792	14,041	17,996	19,843
Female	10,603	9,975	9,005	11,495	14,857	16,178
Expected number of deaths	75,712	75,624	75,653	82,241	78,561	78,121
Male	38,760	38,803	38,774	39,291	38,213	38,200
Female	36,952	36,821	36,879	42,950	40,348	39,921
Death registration completeness (%)	31.4	29.9	26.2	31.1	41.8	46.1
Male	34.0	32.6	27.8	35.7	47.1	51.9
Female	28.7	27.1	24.4	26.8	36.8	40.5
Crude death rate per 1,000 (Adjusted)	5.9	6	5.8	5.8	5.8	5.7
Under-5 mortality rate per 1,000 live births (Adjusted)	38.5	37.1	39.8	43.9	37.9	39.4
Sex-ratio at death	124	124.1	119.8	122.1	121.1	122.7

Source: CRVS system and 5th PHC (NISR), 2024

8.4. Time series of birth and death registration completeness from 2019 to 2024

year	Birth registration completeness (%)	deaths registration completeness (%)
2019	87.0	31.4
2020	85.8	29.9
2021	84.2	26.2
2022	92.9	31.1
2023	90.0	41.8
2024	90.3	46.1

8.5. Time series of vital rates from 2019 to 2024.

year	TFR	GFR	CBR	CDR	Neonatal mortality rate	Infant mortality rate	Under five mortality rate	Crude Marriage Rate	Population
2019	3.7	110.8	29.1	5.9	23.5	31.5	38.5	3.9	12,374,398
2020	3.7	108.7	28.8	6	23	30	37.1	2	12,663,116
2021	3.5	106	28.4	5.8	23.7	31.6	37.4	3	12,955,763
2022	3.7	106.6	27.7	5.8	25.4	34.3	40.9	3	13,246,394
2023	3.6	104.9	27.5	5.8	20.3	30	38.6	4	13,499,066
2024	3.6	103.85	27.4	5.8	19.2	28.2		4	13,798,561

Source: CRVS system, 2024

8.6. education level of all deceased persons in 2024

Education Level	Number	Percentage
None/never attended	13,342	37.0%
Preschool	1,976	5.5%
Primary	16,618	46.1%
Post-primary	952	2.6%
Lower secondary	1,077	3.0%
Upper secondary	1,048	2.9%
University or higher	967	2.7%
Not stated	41	0.1%
Total	36,021	100.0%

Conclusion

The Vital Statistics report provides insight into CRVS system achievements and areas for further improvement in Rwanda. It also indicates the milestones achieved in line with country's strategic and operational aspirations. The report further presents fundamental aspects that supported CRVS improvement to date, as explained below:

- Legal and Administrative Framework: Rwanda's civil registration system has been strengthened by a strong legal foundation and clear administrative guidelines, which have established a systematic data collection and management. However, ensuring consistent compliance across all registration services points will require ongoing follow-up for its reinforcement.
- Governance and coordination: This report highlights the well-established mechanisms for coordinating Rwanda's civil registration system. The CRVS Steering Committee and the Technical Working Group are fully operational, ensuring effective collaboration. An inclusive approach has been adopted, bringing together key stakeholders who provide technical and financial support for all aspects of civil registration including data collection and cleaning to data utilization, as well as the production, validation, and dissemination of the CRVS report. Collaboration among different stakeholders is essential for ensuring the sustainability of civil registration for vital events.
- Digitalization and Systems integration: The Rwanda's CRVS system transitioned from a paper-based system to fully digital system to facilitate registration, data sharing, storage and use. The CRVS system is integrated with Identity Management system, National Population Registry (NPR), Rwanda Health Management information system, and other systems. These integrations have been instrumental in achieving current results. Moving forward, proactive notification and registration, and integrating with service delivery eco-systems.
- Decentralization of civil registration: Rwanda has made significant progress in decentralizing the Civil Registration and Vital Statistics (CRVS) system. One of the key achievements is the extension of civil registration services to the health facilities and cell administrative levels, making the process more accessible and efficient.

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ANNEXES

Annex 1: Top 20 most preferred babies' surnames in 2024 by sex

Rank	Female	2	Ma	le
1	INEZA	6,792	ISHIMWE	6,751
2	UWASE	4,606	IGANZE	3,239
3	ISHIMWE	4,545	MUGISHA	3,009
4	IRAKOZE	2,575	HIRWA	2,415
5	IGIRANEZA	2,329	IRAKOZE	2,362
6	UWINEZA	1,932	IGIRANEZA	1,939
7	INEZAYIMANA	1,653	INEZA	1,904
8	IGANZE	1,641	IZIBYOSE	1,664
9	IRADUKUNDA	1,605	IRASUBIZA	1,590
10	UMUTONIWASE	1,414	IRADUKUNDA	1,587
11	INEZA	1,309	GANZA	1,401
12	IRASUBIZA	1,279	ASHIMWE	1,372
13	UMUKUNDWA	1,115	KWIZERA	1,368
14	ISIMBI	1,061	NIYOGISUBIZO	1,140
15	NISHIMWE	1,048	GWIZA	1,031
16	IGIHOZO	1,009	BYISHIMO	983
17	KUNDWA	985	IRANZI	975
18	NIYOGISUBIZO	928	MANZI	951
19	ISHIMWE	917	AGANZE	904
20	IZIBYOSE	892	BYIRINGIRO	900

Annex 2: Top 20 leading causes of death at health facilities by sex, all ages (2024)

Top 2	O Leading COD, Male, all ages		Top 20	Leading COD, Female, all ages	
Rank	Cause	%	Rank	Cause	%
1	Prematurity and low birth weight	9.3	1	Prematurity and low birth weight	9.1
2	Birth asphyxia and birth trauma	4.2	2	Cerebrovascular disease	3.5
3	Lower respiratory infections	3.3	3	Birth asphyxia and birth trauma	3.4
4	Nephritis and nephrosis	3.2	4	Diabetes mellitus	3.1
5	Cerebrovascular disease	2.9	5	Lower respiratory infections	2.9
6	HIV	2.6	6	HIV	2.6
7	Road traffic accidents	2.1	7	Nephritis and nephrosis	2.3
8	Tuberculosis	2	8	Endocrine disorders	1.9
9	Diabetes mellitus	1.7	9	Diarrhoeal diseases	1.4
10	Endocrine disorders	1.5	10	Congenital heart anomalies	1.1
11	Prostate cancer	1.1	11	Tuberculosis	1.1
12	Hepatitis C	1	12	Liver cancer	1
13	Hepatitis B	1	13	Meningitis	1
14	Liver cancer	1	14	Hepatitis C	0.9
15	Hypertensive disease	0.9	15	Leukaemia	0.9
16	Peptic ulcer	0.9	16	Protein-energy malnutrition	0.8
17	Congenital heart anomalies	0.9	17	Hypertensive disease	0.8
18	Meningitis	0.9	18	Cervix uteri cancer	0.8
19	Protein-energy malnutrition	0.8	19	Stomach cancer	0.8
20	Diarrhoeal diseases	0.7	20	Lymphomas and multiple myeloma	0.7

Annex 3: Top 20 leading causes of death at health facilities, both Sexes (2024)

Тор	20 Leading COD, both sexes	, all ages	Top 2	O Leading COD, both sexes, 0 -4 Ye	ears
Rank	Cause	%	Rank	Cause	%
1	Prematurity and low birth weight	9.6	1	Prematurity and low birth weight	31.6
2	Birth asphyxia and birth trauma	4.1	2	Birth asphyxia and birth trauma	13.2
3	Cerebrovascular disease	3.3	3	Congenital heart anomalies	3
4	Nephritis and nephrosis	2.7	4	Lower respiratory infections	2.7
5	HIV	2.4	5	Protein-energy malnutrition	1.6
6	Lower respiratory infections	2.2	6	Abdominal wall defect	1.5
7	Diabetes mellitus	2.1	7	Diarrhoeal diseases	1.1
8	Endocrine disorders	2	8	Endocrine disorders	1.1
9	Tuberculosis	1.9	9	Down syndrome	0.6
10	Road traffic accidents	1.8	10	Meningitis	0.4
11	Protein-energy malnutri- tion	1.1	11	Spina bifida	0.3
12	Congenital heart anomalies	1	12	Leukaemia	0.2
13	Liver cancer	0.9	13	Skin diseases	0.2
14	Lymphomas and multiple myeloma	0.9	14	Iron deficiency Anaemia	0.2
15	Diarrhoeal diseases	0.9	15	Lymphomas and multiple myelo- ma	0.2
16	Leukaemia	0.8	16	Road traffic accidents	0.2
17	Hepatitis B	0.8	17	Epilepsy	0.2
18	Inflammatory heart diseases	0.7	18	Nephritis and nephrosis	0.2
19	Stomach cancer	0.7	19	Chronic obstructive pulmonary disease	0.1
20	Hepatitis C	0.7	20	Cerebrovascular disease	0.1
	I	1		1	

Annex 4: Top 20 leading cause of death in community by sex, all ages (2024)

	Males			Female	
Rank	Cause of deaths	%	Rank	Cause of death	%
1	Other and unspecified cardiac diseases	13.2	1	Other and unspecified cardiac diseases	18.4
2	Acute cardiac disease	12.1	2	Acute cardiac disease	10.6
3	Digestive neoplasms	9.7	3	HIV/AIDS related death	7.2
4	Assault	6.4	4	Digestive neoplasms	6.5
5	Pulmonary tuberculosis	5.9	5	Stroke	6.1
6	Road traffic accident	4.9	6	Reproductive neoplasms MF	5.6
7	HIV/AIDS related death	4.8	7	Diabetes mellitus	3.9
8	Stroke	4.2	8	Acute resp infect incl pneumonia	3.9
9	Acute resp infect incl pneumonia	4.0	9	Pulmonary tuberculosis	3.5
10	Diabetes mellitus	3.3	10	Diarrhoeal diseases	3.1
11	Diarrheal diseases	3.1	11	Assault	2.1
12	Respiratory neoplasms	2.3	12	Other and unspecified neoplasms	2.0
13	Liver cirrhosis	2.3	13	Severe malnutrition	1.9
14	Meningitis and encephalitis	2.2	14	Obstetric haemorrhage	1.8
15	Acute abdomen	2.0	15	Meningitis and encephalitis	1.8
16	Other and unspecified neoplasms	2.0	16	Liver cirrhosis	1.5
17	Severe malnutrition	1.9	17	Road traffic accident	1.4
18	Epilepsy	1.8	18	Chronic obstructive pulmonary dis	1.3
19	Chronic obstructive pulmonary diseases	1.7	19	Epilepsy	1.2
20	Accidental drowning and submersion	1.2	20	Breast neoplasms	1.2

Annex 5: Top 20 leading cause of death in community, both sexes, all ages (2024)

S/N	Causes of death	Number of deaths	Percentages
1	Other and unspecified cardiac diseases	1,822	15.6
2	Acute cardiac disease	1,339	11.4
3	Digestive neoplasms	966	8.3
4	HIV/AIDS related death	692	5.9
5	Stroke	587	5.0
ϵ	Pulmonary tuberculosis	567	4.8
7	Assault	517	4.4
8	Acute resp infect incl pneumonia	459	3.9
9	Diabetes mellitus	420	3.6
10	Road traffic accident	390	3.3
11	Diarrhoeal diseases	362	3.1
12	Reproductive neoplasms	319	2.7
13	Meningitis and encephalitis	233	2.0
14	Other and unspecified neoplasms	230	2.0
15	Liver cirrhosis	227	1.9
16	Severe malnutrition	222	1.9
17	Respiratory neoplasms	190	1.6
18	Chronic obstructive pulmonary dis	284	1.6
19	Acute abdomen	280	1.6
20	Epilepsy	259	1.5

Annex 6: Major causes of death in the community disaggregated by sex, 2024

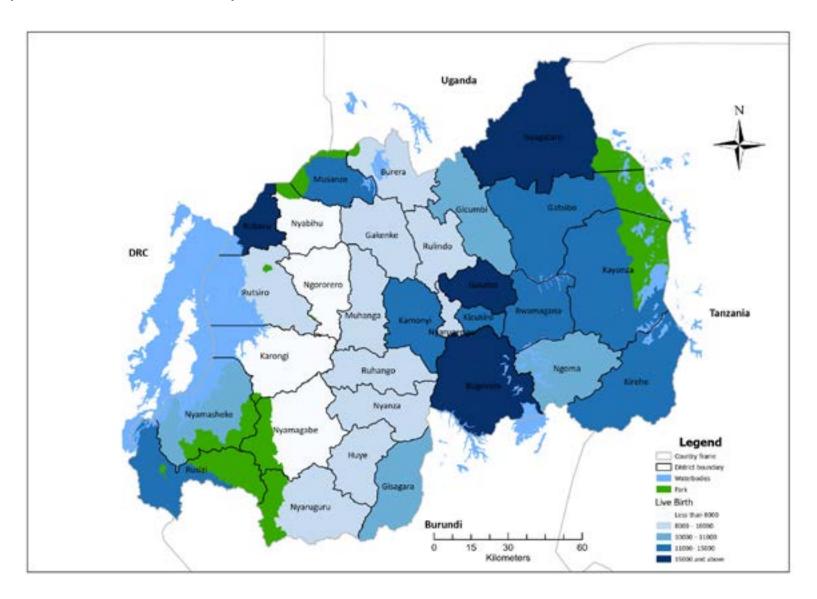
		Female		Male		Total
Major Group	Number	%	Number	%	Number	%
Group I: Communicable	1,598	11.7	1,672	12.2	3,270	23.9
Infectious	1,181	8.6	1,458	10.6	2,639	19.3
Maternal	230	1.7		0.0	230	17.0
Neonatal	85	0.6	89	0.6	174	13.0
Nutrition	102	0.7	125	0.7	227	17.0
Group II: Non-Communicable	3,280	23.9	3,555	25.9	6,835	49.9
Cancers	872	6.4	935	6.8	1,807	13.2
Other NCD	2408	17.6	2,620	19.1	5028	36.7
Group III: Injuries	360	2.6	1,052	7.7	1,412	10.3
External Causes	360	2.6	1,052	7.7	1,412	10.3
Undetermined & III defined	1,011	7.4	1,175	8.6	2,186	16.0
Undetermined	1,011	7.4	1,175	8.6	2,186	16.0
Total	6,249	45.6	7,454	54.4	13,703	100.0

Annex 7: Numbers of total population in 2024 by age groups and sex (projections)

Age groups	Both sexes	Male	Female
All	13,798,561	6,714,715	7,083,846
0-4	1,746,845	879,810	867,036
05-09	1,703,720	852,921	850,799
10-15	1,598,394	799,682	798,712
15-19	1,538,184	767,086	771,098
20-24	1,307,453	641,720	665,733
25-29	1,046,072	511,082	534,990
30-34	963,347	472,573	490,774
35-39	902,239	441,743	460,496
40-44	790,220	382,492	407,727
45-49	563,339	259,592	303,747
50-54	411,043	184,115	226,928
55-59	333,278	150,309	182,969
60-64	305,788	134,632	171,156
65-69	242,532	104,483	138,050
70-74	158,057	65,396	92,661
75-79	87,318	33,286	54,032
80+	100,733	33,794	66,938

Source: 5th RPHC projections, 2024

Annex 8: Geographical distribution of live births by mothers' residence districts



Annex 9: Persons who contributed to the production of Rwanda Vital statistics (V.S) Annual report, 2024.

National overall coordinators:

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- NDAKIZE Michel, Deputy Director General of NISR

National technical coordinators:

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V.S Report 2024 design and layout:

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- UWAMUNGU Thiery NISR
- AMANI Sylvestre NISR

APPENDIX

1 MCCOD FORM USED IN HEALTH FACILITIES

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2 DEATH CERTIFICATE QUALITY ASSESSMENT TOOL

REPUBLIC OF RWANDA



DEATH CERTIFICATE QUALITY ASSESSMENT TOOL V1.2

A correctly filled-in death certificate has none of the following errors. Please indicate whether the death certificate has:

No.	Error Type	Yes*	No
1	Date of birth missing		
2	Date of death missing		
3	Time of death (a.m./p.m.) missing		
4	Sex of the deceased not specified		
5	Multiple causes of death per line		
6	Missing time interval from onset to death		
7	Abbreviations used in certifying cause of death		
8	Blank lines within chain of events leading to death		
9	Incorrect or clinically improbably chain of events leading to death		
10	Incorrect injuries or illnesses listed as contributory causes of death		
11	Ill-defined condition(s) entered as the underlying cause of death		
And the second	was the ill-defined condition:		
11.1	Assigned impossible underlying cause of death i.e. signs and symptoms	\longrightarrow	
11.2	Mode of dying entered as underlying cause of death e.g. respiratory/heart arrest		
11.3	Intermediate cause entered as underlying cause of death eg Septicaemia		
11.4	Unspecified causes within a larger death category entered as underlying cause of death		
12	If surgery was performed, it is not indicated in Frame B		
13	For deaths as a result of neoplasms, additional details were missing		
14	For deaths due to external causes, additional details were missing		
15	For fetal or infant deaths, additional details were missing		
16	For deaths of women, additional details were missing		
17	Illegible hand writing		
18	The form is not signed by the medical doctor	3 1	3

^{*} Whenever there is "Yes" response, clarify with certifying Medical doctor.

