Republic of Rwanda

# 7Th INTEGRATED HOUSEHOLD LIVING CONDITIONS SURVEY REPORT

NISR
NATIONAL INSTITUTE OF STATISTICS OF RWANDA


A Multiple Overlapping Deprivation Analysis (MODA)

# EICV7 | MULTIDIMENSIONAL CHILD POVERTY

## Thematic Report

2025

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A Multiple Overlapping Deprivation Analysis (MODA)

# EICV7 | MULTIDIMENSIONAL CHILD POVERTY

## Thematic Report

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# List of Abbreviations

- CERAI : Centres d'Enseignement Rural et Artisanal Intégré
- CERAR : Centre d'Education Rurale et Artisanale au Rwanda
- EDPRS : Economic Development and Poverty Reduction Strategy
- EICV: Integrated Household Living Conditions Survey (Enquête Intégrale sur les Conditions de Vie des Ménages)
- 5RPHC: Fifth Rwanda Population and Housing Census
- RWF: Rwandan Francs
- ICLS: International Conference of Labour Statisticians
- ILO: International Labour Organization
- MINECOFIN: Ministry of Finance and Economic Planning
- NISR: National Institute of Statistics of Rwanda
- MIFOTRA: Ministry of Public Service and Labour
- NST: National Strategy for Transformation
- NST2: The Second National Strategy for Transformation
- SDGs: Sustainable Development Goals
- UN: United Nations
- PSU : Primary Sampling Unity
- EICV7: Seventh Integrated Household Living Conditions Survey
- EICV5: Fifth Integrated Household Living Conditions Survey
- NISR: National Institute of Statistics of Rwanda
- ICT: Information and Communication Technology
- NAR: Net Attendance Rate
- GAR: Gross Attendance Ratio
- ECD: Early Childhood Development
- TSS: Technical Secondary Schools
- IPRC: Integrated Polytechnic Regional Center
- TVET: Technical and Vocational Education and Training
- VTC: Vocational Training Centers
- SDGs: Sustainable Development Goals
- PPS: Probability Proportional to Size
- EA: Enumeration Area
- CAPI: Computer-assisted personal interviewing

# Foreword

The Government of Rwanda requires timely and accurate information to monitor progress on poverty reduction. The country's strategies and targets for poverty reduction are outlined in key policy frameworks, including the second National Strategy for Transformation (NST2), the 2030 Sustainable Development Goals (SDGs), and Vision 2050.

The 2023/24 Integrated Household Living Conditions Survey (EICV7) is the seventh in a series of surveys that began in 2000/01. It also marks a break from previous rounds, as the methodology for data collection, processing, and poverty measurement was substantially revised to align with emerging best practices. Consequently, the poverty rates from this survey round mark the beginning of a new series.

This report focuses on poverty, presenting the main findings related and offering a detailed profile of the poor—an essential step in the ongoing efforts to identify vulnerable populations and address the challenge of eliminating poverty.

Companion reports provide in-depth analysis on thematic areas including education, utilities and amenities, economic activities, agriculture, gender, youth, and multidimensional (as opposed to solely monetary) poverty

The EICV7 survey revealed that 27.4% of the population was living in poverty in 2023/24. Modelling shows that if the same methodology had been applied in 2016/17, the poverty rate at that time would have been 39.8%. This represents a reduction in poverty of just over twelve percentage points over seven years. This is a significant drop in poverty, but it is also clear that much remains to be done in order to eliminate poverty.

I extend my sincere thanks to the National Institute of Statistics of Rwanda (NISR) for their excellent work on EICV7, and for the diligence, integrity, and professionalism that they demonstrated throughout the process of collecting, analyzing, and reporting the data for this report. I am also deeply grateful to the many collaborators ranging from the thousands of households who patiently answered the long survey questionnaire, to those who provided financial and technical assistance – whose inputs were essential to the successful production of this important report.

I encourage all stakeholders—government agencies, researchers, development partners, and the public—to utilize the findings of the EICV7 effectively to drive impactful actions that improve the lives of Rwandans.


Yusuf MURANGWA

Minister of Finance and Economic Planning

# Acknowledgements

The Seventh Integrated Household Living Conditions Survey (EICV7) was conducted from October 2023 to October 2024, building upon the strong foundation of previous EICV surveys. Designed to provide timely and updated statistics, EICV7 supports the monitoring and evaluation of policies and programs related to poverty and wellbeing.

The protocols used to survey households and the methodology applied to measure consumption and poverty were significantly revised for EICV7 to align with evolving best practices. While the updated methodology is more robust, caution is advised when comparing the EICV7 results with those of previous EICV surveys, especially on poverty estimates. The NISR typically conducts an EICV survey every three years, a frequency made possible by the strong collaboration of our stakeholders and their support, as they share our commitment to evidence-based decision making and planning processes grounded in reliable, valid, and regular statistics.

We sincerely thank the thousands of households that participated in EICV7 for their willingness to provide data is the foundation of this report. The insights gained will play a key role in shaping policies and programs aimed at improving the living conditions of all Rwandans.

We extend our sincere gratitude to the Government of Rwanda for its strong commitment to the development of statistics in the country. Special thanks go to the Ministry of Finance and Economic Planning, as well as other government ministries and agencies, for their support and facilitation throughout the survey process. We are particularly thankful to our development partners for their vital financial and technical support. Our special appreciation goes to the World Bank team, especially Juan Carlos Parra, Christian Camilo Gomez Canon, and Nobuo Yoshida for their technical inputs during the EICV7 implementation.

We also appreciate the support of national and international experts, whose technical contributions enhanced the quality of data analysis and reporting. The EICV7 management team deserves special recognition for their dedication and effective coordination throughout the planning, data collection, and analysis phases of the survey.

Finally, we are truly grateful to the field teams and data processing staff for their professionalism and resilience during this survey round. The implementation of this survey required the efforts of approximately 240 people, including field workers, data quality monitors, IT personnel, cartographers, analysts and report designers. Their commitment was instrumental in ensuring the production of high-quality data and reports. Additionally, we acknowledge the invaluable support provided by the administrative and finance department of the National Institute of Statistics of Rwanda (NISR), which ensured the smooth execution of this exercise.

MURENZI Ivan

Director General, NISR

# Important technical notes for data users

The Seventh Integrated Household Living Conditions Survey (EICV7) was conducted from October 2023 to October 2024, building upon the strong foundation of previous EICV surveys. Since 2010, an EICV has normally been conducted every three years, but the EICV6 was interrupted by the Covid19 pandemic, leading to a gap in the survey series. Consequently, through different EICV7 reports, the comparisons of different indicators will primarily focus on EICV5, which was undertaken in 2016-17, and is the most recent fully completed survey prior to EICV7.

## Sampling

The EICV7 has two main components: a large cross-sectional sample of nationally-representative households, and a Vision Umurenge Program (VUP) survey of households receiving VUP benefits. The EICV7 data collection was covered in a period of 12 months (October 2023 to October 2024). In order to represent the seasonality in the income and consumption data, the data collection was divided into nine nationally-representative cycles for the fieldwork.

The NISR developed a Master Sample of primary sampling units (PSUs) based on the data from the 2022 Rwanda Census of Population and Housing, which was designed to provide samples for various national household surveys during the intercensal period, including the EICV. Samples were drawn from each of the country's thirty districts ("strata"). Within each stratum, the Master Sample PSUs were selected with probability proportional to size (PPS), using the number of households enumerated in the Census as the measure of size for each Enumeration Area (EA).

In order to determine the sample size for the EICV7, NISR examined the EICV5 data to compute the sampling errors and 95% confidence intervals for the estimates of the poverty rate at the district level. Although the level of precision of the EICV5 results at the district level was fairly reasonable, NISR decided to increase the sample size slightly and adjust the sample design for the EICV7 to provide an improved level of precision for the district-level results. Concerning the three districts of Kigali, the sample of 72 EAs per district, and 54 EAs in districts outside the city of Kigali, were selected from the master sample for the first sampling stage. Overall, a sample of 1,674 EAs was distributed across nine data collection cycles over 12 months.

Within each district, the sample EAs were allocated to the urban and rural strata in proportion to the total number of households in the Census frame. For each sampled cluster, a comprehensive listing operation of all households in the EA was conducted to update the household count in the Master Sample.

At the second sampling stage, nine households per sample EA for all districts were selected. In order to distribute the sample interviews and facilitate the logistics during the data collection period over the 12-months, the sample EAs were divided into nine cycles of about 40 days each. To further facilitate the enumeration of two sample EAs by a team, three sub-cycles of 12 days each were created from every cycle. For the team to be able to rest and reach the sample EAs assigned to the next sub-cycle, one day off was given among every sub-cycle and two days among cycles.

In each district of Kigali, eight samples EAs were enumerated in each cycle while six were enumerated in districts outside of Kigali. With the aim to ensure high response rates, a random selection of three households was added to the nine-existing households, for the provision of replacement where need be. The response rate was more than 99% at the end of the survey.

The VUP Survey, conducted alongside EICV7, targeted households who benefitted from any of the seven VUP components. The sampling frame was derived from a comprehensive beneficiary database. A stratified two-stage sampling approach was used, with EAs of beneficiaries as PSUs, and nine households sampled per EA. Stratification was based on the predominant VUP component within each EA. Adjustments were made for smaller components to ensure adequate representation.

## Data collection operations and quality assurance

The comprehensive EICV7 operations involved careful planning, training, and execution to ensure the data collected was of high quality. In July 2023 throughout the pilot survey in the preliminary phase, 15 experienced enumerators were trained for two-weeks. Following the training, the enumerators conducted a two-week field test to refine tools and methodologies. The overall training of enumerators, which lasted one month (August to September 2023), was followed by two weeks of practical exercises to simulate real scenarios in the assigned districts before the main data collection.

During the training sessions, a number of enumerators were equipped with skills to measure non-standard units. Each team of enumerators had one enumerator who was in charge of collecting information from local markets and restaurants. NISR used the collected information regarding non-standard units to convert consumed non-standard unit items by the household into standard units. The information obtained from the local restaurants has also been used to value the food calories consumed outside the home.

Another key component of EICV7 was the extension of price data collection to cover the urban and rural areas of all the 30 districts of the country. For this purpose, a team of 17 price data collectors was trained and deployed in the field during 12 months from October 2023 to October 2024 to supplement the usual Consumer Price Index (CPI) team.

The NISR collected data for the EICV7 using computer-assisted personal interviewing (CAPI) with tablets, and the data was transmitted to the server on a daily basis. Data quality was assured through robust mechanisms, including daily inconsistency checks, monitoring key indicators, and regular field supervision. Daily reporting systems facilitated real-time tracking and resolution of issues, while cycle-end reports provided comprehensive updates on the ongoing field activities.

## Important changes in EICV7

The EICV7 survey incorporates significant methodological advances to provide a more accurate and comprehensive assessment of poverty in Rwanda. The methodology of poverty measurement used in the previous EICVs was built on EICV1, which was launched 25 years ago, and there was a need to reconsider it and, when necessary, update the methods used to collect and process the data.

Because of the differences in data collection methods and scope between EICV7 and earlier EICV surveys, it is not possible to directly compare the new consumption and poverty variables with those of earlier surveys, although most other socio-economic indicators remain comparable. For consumption and poverty, we used advanced modeling techniques to allow some comparability over time.

Among the more important changes were:

- Fewer visits per household (5 instead of 8 or 11);
- Information on food collected over a seven-day period (instead of 14 or 30 days);
- Separate questions on food acquisition and consumption allows for a true measure of food consumption;
- More-detailed questions on food consumed away from home, and on school meals, allow these to be included in consumption;
- Additional questions to allow for the measurement of gifts and in-kind payments for non-food items;
- A revised, and more realistic, method to compute the use value of durable goods;
- Deflation to the prices of January 2024 uses individual household-level Paasche deflators, rather than the regional-level indexes used in EICV5;
- The adult equivalence scale has been redefined to allow for economies of scale in non-food consumption;
- The poverty line starts with a calorie threshold of 2,400 kcals/adult equivalent/day (instead of 2,500), and values it using the consumption pattern of households in the second quintile (rather than the bottom two quintiles).

## Triangulation with other sources of data

The triangulation of EICV7 data with other sources, particularly the 2022 General Population and Housing Census (GPHC) as well as other administrative data, provides an opportunity to validate key findings and ensure consistency across national statistics. However, for some indicators, this process faces challenges in achieving accurate comparability, due to the differences in reference periods and methodological approaches across sources. Therefore, direct comparisons should be done with caution, taking in account that limitation.

## Rounding of estimates

Estimates displayed in the tables are generally shown rounded to one decimal place. To improve the readability, estimates referring to the interpretation of results have been rounded to the nearest integer, except for the discussion of relatively small percentages. Moreover, estimates of total population or total number of households are shown in tables expressed in '000's. Due to the rounding, the subpopulation totals (e.g. provinces or age groups) can be marginally different from the total population estimated at the national level.

## Consumption quintiles

The results are presented by quintile. Quintiles are developed by sorting the sample of households by the value of annual consumption per adult equivalent, and then dividing the population into five equal shares. The 20% of individuals with the highest annual consumption are allocated to quintile five, and the 20% of individuals with the lowest level of annual consumption are allocated to the first quintile.

# Executive summary

The EICV7 survey conducted over a period of 12 months from October 2023 to October 2024 using Computer-Assisted Personal Interviewing (CAPI) technique as primary method of data collection. The EICV7 has two main components: a cross-sectional sample of households and VUP Survey among VUP beneficiaries.

The EICV7 cross-sectional survey is designed to represent the Rwanda's current household-based population. The primary sampling units (PSUs) are enumeration areas (EAs) defined by the 2022 Rwanda general population and housing census. These EAs were stratified by district as well as urban and rural areas and selected with probability proportional to size (PPS) approach using the number of households as the measure of size. A sample of 1,674 EAs were distributed across nine data collection cycles over 12 months to capture seasonal variability. In the second stage, nine households were systematically sampled within each EA, with provisions for replacements of 3 household per cluster to ensure high response rates. The response rate was more than 99%.

The main objective of the VUP survey is to measure the socioeconomic characteristics of VUP beneficiaries at national level. The sampling frame was derived from a comprehensive beneficiary database from LODA. A stratified two-stage sampling approach was used, with clusters of beneficiaries as PSUs and nine households sampled per cluster. Stratification was based on the predominant VUP component within each cluster.

The EICV7 aims to provide timely and updated statistics to facilitate the monitoring of progress on poverty reduction programs and the evaluation of various different policies as outlined in the second National Strategy for Transformation (NST2), the 2030 Sustainable Development Goals (SDGs) as well as the Vision 2050.

This report primarily compares results from EICV7 with those of EICV5 conducted in 2016/17, as the EICV6 (2019/20) was interrupted by the COVID-19 pandemic and therefore could not provide comprehensive data. The analysis highlights developments over time and examines patterns across Rwanda's provinces, urban and rural areas and districts where appropriate. Particular emphasis is placed on presenting disaggregated results for men and women, to explore gender-related aspects of key social and economic characteristics of individuals and households in Rwanda.

The Multidimensional child poverty analysis, 2023/24 used data from EICV and focused on children aged 5 to 14 and 15 to 17 years. Assessing the current challenges from a child's point of view provides important insights on the nature of poverty in Rwanda – specifically who the poor are, why their poverty persists, and how poverty is transmitted across generations.

The Multidimensional child poverty analysis for Rwanda encompasses five dimensions namely: Health, Education, Water, Sanitation and Housing. These dimensions are further disaggregated by key backgrounds including, province, sex, household head's education level and family composition.

In 2023/24, the highest deprivations rates among children aged 5-14 years were observed in the following indicators: rubbish/garbage disposal, distance to water source, and lighting source. Notably, 38.4% of children in this age live in a household that inadequately dispose their rubbish/garbage.

Furthermore, more than one in three children (36.7%) is deprived in terms of distance to a water source, while 27.1% live in households relying an unimproved lighting source. Conversely, the lowest deprivation rate are observed in: school attendance (4.1%) within the education dimension, toilet type (5.2%) within the Sanitation dimension, distance to health facility (8.2%) within Health dimension, and Improved water source (11.6%) within the Water dimension.

For children aged 15 to 17 years, the highest deprivation rate is found for the indicator School attendance (48.0%), distance to water source (35.2%), and garbage disposal (34.8%). Whereas the lowest deprivations relate to toilet type (5.1%) in the sanitation dimension, distance to a health facility (8.3%) in the health dimension, and improved water source (10.8%) in the water dimension.

A child experiencing deprivation in at least three dimensions is considered as multidimensionally poor. Subsequently, 11.9% of children aged 5 to 14 years and 26.8% of children aged 15 to 17 years are multidimensional deprived. Among multidimensional deprived children aged 5 to 14 years, the average deprivation intensity (A) stands at 63% (i.e. on average they experience three deprivations out of a total of five dimensions). The average intensity among multidimensionally deprived children aged 15 to 17 years reaches approximately 66% equivalent to three deprivations across the five dimensions.

Regarding children aged 5 to 14 years, the multidimensional poverty headcount rate (H) decreased over time from 25.3% in 2016/17 to 11.9% in 2023/24. The average intensity (A) reduced from 64.3% in 2016/17 to 63.5% in 2023/24. The Adjusted multidimensional deprivation headcount (M0) has decreased from 0.16 in 2016/17 to 0.08 in 2023/24.

A decline was also identified among children aged 15 to 17 years, where the multidimensional poverty headcount rate (H) decreased by 13.3 percentage point from 40.1% in 2016/17 to 26.8% in 2023/24. The average intensity (A) reduced slightly from 68.2% in 2016/17 to 66.3% in 2023/24. The M0 decreased from 0.27 in 2016/17 to 0.18 in 2023/24.

The findings reveal that 5.2% of children aged 5-14 years' experience the same time deprivation in health, water and housing dimensions. Regarding two dimensions deprivation practice: 11.5% face deprivation in both water and housing, 1.6% experience deprivation in health and water while 5.1% are deprived in Health and Housing. The percentage of deprivation in three dimensions (health, water and housing) affects 4.7% of urban children aged 5-14 years compared to 5.4% in rural area.

The findings indicate that 2.9% of children aged 15-17 years are at the same time deprived in education, water and housing dimensions, while 6.3% are deprived in two dimensions (1.4% in education and water, 1.5% in water and housing, 3.4% in education and housing). However, 85.1% of children aged 15-17 years do not experience in any of the three dimensions analysed. The percentage of children aged 15-17 years who are experiencing simultaneously deprivation in three dimensions education, water and housing, are 2.0% in urban areas compared to 3.2% of rural areas.

In addition, 6.3% of children aged 5-14 years experience both multidimensional deprivation and monetary poverty, meaning that they face monetary poverty and deprivations in key wellbeing dimensions including access to safe drinking water, education, housing, health and sanitation. Approximately 62.2% children in this age are not poor (doesn't experience monetary poverty nor multidimensional poverty). Among children aged 15-17 years, 13.3% face the overlap between monetary poverty and multidimensional deprivation, while 54.0% are neither monetary poor nor multidimensional poor.

## Introduction

It is universally recognized that children have fundamental human rights, including a sufficient supply of healthy foods, access to health care, access to education, and freedom to grow up in a safe environment. These rights are fundamental for child well-being and are established in the United Nations '1989 Convention on the Rights of the Child (CRC).

In accordance with UNICEF's Global Study on Child Poverty and Disparities (Gordon et al.2003; UNICEF 2007) which employed a rights-based approach, MODA places a particular emphasis on overlapping dimensions and age-appropriate "lifecycle" considerations for children and youth (see de Neubourg et al.2012).

Following the MODA methodology (De Neubourg et al, 2012a), deprivation overlap analysis is carried out to examine the different sectoral deprivations overlap and identify which types of deprivation children experience simultaneously. The analysis comprises two complementary components. Firstly, the sectoral analysis studies many children are deprived in each individual dimension. This shows that the scope of each deprivation type is a unique problem among children requiring a single-sector intervention. Secondly, the multidimensional deprivation analysis reflects co- occurring deprivations, revealing patterns of simultaneous deprivation across multiple dimensions. Such findings indicate integrated approach to reduce deprivation intensity among children. The overlap between combinations of three dimensions can be visualized through Venn-diagrams to better understand how the selected deprivations coincide.

This study employs the MODA toolkit to follow up and monitor multidimensional child poverty in Rwanda using data from the Integrated Household and Living Conditions Surveys (EICV5-EICV7).

Unlike more traditional definitions of multidimensional poverty that focus on capabilities and objective individual outcomes (e.g. Alkire et al.2015), the rights-based MODA framework also allows for more subjective relational aspects of poverty.

It is noteworthy that all countries have signed up to the new Sustainable Development Goals (SDGs), which explicitly mention multidimensional poverty in addition to monetary poverty (Yekaterina et al, 2017). The SDG Target 1.2 calls for reducing at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions by 2030. Rwanda has achieved remarkable progress in reducing poverty over the past decades. For example, Rwanda is one of the few countries on track to achieve the target of reducing child poverty by at least half by 2030 (UNICEF, 2014). Thus, all nations are expected to monitor the proportion of children living in multidimensional poverty.

This study highlights the importance of focusing on the most vulnerable children in Rwanda, particularly those experiencing deprivation in several dimensions. Such multiple and overlapping deprivations during childhood and adolescence can have irreversible effects on the eventual productivity and social inclusion of children. Mitigating the intensity and severity of deprivation among children will contribute significantly towards Rwanda's future economic growth and overall productivity.

Understanding the nature of child poverty and children's deprivations is essential to adequately address the needs of children through suitable programmes and policies. The majority of traditional methods of poverty analysis focused on household or individual monetary income or expenditure. However, these measures are less appropriate for measuring child poverty and wellbeing as children are not typically decision-makers or primary income-earners within a household. Consequently, their wellbeing is not necessarily related with household income levels. Furthermore, children's needs are unique and specific at different stages of development, meaning that improvements in household wealth do not ensure their fulfillment.

Multidimensional poverty analyses thus serve as a complement to conventional monetary-based poverty assessments. UNICEF's Multiple Overlapping Deprivation Analysis (MODA) methodology provides a comprehensive framework for identifying and quantifying the nature of children's deprivation with a view to help inform the design of services and interventions which accurately address the needs of children.

This report presents the results of a MODA study carried out to identify, locate and create a profile of children experiencing deprivations in Rwanda. The analysis uses data from the Integrated Household Living Conditions Surveys (EICV7-2023/24 and EICV5-2016/17) to identify the type, level and overlap of child deprivations. Further disaggregation reveals regional disparities, urban/rural differences, and other individual or household characteristics associated with the multidimensional phenomenon of child poverty.

While the results align with existing studies of monetary poverty demonstrating that children living in financially hardship households experience multiple deprivations, the MODA analysis reveals significant deprivations persisting even among children living in better-off households. Importantly, the study emphasizes on the severity of multiple deprivations affecting a specific group of children, a critical aspect overlooked in child poverty analyses.

# 1 Methodology

The child poverty analysis presented in this report is based on the Multiple Overlapping Deprivation Analysis (MODA) methodology, it is a measure specifically designed to assess multidimensional poverty among children aged 5-17 years. MODA builds upon established approaches to measure multidimensional poverty particularly UNICEF's Global Study on Child Poverty and Disparities, 2007(which applied the so-called 'Bristol approach' to multidimensional child poverty, developed by researchers at the University of Bristol and the well-known Multidimensional Poverty Index (MPI), developed by the Oxford Poverty and Human Development Initiative (OPHI).

MODA distinguishes between two main concepts of poverty: monetary poverty and multidimensional deprivation (de Neubourg et al., 2014). Where data uses, the methodology incorporates both to provide a comprehensive assessment of child poverty. Monetary poverty reflects a household's insufficient financial resources to provide basic goods and services essential for the survival and development of its members. Multidimensional deprivation, evaluates an individual's unmet needs across various critical dimensions crucial for individuals' well-being and development.

However, since the data from the EICV only covers individuals aged 5 years and above, this report limits its analysis to MODA estimates for children aged 5-14 and 15-17 years.

MODA differs itself from other multidimensional poverty indices in several ways, including:

- It broadens the scope of sector-based approaches through overlapping deprivation analysis – providing useful evidence for integration of services/programmes.
- It focuses on the child as the unit of analysis rather than the household, recognizing that children experience unique deprivations linked to their developmental needs. (Due to data constraints, some analyses are household-based.)
- MODA prioritizes disaggregated data to uncover differences across gender, age, and household composition.
- The method follows a life-cycle approach, with indicators changing according to the needs of children at different development stages.
- It includes the prevalence and depth of deprivation for each child, identifying the most vulnerable children (those experiencing multiple simultaneous deprivations).
- In addition, by mapping the geographic and socio-economic profiles of children experiencing multidimensional poverty, MODA enables more precise policy interventions and program targeting.

The MODA method has been extensively applied across multiple countries, both regionally and globally. The first Multidimensional Child Poverty analysis was conducted by UNICEF in 2014 by using the Demographic and Health Surveys (DHS) and EICV datasets. The Multidimensional Child Poverty analysis for Rwanda employs an adapted MODA framework using: EICV7 (2023/24) data for single-sector deprivation analysis and other EICV5 and EICV7 datasets for trend analysis in order to produce Rwanda-specific and relevant analysis, with the aim of:

- Capturing child deprivations in relation to Rwanda's developmental objectives.
- Identifying the profile of deprived children by geographic location and social stratification.
- Understanding sectoral deprivation overlaps, informing which deprivations may need to be addressed simultaneously.
- Informing equity-based public policy responses to multidimensional child poverty by indicating manifestations of deprivation that need further theoretical and empirical elaboration.

## 1.1. Selection of indicators and dimensions

The MODA analysis is based on indicators, dimensions, deprivation thresholds, and age groups, as detailed below:

The selection of **dimensions** aligns with Rwanda's key social sectors. The MODA analysis in Rwanda focuses on health, water, sanitation, education, and housing.

Each dimension is constructed based on a number of key **indicators** which are relevant to each dimension. For example, the water dimension comprises drinking water source and distance to water source, the education dimension includes a single indicator for children aged 5-14 years (school attendance) and three indicators for children aged 15-17 years (school attendance, school attainment and literacy & numeracy rates). The health dimension incorporates health insurance and distance to health facilities. The Sanitation dimension consists of one indicator (toilet type), whereas the housing dimension includes the following three indicators: lighting source, garbage disposal and environmental destruction. In accordance with the union approach, a child is classified as deprived in a given dimension if they experience deprivation in any of its measurement indicator. For example, a child is deprived in the water dimension if he/she is deprived in at least one of the following indicators: Water source and distance to water source. All selected indicators were based on their relevance in assessing the fulfillment (or not) of children rights. Given that each dimension reflects a basic right, they are considered as equally important and have been given equal weight in the analysis.

**Deprivation thresholds** are set for each indicator and determine whether or not a child is deprived in that specific indicator (and if deprived in that indicator, then consequently deprived in the dimension). For example, the deprivation threshold for the drinking water source is whether a child lives in a household with an improved drinking water source (such a child would not be deprived in water) or in a household with an unimproved drinking water source (in which case the child would be deprived in water).

The analysis (dimensions and indicators) differs by age groups, considering that children's needs evolve throughout their **life cycle** (i.e. different dimensions and/or indicators are applied to different age groups). Due to lack of information for children under five, the 2023/24 MODA analysis in Rwanda includes multidimensional analysis for two specific age groups: 5-14 years and 15-17 years.

The dimensions, indicators and deprivation thresholds for Rwanda were selected following data-driven feasibility assessments (i.e. what is possible to derive and analyse from available national data sets, particularly the EICV survey, which provides more precise and contextualized information for children aged 5-17 years. Consultation with national partners and consideration of internationally recognized standards, of the essential rights and needs of the child, particularly the United Nations Convention on the Rights of the Child (CRC). The final selection of dimensions, indicators and deprivation thresholds for Rwanda was determined through consultations with national stakeholders, national standards, and research interests and data availability.

Some dimensions are not applicable across all age groups (for reasons including empirical consistency and data limitations). For instance, education dimension only covers school-aged children (6-17 years), while sanitation is relevant to all age groups. In fact, the water, sanitation and housing dimensions utilize household-unit data and therefore apply to all age groups.

Table 1 illustrates the dimensions used in the MODA analysis for Rwandan children aged 5-14 and 15-17 years.

***Table 1. 1: Selected dimensions for each age group under study***

| No | Dimension | (Indicators) A child is considered deprived in (dimension) if |
|---|---|---|
| 1 | Health | Child is not covered by health insurance; and/or |
| | | Child lives in a household where the time needed to go to the health facility is more than 1 hour (on foot) |
| 2 | Education | Child does not attend school; and/or |
| | | Child did not successfully complete primary education (only for 15-17 years); and/or |
| | | Child cannot read and write a simple letter or note and cannot make a simple calculation |
| 3 | Water | Child lives in a household where the main source of drinking water is unimproved; and/or |
| | | Child lives in a household where the distance to the nearest water source is more than 500m for rural areas or more than 200m for urban areas |
| 4 | Sanitation | Child lives in a household which uses unimproved toilet facility |
| 5 | Housing | Child lives in household where main lightning source is unimproved; and/or |
| | | Child lives in a household where mode of rubbish/garbage disposal is unimproved; and/or |
| | | Child lives in a household affected by floods, mountain slides, destructive rains, or other environmental destruction during the last 12 months. |

*Source: National Institute of Statistics of Rwanda, EICV5*

Deprivation in at least one dimension indicates that a child is experiencing rights violations. However, given resource constraints, it is important and efficient to focus on the most severely deprived children. Therefore, a threshold determining the number of dimensions in which a child must be deprived to be classified as multidimensional poor. These thresholds are specific by country and require careful adjustment. In Rwanda the following criteria were considered:

Setting the threshold too high (requiring a child to be deprived in many dimensions to be considered poor) would exclude many vulnerable children from targeted interventions. Conversely, setting threshold too low would classify nearly all children as poor, thereby limiting its usefulness for programming and policy prioritization.

Following national consultations, it was decided that, in the Rwandan context, a child experiencing deprivation in at least three dimensions would be considered multidimensional poor.

## 1.2 Definition of key concepts

**Single sector analysis:** the percentage of children deprived in each dimension (and for each indicator) was estimated to provide a sector-specific perspective. This offers a first insight of which deprivations are particularly prevalent among children of different age groups.

**The distribution of the number of dimensions in which children are deprived:** the number of simultaneous deprivations per child provides an overview of the distribution of all deprivations among the different age groups (i.e. the proportion of children in a given age group experiencing exactly 1, 2 3,....., X dimensions). Results are further disaggregated by different background characteristics (profiling variables).

Multidimensional deprivation ratios/indices: Three multidimensional deprivation indices were calculated to generate summary statistics:

(i) **The multidimensional headcount rate (H)** measures the incidence of multiple deprivations in the dimensions – it is useful to capture the prevalence of multidimensional poverty; however, it is insensitive to the intensity and depth of poverty among children (i.e. the number of deprivations simultaneously suffered by one child). It looks at the total number of multidimensionally deprived children affected by at least three deprivations (deprived in at least three dimensions), divided by the total number of children in that particular age group.

(ii) **The average intensity (A)** reflects at the number of deprivation among multidimensionally deprived children. It is computed as the average number of deprivations experienced by poor children, expressed as a percentage of all possible deprivations.

(iii) **The adjusted deprivation headcount (M0)** captures both the incidence and depth of deprivation. It is calculated by multiplying the multidimensional deprivation headcount (H) by the average intensity (A) making it sensitive to changes in both.

**Multidimensional deprivation overlaps:** the analysis examines the overlap between deprivations that are most commonly experienced simultaneously. It highlights combinations of overlapping deprivations and quantifies the number of children suffering from one to five deprivations. This analysis extends beyond single dimension-approach, by revealing both the severity of child deprivations, and identifying deprivations that need to be addressed simultaneously. Secondly, the analysis explores three-way overlaps between all possible combinations of three dimensions. This is visualized through Venn diagram.

All the analyses were subjected to a chi-square testing to determine whether the observed differences between deprivation rates were significant at the 5% level. An Asterix (*) implies that the difference is statistically significant.

Following the methodological overview presented in chapter 1 and its application to Rwanda's broader context of children's deprivation, Chapter 2 examines the overlap between monetary poverty and multidimensional child poverty.

# 2 Multidimensional child poverty analysis by age group

This chapter provides an in-depth analysis of multidimensional child poverty for the following age groups: 5-14 years and 15-17 years. The analysis is based on different sets of dimensions and indicators adjusted to these age groups.

The multidimensional child poverty or deprivation analysis has been undertaken at two levels:

***(a)*** S***ingle sector analysis***: Examines deprivation rates per indicators and dimensions, providing targeted insights for sectorial policies, and

***(b)*** ***Multidimensional deprivation (poverty) analysis*** (where simultaneous deprivations are studied). The multidimensional deprivation or poverty analysis is the main focus of this study and aims the identification of the most vulnerable children experiencing simultaneous deprivations in several dimensions of their wellbeing. The analysis focuses on the distribution of simultaneous deprivations, the headcount rate of multidimensional poverty, the intensity (or depth) of deprivation, and the overlap between deprivations.

## 2.1. Children aged 5-14 years

### 2.1.1. Single sector analysis

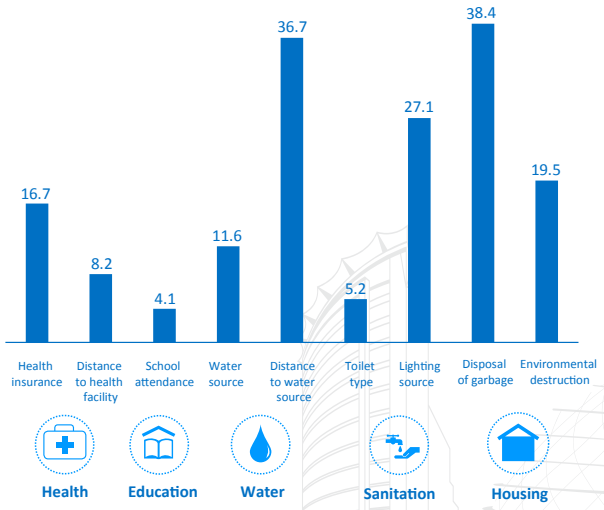
This section covers the child poverty (or deprivation) analysis for children aged 5-14 years, examining deprivations across five dimensions: health, education, water, sanitation and housing. The deprivation rates for each dimension of wellbeing and their respective indicators are shown in Figure 2.1 and Figure 2.2.

For children aged 5-14 years, the highest deprivation rates are observed in the housing dimension, with more than six out of ten children (60%) deprived. Housing dimension comprises three indicators: lighting source (27%), garbage disposal (38%) and environmental destruction (19.5%). Furthermore 41% face deprivation in the water dimension, measured through two indicators: water source (12%) and distance to water source (37%).

deprivation in Sanitation dimension are 5% of children , assessed through toilet type. In the health dimension , deprivation are 24% of children, with indicators showing, health insurance (17%) and distance to health facility (8%) .

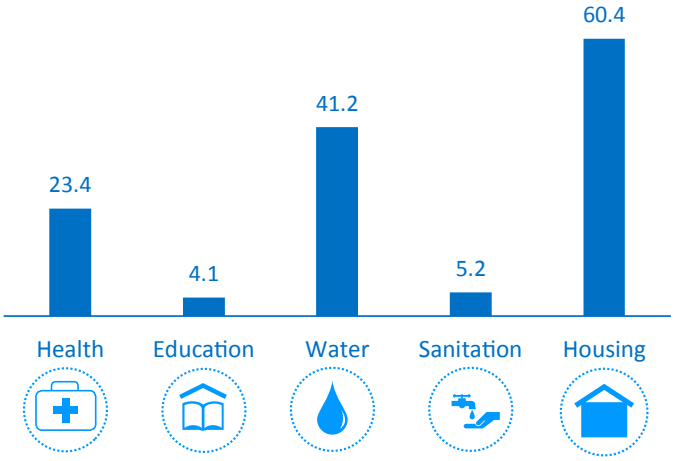
In Rwanda, education dimension, relatively doing well, with only around 4% of children aged 5-14 years not attending school.

***Figure 2.1: Deprivation Headcount Ratio (%) in each indicator of a child's wellbeing, for children 5-14 years old at national level***




*Source: National Institute of Statistics of Rwanda, EICV7*

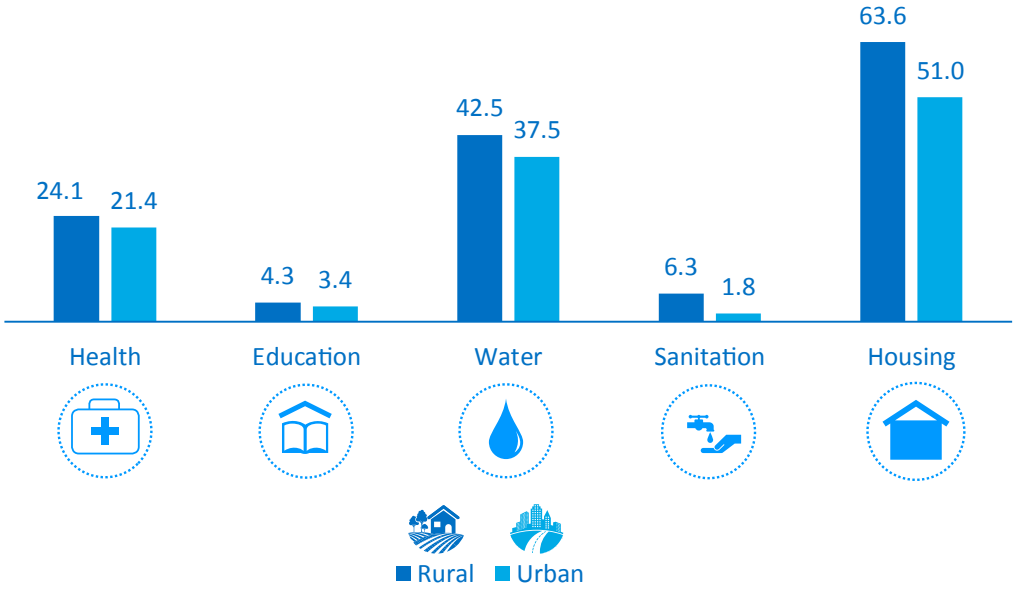
***Figure 2.2: Deprivation rate by each dimension of a child's wellbeing, for children 5-14 years old at national level***




*Source: National Institute of Statistics of Rwanda, EICV7*

The analysis reveals geographic disparities, with rural children aged 5-14 years experiencing higher deprivation rates across all dimensions compared to those living in urban areas. The gap stands at 2.7% in health, 4.5% in sanitation and 5.0% in water (Figure 2.3). The highest gap was observed in the housing dimension (12.6%) while the lowest was recorded in the education dimension (0.9%).

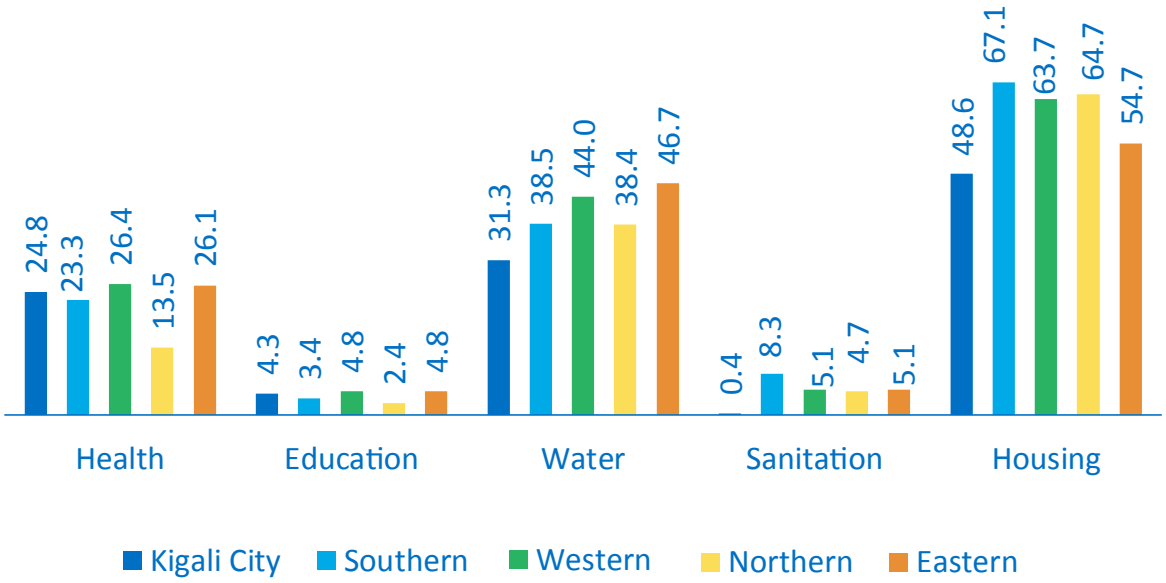
***Figure 2.3: Deprivation rate in each dimension of a child's wellbeing, for children 5-14 years old by area of residence***




*Source: National Institute of Statistics of Rwanda, EICV7*

In general, housing dimension records the highest deprivation followed by the water dimension. In the Southern province, 67% of children are deprived in the housing dimension while 8% face deprivation in sanitation. Furthermore, children living in the Eastern province experience deprivation in water (47%) and education (5%). The Western province exhibits the highest deprivation rates in the Health and Education dimensions (26% and 5% respectively). Conversely, the lowest deprivation rates are reported in the Northern Province for Health and Education dimensions (13.5% and 2% respectively) and in Kigali city in terms for Water, Sanitation and Housing dimensions (31%,0.4% and 49% respectively) -figure 2.4.

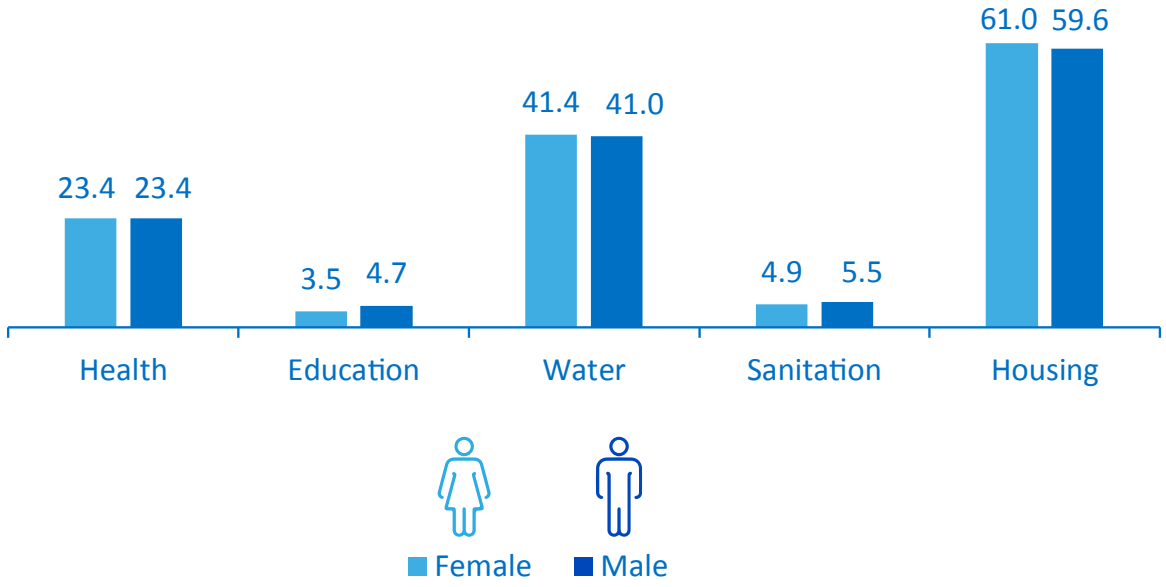
***Figure 2.4: Deprivation rate in each dimension of a child's wellbeing, for children 5-14 years old by province***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.5 indicates no significant disparities in deprivation rates based on the sex of children aged 5-14years. However, boys present slightly higher deprivation rates than girls in the Education and Housing dimensions at 1.2% each.

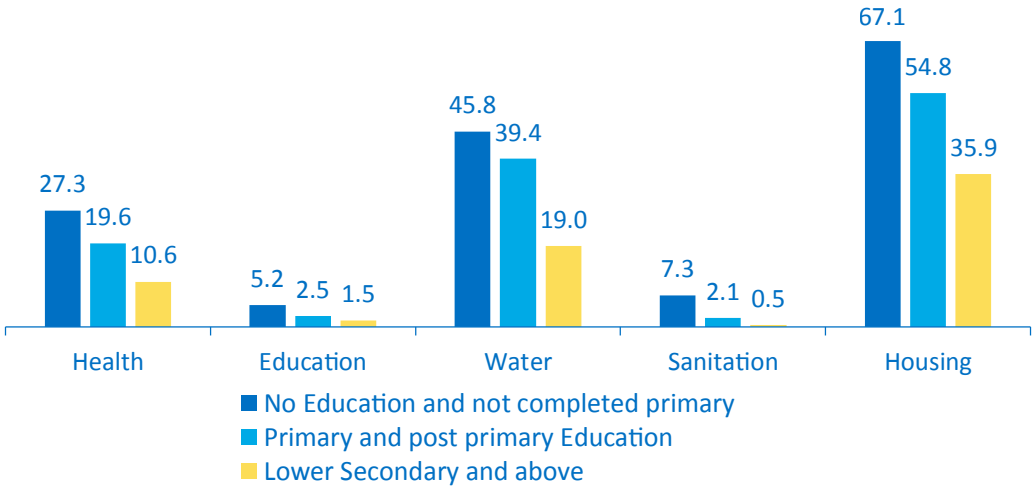
***Figure 2.5: Deprivation rate, in each dimension of a child's wellbeing, for children 5-14 years old by gender***




*Source: National Institute of Statistics of Rwanda, EICV7*

The educational level of the household head is highly related to the deprivation rates – as the level of education of the head of household increases, deprivation rates across all analyzed dimensions for children decrease (Figure 2.6). For instance, in the Health dimension, 27% of children living with a household head who has no formal education experience deprivation. In contrast, the deprivation rate stands at 19.6% for children in households where the head has achieved primary and post-primary education (a difference of 7.7%) and further drops to 11% for those with a household head who has completed lower secondary education or higher (a difference of 9.0%). The disparities in deprivation are particularly high in the health, water, and housing dimensions.

***Figure 2.6: Deprivation rate in each dimension of a child's wellbeing, for 5-14 years old children by education level of the household head***



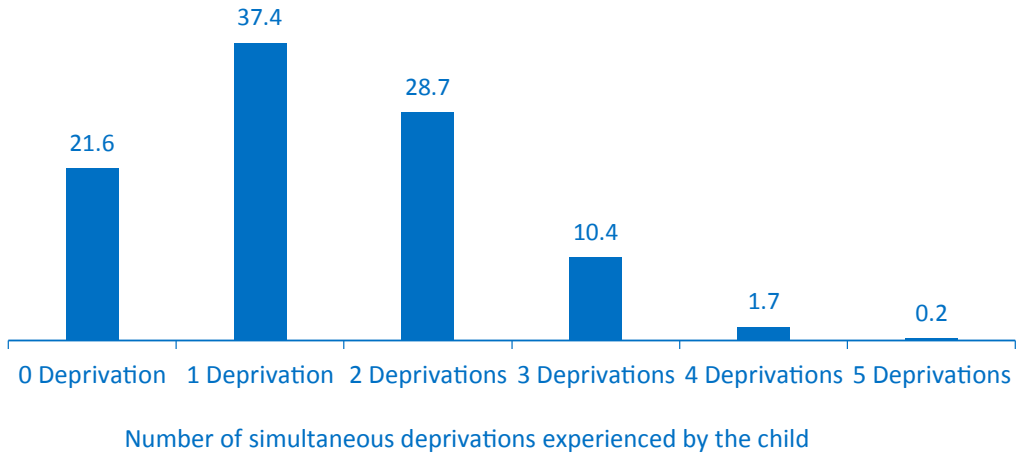

*Source: National Institute of Statistics of Rwanda, EICV7*

## 2.1.2. Multidimensional deprivation analysis

### a. Distribution of deprivations

As shown in figure 2.7, at the national level, approximately 22% of children experience no deprivation. The majority of children aged 5-14 years, (37%) experience deprivation in one dimension, while 29% of children are deprived in two dimensions, and 10% face simultaneous deprivation in three dimensions. Only a small proportion of children experience deprivation in four or five dimensions simultaneously (1.7% and 0.2% respectively).

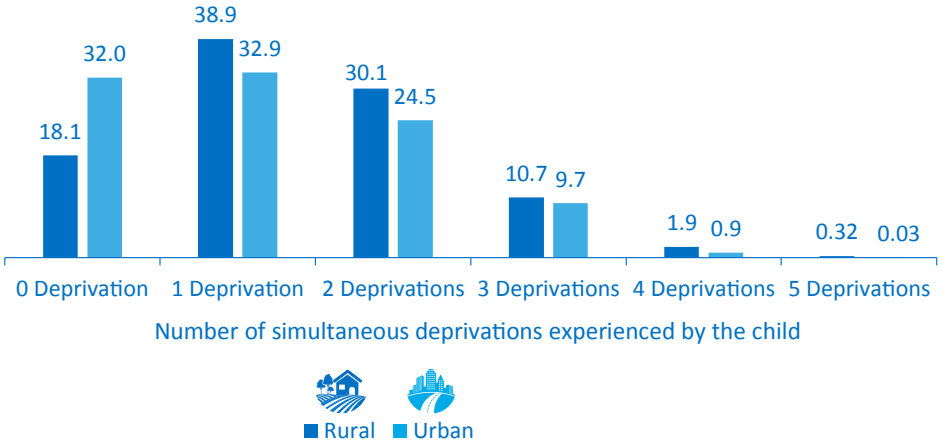
***Figure 2.7: Deprivation distribution for children 5-14 years old at the national level***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.8 demonstrates that children aged 5-14 years in rural areas experience higher rates of deprivations compared to their urban counterparts. While 32% of urban children face no deprivations, this figures drops to 18% among rural areas. Furthermore, 39% of children living in rural areas are deprived in one dimension, compared to 33% of children living in urban areas. In addition, the proportion of children experiencing two to five simultaneous deprivations are consistently higher in rural areas than in urban areas.

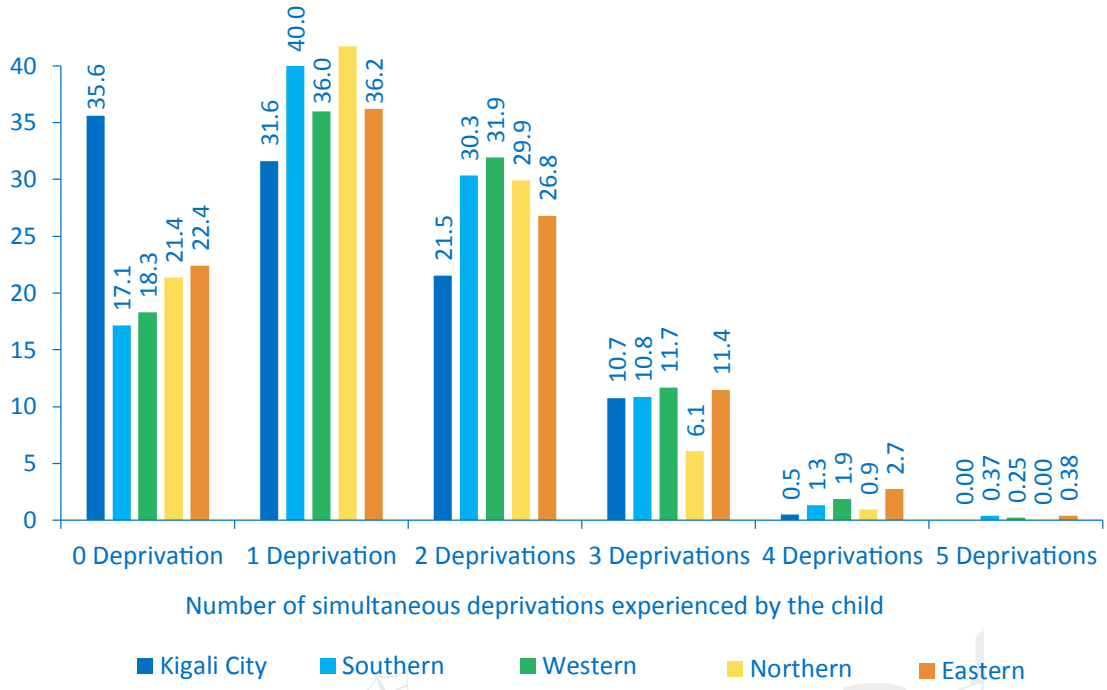
***Figure 2.8: Deprivation distribution for children 5-14 years old by area of residence***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.9 reveals that Kigali exhibits the lowest deprivation rates, with 36% of children experiencing no deprivations. Four in ten children living in the Northern Province are deprived in one dimension (42%), while the Western province has the highest rates for two and three simultaneous dimension deprivations (32% and 12%, respectively). The Eastern province reports deprivation rates of 3% in four dimensions and 0.38% in five dimensions. Notably, across all provinces, the majority of children experience deprivation in either one or two wellbeing dimensions, with only a minimal proportion sufferings from 4-5 simultaneous deprivations.

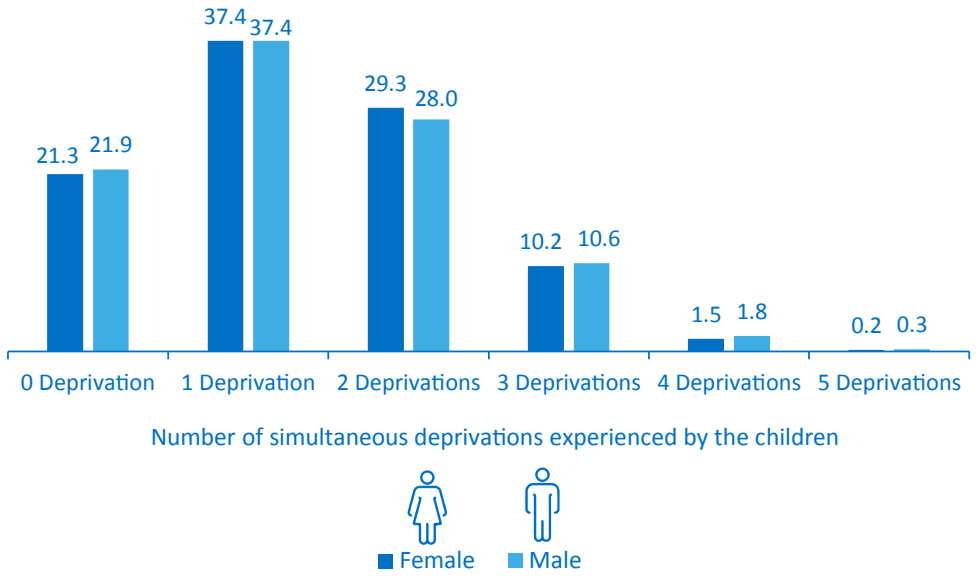
***Figure 2.9: Deprivation distribution for children 5-14 years old by province***




*Source: National Institute of Statistics of Rwanda, EICV7*

The deprivation distribution by sex of the child reveals no pronounced gender disparity among children aged 5-14 years (Figure 2.10). However, the deprivation count distribution is skewed to the left, indicating that highest proportion of children regardless of their sex experience the lowest deprivation counts (0-2 deprivations), while the lowest proportion face the highest deprivation counts (3-5 deprivations). Additionally, the data show that males slightly experience higher deprivation counts compared to females.

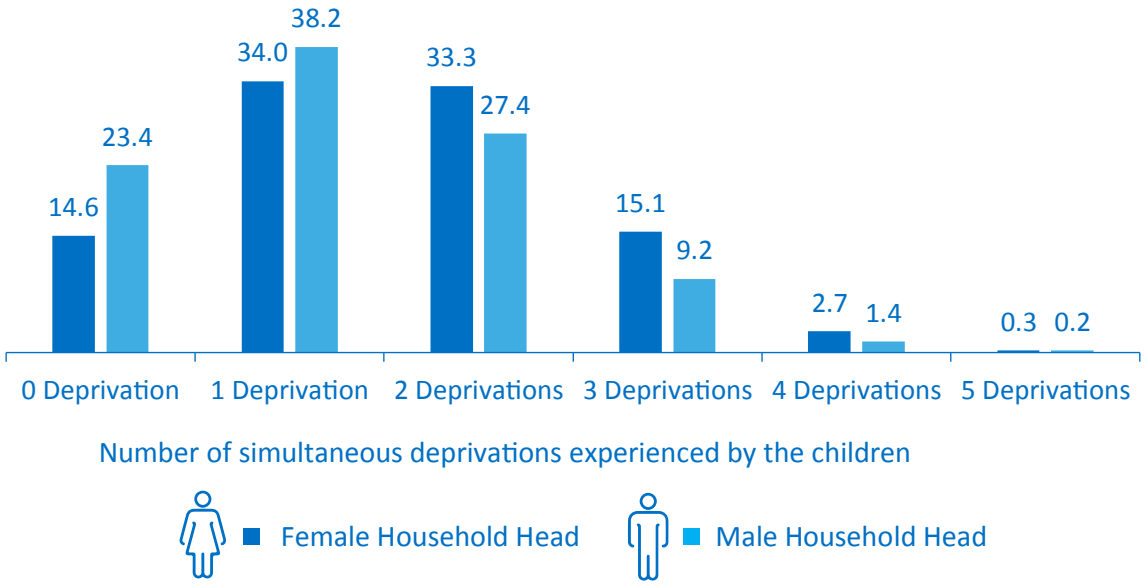
***Figure 2.10: Deprivation distribution for children 5-14 years old by gender of the child***




*Source: National Institute of Statistics of Rwanda, EICV7*

Multidimensional child poverty among children aged 5-14 years is more prevalent in female-headed households (experiencing at least two deprivations), compared to male-headed households (facing between 0 and 1 deprivations). This implies that the absence of a father in a household is associated with higher levels of multidimensional child poverty (figure 2.11).

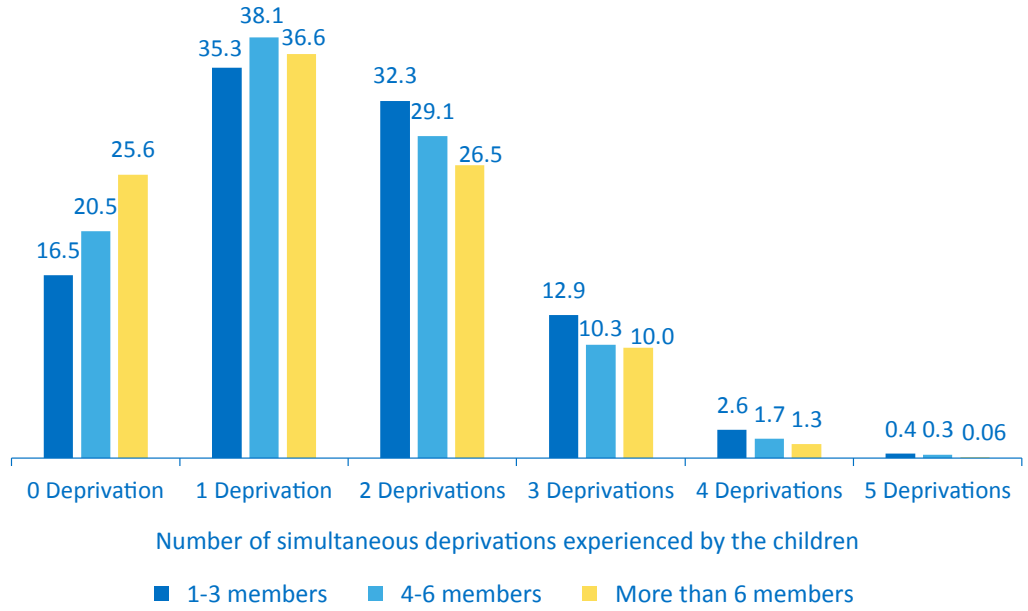
***Figure 2.11: Deprivation distribution for children 5-14 years old by gender of household head***




*Source: National Institute of Statistics of Rwanda, EICV7*

Household size does not clearly affect the deprivation distribution, as the differences across household sizes are minimal for all deprivation counts considered (Figure 2.12). However, it is noteworthy that the highest proportion of children, regardless of household size, experience lower deprivation counts (1 and 2 deprivations), whereas the lowest proportion of children experience the highest deprivation counts (3 and 5 deprivations). The children in larger households are most likely to experience no deprivation and least likely to face other deprivation counts.

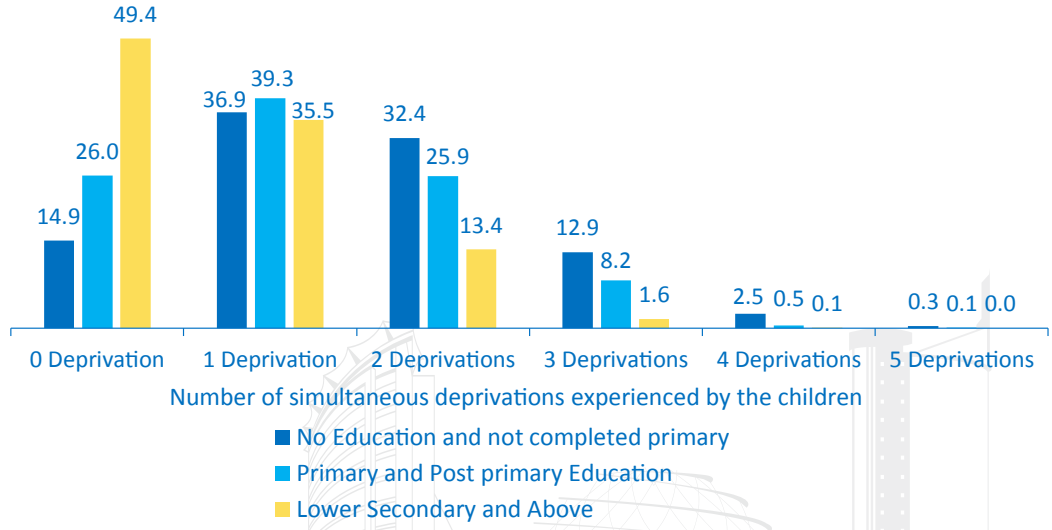
***Figure 2.12: Deprivation distribution for children 5-14 years old by household size***




*Source: National Institute of Statistics of Rwanda, EICV7*

The percentage of children with no deprivation or only one deprivation increases with the level of education of the household head. Figure 2.13 indicates that, 85% of children aged 5-14 in households where the head has lower secondary education or above experience either no deprivation or only one deprivation (49% and 35.5%, respectively). In contrast, children whose household head has no formal education/incomplete primary or with primary and post primary education are significantly more likely to experience three deprivations (13% and 8%, respectively) compared to just 1.6% for with lower secondary-educated or higher educated household heads. Furthermore, children with a household head who did not attain any education/not completed primary or with only Primary and Post primary education (2.8% and 0.6%, respectively) experience severe deprivation (four or more dimensions) compared to only 0.1% of children living with lower secondary or higher education. These findings demonstrate that children in households with lower educational attainment (no education/ incomplete primary or only primary and post-primary) face substantially higher deprivation levels in at least two dimensions, compared to those with lower secondary or higher education.

***Figure 2.13: Deprivation distribution for children 5-14 years old by education level of the household head***

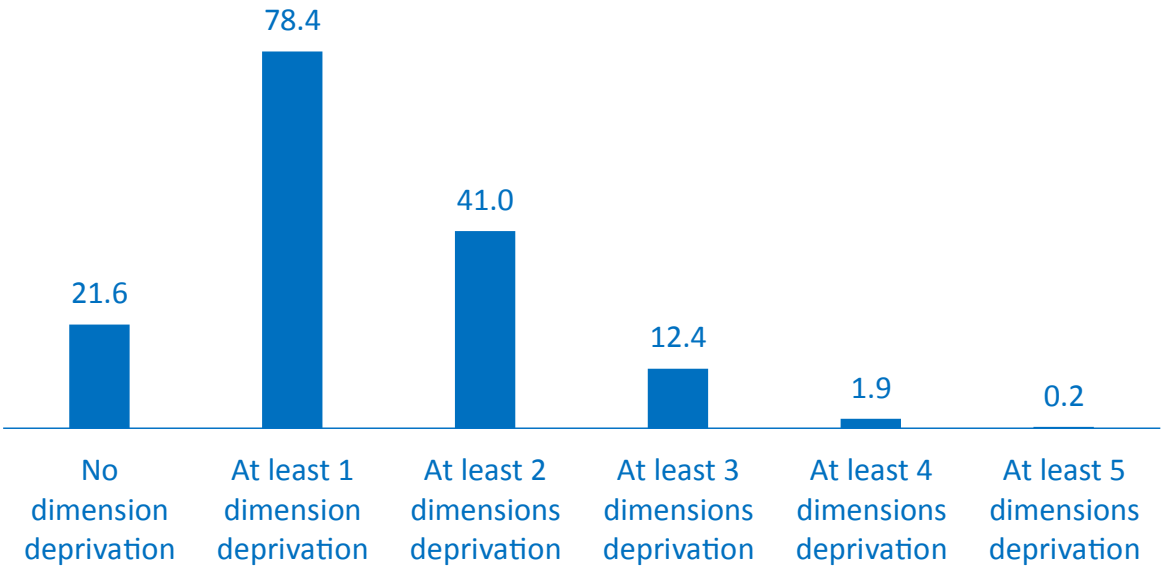



*Source: National Institute of Statistics of Rwanda, EICV7*

## b. Multidimensional deprivation headcount (H)

Figure 2.14 shows the multidimensional deprivation headcount (H) for children aged 5-14 across different thresholds. In Rwanda, a child is considered as multidimensionally deprived, if experiencing deprivation in at least 3 dimensions. At the national level, the data reveal that 21.6% of children in this age group experience no deprivations. Conversely, 78% of children face deprivation in at least one dimension, while 41% are deprived in two or more dimensions. Furthermore, 2% of children experience at least four deprivations with only 0.2% deprived across all five dimensions.

***Figure 2.14: Multidimensional deprivation headcount ratio for children 5-14 years old at the national level***




*Source: National Institute of Statistics of Rwanda, EICV7*

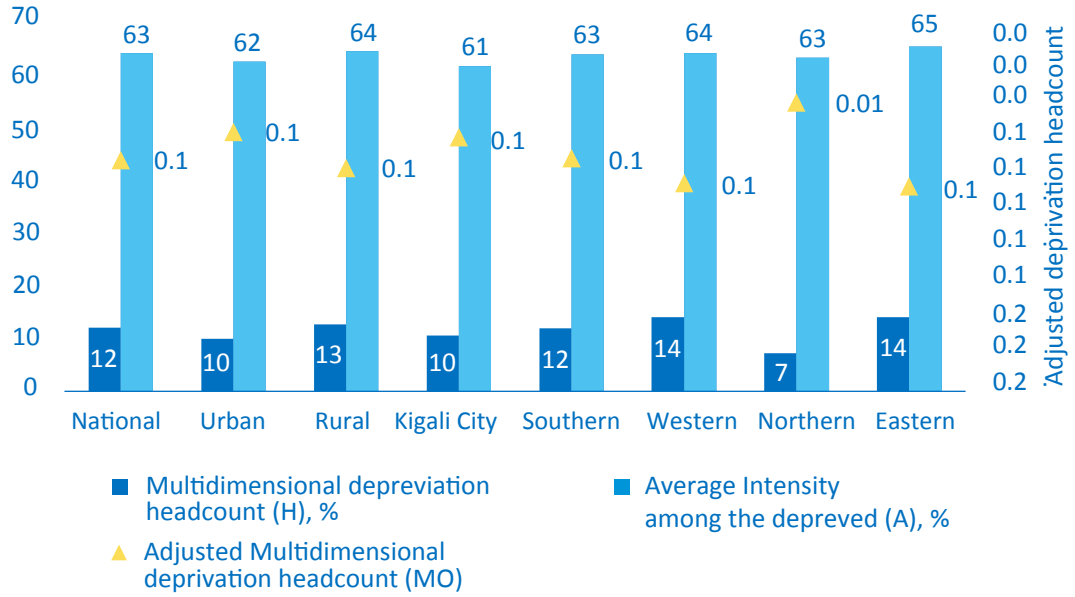
## C. Multidimensional deprivation headcount (H), the average intensity of poverty (A) and the multidimensional poverty Index (MO) for children 5-14 years old

At the national level, 12% of children aged between 5-14 years are multidimensionally poor (figure 2.15). Disaggregated by residence, urban areas present a multidimensional deprivation rate of 10% compared to 13% in rural areas. Western and Eastern provinces exhibit the highest deprivation rates of 14%. While the Northern Province reports the lowest incidence of poverty (7%).

Among multidimensionally deprived children in this age group, the average deprivation intensity is 63% of the total number of dimensions. The average intensity among deprived children remain consistent across areas and provinces. Kigali city shows slightly lower intensity (61%), while the Southern, Western and Northern provinces range between (63% and 64%) and Eastern province (65%).

The multidimensional child poverty index (M0), which incorporates both the prevalence and intensity of deprivation, records relative uniformity (0.1) in every province and rural areas except the Northern Province which has (M0) records of (0.04).

***Figure 2.15: Indices for children 5-14 years old who are deprived in at least 3 dimensions at the national level and by area & province of residence.***



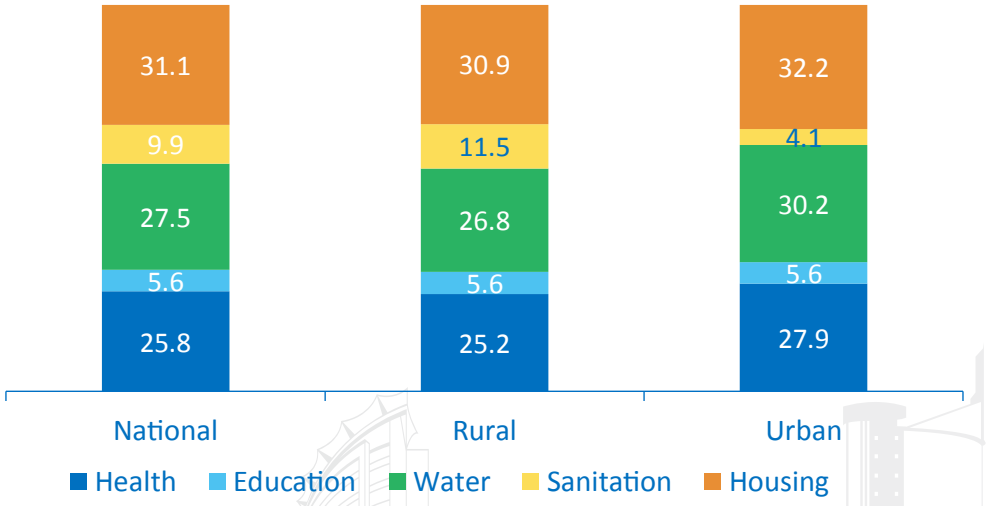

*Source: National Institute of Statistics of Rwanda, EICV7*

## d. Contribution of each dimension to deprivation level

The decomposition analysis for children aged 5-14 years reflects the contribution of different dimensions to both the multidimensional deprivation index and overall deprivation levels. The decomposition presented in Figure 2.16 indicates almost similar patterns for national level and in urban and rural areas.

Housing and Water contribute the most to the deprivation levels. Conversely, the education dimension makes the smallest contribution to the Adjusted Multidimensional poverty rate at the National level and in both areas of residences (Rural and Urban areas).

***Figure 2.16: Contribution of each dimension to the M0 for children 5-14 years at national level and by area of residence***

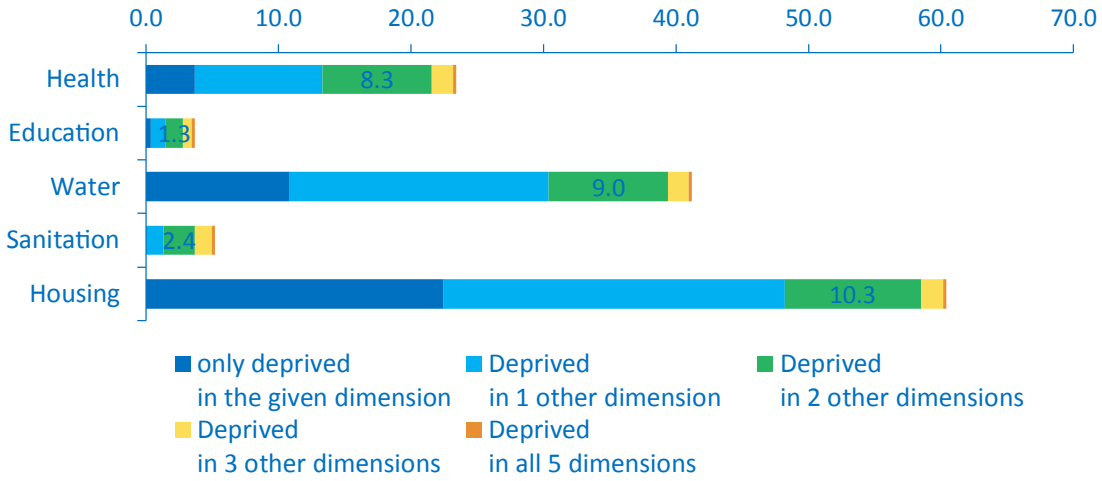



*Source: National Institute of Statistics of Rwanda, EICV7*

## e. Deprivation overlap analysis.

Among children aged between 5-14 years, very few are deprived in only one dimension, with the majority experiencing deprivation in at least two dimensions. For instance, 23.4% of children experience health deprivation, only 3.7% are only deprived in the health dimension, 9.6% experience one additional deprivation, and 8.3% are deprived in two other dimensions. Notably, 23% of housing dimension presents a relatively higher proportion of children experiencing deprivation. However, Housing and Water appear to be the dimensions presenting the most significant overlaps, (figure 2.17).

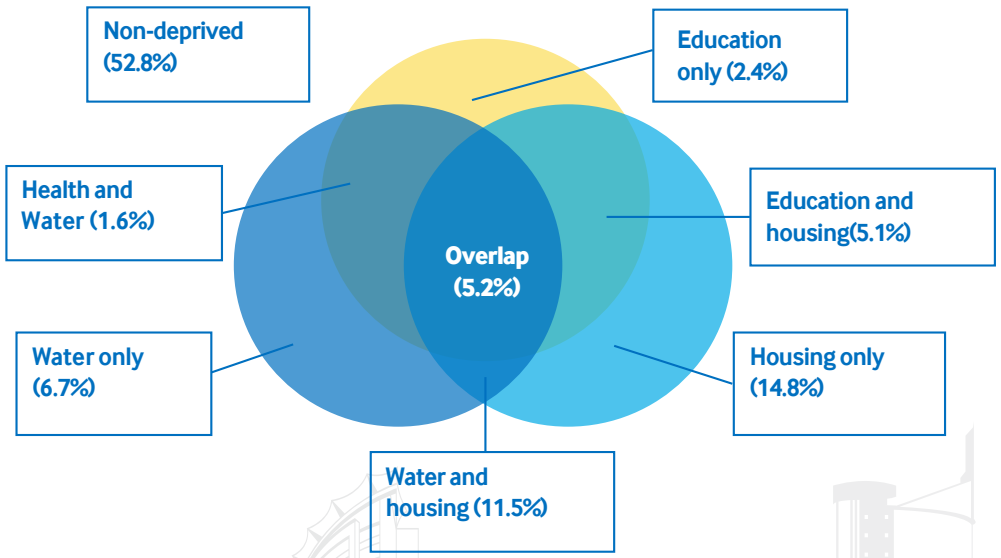
***Figure 2.17: Deprivation overlaps for children 5-14 years old by dimension.***




*Source: National Institute of Statistics of Rwanda, EICV7*

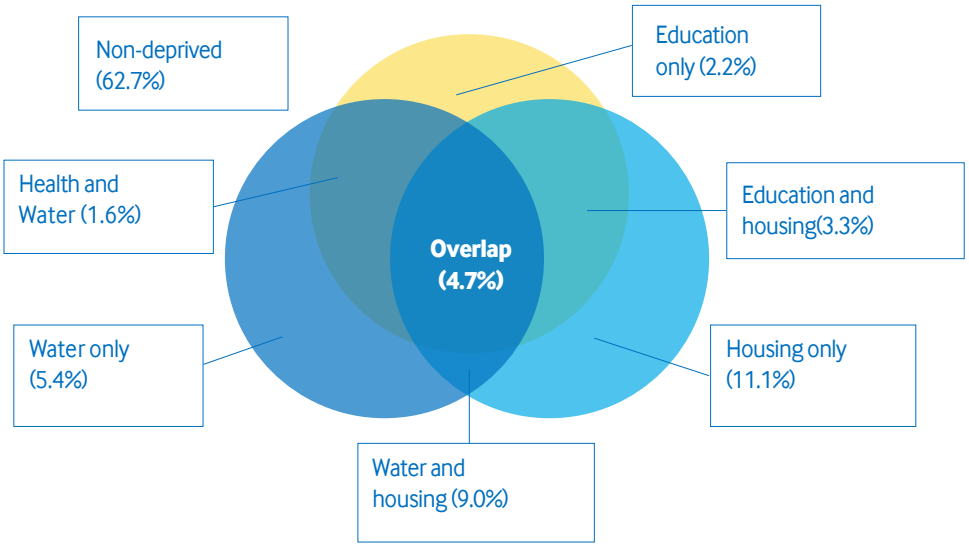
***Figure 2.18: Overlap between health, water, and housing for children 5-14 years old at national level and by area of residence.***

### National



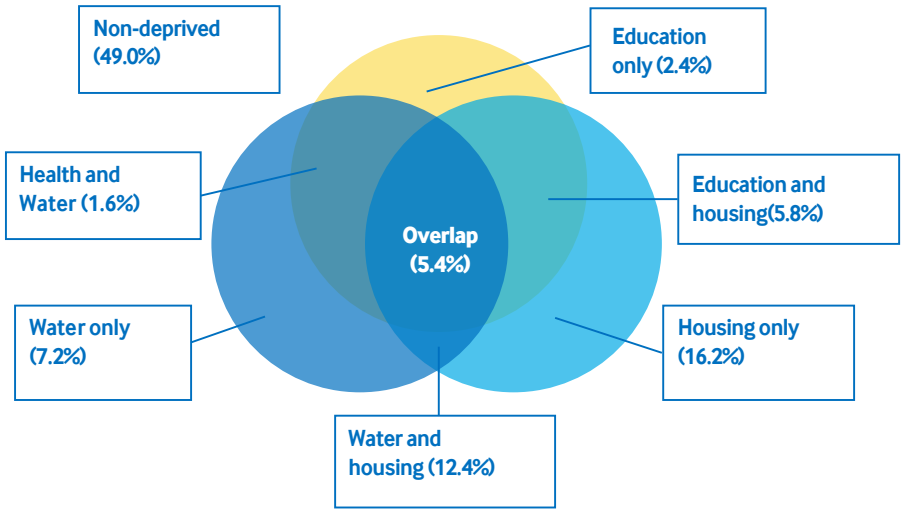

*Source: National Institute of Statistics of Rwanda, EICV7*

## Urban




*Source: National Institute of Statistics of Rwanda, EICV7*

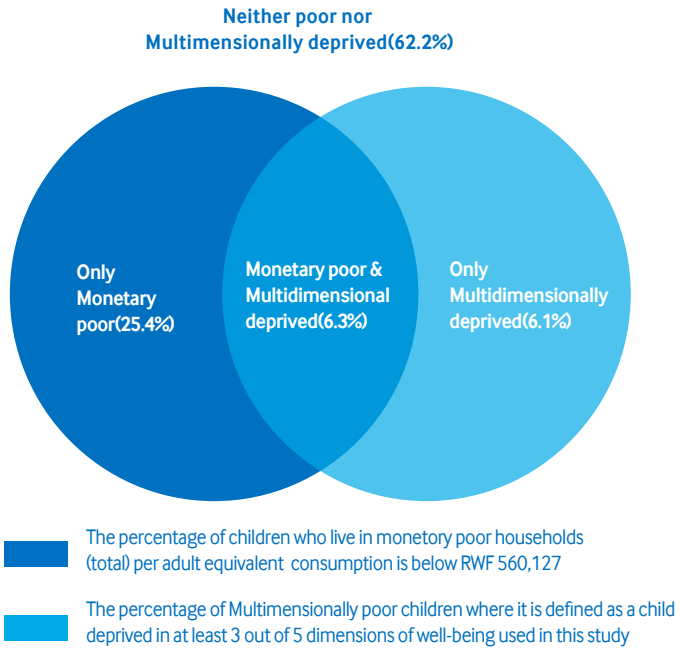
## Rural




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.19 presents the overlap between multidimensional child deprivation and monetary poverty. The results show that in Rwanda, 6.3% of children aged 5-14 years experience simultaneously multidimensional deprivation and monetary poverty, representing the most vulnerable group. 6.1% of children face multidimensional deprivation without monetary poverty, while the share of children who experience only monetary poverty is 25.4%.Therefore, 62.2% of children are neither multidimensionally deprived nor monetarily poor.

***Figure 2.19: Overlap between monetary and multidimensional deprivation for children 5-14 years old at national level.***




*Source: National Institute of Statistics of Rwanda, EICV7*

## 2.2. Children aged 15-17 years.

### 2.2.1. Single sector analysis

This section examines the child deprivation (or poverty) among children aged 15-17 years across five key dimensions: health, education, water, sanitation, and housing. Figure 2.20 presents the deprivation rates for the indicators used to measure each dimension of wellbeing.

In the Health dimension, 22% of children aged 15-17 years are deprived as measured by health insurance and distance to health facilities indicators (recording deprivation levels of 15% and 8% respectively).

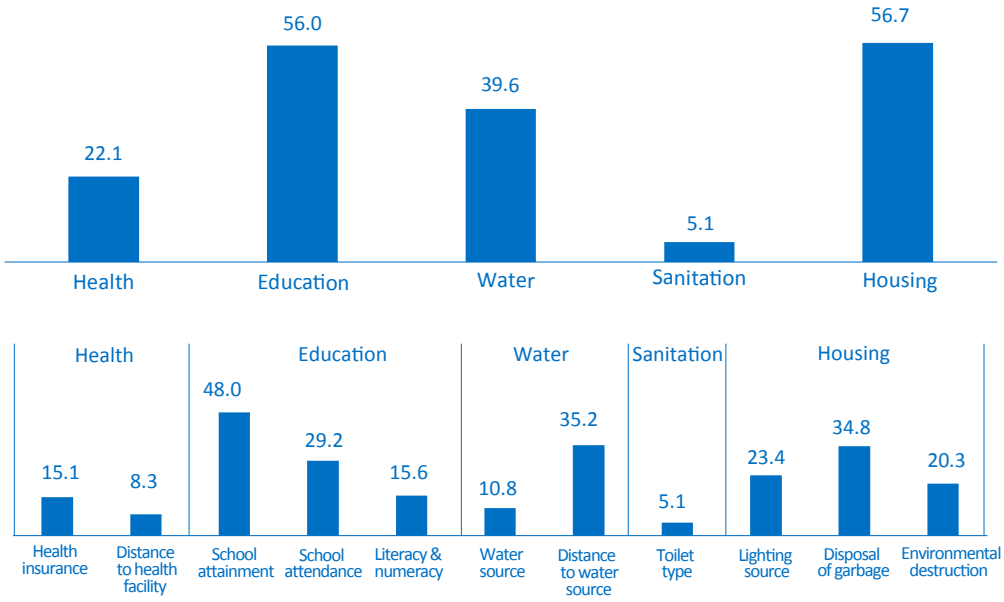
Deprivation in Education dimension are 56% of children aged 15-17 years, based on three indicators: school attainment (48%), school attendance (29%) and literacy & numeracy proficiency (16%).

Furthermore, 40% of this children aged 15-17 years suffer from deprivation in the water dimension. This includes 11% without access to an improved water source in their household and 35% are deprived in distance to water source indicator (more than 500 meters in rural areas or more than 200 meters in urban areas).

With regards to the Sanitation dimension, about 5% of children aged 15-17 years live in households lacking access to an improved toilet type.

More than half (57%) of children aged 15-17 years experienced deprivation in the housing dimension. In particular, 23% of children lack access to an improved lighting source, 35% of children are deprived in terms of garbage disposal (primarily due to the absence of proper waste collection or destruction systems), and 20.3% were affected by environmental destruction in the 12 months prior to the survey.

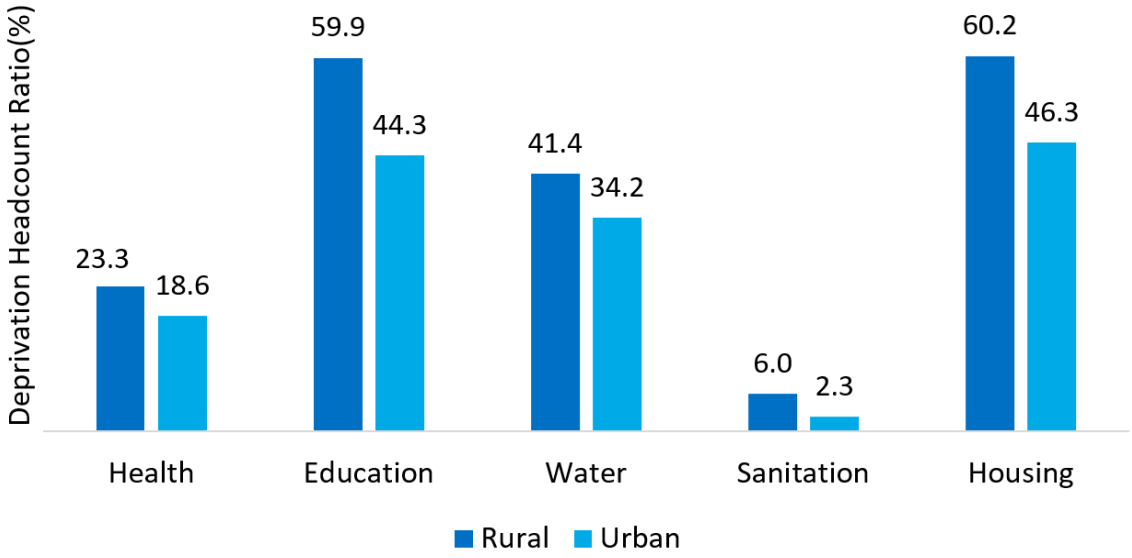
***Figure 2.20: Deprivation rate in each indicator and dimension of a child's wellbeing for children 15-17 years old at national level***




*Source: National Institute of Statistics of Rwanda, EICV7*

Children aged 15-17 years living in rural areas experience higher deprivation rates across all dimensions compared to their urban counterparts. The disparities are as follows: 7.2% for Water, 4.7% for Health and 13.9% for Housing (Figure 2.21). The highest disparity is observed in Education 15.6% while the smallest disparity is in Sanitation, at 3.7%

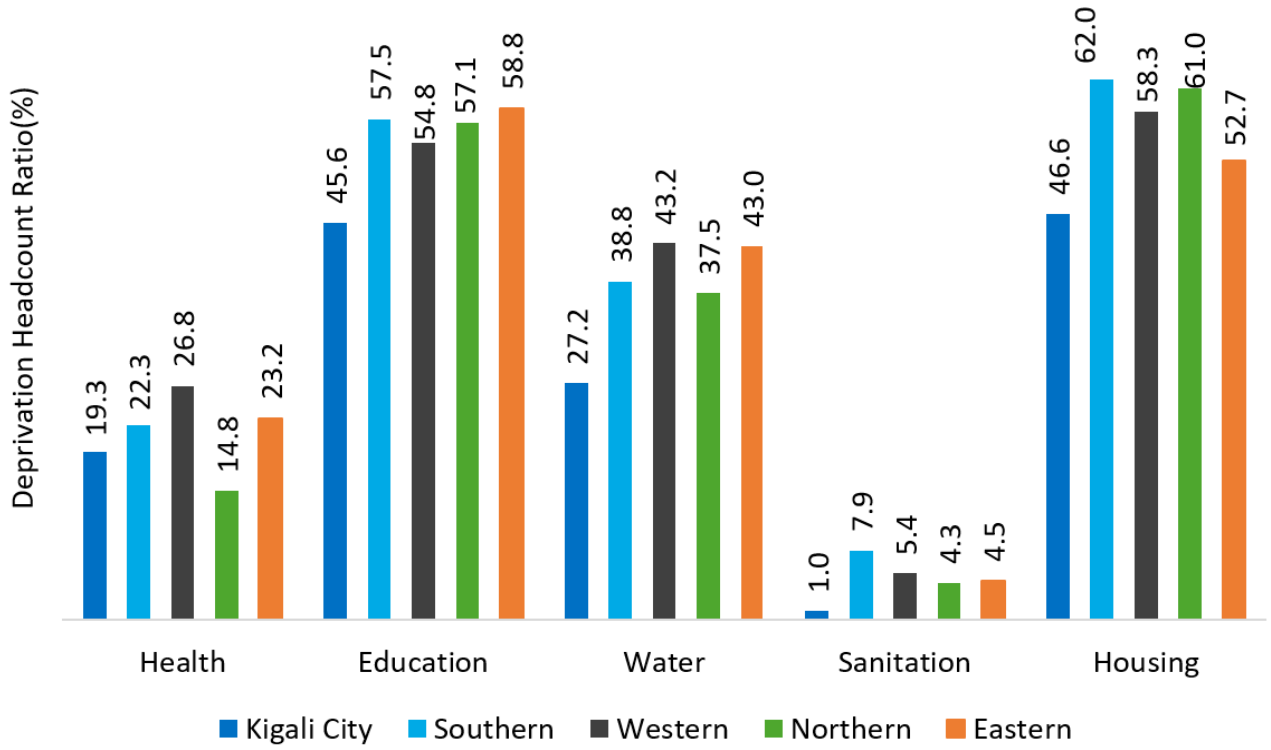
***Figure 2.21: Deprivation rate in each dimension of a child's wellbeing, for children 15-17 years old by area of residence***




*Source: National Institute of Statistics of Rwanda, EICV7*

The Western province exhibits the highest deprivation rates in the Health and Water dimensions at 27% and 43%, respectively). On the other hand, the Eastern province present the highest deprivation rate in Education at 59% and Southern Province has the highest deprivation in sanitation and housing (8% and 62%, respectively).Conversely, The lowest deprivation rates are reported in the Northern Province for Health 15% and in Kigali city for Education, Water, Sanitation, and Housing dimensions (46%, 27%, 1% and 47%, respectively) -figure 2.22.

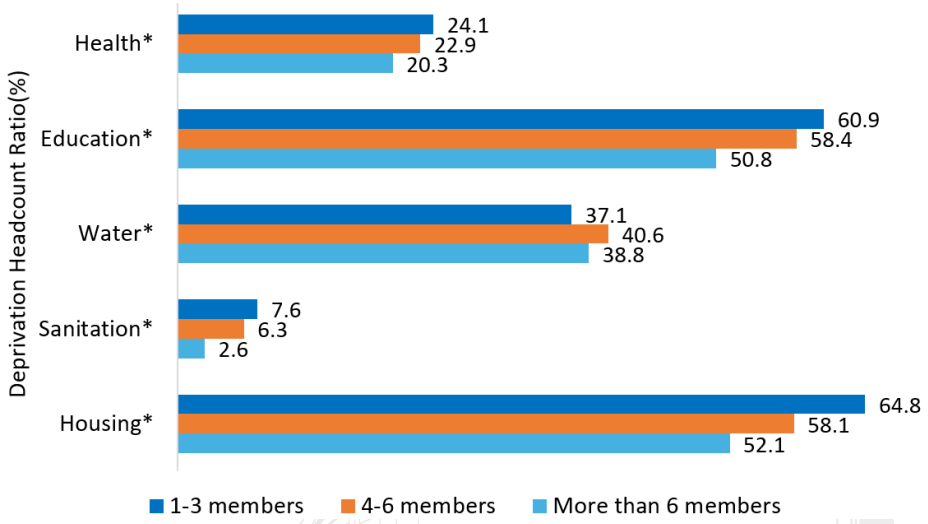
***Figure 2.22: Deprivation rate in each dimension of a child's wellbeing, for children 15-17 years old by province***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.23 illustrates that children living in larger households exhibit lower deprivation rates across all dimensions except the water dimension. Generally, households must allocate resources to essential services such as health, education, water, sanitation and housing regardless of household size. Therefore, smaller households pay more per person to maintain the same living conditions.

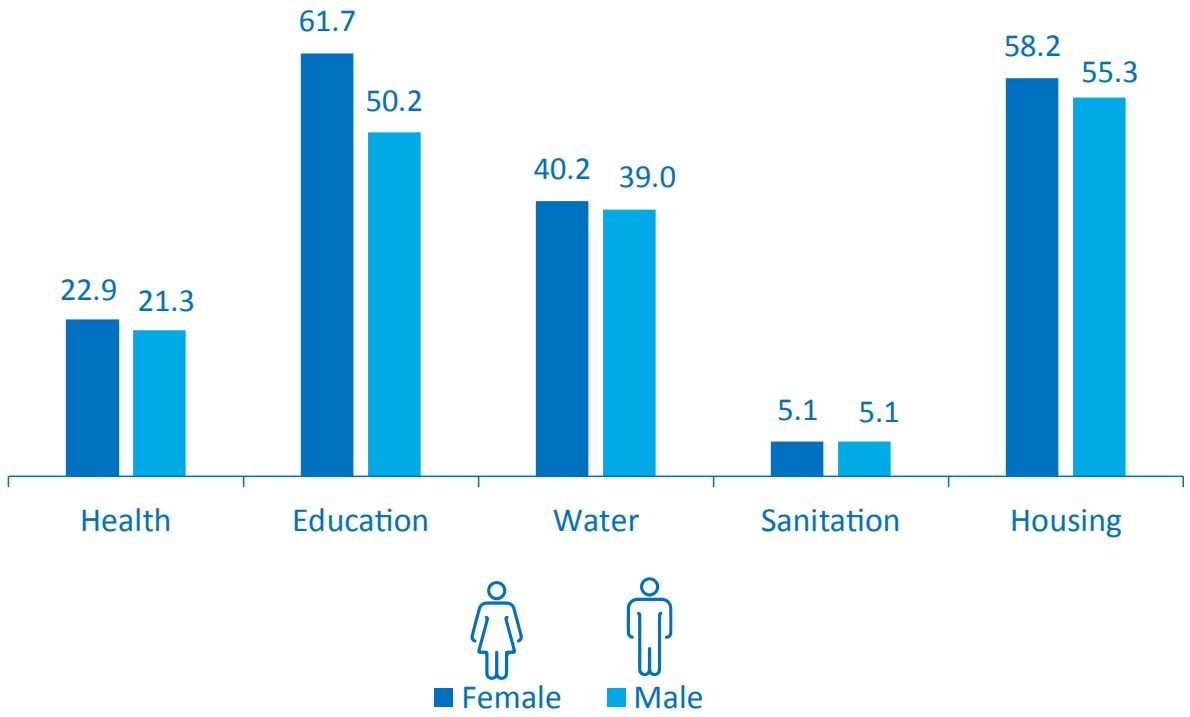
***Figure 2.23: Deprivation rate in each dimension of a child's wellbeing for children 15-17 years old by household size***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.24 indicates no significant disparities in deprivation levels based on the sex for children aged 15-17 years. However, a slightly higher proportion of girls are deprived in health and education dimensions compared to boys.

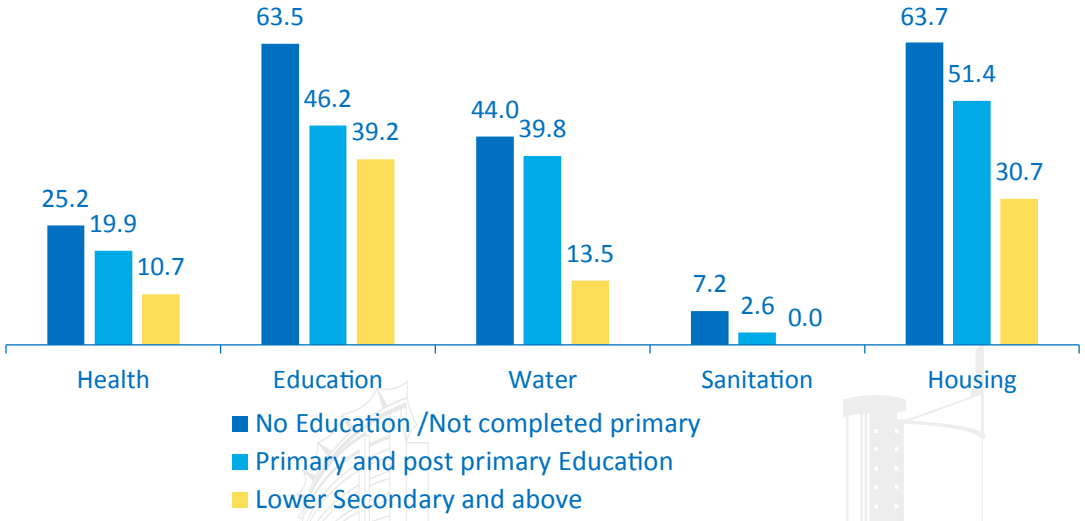
***Figure 2.24: Deprivation rate, in each dimension of a child's wellbeing, for children 15-17 years old by gender***




*Source: National Institute of Statistics of Rwanda, EICV7*

The education level of the household head plays an important role in the deprivation experienced by children. As illustrated in Figure 2.25, children living in households headed by individuals with no formal education exhibits higher deprivation rates across all dimensions. For example, 44.0% of children living with a non-educated households head experience deprivation in the water dimension compared to 40% of those with household heads who have completed primary or post-primary education, and only 13.5% of children whose household heads have attained at least lower secondary education or higher.

***Figure 2.25: Deprivation rate in each dimension of child's wellbeing for children 15-17 years old by education level of the household head***



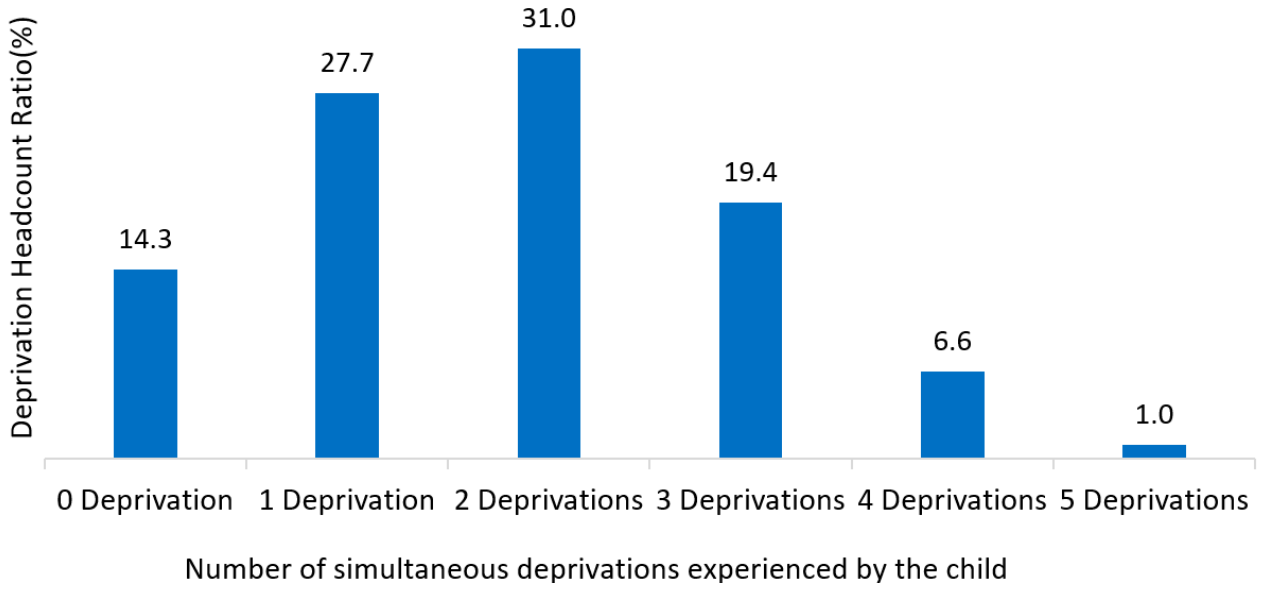

*Source: National Institute of Statistics of Rwanda, EICV7*

## 2.2.2. Multidimensional deprivation analysis

### a. Distribution of deprivations

Figure 2.26 presents the national-level distribution of multidimensional deprivations among children aged 15-17 years. It is observed that 14% of children aged 15-17 years do not experience any deprivation while 28% experience one deprivation. Approximately three in ten children (31%) face simultaneous deprivation in two dimensions, and a small proportion (1.0%) are deprived across all five dimensions.

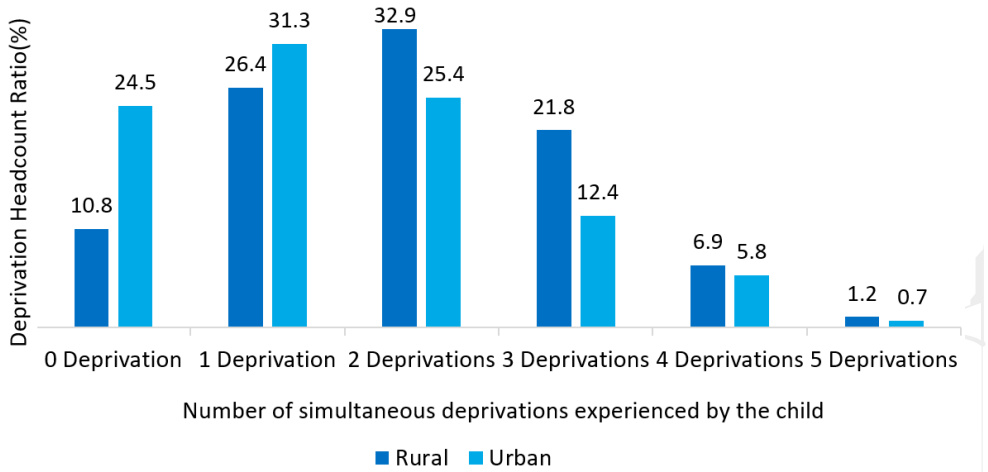
**Figure 2.26:** ***Deprivation distribution for children 15-17 years old at the national level***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.27 indicates that 24.5% of children residing in urban areas experience no deprivation compared to only 11% of their rural counterparts. Conversely, rural children in this age group exhibit higher rates of severe deprivation compared to children residing in urban areas. The difference is 7.5% points for children deprived in two dimensions, 9.4% points for those deprived in three dimensions and 1.1% points for those deprived in four dimensions. For those deprived in all five dimensions, there is only 0.5% points of difference between rural and urban areas.

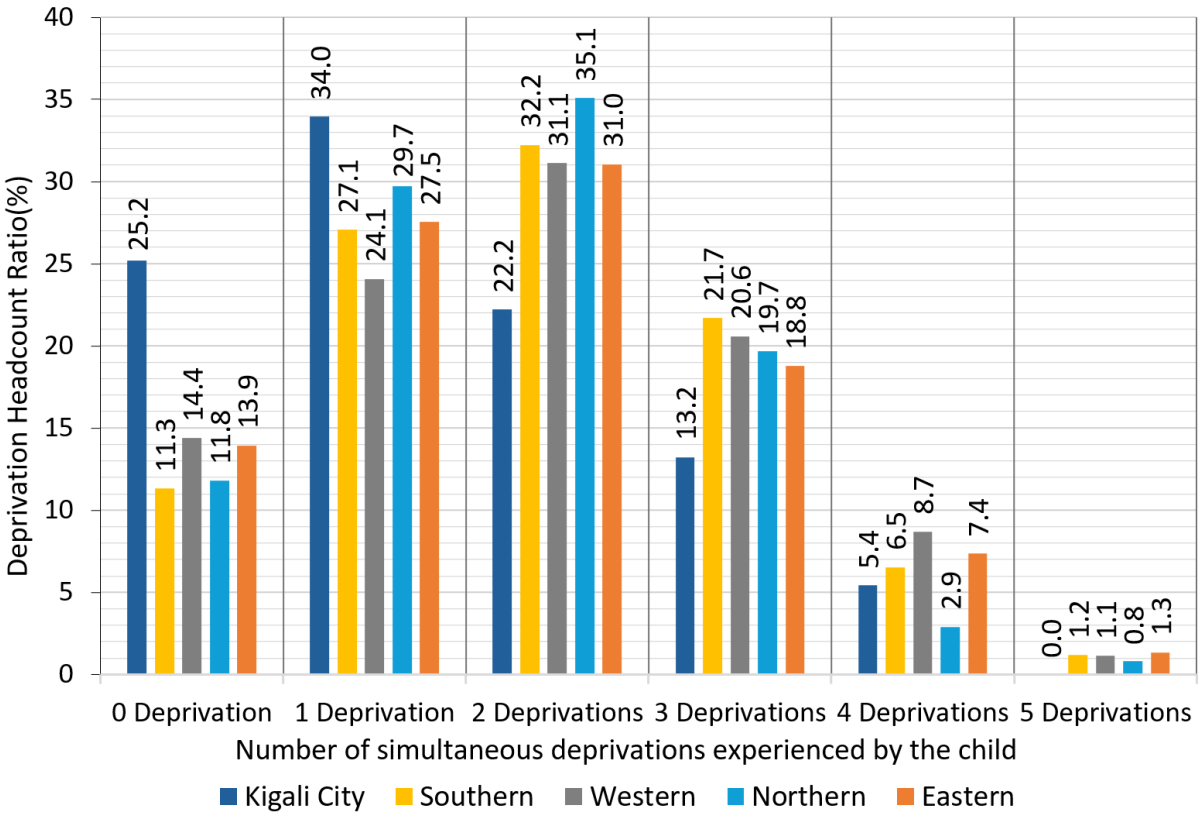
***Figure 2.27: Deprivation distribution (%) for children 15-17 years old by area of residence***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.28 reveals that 25% of children living in Kigali City experience no deprivation, a significantly higher proportion compared to other provinces. In contrast, only 14% in Eastern, 14% in Western provinces, 12% in Northern Province and 11% in Southern province experience no deprivations. The Southern Province is falling behind with 22% of children facing three simultaneous deprivations. In the Western Province 9% of children are deprived in four deprivations at the same time while 1.3% of Eastern province children face deprivation across all five dimensions.

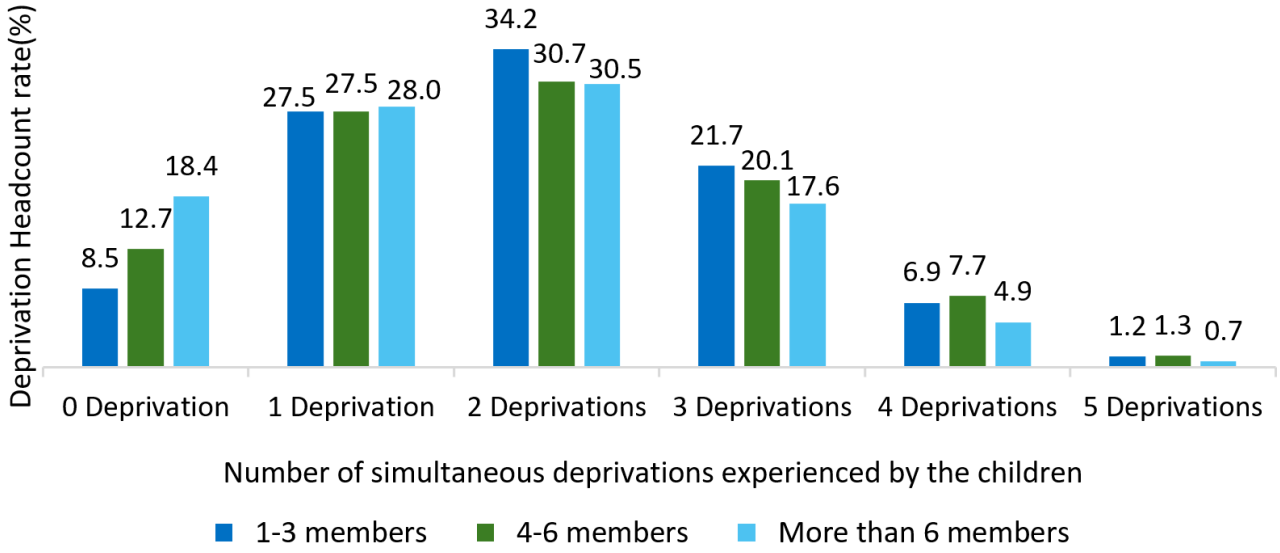
***Figure 2.28: Deprivation distribution (%) for children 15-17 years old by province***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.29 demonstrates that children living in a household with three or fewer members are significantly more likely to experience several deprivations (between two and four deprivations). Conversely, children living in larger households (more than six members) experience lower deprivation levels (between zero and one). Despite these differences based on family size, the highest proportion of children experience relatively few deprivations (fewer than two deprivations), whereas a minority of children face the highest count (at least 2 deprivations).

***Figure 2.29: Deprivation distribution (%) for children 15-17 years old by household size***

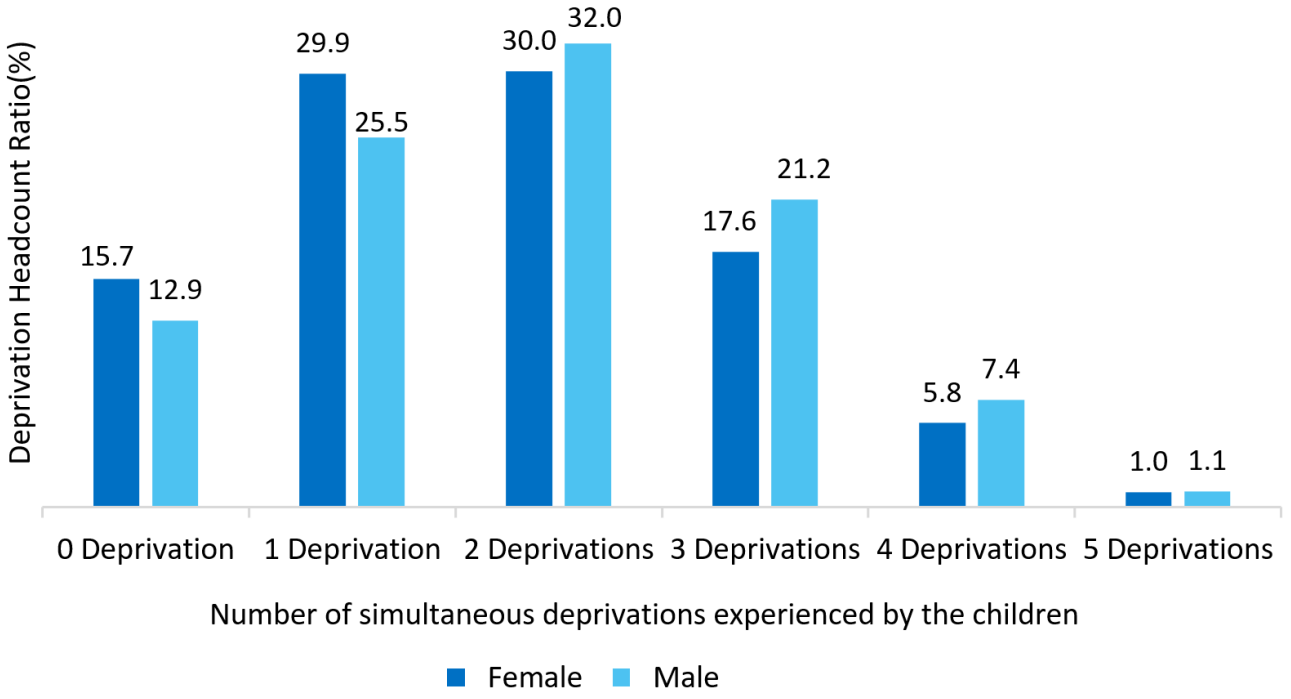



*Source: National Institute of Statistics of Rwanda, EICV7*

Analysis of deprivation gender of the child, reveals that male children demonstrate slightly higher rates of experiencing at least two deprivations compared to their female counterparts, these disparities are not too high (Figure 2.30). Notably, the majority of children regardless of their gender face at least two deprivation dimensions.

The deprivation distribution by gender, reveals that the highest proportion for both male and female children aged 15-17 years ,experience relatively few deprivation dimensions (between zero and two deprivations) while the smaller proportions of children regardless of their sex face more severe deprivation (between three and five deprivations).

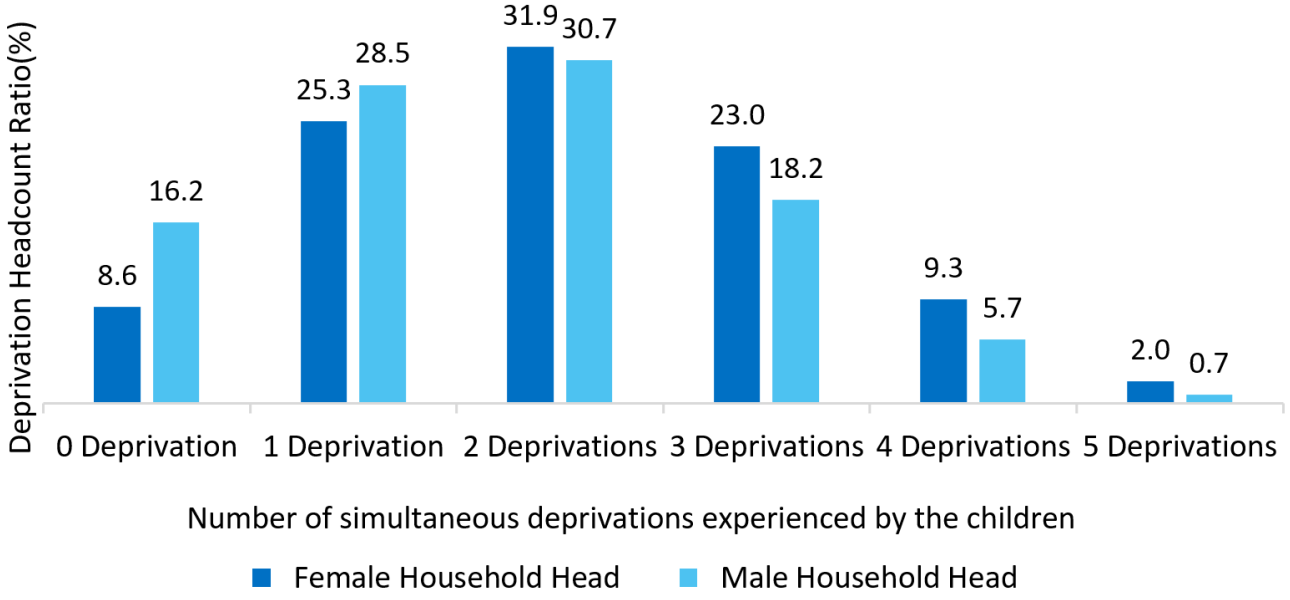
***Figure 2.30: Deprivation distribution (%) for children 15-17 years old by gender of the child***




*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.31 reveals significant disparities in multidimensional poverty among children aged 15-17 years based on household headship. The data indicate that children in female-headed households experience higher deprivation rates (facing at least two deprivations) conversely, those in male-headed households predominantly experience minimal deprivation (facing between zeros to one deprivation). This implies that, the absence of a father in a household is associated with higher multidimensional child poverty.

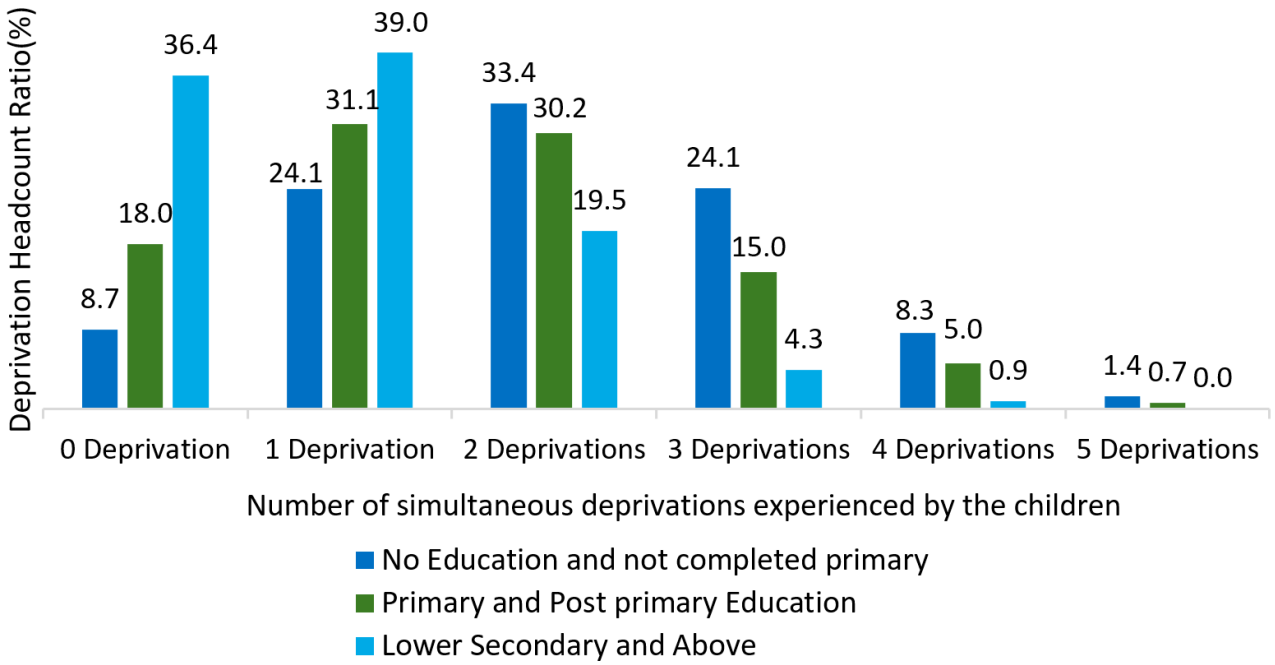
***Figure 2.31: Deprivation distribution (%) for children 15-17 years old by gender of household head***




*Source: National Institute of Statistics of Rwanda, EICV7*

The reduced deprivation levels among children aged 15-17 correlate with the level education of the household head. Figure 2.32 indicate that 75.4% of children in households where the head has completed lower secondary education or higher experience either no deprivation or only one deprivation (36.4% and 39.0%, respectively). In contrast, children whose household head did not attain any level of education/not completed primary or with primary and post-primary education are significantly more likely to experience three deprivations (24% and 15%, respectively) compared to only 4% for children living with lower secondary and higher educated household heads. Children with a household head who did not attain any education/not completed primary or with only primary and post-primary education (10% and 6%, respectively) are deprived in at least four dimensions compared to only 0.9% of children living with lower secondary and above educated households. This clarifies that children living with no educated or with only primary and post-primary educated household heads are more deprived in at least 2 dimensions compared to children with lower secondary and above educated household.

*Figure 2.32: Deprivation distribution (%) for children 15-17 years old by education level of the household head*

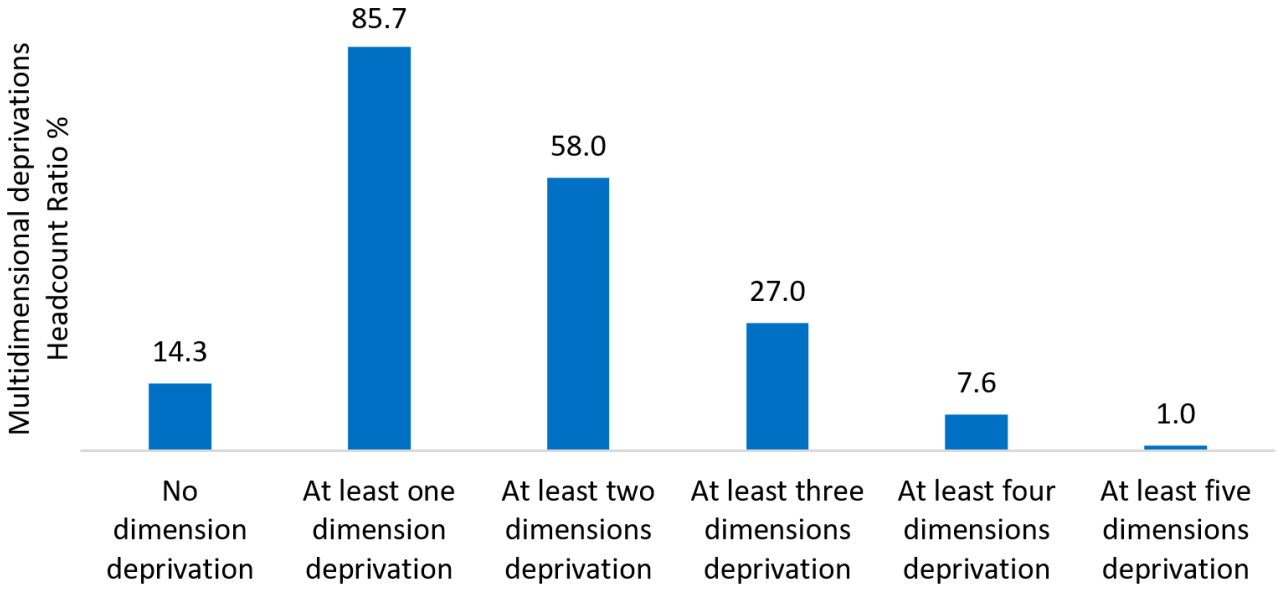



*Source: National Institute of Statistics of Rwanda, EICV7*

## b. Multidimensional deprivation headcount (H)

Figure 2.33 presents the multidimensional deprivation headcount for children aged 15-17 years by different deprivation thresholds. At the national level, 86% of children are deprived in at least one dimension, 58.0% face deprivation in at least two dimensions. Regarding multidimensional poverty, 27.0% of the children in this age group are multidimensionally poor, meaning that they experience at least three deprivations. Notably, 8% endure at least four deprivations while only 1.0% are deprived in all five dimensions. Approximately 14.3% experience no dimensional deprivations.

*Figure 2.33: Multidimensional deprivation headcount ratio(H) for children 15-17 years old at the national level*




*Source: National Institute of Statistics of Rwanda, EICV7*

## C. Multidimensional deprivation headcount (H), the average intensity of poverty (A) and the multidimensional poverty Index (MO) for children 15-17 years old

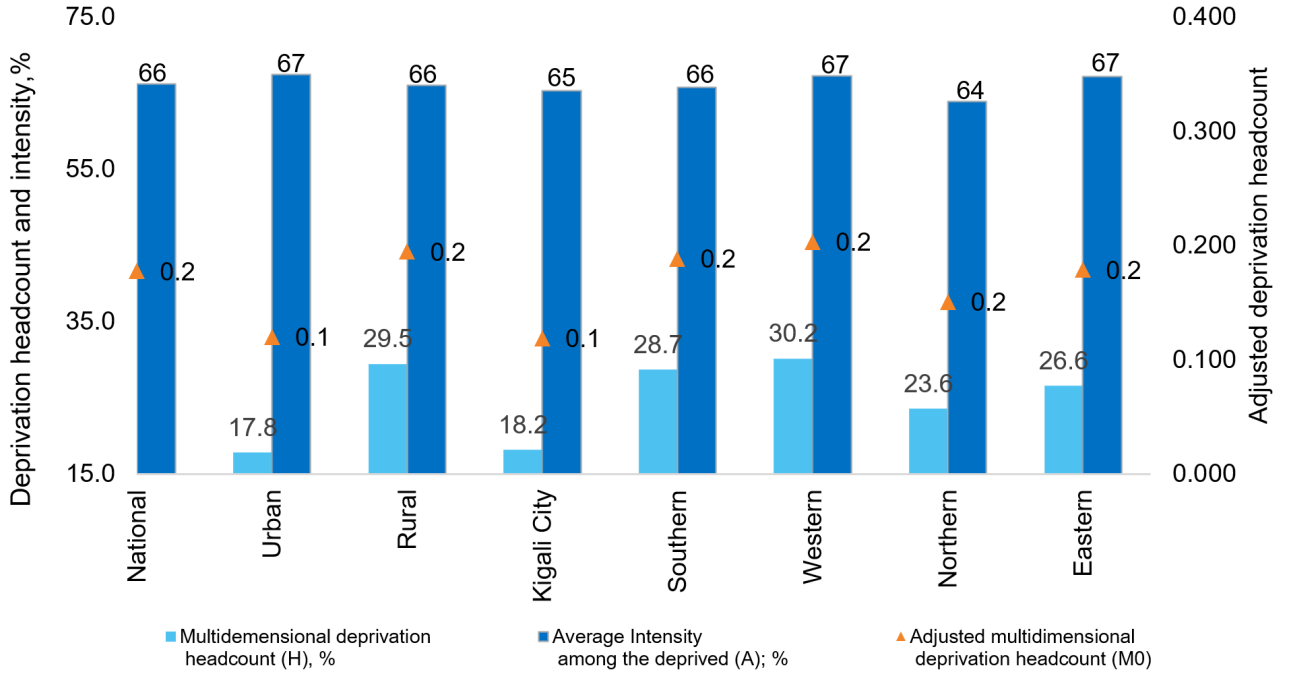
When disaggregating the results by area of residence, 18% of children living in urban areas experience deprivation in at least three dimensions compared to 29.5% of children living in rural areas.

The Western province presents the highest multidimensional deprivation rate of 30%. The lowest incidence of multidimensional poverty is reported in Kigali city (18%).

On average, multidimensionally deprived children experience deprivation in 27% of the total number of dimensions at national level. The average intensity among the deprived children ranges slightly between 66% and 67% across areas and ranging from 64% and 67% across provinces. Rural areas and the Northern Province show the lowest average intensity (66% and 64%, respectively), while the Western and Eastern provinces present the highest average intensity of 67%.

The multidimensional child poverty index (M0) is 0.2 in every province and area of residence except in urban areas and Kigali city which has only 0.1.

***Figure 2.34: Indices for children 15-17 years old who are deprived in at least 3 dimensions at the national level and by area & province of residence.***



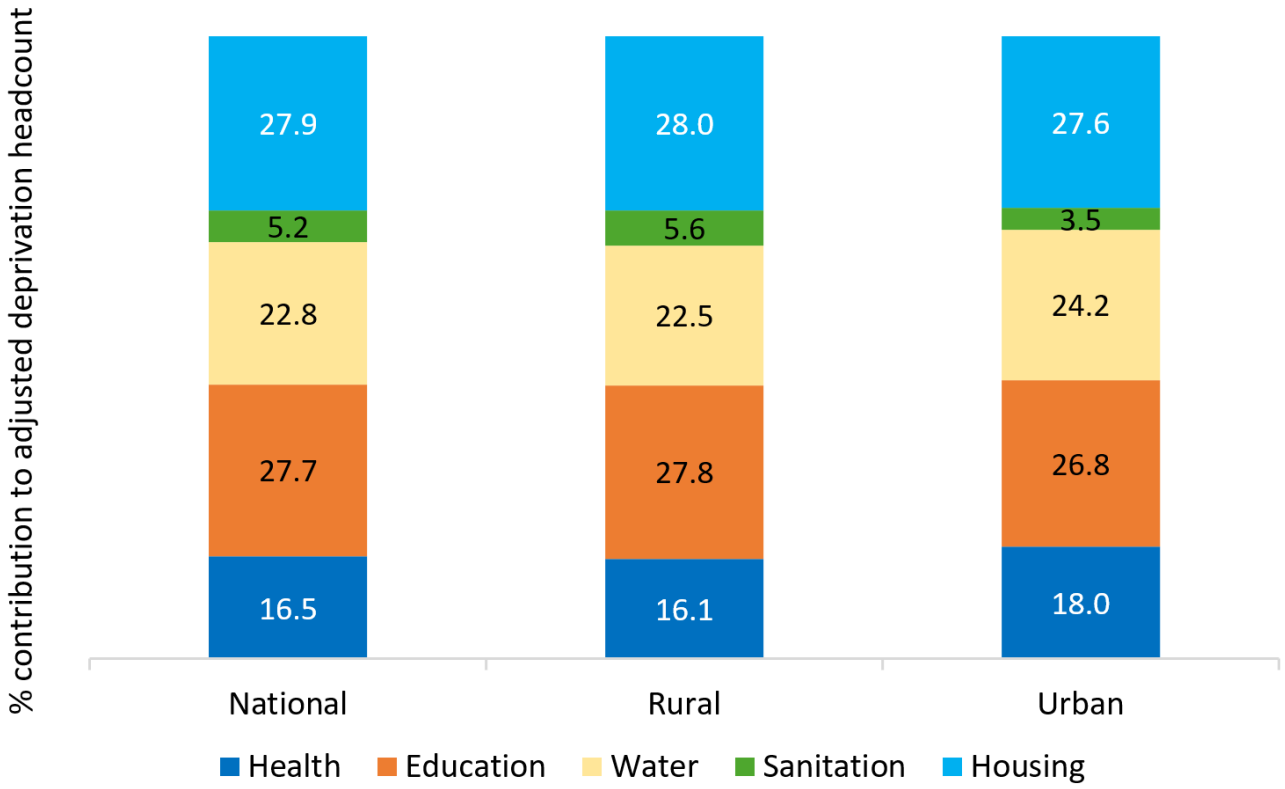

*Source: National Institute of Statistics of Rwanda, EICV7*

## d. Contribution of each dimension to deprivation level children 15-17 years old

Figure 2.35 shows the decomposition of the adjusted multidimensional headcount ratio (M0) for children aged 15-17 years, revealing the relative contribution of each multidimensional deprivation index to overall deprivation levels. At the national level, the housing dimension for children aged 15-17 years contributes the most (28 %) to the overall deprivation level, followed by the education dimension (28%), water dimension accounts for (23%) and health dimension contributes (16.5%). Sanitation demonstrates the smallest contribution to multidimensional poverty (5%).

Education, sanitation and housing contribute slightly to deprivation levels in rural areas than in urban areas (the difference is as of 1.0, 2.1 and 0.4 percentage points respectively). On the other hand, the health and water dimensions affect the M0 slightly in urban than rural areas (the difference is as 1.9 and 1.7 percentage points respectively). Despite these small differences, the decomposition presented indicates almost similar patterns for national level and in both urban and rural areas.

***Figure 2.35: Decomposition of the multidimensional child poverty index for children 15-17 years old at the national level and by area of residence***

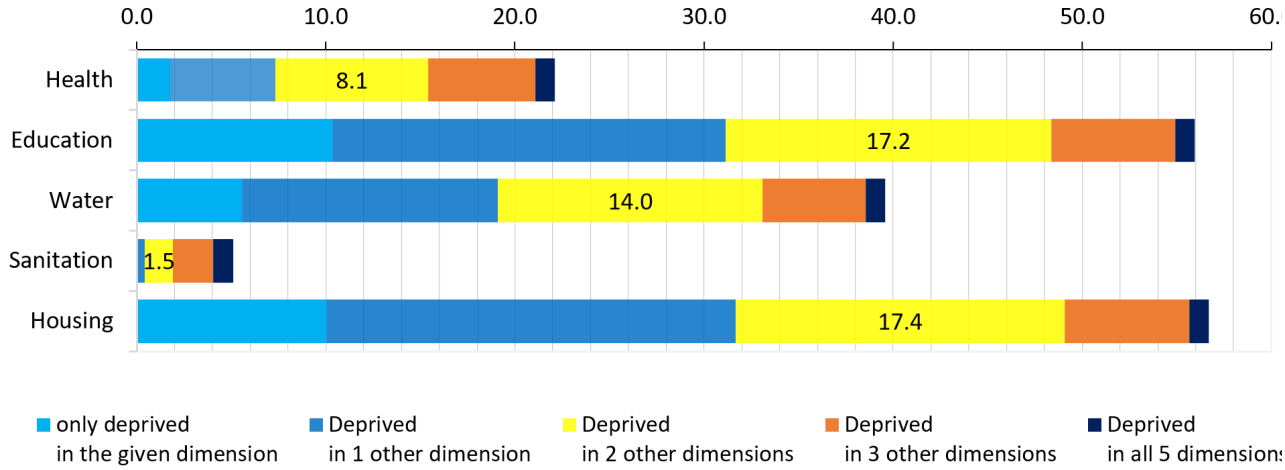



*Source: National Institute of Statistics of Rwanda, EICV7*

## e. Deprivation overlap analysis.

Among children aged between 15-17 years, very few experience deprivation in only one dimension. In fact, most children deprived in one dimension are simultaneously deprived in at least one other dimension. For instance, among children deprived in Health, only 2% experience deprivation in this dimension alone, while 6% face deprivation in one additional dimension, and 8% are deprived in two other dimensions. Similarly, while 10% of children is deprived in Education alone, 21% and 17.2% of children are deprived in Education plus one or two other dimensions respectively-(figure 2.36).

***Figure 2.36: Deprivation overlaps for children 15-17 years old by dimension.***



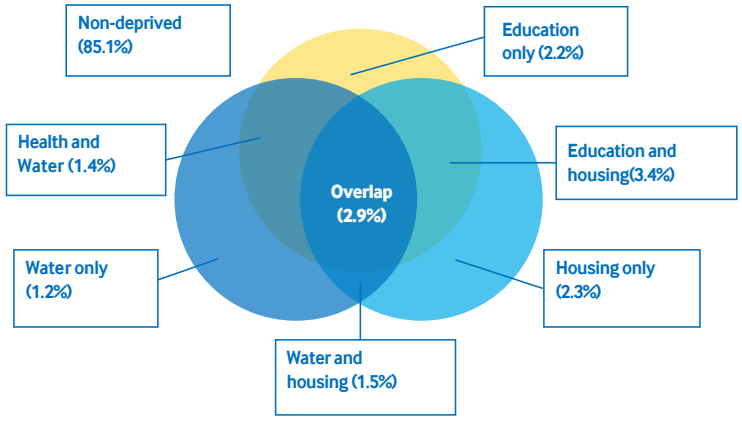

*Source: National Institute of Statistics of Rwanda, EICV7*

The following Venn diagram provides more information about the overlapping deprivations across specific dimensions. According to the findings (figure 2.37), 2.9% of children aged 15-17 years, experience simultaneous deprivation in Health, Water and Housing dimensions. Additionally, 6.3% face deprivation in two dimensions at the same time (1.4% in Education and water, 3.4% in Education and Housing, and 1.5% in Water and Housing). Approximately 5.7% are deprived in only one of the three respective dimensions (2.2% in Education only, 1.2% in water only and 2.3% only in housing). The majority (85.1%) of children aged 15-17 years are not deprived in any of these three dimensions.

The percentage of children aged 15-17 years who are simultaneously deprived in three dimensions (Education, Water and Housing dimensions) in urban and rural areas (2.0% and 3.2%, respectively). Conversely, the percentage of children without deprivation is higher in Urban areas (88.1%) compared to rural areas (84.0%).

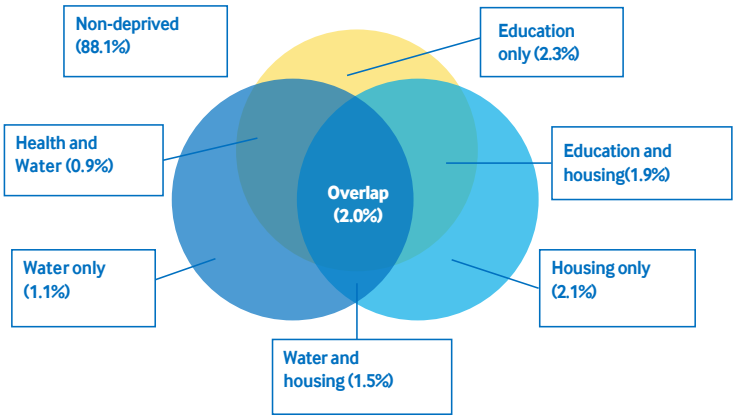
***Figure 2.37: Overlap between education, water, and housing for children 15-17 years old at the national level and by area of residence.***

## National



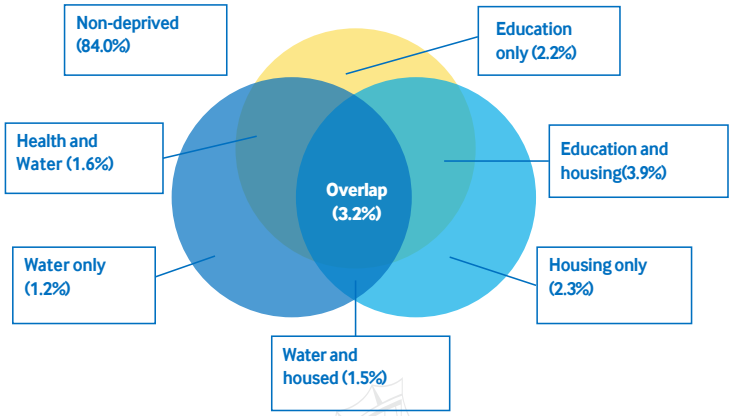

*Source: National Institute of Statistics of Rwanda, EICV7*

## Urban




*Source: National Institute of Statistics of Rwanda, EICV7*

## Rural

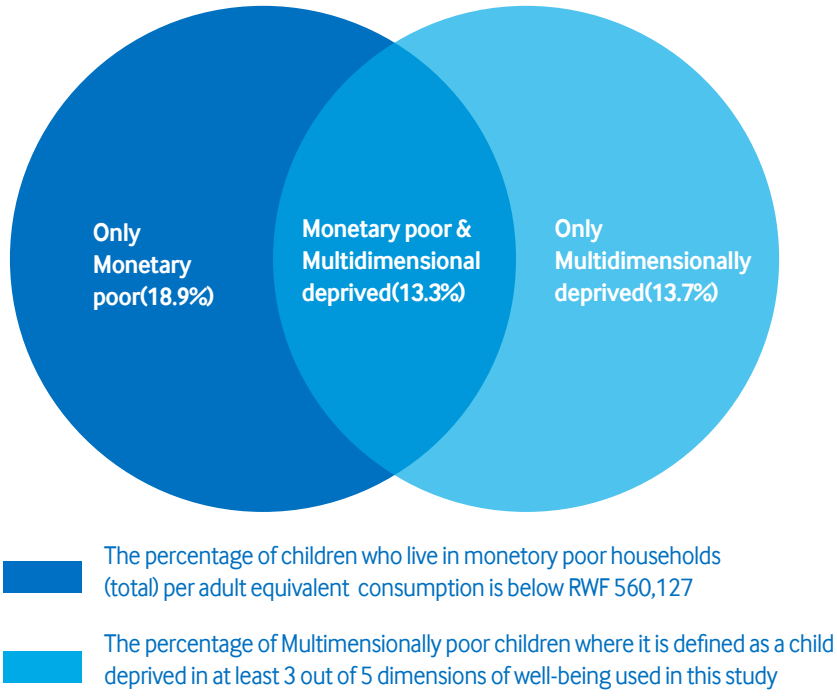



*Source: National Institute of Statistics of Rwanda, EICV7*

Figure 2.38 illustrates the overlap between multidimensional child deprivation and monetary poverty in Rwanda. The results indicate that 13.3% of children aged 15-17 years experienced both multidimensional deprivation and monetary poverty, indicating that they suffer from monetary poverty alongside deprivations in other dimensions of well-being, such as Water, Education, Housing, Health and Sanitation. Additionaly, children who are multidimensionally deprived

but not monetary poor represent 14% of the children while 19% experience monetary poverty . The majority (54.0%) of children in this age group are neither monetarily poor nor multidimensionally deprived.

***Figure 2.38: Overlap between monetary and multidimensional deprivation for children 15-17 years old at national level.***




*Source: National Institute of Statistics of Rwanda, EICV7*

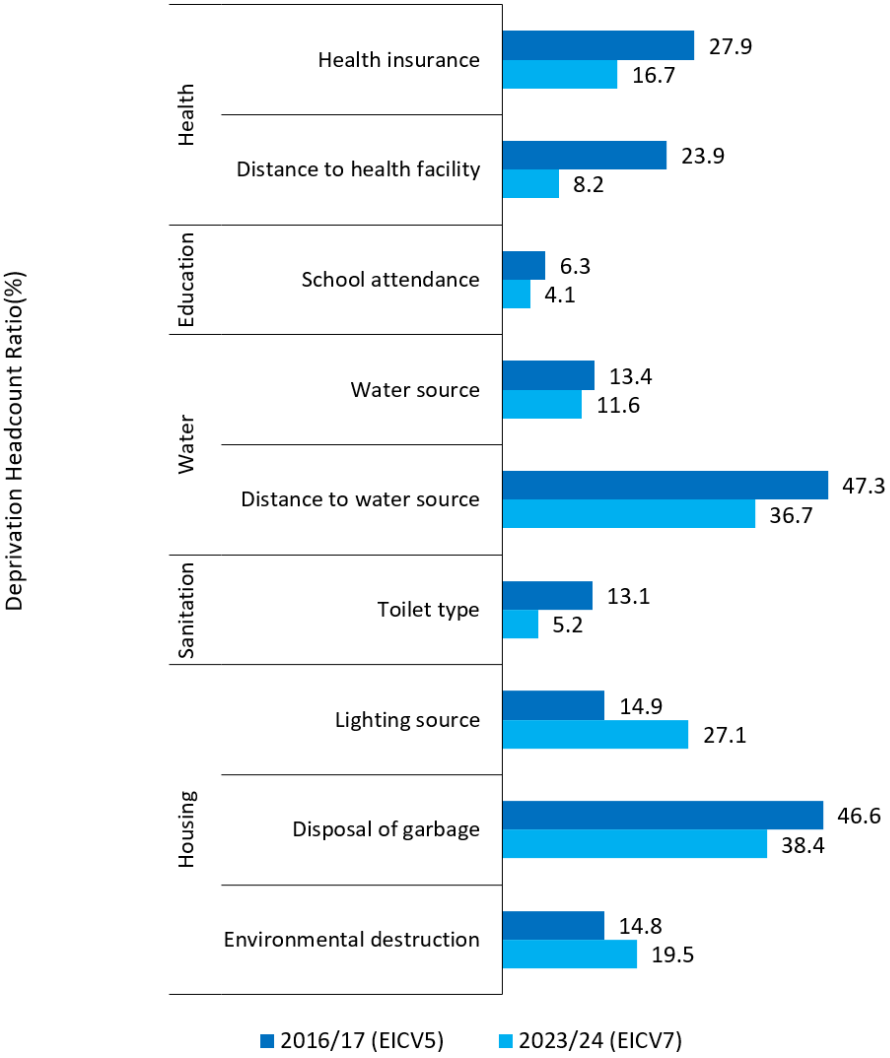
## 2.3. Trends in poverty reduction for children 5-14 years old

### 2.3.1. Single sector analysis

This section covers an analysis of multidimensional deprivation trends among children aged 5-14 years between 2016/17 to 2023/24 across all dimensions. Significant improvements have been observed in this age group: In the dimension of health, deprivation decreased substantially from 44.0% in 2016/17 to 23% in 2023/24 reflecting significant improvement over the six-year period. Sanitation deprivation declined from 13% in 2016/17 to 5% in 2023/24, while, education deprivation fell by 4.3% points between 2016/17 and 2023/24 and the water deprivation rate decreased by 11% points between 2016/17 and 2023/24.

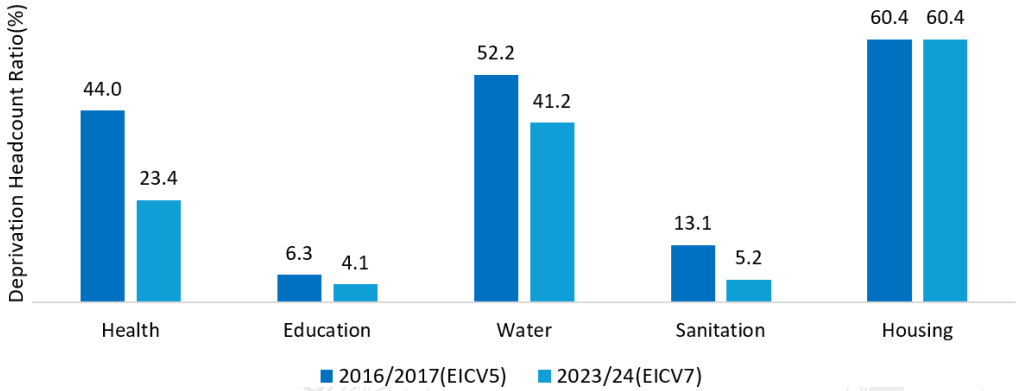
However, housing dimension showed no improvement (60.4% in both 2016/17 and 2023/24). This stagnation is attributed to an increase of the percentage of deprived children aged 5-14 years in the 'Environmental destruction' which rose from (15% in 2016/17 to 19.5% in 2023/24). Moreover, modalities used to define unimproved main source of lighting considered in 2023/24 are different from the threshold used 2016/17. In 2016/17, the deprivation rate for 'lighting source 'stood at 15% compared to 19.5% in 2023/24 (Figure 2.39 & 2.40).

***Figure 2.39: Deprivation rates (%) in each indicator of a child's wellbeing for children 5-14 years old at national level[1]***




*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

***Figure 2.40: Deprivation rate in each dimension of a child's wellbeing for children 5-14 years old at national level***




*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

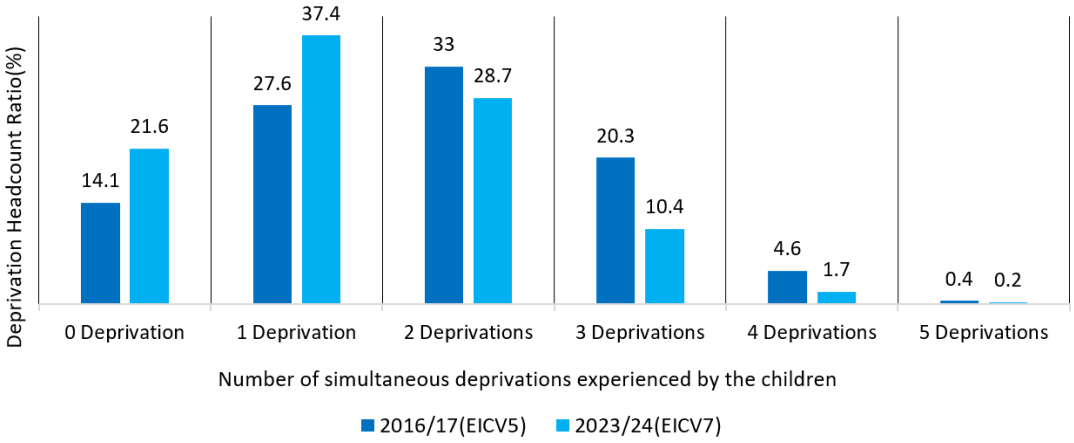
1 **Unimproved main source of lighting:**
**EICV5 (2015/17):** Oil lamp, Firewood, Candle, Lantern and Other
**EICV7 (2023/24):** Kerosene/paraffin lamp, firewood, candle, traditional lantern, Rechargeable lantern, Biogas, Generator, Batteries+Bulb, Rechargeable batteries, torch /Phone and other

## 2.3.2 Multidimensional deprivation analysis

### a. Distribution of deprivations

The analysis reveals significant progress in reducing multidimensional deprivation. Notably, there has been a large increase in the number of children facing zero or only one deprivation. In 2016/17, only 14% of children aged 5-14 years did not experience any deprivation compared to 22% in 2023/24. Moreover, the proportion of children experiencing deprivation in three out of five dimensions decreased over time, from 20% in 2016/17 to 10% in 2023/24. Similar results were observed for those deprived in four out of five dimensions (5% in 2016/17 to 2% in 2023/24) and in all five dimensions (decreasing from 0.4% in 2016/17 to 0.2% in 2023/24) (figure 2.41) over the same period.

***Figure 2.41: Deprivation distribution for children 5-14 years old at the national level***




*WWSource: National Institute of Statistics of Rwanda, EICV5 & EICV7*

## 2.4.3. Multidimensional child poverty indices

Multidimensional poverty decreased significantly for children aged 5-14 years between 2016/17 and 2023/24. The proportion of children experiencing three or more simultaneous deprivations declined substantially from 25.3% to 12.4% during this period. The average intensity of deprivation among the affected children showed a slight decline from 2016/17 to 2023/24 (from 64.3% to 63.5%). The multidimensional child poverty index (M0) decreased from 0.16 in 2016/17 to 0.08 in 2023/24 (Table 2.1).

***Table 2. 1: Indices for children 5-14 years old at the national level***

| Period | Number of deprivation | Multidimensional deprivation Headcount (H) | Average intensity among deprived (A); % | Adjusted multidimensional deprivation headcount (MO) |
|---|---|---|---|---|
| EICV5 (2016/17) | Deprived in at least 3 dimensions | 25.3 | 64.3 | 0.16 |
| EICV7 (2023/24) | | 12.4 | 63.5 | 0.08 |

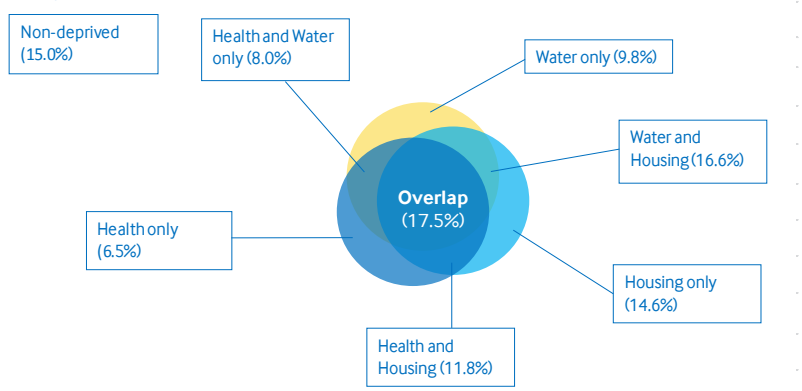
*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

## 2.4.4. Venn Diagram on Deprivation overlap trend analysis

The analysis of deprivation overlap across three dimensions (Health, Water and Housing) for each period of EICV surveys, reveals that the percentage of children deprived in three dimensions simultaneously has decreased over time, from 17.5% in 2016/17 to 5.2% in 2023/24, indicating measurable progress over the last six years. Among children facing deprivation in two dimensions, the percentage of those deprived in water and housing is the highest, though it also demonstrated a decreasing trend, declining from 17% in 2016/17 to 11.5% in 2023/24. Notably, the proportion of children experiencing no deprivation increased from 15.0% in 2016/17 to 53% in 2023/24 (figures 2.42).

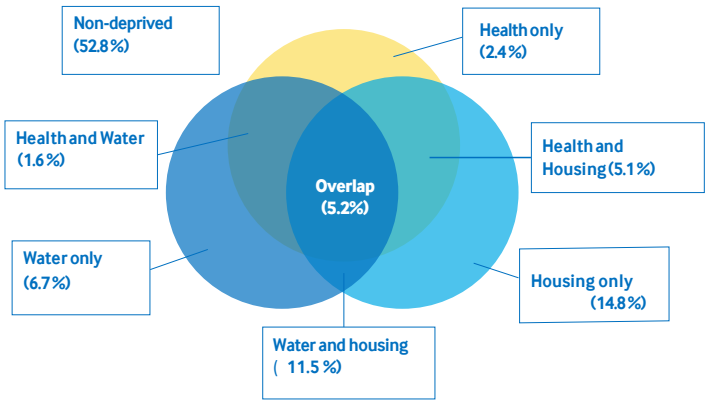
***Figure 2.42: Venn diagram on the deprivation overlaps between health, water, and housing for children 5-14 years old at the national level.***

**2016/17**




*Source: Produced by NISR based on data from EICV5 (2016/2017)*

**2023/24**




*Source: National Institute of Statistics of Rwanda, EICV7*

## 2.4. Trends in poverty reduction for children 15-17 years old

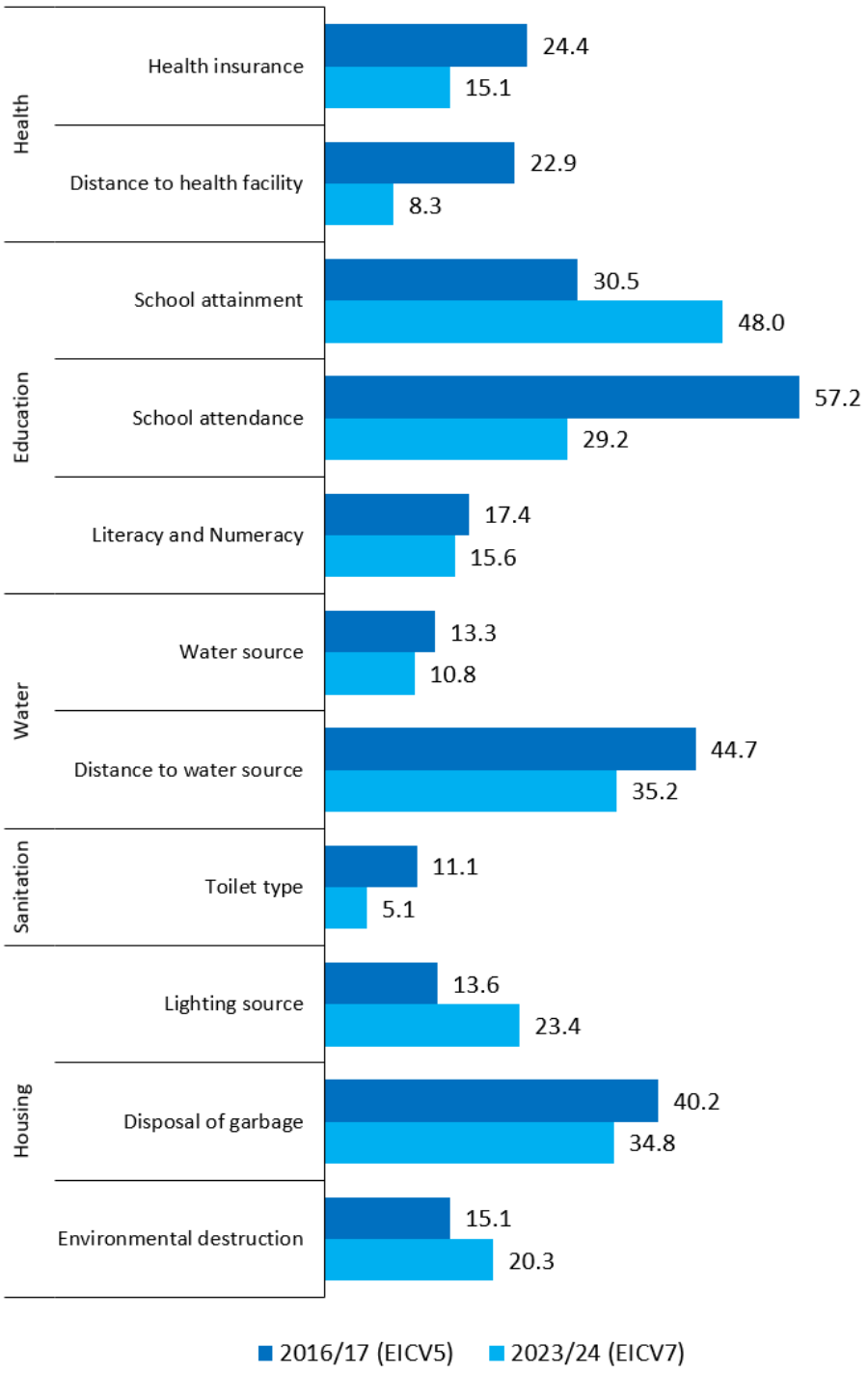
### 2.4.1. Single sector analysis

This section covers the multidimensional child poverty (deprivations) trend analysis (between 2016/17 to 2023/24) for children aged 15-17 years, including the dimensions of housing, sanitation, water, education, and health. In addition to the indicators available for the 5-14 age group, two indicators (literacy and numeracy & school attainment) are added for children aged 15-17 years in the education dimension.

This age group presents a considerable improvement across most dimensions of deprivation. Most notably, health deprivation rates declined significantly from 40.3% in 2016/17 to 22.1% in 2023/24, representing a significant progress over the six-year period. In addition, deprivation in the Sanitation dimension decreased from 11.1% in 2016/17 to 5.1% in 2023/24, while education deprivation reported a reduction of 1.2% points. The water deprivation rate observed a decline of 10.2% between 2016/17 and 2023/24.

However, the housing dimension presents a slight increase of deprivation (55% in 2016/17 to 57% in 2023/24). A rise was observed in the 'Environmental destruction' deprivation among children aged 15-17 years (15% in 2016/17 to 20% in 2023/24) and modalities used to define unimproved main source of lighting considered in 2023/24 were different with those of 2016/17. Subsequently, deprivation in the 'lighting source 'indicator increased from 14% in 2016/17 to 23% in 2023/24 (figure 2.43).

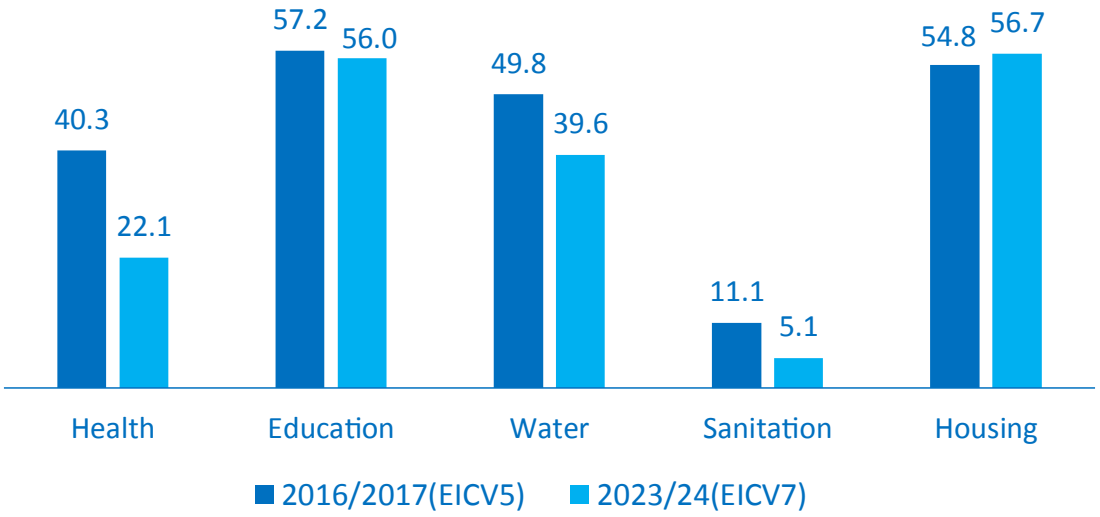
***Figure 2.43: Deprivation rate in each indicator of a child's well-being for children 15-17 years old at national level[2]***




*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

2 **Unimproved main source of lighting:**
**EICV5 (2015/17):** Oil lamp, Firewood, Candle, Lantern and Other
**EICV7 (2023/24):** Kerosene/paraffin lamp, firewood, candle, traditional lantern, Rechargeable lantern, Biogas, Generator, Batteries+Bulb, Rechargeable batteries, torch /Phone and other

***Figure 2.44: Deprivation rate in each dimension of a child's well-being for children 15-17 years old at national level***

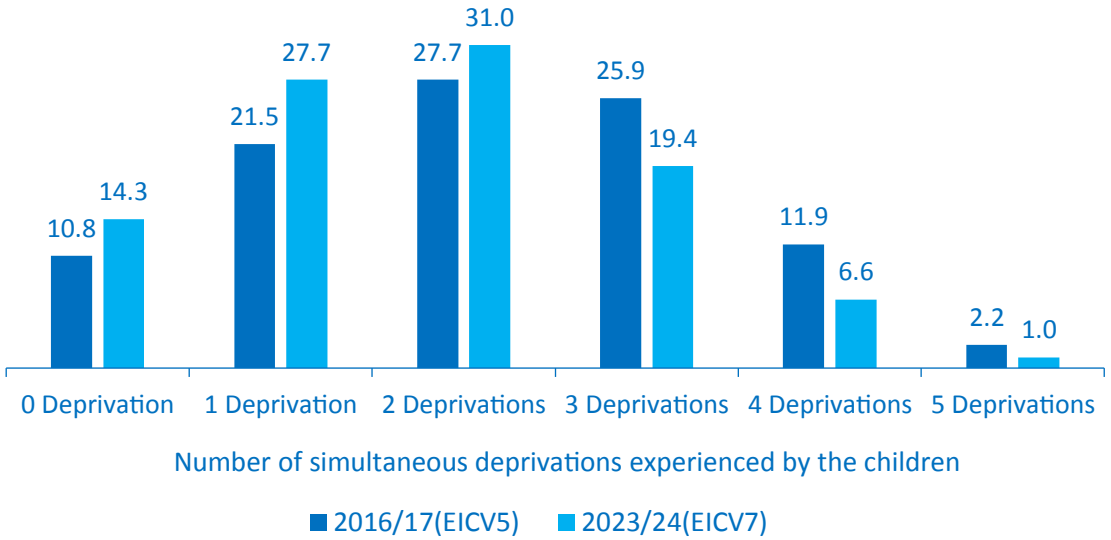



*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

## 2.4.2. Multidimensional deprivation analysis

The proportion of non-deprived children aged between 15-17 years increased from 11% in 2016/17 to 14.3% in 2023/24. Conversely, the proportion of children experiencing at least three deprivations declined from 40% to 27%. For example, the proportion of children facing deprivation in four dimensions decreased from 12% in 2016/17 to 6.6% in 2023/24 (figure 2.45).

***Figure 2.45: Deprivation distribution for children 15-17 years old at the national level***




*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

## 2.4.3. Multidimensional child poverty indices

Multidimensional poverty among children aged 15-17 years between 2016/17 and 2023/24 decreased significantly from 40.1% to 27.0% in at least three deprivations. The average intensity among deprived children improved from 68.2% in 2016/17 to 66.4% in 2023/24, and the multidimensional child poverty index (M0) decreased from 0.27 to 0.18 (Table 2.2).

***Table 2. 2: Indices for children 15-17 years old at the national level***

| Period | Nber of deprivation | Multidimensional deprivation Headcount (H) | Average intensity among deprived (A); % | Adjusted multidimensional deprivation headcount (MO) |
|---|---|---|---|---|
| EICV5 (2016/17) | Deprived in at least 3 dimensions | 40.1 | 68.2 | 0.27 |
| EICV7 (2023/24) | | 27.0 | 66.4 | 0.18 |

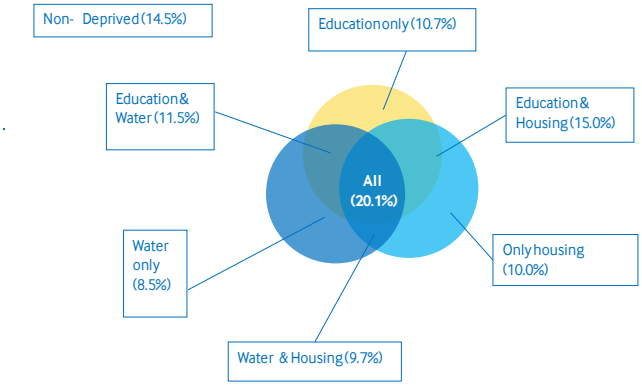
*Source: National Institute of Statistics of Rwanda, EICV5 & EICV7*

## 2.4.4. Venn diagram on the deprivation overlap, trend analysis

The proportion experiencing simultaneous deprivation in Education, Water and Housing declined substantially from 20.1% in 2016/17 to 2.9% in 2023/24. This represents the progressive decline of the vulnerability of children aged 15-17 years. For children deprived in two dimensions at the same time, the percentage of those deprived in education and housing was higher during the two periods, but also decreased from 15.0% in 2016/17 to 3.4% in 2023/24. The proportion of children experiencing no deprivation increased more than five times, from 14.5% to 85.1% in the last six years (figures 2.46).

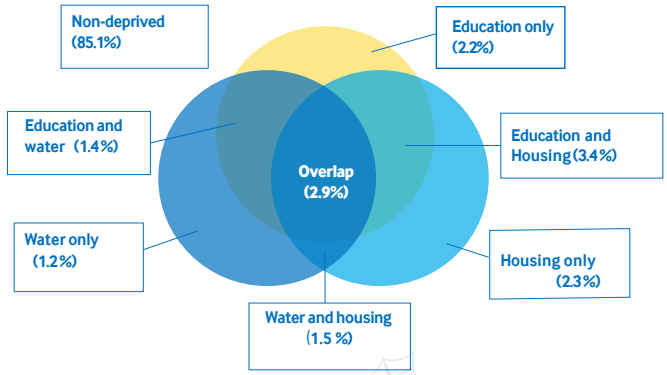
***Figure 2.46: Venn diagram on the deprivation overlap between education, water, and housing for children 15-17 years old at the national level.***

### 2016/2017




*Source: Produced by NISR based on data from EICV5 (2016/2017)*

### 2023/24




*Source: National Institute of Statistics of Rwanda, EICV7*

This report presents a comprehensive analysis of multidimensional child poverty in Rwanda, to inform national policies and program development while reporting baselines for the SDG multidimensional poverty targets. The analysis has highlighted the complex nature of child poverty, which cannot be captured through monetary poverty measures alone. To capture multiple sides of poverty, multidimensional and monetary measures together provide the most accurate and useful analysis for programming and policymaking purposes.

# Conclusion and Policy Recommendations

Rwanda has a young population and the opportunity to benefit from accelerated economic growth from this demographic dividend, the country can further prioritize children by ensuring that they have access to all their basic needs and services and that their rights are protected. Putting in place policies, including social protection packages to reduce children's deprivation is the best way to break the cycle of inter-generational poverty.

This study highlights the need to concentrate on the most vulnerable children in Rwanda, especially those experiencing deprivation across several dimensions. Such multiple and overlapping deprivations during childhood and adolescence can have irreversible effects on the eventual productivity and social inclusion of children. Alleviating the intensity and severity of deprivation among children will contribute significantly towards Rwanda's future economic growth and overall productivity.

The MODA analysis reveals that 11.9% of children aged 5-14 years and 26.8% of children aged 15-17years in Rwanda meet the criteria of multidimensional poverty (defined as simultaneous deprivation in at least three dimensions of wellbeing). Rwanda aimed to reduce multidimensional poverty by at least half by 2030 as specified in target 1.2 of SDG1. This study will be repeated over the next 3 years using forthcoming EICV datasets to monitor progress.

Rwanda is therefore currently on track to achieve child poverty reduction targets over the next five years. Some of the key results emerging from the MODA analysis are:

- Most children face at least one dimensional deprivation (78.4% for children aged 5-14 and 85.7% for children aged 15-17)
- The average intensity of deprivation among multidimensionally deprived children slightly decreased between 2016/17 and 2023/24, implying that children experience slightly lower deprivation levels in 2023/24 compared to 2016/17.
- The proportion of children aged 5-14 and 15-17 years experiencing overlapping deprivations as well as those who are simultaneously deprived in at least three dimensions has significantly declined from EICV5 (2016/17) to EICV7 (2023/24).
- Multidimensional poverty remains concentrated in rural areas and certain provinces, with higher deprivation rates observed in the Southern, Eastern and Western provinces.
- Multidimensional child poverty is more prominent in female-headed households (facing at least three deprivations) across both age groups. Similarly, the absence of a male-headed household is associated with higher multidimensional child poverty.
- Multidimensional child poverty is lower in households with higher education attainment of the household head.

Based on the comprehensive findings outlined in the report, the following policy recommendations are made to address multidimensional child poverty in Rwanda.

- Cross-sectoral integration in policies and programs:

As highlighted, the majority of children in Rwanda experience multiple and overlapping deprivations. The analysis reveals that 11.9% of children aged 5-14 years and 26.8% of children aged 15-17year experience multidimensional poverty. Given the nature of these deprivations, policies and programs targeting child poverty need to be designed to address the connection between deprivations in dimensions. Tackling several deprivations through combined policies can minimize program costs by reducing administrative and targeting costs while reducing child poverty efficiently. Therefore, collaboration, coordination, and policy and implementation program needs to be further strengthened, building on the existing coordination bodies - to further consolidate policies targeting multidimensionally poor children.

To effectively reduce overlapping deprivations among children aged 15-17 years, especially in rural areas, Rwanda should prioritize integrated policy packages and multisectoral approach for addressing deprivations in education, water and housing for children. Multisectoral approach for

- Targeting the most vulnerable children in Rwanda with integrated responses:

This study has identification of the most vulnerable children, enable policies and programs to be carefully implemented towards them. Effective integration of policies and programs, in particular the promotion of social protection measures along with essential social services, can prioritize the most vulnerable children as follows:

- Children living in rural areas, Southern, Eastern and Western Provinces present the highest deprivation rates across all dimensions of wellbeing and are most likely to experience multidimensional deprivations.
- The Western and Eastern Provinces are lagging behind in terms of incidence of poverty (H), intensity (A) and multidimensional deprivation headcount (Mo). Therefore, targeted poverty reduction programs should be allocated focusing on poor people in these provinces.
- Children living in female-headed households: the current support mechanisms for female-headed households require to be further strengthened.
- Children of parents with limited education need additional support to mitigate the higher chance of falling into poverty.
- Although the multidimensional poverty is concentrated in rural areas, the intensity of deprivation among poor children is comparable across urban and rural areas. Therefore, measures regarding promotion of social protection along with other basic social services targeting the most vulnerable children in both rural and urban areas are needed.
- The persistent high proportion of children aged between 5-14- & 15-17-years experiencing overlapping deprivations and are deprived in at least three dimensions is still high. Specialized anti-poverty policies need to be put in place to reduce this poverty issue and measure the change should be taken seriously.
- As highlighted, 6.3% of children aged 5-14 years and 13.3% of children aged 15-17 years, experience both monetary poverty and multidimensional deprivation. Therefore, policies and programs targeting children living in households experiencing both monetary poverty and multidimensional deprivations need to be designed and strengthened building on the existing coordination and collaboration bodies.
- The proportion of deprived children aged 5-14 and 15-17 deprived in the indicator Environmental destruction and Unimproved main lighting sources has increased over time. This is contrary to the expectation; while deprivation rates in school attainment and school attendance for children aged 15-17 are remain relatively high in 2023/24. Therefore, policy intervention is needed to curb with this problem and further research is needed to examine the cause.
- The MODA Rwanda should serve as a benchmark for monitoring the SDG Indicator 1.2.2 (proportion of children of all ages living in poverty in all its dimensions) according to national definitions for tracking changes in the next 5 years (up to 2030).
- Systematically utilize child-focused data in social policy formulation.

The comprehensive MODA analysis was made possible through the utilization of data available in EICV datasets. These nationally surveys provide foundational data required for robust multidimensional child poverty measurement. To ensure the continued production of reliable child poverty estimates, further support are recommended. It would enable more comprehensive data collection across children's issues, including: violence against children, child labor, social protection, early childhood development indicators, handwashing and the more commonly established data around health, water, sanitation, nutrition, and education.

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# Annex

## A: TABLES

### A.1 Children 5-14 years old

***Table A.1. 1: Deprivation rate (%) in each indicator of a child's wellbeing, children 5-14 years old at national level and by area of residence and province***

| National/Area of residence/ Province | Health | | Education | Water | | sanitation | Housing | | |
|---|---|---|---|---|---|---|---|---|---|
| | Health insurance | Distance to health facility | School attendance | Water source | Distance to water source | Toilet type | Lighting source | Disposal of garbage | Environmental destruction |
| National | 16.7 | 8.2 | 4.1 | 11.6 | 36.7 | 5.2 | 27.1 | 38.4 | 19.5 |
| Rural | 16.2 | 9.7 | 4.3 | 14.3 | 37.1 | 6.3 | 31.4 | 38.7 | 20.9 |
| Urban | 18.2 | 4.0 | 3.4 | 3.4 | 35.5 | 1.8 | 14.1 | 37.6 | 15.4 |
| Kigali City | 20.9 | 4.6 | 4.3 | 2.3 | 30.8 | 0.4 | 10.7 | 38.4 | 12.0 |
| Southern | 16.9 | 8.0 | 3.4 | 9.9 | 35.0 | 8.3 | 34.1 | 38.8 | 27.4 |
| Western | 18.4 | 10.0 | 4.8 | 16.4 | 39.9 | 5.1 | 26.9 | 42.2 | 21.1 |
| Northern | 9.5 | 4.5 | 2.4 | 8.3 | 35.5 | 4.7 | 30.9 | 42.6 | 16.4 |
| Eastern | 17.7 | 10.5 | 4.8 | 14.6 | 38.6 | 5.1 | 26.2 | 32.7 | 16.7 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 2: Deprivation rate (%) in each dimension of a child's wellbeing, children 5-14 years old at national level and by area of residence and province***

| Area of residence | Health | Education | Water | Sanitation | Housing |
|---|---|---|---|---|---|
| National | 23.4 | 4.1 | 41.2 | 5.2 | 60.4 |
| Rural | 24.1 | 4.3 | 42.5 | 6.3 | 63.6 |
| Urban | 21.4 | 3.4 | 37.5 | 1.8 | 51.0 |
| Kigali City | 24.8 | 4.3 | 31.3 | 0.4 | 48.6 |
| Southern | 23.3 | 3.4 | 38.5 | 8.3 | 67.1 |
| Western | 26.4 | 4.8 | 44.0 | 5.1 | 63.7 |
| Northern | 13.5 | 2.4 | 38.4 | 4.7 | 64.7 |
| Eastern | 26.1 | 4.8 | 46.7 | 5.1 | 54.7 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 3: Deprivation rate (%) in each dimension of a child's wellbeing, children 5-14 years old by some characteristics***

| Characteristics | Health | Education | Water | Sanitation | Housing |
|---|---|---|---|---|---|
| **Gender of children** | | | | | |
| Female | 23.4 | 3.5 | 41.4 | 4.9 | 61.0 |
| Male | 23.4 | 4.7 | 41.0 | 5.5 | 59.8 |
| **Education level of Household Head** | | | | | |
| No Education/not completed primary | 27.3 | 5.2 | 45.8 | 7.3 | 67.1 |
| Primary and post primary Education | 19.6 | 2.5 | 39.4 | 2.1 | 54.8 |
| Lower Secondary and above | 10.6 | 1.5 | 19.0 | 0.5 | 35.9 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 4: Deprivation distribution (%), children 5-14 years old at the national level and by area of residence and by province***

| Area of residence / Province | 0 Deprivation | 1 Deprivation | 2 Deprivations | 3 Deprivations | 4 Deprivations | 5 Deprivations |
|---|---|---|---|---|---|---|
| National | 21.6 | 37.4 | 28.7 | 10.4 | 1.7 | 0.2 |
| Rural | 18.1 | 38.9 | 30.1 | 10.7 | 1.9 | 0.3 |
| Urban | 32.0 | 32.9 | 24.5 | 9.7 | 0.9 | 0.0 |
| Kigali City | 35.6 | 31.6 | 21.5 | 10.7 | 0.5 | 0.0 |
| Southern | 17.1 | 40.0 | 30.3 | 10.8 | 1.3 | 0.4 |
| Western | 18.3 | 36.0 | 31.9 | 11.7 | 1.9 | 0.2 |
| Northern | 21.4 | 41.7 | 29.9 | 6.1 | 0.9 | 0.0 |
| Eastern | 22.4 | 36.2 | 26.8 | 11.4 | 2.7 | 0.4 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 5: Deprivation distribution (%) per different number of dimensions, children 5-14 years old by some characteristics***

| Characteristics | 0 Deprivation | 1 Deprivation | 2 Deprivations | 3 Deprivations | 4 Deprivations | 5 Deprivations |
|---|---|---|---|---|---|---|
| **Household member size** | | | | | | |
| 1-3 members | 16.5 | 35.3 | 32.3 | 12.9 | 2.6 | 0.4 |
| 4-6 members | 20.5 | 38.1 | 29.1 | 10.3 | 1.7 | 0.3 |
| More than 6 members | 25.6 | 36.6 | 26.5 | 10.0 | 1.3 | 0.1 |
| **household head Sex** | | | | | | |
| Female Household Head | 14.6 | 34.0 | 33.3 | 15.1 | 2.7 | 0.3 |
| Male Household Head | 23.4 | 38.2 | 27.4 | 9.2 | 1.4 | 0.2 |
| **Education level of Household Head** | | | | | | |
| No Education | 14.9 | 36.9 | 32.4 | 12.9 | 2.5 | 0.3 |
| Primary and Post primary Education | 26.0 | 39.3 | 25.9 | 8.2 | 0.5 | 0.1 |
| Lower Secondary and Above | 49.4 | 35.5 | 13.4 | 1.6 | 0.1 | 0.0 |
| Gender of children | | | | | | |
| Female | 21.3 | 37.4 | 29.3 | 10.2 | 1.5 | 0.2 |
| Male | 21.9 | 37.4 | 28.0 | 10.6 | 1.8 | 0.3 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 6: Multidimensional deprivation headcount (H) per different number of deprivations, children 5-14 years old at national level and by area of residence and province***

| Area of residence | No dimension deprivation | At least 1 dimension deprivation | At least 2 dimensions deprivation | At least 3 dimensions deprivation | At least 4 dimensions deprivation | At least 5 dimensions deprivation |
|---|---|---|---|---|---|---|
| National | 21.6 | 78.4 | 41.0 | 12.4 | 1.9 | 0.2 |
| Rural | 18.1 | 81.9 | 43.0 | 12.9 | 2.3 | 0.3 |
| Urban | 32.0 | 68.0 | 35.1 | 10.7 | 1.0 | 0.0 |
| Kigali City | 35.6 | 64.4 | 32.8 | 11.2 | 0.5 | 0.0 |
| Southern | 17.1 | 82.9 | 42.9 | 12.5 | 1.7 | 0.4 |
| Western | 18.3 | 81.7 | 45.7 | 13.8 | 2.1 | 0.2 |
| Northern | 21.4 | 78.6 | 36.9 | 7.0 | 0.9 | 0.0 |
| Eastern | 22.4 | 77.6 | 41.4 | 14.6 | 3.1 | 0.4 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 7: Multidimensional deprivation headcount (H), Average intensity of deprivation among multidimensional poor children (A), Multidimensional poverty index (M0), children 5-14 years at national level by area of residence and province***

| Residence area | Multidimensional deprivation headcount (H), % | Average Intensity among the deprived (A); % | Average Intensity among the deprived (A); in absolute numbers | Adjusted multidimensional deprivation headcount (M0) |
|---|---|---|---|---|
| National | 12.4 | 63.5 | 3.2 | 0.08 |
| Urban | 10.7 | 61.8 | 3.1 | 0.07 |
| Rural | 12.9 | 64.0 | 3.2 | 0.08 |
| Kigali City | 11.2 | 60.9 | 3.0 | 0.07 |
| Southern | 12.5 | 63.3 | 3.2 | 0.08 |
| Western | 13.8 | 63.4 | 3.2 | 0.09 |
| Northern | 7.0 | 62.7 | 3.1 | 0.04 |
| Eastern | 14.6 | 64.8 | 3.2 | 0.09 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 8: Contribution of each dimension to the Multidimensional Poverty Index (M0), children 5-14 years old***

| Dimensions | National | Rural | Urban |
|---|---|---|---|
| Health | 25.8 | 25.2 | 27.9 |
| Education | 5.6 | 5.6 | 5.6 |
| Water | 27.5 | 26.8 | 30.2 |
| Sanitation | 9.9 | 11.5 | 4.1 |
| Housing | 31.1 | 30.9 | 32.2 |
| Total | 100 | 100 | 100 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 9: Overlap deprivation between three dimensions, children 5-14 years old at national Level***

| | Overlap between all dimensions | Overlap between first and second dimensions | Overlap between first and third dimensions | Overlap between second and third dimensions | Deprivation in only first dimension | Deprivation in only second dimension | Deprivation in only third dimension | Deprived in none of the three dimensions |
|---|---|---|---|---|---|---|---|---|
| Health, Education, Water | 0.5 | 0.5 | 6.3 | 0.5 | 6.9 | 0.7 | 17.7 | 66.9 |
| Health, Education, Sanitation | 0.2 | 0.8 | 1.1 | 0.1 | 12.1 | 1.1 | 1.7 | 82.9 |
| Health, Education, Housing | 0.8 | 0.2 | 9.5 | 0.9 | 3.7 | 0.4 | 25.5 | 59.1 |
| Health, Water, Sanitation | 0.8 | 6.0 | 0.6 | 1.0 | 6.9 | 17.2 | 0.9 | 66.8 |
| Health, Water, Housing | 5.2 | 1.6 | 5.1 | 11.5 | 2.4 | 6.7 | 14.8 | 52.8 |
| Health, Sanitation, Housing | 1.3 | 0.0 | 8.9 | 1.8 | 3.9 | 0.0 | 24.5 | 59.5 |
| Education, Water, Sanitation | 0.2 | 0.8 | 0.1 | 1.5 | 1.1 | 22.4 | 1.3 | 72.6 |
| Education, Water, Housing | 0.8 | 0.2 | 0.9 | 15.9 | 0.3 | 8.1 | 19.1 | 54.8 |
| Education, Sanitation, Housing | 0.3 | 0.0 | 1.3 | 2.8 | 0.6 | 0.0 | 32.1 | 62.9 |
| Water, Sanitation, Housing | 1.7 | 0.0 | 14.9 | 1.4 | 8.3 | 0.0 | 18.5 | 55.1 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 10: Overlap deprivation between three dimensions, children 5-14 years old by area of residence***

| Combination of Three dimensions | Overlap between all dimensions | Overlap between first and second dimensions | Overlap between first and third dimensions | Overlap between second and third dimensions | Deprivation in only first dimension | Deprivation in only second dimension | Deprivation in only third dimension | Deprived in none of the three dimensions |
|---|---|---|---|---|---|---|---|---|
| **URBAN** | | | | | | | | |
| Health, Education, Water | 0.2 | 0.4 | 6.1 | 0.6 | 5.1 | 0.5 | 13.8 | 73.4 |
| Health, Education, Sanitation | 0.1 | 0.6 | 0.3 | 0.0 | 10.8 | 1.0 | 0.6 | 86.6 |
| Health, Education, Housing | 0.5 | 0.2 | 7.5 | 0.8 | 3.6 | 0.3 | 19.4 | 67.8 |
| Health, Water, Sanitation | 0.3 | 6.0 | 0.1 | 0.3 | 5.4 | 14.0 | 0.3 | 73.6 |
| Health, Water, Housing | 4.7 | 1.6 | 3.3 | 9.0 | 2.2 | 5.4 | 11.1 | 62.7 |
| Health, Sanitation, Housing | 0.4 | 0.0 | 7.6 | 0.6 | 3.8 | 0.0 | 19.6 | 68.1 |
| Education, Water, Sanitation | 0.0 | 0.8 | 0.1 | 0.6 | 0.8 | 19.3 | 0.3 | 78.1 |
| Education, Water, Housing | 0.7 | 0.1 | 0.6 | 13.0 | 0.3 | 6.9 | 13.9 | 64.6 |
| Education, Sanitation, Housing | 0.1 | 0.0 | 1.2 | 0.9 | 0.4 | 0.0 | 25.9 | 71.5 |
| Water, Sanitation, Housing | 0.6 | 0.0 | 13.1 | 0.4 | 7.0 | 0.0 | 14.0 | 64.9 |
| **RURAL** | | | | | | | | |
| Health, Education, Water | 0.6 | 0.5 | 6.3 | 0.5 | 7.6 | 0.8 | 19.1 | 64.5 |
| Health, Education, Sanitation | 0.3 | 0.8 | 1.4 | 0.2 | 12.6 | 1.1 | 2.1 | 81.5 |
| Health, Education, Housing | 0.9 | 0.2 | 10.2 | 0.9 | 3.8 | 0.4 | 27.8 | 55.8 |
| Health, Water, Sanitation | 1.0 | 5.9 | 0.7 | 1.2 | 7.5 | 18.5 | 1.1 | 64.2 |
| Health, Water, Housing | 5.4 | 1.6 | 5.8 | 12.4 | 2.4 | 7.2 | 16.2 | 49.0 |
| Health, Sanitation, Housing | 1.7 | 0.0 | 9.4 | 2.3 | 4.0 | 0.0 | 26.4 | 56.2 |
| Education, Water, Sanitation | 0.3 | 0.8 | 0.2 | 1.9 | 1.1 | 23.6 | 1.6 | 70.5 |
| Education, Water, Housing | 0.8 | 0.3 | 1.0 | 17.0 | 0.4 | 8.5 | 21.0 | 51.1 |
| Education, Sanitation, Housing | 0.4 | 0.0 | 1.4 | 3.5 | 0.6 | 0.0 | 34.5 | 59.6 |
| Water, Sanitation, Housing | 2.2 | 0.0 | 15.6 | 1.8 | 8.8 | 0.0 | 20.2 | 51.4 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.1. 11: Overlap between monetary poor and multidimensionally poor, children 5-14 years old at national level.***

| EICV7 | | | |
|---|---|---|---|
| Monetary Poor & Multidimensionally poor (MPI) (%) | Only monetary poor (%) | Only Multidimensionally poor (MPI) (%) | Non-monetary poor & Non Multidimensionally poor (%) |
| 6.3 | 25.4 | 6.1 | 62.2 |

*Source: National Institute of Statistics of Rwanda, EICV7*

## A.2 Children 15-17 years old

***Table A.2. 1: Deprivation rate (%) in each indicator of a child's wellbeing, children 15-17 years old at national level by area of residence and province***

| National/Area of residence/ Province | Health | | Education | | | Water | | sanitation | Housing | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Health insurance | Distance to health facility | School attainment | School attendance | Literacy & numeracy | Water source | Distance to water source | Toilet type | Lighting source | Disposal of garbage | Environmental destruction |
| National | 15.1 | 8.3 | 48.0 | 29.2 | 15.6 | 10.8 | 35.2 | 5.1 | 23.4 | 34.8 | 20.3 |
| Rural | 14.9 | 9.9 | 52.7 | 30.6 | 18.0 | 13.3 | 36.2 | 6.0 | 27.6 | 35.2 | 21.9 |
| Urban | 15.4 | 3.8 | 34.1 | 25.2 | 8.9 | 3.4 | 32.1 | 2.3 | 11.3 | 33.6 | 15.5 |
| Kigali City | 15.6 | 5.1 | 31.1 | 26.9 | 6.5 | 2.2 | 26.2 | 1.0 | 12.1 | 34.9 | 12.9 |
| Southern Province | 15.8 | 8.0 | 49.9 | 29.0 | 17.2 | 10.7 | 35.1 | 7.9 | 29.5 | 34.7 | 26.9 |
| Western Province | 17.8 | 10.7 | 48.1 | 27.8 | 16.0 | 14.2 | 40.4 | 5.4 | 21.9 | 39.2 | 20.4 |
| Northern Province | 8.8 | 5.9 | 47.0 | 31.1 | 11.9 | 7.6 | 35.0 | 4.3 | 28.1 | 38.9 | 15.2 |
| Eastern Province | 15.5 | 9.2 | 52.9 | 30.2 | 19.3 | 13.1 | 34.7 | 4.5 | 21.4 | 29.6 | 20.2 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2. 2: Deprivation rate (%) in each dimension of a child's wellbeing, children 15-17 years old at national level and by area of residence and province***

| Area of residence | Health | Education | Water | Sanitation | Housing |
|---|---|---|---|---|---|
| National | 22.1 | 56.0 | 39.6 | 5.1 | 56.7 |
| Rural | 23.3 | 59.9 | 41.4 | 6.0 | 60.2 |
| Urban | 18.6 | 44.3 | 34.2 | 2.3 | 46.3 |
| Kigali City | 19.3 | 45.6 | 27.2 | 1.0 | 46.6 |
| Southern | 22.3 | 57.5 | 38.8 | 7.9 | 62.0 |
| Western | 26.8 | 54.8 | 43.2 | 5.4 | 58.3 |
| Northern | 14.8 | 57.1 | 37.5 | 4.3 | 61.0 |
| Eastern | 23.2 | 58.8 | 43.0 | 4.5 | 52.7 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2. 3: Deprivation rate (%) in each dimension of a child's wellbeing, children 15-17 years old by some characteristics***

| Characteristics | Health | Education | Water | Sanitation | Housing |
|---|---|---|---|---|---|
| **Household Size** | | | | | |
| 1-3 members | 24.1 | 60.9 | 37.1 | 7.6 | 64.8 |
| 4-6 members | 22.9 | 58.4 | 40.6 | 6.3 | 58.1 |
| More than 6 members | 20.3 | 50.8 | 38.8 | 2.6 | 52.1 |
| Gender of children | | | | | |
| **Female** | 22.9 | 61.7 | 40.2 | 5.1 | 58.2 |
| Male | 21.3 | 50.2 | 39.0 | 5.1 | 55.3 |
| **Education level of Household Head** | | | | | |
| No Education /Not completed primary | 25.2 | 63.5 | 44.0 | 7.2 | 63.7 |
| Primary and post primary Education | 19.9 | 46.2 | 39.8 | 2.6 | 51.4 |
| Lower Secondary and above | 10.7 | 39.2 | 13.5 | 0.0 | 30.7 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2. 4: Deprivation distribution (%), children 15-17 years old at the national level, by area of residence and by province***

| Area of residence / Province | 0 Deprivation | 1 Deprivation | 2 Deprivations | 3 Deprivations | 4 Deprivations | 5 Deprivations |
|---|---|---|---|---|---|---|
| National | 14.3 | 27.7 | 31.0 | 19.4 | 6.6 | 1.0 |
| Rural | 10.8 | 26.4 | 32.9 | 21.8 | 6.9 | 1.2 |
| Urban | 24.5 | 31.3 | 25.4 | 12.4 | 5.8 | 0.7 |
| Kigali City | 25.2 | 34.0 | 22.2 | 13.2 | 5.4 | 0.0 |
| Southern | 11.3 | 27.1 | 32.2 | 21.7 | 6.5 | 1.2 |
| Western | 14.4 | 24.1 | 31.1 | 20.6 | 8.7 | 1.1 |
| Northern | 11.8 | 29.7 | 35.1 | 19.7 | 2.9 | 0.8 |
| Eastern | 13.9 | 27.5 | 31.0 | 18.8 | 7.4 | 1.3 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2.5: Deprivation distribution (%s), children 15-17 years old by some characteristics***

| Characteristics | 0 Deprivation | 1 Deprivation | 2 Deprivations | 3 Deprivations | 4 Deprivations | 5 Deprivations |
|---|---|---|---|---|---|---|
| **Household member size** | | | | | | |
| 1-3 members | 8.5 | 27.5 | 34.2 | 21.7 | 6.9 | 1.2 |
| 4-6 members | 12.7 | 27.5 | 30.7 | 20.1 | 7.7 | 1.3 |
| More than 6 members | 18.4 | 28.0 | 30.5 | 17.6 | 4.9 | 0.7 |
| **household head Sex** | | | | | | |
| Female Household Head | 8.6 | 25.3 | 31.9 | 23.0 | 9.3 | 2.0 |
| Male Household Head | 16.2 | 28.5 | 30.7 | 18.2 | 5.7 | 0.7 |
| **Education level of Household Head** | | | | | | |
| No Education and not completed primary | 8.7 | 24.1 | 33.4 | 24.1 | 8.3 | 1.4 |
| Primary and Post primary Education | 18.0 | 31.1 | 30.2 | 15.0 | 5.0 | 0.7 |
| Lower Secondary and Above | 36.4 | 39.0 | 19.5 | 4.3 | 0.9 | 0.0 |
| **Gender of children** | | | | | | |
| Female | 15.7 | 29.9 | 30.0 | 17.6 | 5.8 | 1.0 |
| Male | 12.9 | 25.5 | 32.0 | 21.2 | 7.4 | 1.1 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2. 6: Multidimensional deprivation headcount (H), children 15-17 years old per different number of deprivations at national level and by area of residence and province***

| Area of residence | No dimension deprivation | At least one dimension deprivation | At least two dimensions deprivation | At least three dimensions deprivation | At least four dimensions deprivation | At least five dimensions deprivation |
|---|---|---|---|---|---|---|
| National | 14.3 | 85.7 | 58.0 | 27.0 | 7.6 | 1.0 |
| Rural | 10.8 | 89.2 | 62.7 | 29.8 | 8.0 | 1.2 |
| Urban | 24.5 | 75.5 | 44.2 | 18.8 | 6.5 | 0.7 |
| Kigali City | 25.2 | 74.8 | 40.8 | 18.6 | 5.4 | 0.0 |
| Southern | 11.3 | 88.7 | 61.6 | 29.4 | 7.7 | 1.2 |
| Western | 14.4 | 85.6 | 61.5 | 30.4 | 9.8 | 1.1 |
| Northern | 11.8 | 88.2 | 58.5 | 23.4 | 3.7 | 0.8 |
| Eastern | 13.9 | 86.1 | 58.5 | 27.5 | 8.7 | 1.3 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2.7: Multidimensional deprivation headcount (H), Average intensity of deprivation among multidimensional poor children (A) and Multidimensional child poverty index (M0), children 15-17 years old at national level and by area of residence and province***

| Residence area | Multidimensional deprivation headcount (H), % | Average Intensity among the deprived (A); % | Average Intensity among the deprived (A); in absolute numbers | Adjusted multidimensional deprivation headcount (M0) |
|---|---|---|---|---|
| National | 27.0 | 66 | 3.3 | 0.2 |
| Urban | 18.8 | 68 | 3.4 | 0.1 |
| Rural | 29.8 | 66 | 3.3 | 0.2 |
| Kigali City | 18.6 | 66 | 3.3 | 0.1 |
| Southern | 29.4 | 66 | 3.3 | 0.2 |
| Western | 30.4 | 67 | 3.4 | 0.2 |
| Northern | 23.4 | 64 | 3.2 | 0.1 |
| Eastern | 27.5 | 67 | 3.4 | 0.2 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2.8: Decomposition of the multidimensional child poverty index, children 15-17 years old at national level and by area of residence***

| Dimensions | National | Rural | Urban |
|---|---|---|---|
| Health | 16.5 | 16.1 | 18.0 |
| Education | 27.7 | 27.8 | 26.8 |
| Water | 22.8 | 22.5 | 24.2 |
| Sanitation | 5.2 | 5.6 | 3.5 |
| Housing | 27.9 | 28.0 | 27.6 |
| Total | 100 | 100 | 100 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2. 9: Deprivation overlap (%), children 15-17 years old by dimension***

| Dimensions | only deprived in the given dimension | Deprived in 1 other dimension | Deprived in 2 other dimensions | Deprived in 3 other dimensions | Deprived in all 5 dimensions |
|---|---|---|---|---|---|
| Health | 1.8 | 5.6 | 8.1 | 5.7 | 1.0 |
| Education | 10.3 | 20.8 | 17.2 | 6.5 | 1.0 |
| Water | 5.6 | 13.6 | 14.0 | 5.4 | 1.0 |
| Sanitation | 0.0 | 0.4 | 1.5 | 2.1 | 1.0 |
| Housing | 10.0 | 21.7 | 17.4 | 6.6 | 1.0 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2. 10: Overlap deprivation between three dimensions, children 15-17 years old at national Level***

| Combination of Three dimensions | EICV7 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Overlap between all dimensions | Overlap between first and second dimensions | Overlap between first and third dimensions | Overlap between second and third dimensions | Deprivation in only first dimension | Deprivation in only second dimension | Deprivation in only third dimension | Deprived in none of the three dimensions |
| Health, Education, Water | 1.3 | 1.4 | 0.5 | 3.0 | 0.7 | 4.2 | 2.2 | 86.7 |
| Health, Education, Sanitation | 0.4 | 2.3 | 0.0 | 0.3 | 1.2 | 6.9 | 0.1 | 88.7 |
| Health, Education, Housing | 1.9 | 0.7 | 0.7 | 4.3 | 0.5 | 2.9 | 3.1 | 85.8 |
| Health, Water, Sanitation | 0.2 | 1.6 | 0.2 | 0.2 | 1.9 | 5.0 | 0.3 | 90.6 |
| Health, Water, Housing | 1.3 | 0.5 | 1.4 | 3.1 | 0.7 | 2.1 | 4.2 | 86.6 |
| Health, Sanitation, Housing | 0.4 | 0.0 | 2.3 | 0.5 | 1.2 | 0.0 | 6.9 | 88.7 |
| Education, Water, Sanitation | 0.3 | 4.0 | 0.4 | 0.1 | 5.2 | 2.6 | 0.1 | 87.3 |
| Education, Water, Housing | 2.9 | 1.4 | 3.4 | 1.5 | 2.2 | 1.2 | 2.3 | 85.1 |
| Education, Sanitation, Housing | 0.7 | 0.0 | 5.5 | 0.2 | 3.7 | 0.0 | 3.6 | 86.3 |
| Water, Sanitation, Housing | 0.4 | 0.0 | 4.0 | 0.5 | 2.6 | 0.0 | 5.2 | 87.3 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Table A.2.10: Overlap deprivation between three dimensions, children 15-17 years old by area of residence.***

| Combination of Three dimensions | Overlap between all dimensions | Overlap between first and second dimensions | Overlap between first and third dimensions | Overlap between second and third dimensions | Deprivation in only first dimension | Deprivation in only second dimension | Deprivation in only third dimension | Deprived in none of the three dimensions |
|---|---|---|---|---|---|---|---|---|
| URBAN | | | | | | | | |
| Health, Education, Water | 1.1 | 0.8 | 0.5 | 1.9 | 0.7 | 3.4 | 2.1 | 89.5 |
| Health, Education, Sanitation | 0.2 | 1.6 | 0.0 | 0.1 | 1.2 | 5.3 | 0.0 | 91.6 |
| Health, Education, Housing | 1.4 | 0.5 | 0.6 | 2.5 | 0.6 | 2.8 | 3.0 | 88.6 |
| Health, Water, Sanitation | 0.1 | 1.4 | 0.1 | 0.1 | 1.4 | 3.9 | 0.0 | 92.9 |
| Health, Water, Housing | 1.1 | 0.4 | 0.9 | 2.4 | 0.6 | 1.6 | 3.1 | 89.8 |
| Health, Sanitation, Housing | 0.2 | 0.0 | 1.7 | 0.1 | 1.0 | 0.0 | 5.4 | 91.4 |
| Education, Water, Sanitation | 0.2 | 2.8 | 0.1 | 0.0 | 4.1 | 2.6 | 0.0 | 90.2 |
| Education, Water, Housing | 2.0 | 0.9 | 1.9 | 1.5 | 2.3 | 1.1 | 2.1 | 88.1 |
| Education, Sanitation, Housing | 0.3 | 0.0 | 3.6 | 0.1 | 3.3 | 0.0 | 3.6 | 89.2 |
| Water, Sanitation, Housing | 0.2 | 0.0 | 3.3 | 0.1 | 2.1 | 0.0 | 3.9 | 90.4 |
| RURAL | | | | | | | | |
| Health, Education, Water | 1.4 | 1.6 | 0.5 | 3.4 | 0.8 | 4.5 | 2.2 | 85.6 |
| Health, Education, Sanitation | 0.5 | 2.6 | 0.0 | 0.4 | 1.2 | 7.5 | 0.2 | 87.6 |
| Health, Education, Housing | 2.2 | 0.9 | 0.8 | 5.0 | 0.5 | 2.9 | 3.1 | 84.7 |
| Health, Water, Sanitation | 0.2 | 1.7 | 0.3 | 0.3 | 2.1 | 5.4 | 0.3 | 89.7 |
| Health, Water, Housing | 1.4 | 0.6 | 1.6 | 3.4 | 0.7 | 2.2 | 4.7 | 85.4 |
| Health, Sanitation, Housing | 0.5 | 0.0 | 2.5 | 0.6 | 1.3 | 0.0 | 7.4 | 87.7 |
| Education, Water, Sanitation | 0.4 | 4.5 | 0.5 | 0.1 | 5.6 | 2.6 | 0.1 | 86.2 |
| Education, Water, Housing | 3.2 | 1.6 | 3.9 | 1.5 | 2.2 | 1.2 | 2.3 | 84.0 |
| Education, Sanitation, Housing | 0.9 | 0.0 | 6.3 | 0.2 | 3.8 | 0.0 | 3.7 | 85.2 |
| Water, Sanitation, Housing | 0.5 | 0.0 | 4.3 | 0.6 | 2.8 | 0.0 | 5.7 | 86.2 |

*Source: National Institute of Statistics of Rwanda, EICV7*

***Tab 2.36: Overlap between monetary poor and multidimensionally poor, children 15-17 years old at national level.***

| Monetary Poor & Multidimensionally poor (MPI) (%) | Only monetary poor (%) | Only Multidimensionally poor (MPI) (%) | Non-monetary poor& Non Multidimensionally poor (%) |
|---|---|---|---|
| 13.3 | 18.9 | 13.7 | 54.0 |

*Source: National Institute of Statistics of Rwanda, EICV7*

## B: DEPRIVATION BY EACH DIMENSION AND PROVINCE FOR EACH AGE GROUP

***Figure A.5.1 Dimension deprivation by provinces, 5-14 years old***

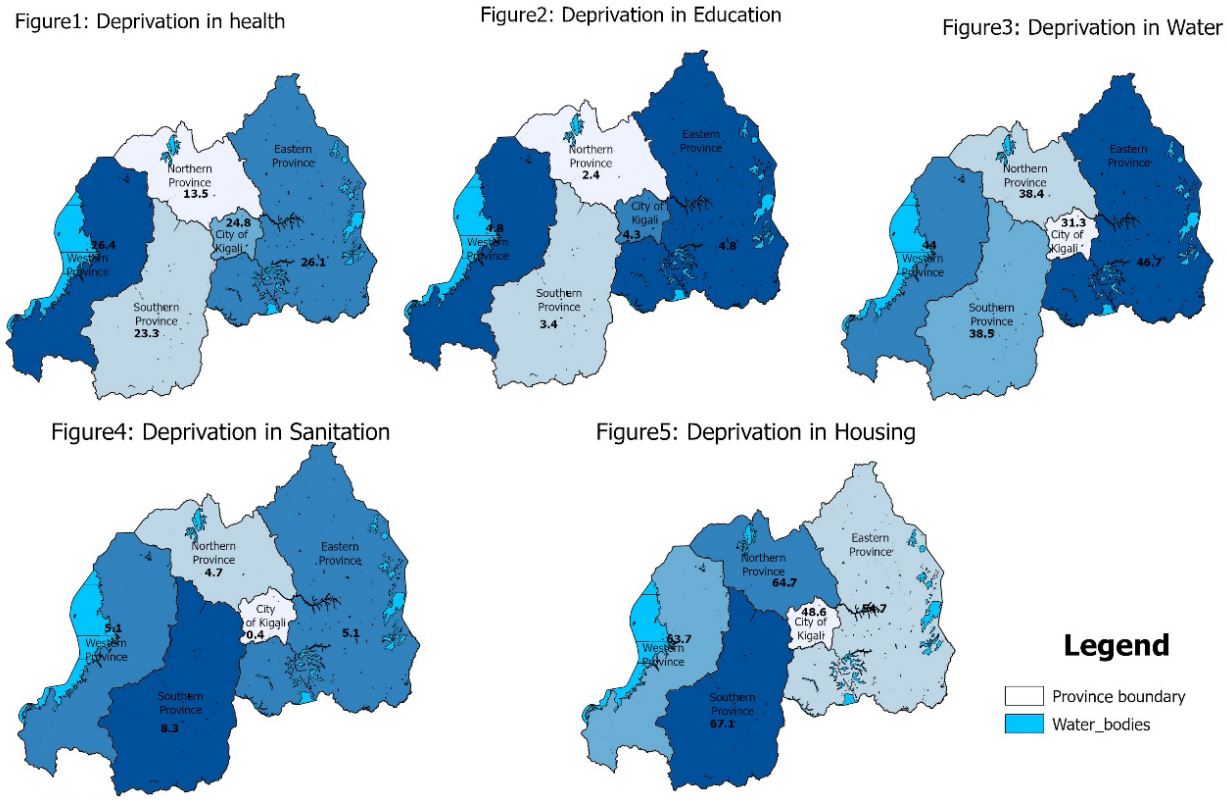



***Figure A.5.2 Multidimensional deprivation headcount (H) by provinces, 5-14 years old***

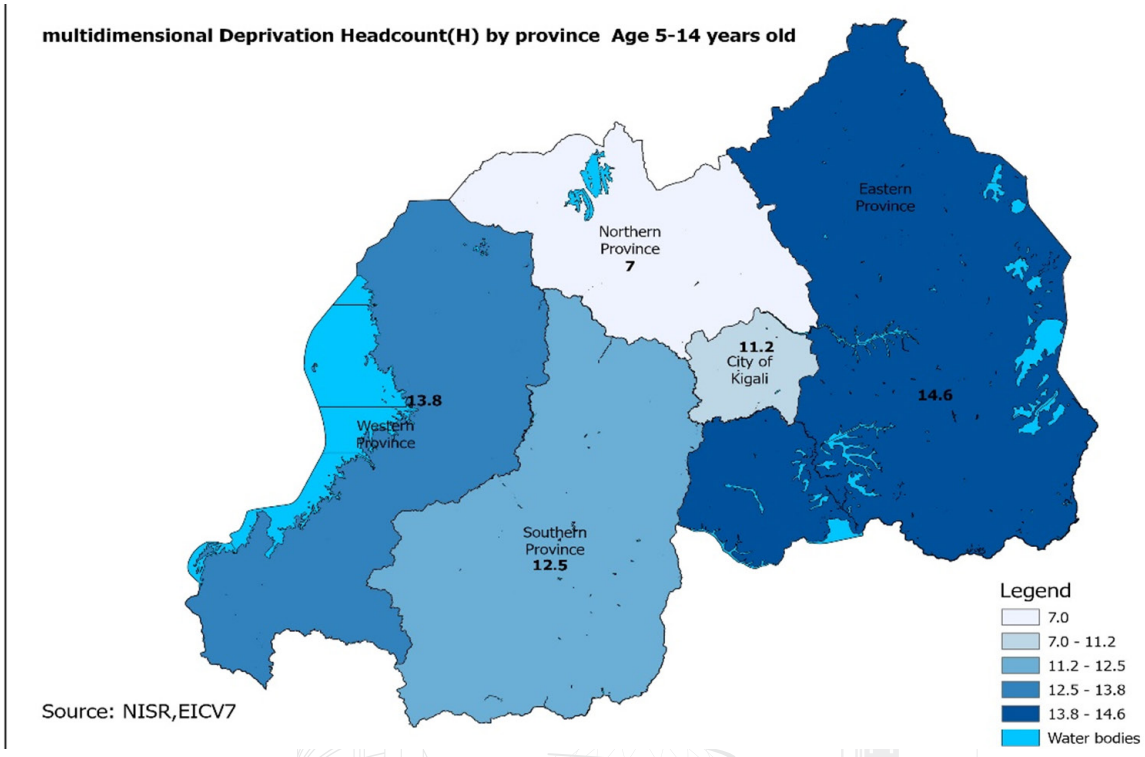
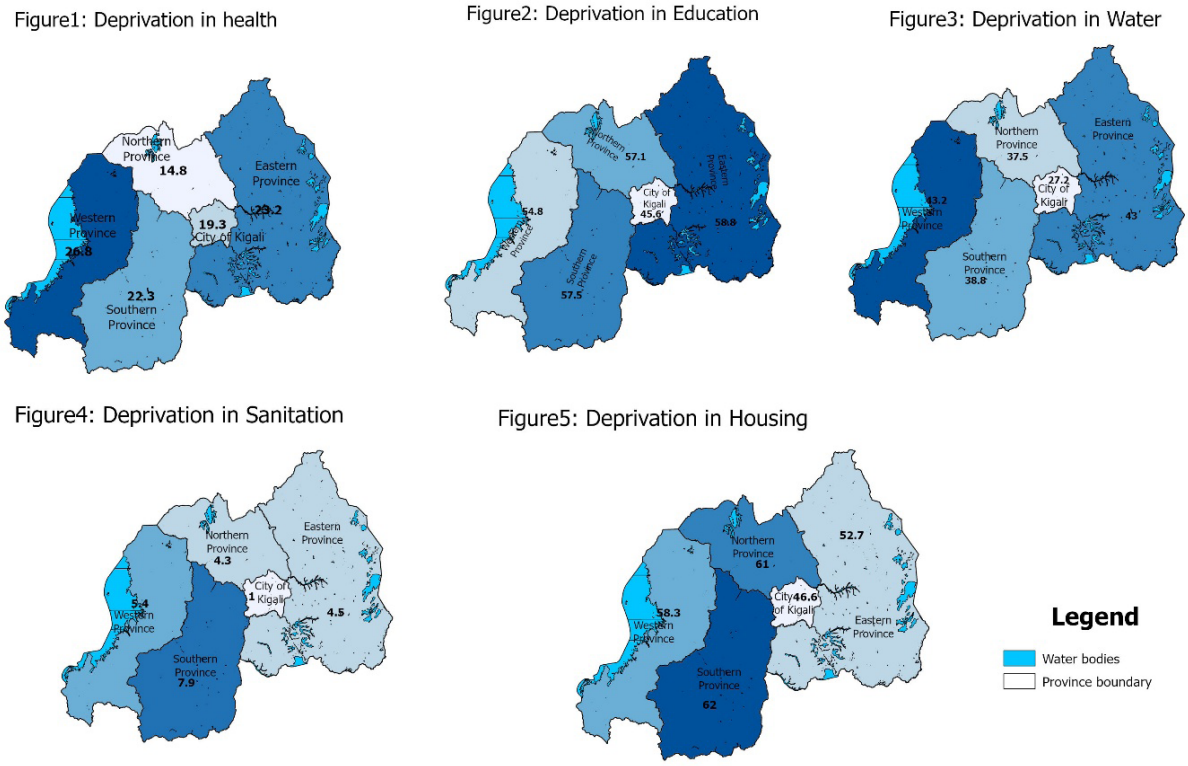
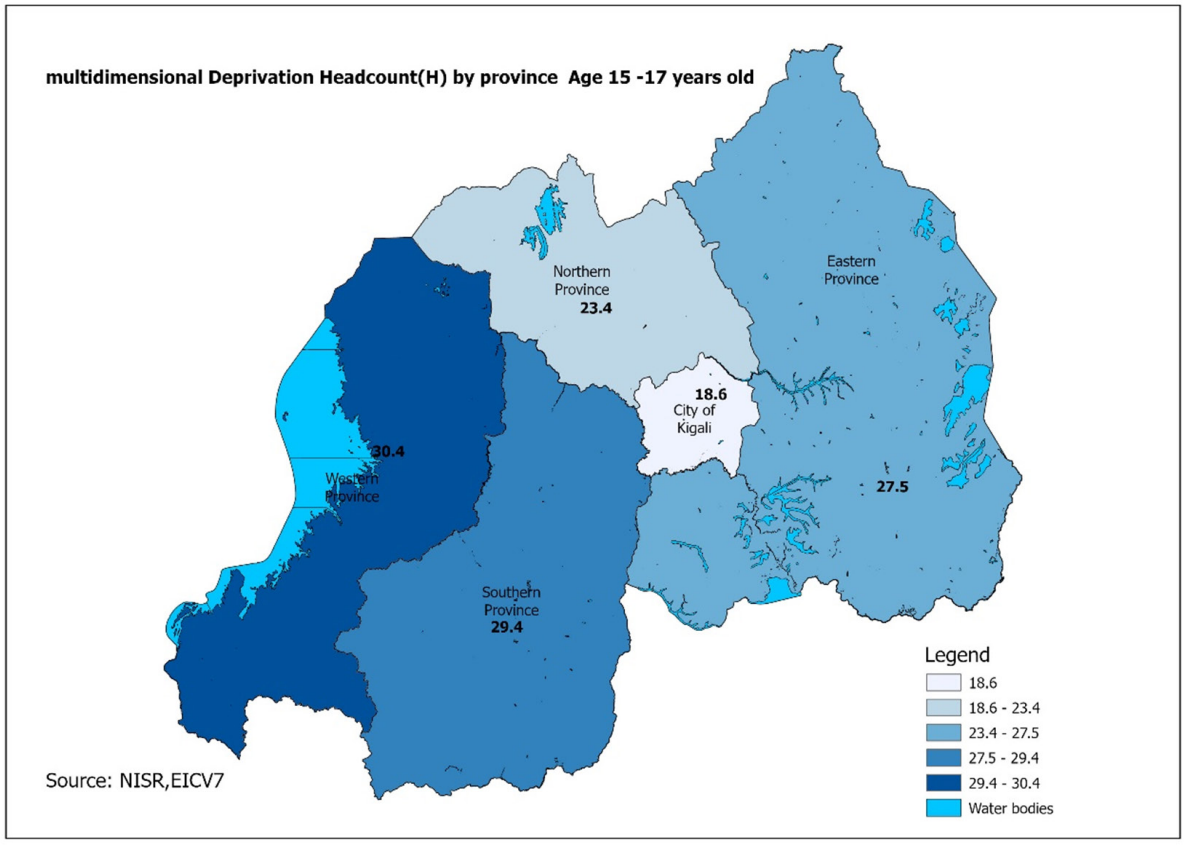


***Figure A.5.3 Dimension deprivation by provinces, 15-17 years old***




Source: NISR,EICV7

***Figure A.5.4 Multidimensional deprivation headcount (H) by provinces, 15-17 years old***




Source: NISR,EICV7

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