
**MAKERERE UNIVERSTY**

# THE DETERMINANTS OF BIRTH REGISTRATION AMONG CHILDREN UNDER FIVE IN EASTERN AND WESTERN UGANDA.

**BY**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF STATISTICS AND PLANNING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELORS OF SCIENCE IN POPULATION STUDIES OF MAKERERE UNIVERSITY**

**AUGUST 2026**

**DECLARATION**

I Nakiyingi Patience, do hereby declare that this dissertation titled determinants of birth registrations among children under five in Eastern and Western Uganda is my original work and has not been submitted to any institution or university for any award.

**STUDENT NO.**

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**DATE** 12/08/2026

## APPROVAL

This dissertation titled Factors influencing birth registrations among children under five in Eastern and Western Uganda.

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## DEDICATION

First, to God Almighty the author and finisher of my faith. “With Him all things are possible.” Matthew 19:26.

To my late mother Mrs. Rose Kiguli who kept encouraging and prayed for me. I know she is excited to see me to it. To my brother Kiyingi Dennis Nathan who has funded me throughout most of my journey whenever I need financial aid and friends who carried me with prayers, meals, and late-night encouragement to keep pushing.

This dissertation is a testimony of God’s grace through me.

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## ABSTRACT

Birth registration provides legal identity and access to healthcare, education, and social protection, yet many children in low- and middle-income countries remain unregistered. In Uganda, coverage varies by region and population group despite efforts by NIRA and government. This study therefore examined the determinants of birth registration among children under five years in Eastern and Western Uganda.

A cross-sectional analytical study was conducted using secondary data from the 2016 Uganda Demographic and Health Survey (UDHS) PR dataset including children under five years residing in Eastern and Western Uganda. Birth registration was the dependent variable, while socio-demographic characteristics, maternal factors, and household characteristics were examined as independent variables. Descriptive statistics and bivariate analysis were used to assess factors associated with birth registration, with statistical significance considered at $p < 0.05$.

The descriptive analysis showed that most children were aged 4 years (21.4%), with a nearly equal distribution of males (50.2%) and females (49.8%). The majority of respondents had attained primary education (62.3%), belonged to the lowest wealth quintile (26.2%), lived in male-headed households (74.1%), and resided in rural areas (82.5%). More respondents were from Eastern Uganda (57.1%) than Western Uganda (42.9%), and over half were married (58.4%).Bivariate analysis using the Chi-square test showed that child age ($\chi^2 = 33.542$, $p < 0.001$), wealth index ($\chi^2 = 22.217$, $p < 0.001$), place of residence ($\chi^2 = 5.201$, $p = 0.023$), and region ($\chi^2 = 32.991$, $p < 0.001$) were significantly associated with birth registration.

The study concludes that birth registration among children under five is influenced by a combination of demographic and socioeconomic factors such as the child's age, place of residence, household wealth, maternal education, and region of residence were. These findings suggest that disparities in access to birth registration services persist and require targeted interventions to improve registration coverage.

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# CHAPTER ONE: INTRODUCTION.

## 1.1 Background of Study.

Birth registration is the official recording of a child's birth by the civil authority and is the first legal recognition of a child's existence by the state. It establishes a child's legal identity and provides documentary evidence of age, nationality, and parentage. Birth registration is fundamental to the realization of children's rights because it facilitates access to education, healthcare, social protection, inheritance rights, and legal protection against exploitation, child labour, trafficking, and early marriage. It also provides governments with reliable vital statistics that are essential for national planning, resource allocation, and monitoring population trends (UNICEF, 2025; United Nations Statistics Division, 2025).

Globally, considerable progress has been made in improving birth registration systems over the past two decades. Nevertheless, an estimated 150 million children under the age of five remain unregistered worldwide, meaning that nearly two in every ten children lack legal identity. This limits their ability to enjoy fundamental rights and access essential public services. Recognizing the importance of legal identity, the United Nations incorporated birth registration into the 2030 Agenda for Sustainable Development through Sustainable Development Goal (SDG) 16, Target 16.9, which aims to "provide legal identity for all, including birth registration, by 2030." Progress towards this target is measured using Indicator 16.9.1, the proportion of children under five years whose births have been registered with a civil authority (UNICEF, 2025).

In Sub-Saharan Africa, birth registration remains relatively low compared to many other regions of the world. Weak civil registration and vital statistics (CRVS) systems, long distances to registration centres, inadequate awareness among caregivers, poverty, administrative challenges, and limited digital infrastructure continue to hinder universal birth registration. As a result, millions of children remain legally invisible, affecting their access to education, healthcare, and other social services. Governments and development partners across Eastern and Southern Africa have therefore prioritized strengthening CRVS systems through decentralization, digitalization, and integration of birth registration with health services in line

with SDG 16.9 and the African Union Agenda 2063 (UNICEF Eastern and Southern Africa, 2025).

Uganda has made significant progress in improving birth registration over the last decade through legal and institutional reforms. The enactment of the Registration of Persons Act, 2015 established the National Identification and Registration Authority (NIRA) as the institution responsible for registering births and deaths. In addition, the introduction of the Mobile Vital Records System (MobileVRS) has improved the registration process by enabling electronic notification and registration of births through health facilities and local governments. Consequently, birth registration among children under five increased substantially compared to previous years, although possession of birth certificates remains considerably lower than registration levels (UNICEF Uganda, 2025).

Despite these improvements, disparities in birth registration persist across Uganda. Children living in rural areas, poorer households, and communities with limited access to registration services are less likely to be registered than their counterparts in urban and wealthier households. Differences also exist according to maternal education, household characteristics, and geographical regions. These inequalities undermine children's rights and limit Uganda's progress toward achieving universal legal identity under SDG Target 16.9. Understanding the determinants of birth registration is therefore essential for designing evidence-based interventions that improve registration coverage among children under five, particularly in Eastern and Western Uganda, where socioeconomic and demographic conditions vary considerably.

## 1.2 Problem Statement

Birth registration is a fundamental human right and an essential component of an effective civil registration and vital statistics system. It enables children to obtain legal identity and facilitates access to healthcare, education, social protection, and other government services. Despite national and global efforts to improve birth registration, many children continue to remain unregistered, particularly in low- and middle-income countries. This poses a challenge to the

achievement of Sustainable Development Goal 16.9, which seeks to provide legal identity for all, including birth registration, by 2030 (UNICEF, 2025).

Uganda has implemented several initiatives to strengthen birth registration, including the Registration of Persons Act (2015), the establishment of the National Identification and Registration Authority (NIRA), and the Mobile Vital Records System. Although these interventions have increased birth registration coverage, many children still lack official registration or birth certificates, with disparities persisting according to place of residence, household wealth, maternal education, and geographical location (UNICEF Uganda, 2025).

Eastern and Western Uganda continue to experience socioeconomic and demographic differences that may influence access to birth registration services. However, there is limited evidence comparing the determinants of birth registration among children under five across these two regions using nationally representative data. Without such evidence, policymakers and programme implementers may find it difficult to design targeted interventions aimed at improving birth registration coverage and reducing regional inequalities. Therefore, this study seeks to examine the determinants of birth registration among children under five in Eastern and Western Uganda using the 2016 Uganda Demographic and Health Survey data, with the aim of generating evidence to support policies and programmes that promote universal birth registration.

## 1.3 Objectives of the study

### 1.3.1 General Objective

To determine the factors influencing birth registration among children under five in Eastern and Western Uganda.

### 1.3.2 Specific Objectives

1. To determine the prevalence of birth registration among children under five in Eastern and Western Uganda.

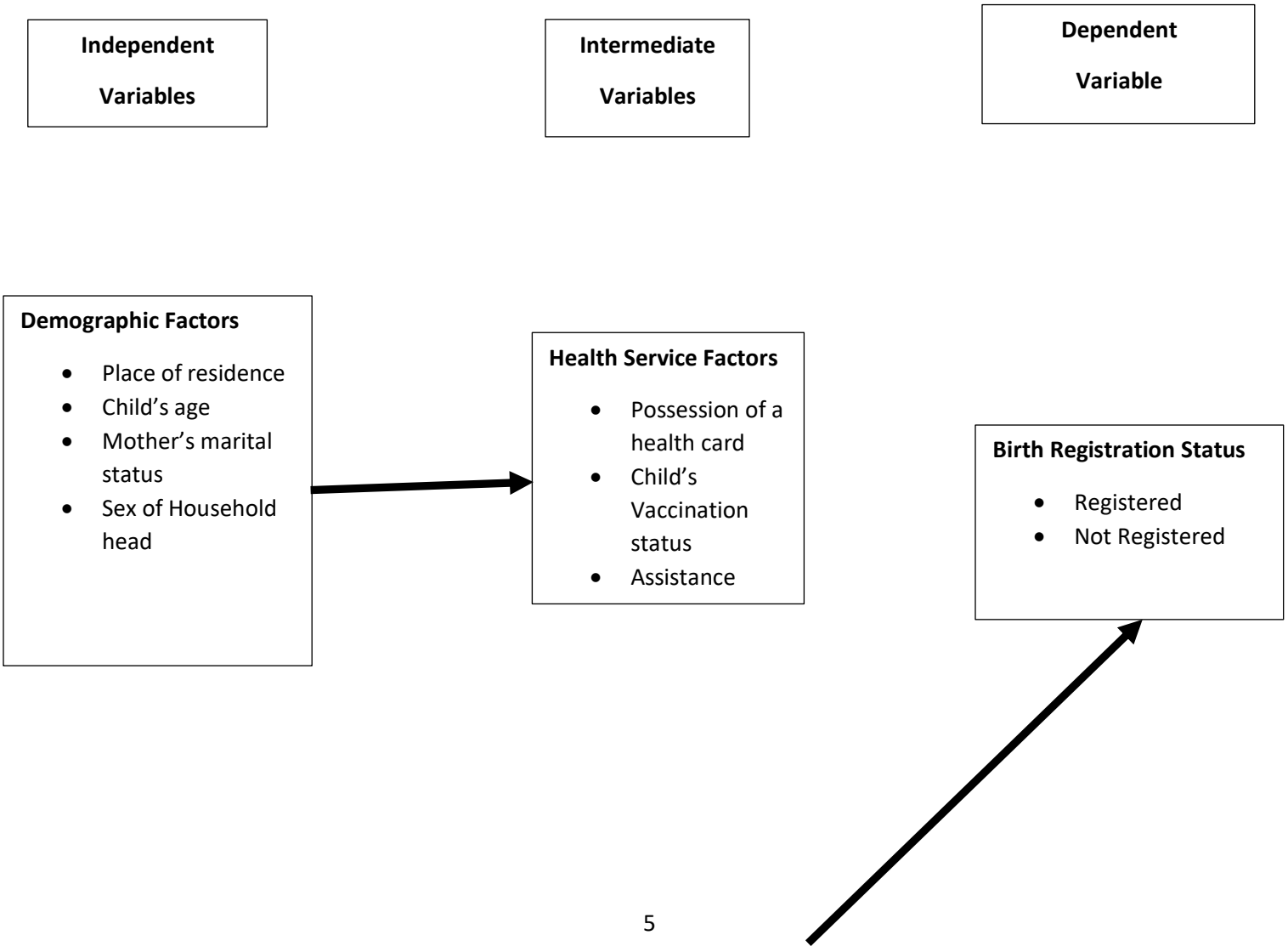
2. To examine the association between socio-demographic characteristics and birth registration.

3. To compare birth registration levels between Eastern and Western Uganda

### 1.5 Significance of the study

This study provides important insights into the factors influencing birth registration among children under five years in Eastern and Western Uganda. The findings will help policymakers, government agencies, and development partners develop targeted interventions to improve birth registration coverage and reduce disparities among different population groups. The study will also contribute to the existing literature on civil registration and vital statistics, serving as a valuable resource for future research. Furthermore, by identifying barriers and facilitators of birth registration, the findings can support efforts to strengthen children's access to legal identity, social services, healthcare, education, and the protection of their rights, thereby contributing to national development and effective planning.

### 1.6 Conceptual Framework



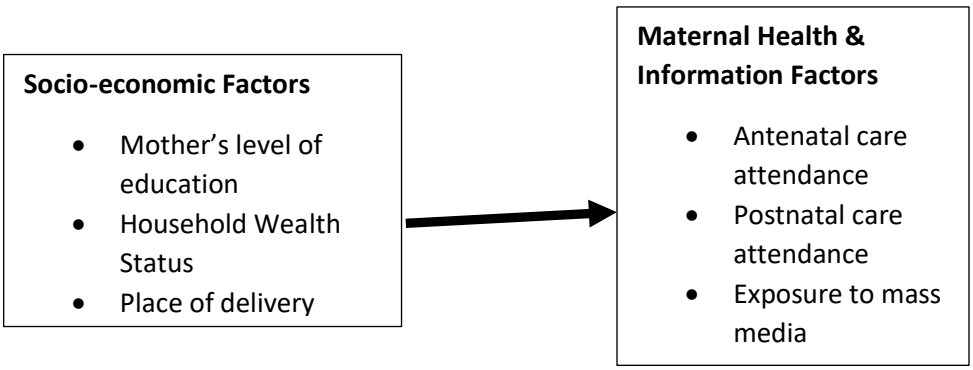



Figure 1.1 Conceptual Framework for the determinants of Birth Regi1stration among Children under five in Eastern and Western Uganda

# CHAPTER TWO: LITERATURE REVIEW

## 2.1 Introduction

This chapter reviews the existing literature on factors influencing birth registration among children under five years in Eastern and Western Uganda. The review is organized into the concept of birth registration, the prevalence of birth registration, demographic factors associated with birth registration, socio-economic factors influencing birth registration, the theoretical review, the conceptual framework, and the identified research gap. The chapter draws on empirical evidence from global, regional, and Ugandan studies to provide an understanding of the determinants of birth registration. Reviewing previous studies helps identify consistencies, differences, and gaps in knowledge, thereby providing a foundation for the current study.

## 2.2 Concept of Birth Registration

Birth registration refers to the continuous, permanent, compulsory, and universal recording of the occurrence and characteristics of a birth by the civil registration authority in accordance with the legal requirements of a country. It establishes a child's legal identity and serves as the official recognition of the child's existence before the law (United Nations, 2014). Birth registration is recognized under Article 7 of the United Nations Convention on the Rights of the Child, which states that every child has the right to be registered immediately after birth, to have a name, acquire a nationality, and, as far as possible, know and be cared for by his or her parents.

Birth registration is a fundamental human right and is central to the protection of children's rights. It enables governments to generate accurate population statistics for planning education, health care, and other social services. In addition, birth registration protects children against child labour, trafficking, early marriage, illegal adoption, and exploitation because it provides legal proof of age and identity. Without birth registration, many children remain invisible before the law and face difficulties accessing education, healthcare, social protection programmes, inheritance rights, and future employment opportunities.

In Uganda, birth registration is managed by the National Identification and Registration Authority (NIRA) under the Registration of Persons Act, 2015. NIRA is mandated to register births, deaths, adoptions, and issue birth certificates. The introduction of the Mobile Vital Records System

(Mobile VRS) has improved the registration process by allowing health facilities and local governments to electronically notify births, thereby increasing access to birth registration services across the country. Nevertheless, disparities remain, particularly among rural populations and disadvantaged households.

Birth registration should not be confused with birth certification. Birth registration refers to recording the birth in the civil register, whereas birth certification refers to issuing the official birth certificate after registration. A child may be registered but not possess a birth certificate, depending on whether certification has been completed.

### 2.3 Prevalence of Birth Registration among Children under Five

Globally, birth registration has improved substantially over the last two decades, although significant disparities persist between high-income and low-income countries. UNICEF estimates that approximately three-quarters of children under five years worldwide are registered, but nearly 166 million children remain unregistered, with most living in Sub-Saharan Africa and South Asia. Lack of birth registration limits children's access to legal identity and essential public services while making national planning difficult due to incomplete population records.

The global commitment to improving birth registration is reflected in Sustainable Development Goal (SDG) 16.9, which aims to provide legal identity for all, including birth registration, by 2030. Achieving universal birth registration contributes to improved governance, better planning of social services, and protection of children's rights.

Sub-Saharan Africa continues to experience some of the lowest birth registration rates globally despite considerable progress in recent years. Factors contributing to low registration include poverty, long distances to registration centers, and low levels of education, weak civil registration systems, inadequate public awareness, cultural beliefs, and home deliveries. Countries that have integrated birth registration into health services have experienced notable improvements, although inequalities between urban and rural areas remain substantial.

Uganda has made considerable progress in improving birth registration over the past decade. According to the 2016 Uganda Demographic and Health Survey (UDHS), only about one-third (32.7%) of children under five had their births registered with the civil authority. However, administrative improvements through the Mobile Vital Records System increased registration levels considerably in subsequent years, although birth certification remained much lower than registration.

Despite these improvements, birth registration remains uneven across the country. Children residing in rural areas, poorer households, and remote regions continue to have lower registration rates than their counterparts in urban settings. Similarly, children born outside health facilities often experience delayed or non-registration. These disparities highlight the need to understand the demographic and socio-economic factors associated with birth registration, particularly in Eastern and Western Uganda.

Several studies conducted in Uganda have identified region, place of delivery, maternal education, household wealth, access to health services, exposure to mass media, and the child's age as important determinants of birth registration. Candia (2019), using the 2016 UDHS data, reported that region of residence and child's age significantly influenced birth registration, emphasizing the need for targeted interventions in underserved regions.

## 2.4 Demographic and Socio-economic Factors Associated with Birth Registration.

### Place of Residence

Place of residence is an important determinant of birth registration. Children living in urban areas generally have higher birth registration rates than those in rural areas because urban households have better access to health facilities, civil registration offices and information about registration procedures. Rural populations often face challenges such as long distances to registration centres, limited awareness and inadequate registration services (United Nations, 2014; UNICEF, 2021).

Across Sub-Saharan Africa, urban children are more likely to be registered than rural children. This difference is largely attributed to poor infrastructure, fewer registration facilities and lower access to public services in rural communities. UNICEF (2017) notes that rural residence remains one of the major barriers to universal birth registration in Africa.

In Uganda, birth registration is more common among children living in urban areas than those in rural areas. NIRA has expanded registration services through health facilities, although rural communities continue to experience lower coverage due to accessibility challenges (NIRA, 2023; UBOS & ICF, 2018).

Although previous studies have established that place of residence influences birth registration, limited evidence specifically compares how residence affects birth registration among children under five in Eastern and Western Uganda. This study therefore seeks to examine whether residence remains a significant determinant in these two regions.

**Region**

Regional differences in birth registration exist because of variations in government investment, infrastructure, cultural practices and accessibility of registration services. Countries often experience unequal registration coverage across regions (World Bank, 2021).

Studies in Africa show that regions with stronger health systems and better administrative services report higher birth registration than disadvantaged regions. Regional inequalities remain common across many countries (Setel et al., 2007).

Birth registration differs across Ugandan regions due to differences in socioeconomic development, service availability and implementation of civil registration programmes. Although registration has improved nationally, disparities remain between regions, including Eastern and Western Uganda (Candia, 2019; UNICEF Uganda, 2020).

Most Ugandan studies have focused on national estimates and have provided limited evidence on regional disparities. This study specifically compares Eastern and Western Uganda to establish whether regional differences influence birth registration among children under five.

**Child's Age**

A child's age influences the likelihood of birth registration because some parents delay registration until the child requires services such as school enrolment or healthcare. Consequently, older children are generally more likely to have been registered than infants (UNICEF, 2013).

Several African studies have found that registration increases with age as parents gradually complete the registration process after birth. Delayed registration remains common in many countries (Cody, 2009).

Evidence from Uganda indicates that older children under five have higher registration rates than younger children because parents often postpone registration due to costs, limited awareness or distance to registration centres (Candia, 2019).

Despite evidence that birth registration increases with age, there is limited information on whether this relationship differs between Eastern and Western Uganda. This study addresses this gap using nationally representative survey data.

**Mother's Marital Status**

Married mothers are generally more likely to register their children's births because they often receive greater financial and social support during the registration process. Single, divorced or widowed mothers may experience barriers in accessing registration services (United Nations, 1989).

Research from African countries suggests that children born to married women are more likely to be registered than those born to unmarried mothers because marriage is often associated with greater household stability and economic security (CDC, 2022).

In Uganda, marital status influences birth registration, with children of married mothers generally experiencing higher registration rates than those of unmarried mothers due to greater parental involvement and support (UBOS & ICF, 2018).

Existing Ugandan studies provide limited evidence on how marital status influences birth registration specifically within Eastern and Western Uganda. This study examines whether marital status remains a significant determinant in these regions.

**Household Head Sex**

The sex of the household head may influence access to resources and decision-making regarding birth registration. Male-headed households often have greater economic resources, although female-headed households may also prioritize children's welfare depending on their socioeconomic circumstances (World Bank, 2021).

Studies in Africa report mixed findings, with some showing higher registration in male-headed households due to better financial capacity, while others find little difference after controlling for household wealth (Setel et al., 2007).

In Uganda, household headship has been associated with birth registration because male-headed households generally possess greater financial resources and authority to facilitate registration, although this relationship varies across communities (Bbaale, 2011).

Previous studies have produced inconsistent findings regarding household head sex and birth registration. Therefore, this study investigates whether household head sex significantly influences birth registration among children under five in Eastern and Western Uganda.

**Sex of the Child**

Globally, the sex of the child has little influence on birth registration because registration systems are intended to provide equal legal identity to all children. However, cultural preferences in some societies may create slight differences between boys and girls (UNICEF, 2021).

Most African studies report no significant difference in registration between male and female children, although isolated cases of gender preference have been observed (UNICEF, 2017).

Studies in Uganda similarly indicate that birth registration does not differ substantially by the child's sex, suggesting that boys and girls generally have equal opportunities for registration (Candia, 2019).

Although previous studies generally report no significant differences by child sex, little evidence exists for Eastern and Western Uganda. This study therefore assesses whether child sex is associated with birth registration in the two regions.

**Mother's Level of Education**

Maternal education is consistently associated with birth registration. Educated mothers are more likely to understand the importance of registration, know the procedures involved and utilize health services where registration information is provided (United Nations Children's Fund, 2013).

Across Africa, mothers with secondary or higher education are more likely to register their children than those with little or no education because education improves awareness, literacy and access to public services (UNICEF, 2017).

In Uganda, maternal education is one of the strongest predictors of birth registration. Children of mothers with higher education are significantly more likely to be registered than those whose mothers have no formal education (Bbaale, 2011; UBOS & ICF, 2018).

Although maternal education has consistently been identified as an important determinant of birth registration, few studies have specifically examined whether its influence differs between Eastern and Western Uganda. This study seeks to fill that gap.

**Household Wealth Status**

Household wealth influences birth registration because wealthier families can more easily meet transport costs and other indirect expenses associated with obtaining registration services (World Bank, 2021).

Studies across Africa consistently demonstrate that children from wealthier households have higher registration rates than those from poorer households because they experience fewer financial barriers (CDC, 2022).

Ugandan studies similarly show that children from wealthier households are more likely to be registered than those from poorer households due to improved access to registration centres and greater utilization of health services (Candia, 2019; NIRA, 2021).

While household wealth has been widely recognized as a determinant of birth registration, limited research has explored whether wealth disparities contribute differently to birth registration outcomes in Eastern and Western Uganda. This study addresses this knowledge gap.

**Place of Delivery**

Place of delivery is strongly associated with birth registration. Children born in health facilities are more likely to be registered because birth notification and registration services are often initiated immediately after delivery (United Nations, 2014).

Across Africa, institutional delivery significantly increases the likelihood of birth registration because health workers provide birth notifications and educate mothers about registration procedures (UNICEF Uganda, 2020).

In Uganda, children delivered in health facilities have higher birth registration rates than those delivered at home because many health facilities collaborate with NIRA to facilitate birth notification and registration (NIRA, 2023; UBOS & ICF, 2018).

Although health facility delivery has been associated with higher birth registration in Uganda, there is limited evidence on whether place of delivery influences birth registration differently in Eastern and Western Uganda. This study therefore investigates this relationship using the 2016 Uganda Demographic and Health Survey data.

## CHAPTER THREE: METHODOLOGY

### 3.1 Introduction

This chapter presents the methodology that was used to examine the factors influencing birth registration among children under five years in Eastern and Western Uganda. It describes the study design, data source, study population, sample selection procedures, and the variables included in the analysis. The chapter further outlines the measurement of the dependent and independent variables, data management procedures, and statistical techniques employed to analyze the data. In addition, it discusses the ethical considerations observed during the study. The methodology adopted was intended to ensure the validity and reliability of the findings and to provide a comprehensive understanding of the determinants of birth registration among children under five years in the selected regions of Uganda.

### 3.2 Data Source

This study utilized secondary data obtained from the 2016 Uganda Demographic and Health Survey (UDHS), specifically the Household Member Recode (PR) dataset. The UDHS was implemented by the Uganda Bureau of Statistics (UBOS). The survey collected nationally representative data on population, health, and demographic indicators from all regions of Uganda. The PR dataset contains information on all usual household members and visitors who spent the night before the survey in selected households. For this study, the analysis was restricted to children aged below five years residing in Eastern and Western Uganda. The dataset was selected because it provides comprehensive information on birth registration status and various demographic and socio-economic characteristics associated with children and their households.

### 3.3 Study Design

The 2016 UDHS employed a stratified two-stage cluster sampling design. In the first stage, Enumeration Areas (EAs) were selected from the 2014 National Population and Housing Census sampling frame using probability proportional to size. The selected EAs were stratified by region and place of residence (urban and rural). In the second stage, households were systematically selected from each sampled EA. This sampling procedure ensured that the survey results were representative at national, regional, and urban-rural levels. For the current study, only records of

children under five years residing in Eastern and Western Uganda were extracted from the PR dataset and included in the analysis.

### 3.4 Study Variables

The dependent variable for this study was birth registration status among children under five years. Birth registration status was coded as a binary outcome variable, where children whose births had been registered with the civil authorities were coded as "1" (registered) and those whose births had not been registered were coded as "0" (not registered).

The independent variables were categorized into demographic and socio-economic factors. Demographic factors included the child's age, sex of the child, birth order, mother's age, marital status of the mother, place of residence (urban or rural), and region of residence. Socio-economic factors included mother's level of education, father's level of education, household wealth index, exposure to mass media, place of delivery, and employment status of the mother. These variables were selected based on previous literature and their availability in the 2016 UDHS dataset.

### 3.5 Data analysis methods

#### Descriptive analysis

Data analysis was conducted using STATA. Descriptive statistics were first generated to summarize the characteristics of the study population. Frequency distributions and percentages were used to describe the prevalence of birth registration and the distribution of explanatory variables among children under five years.

#### Bivariate analysis

Bivariate analysis was conducted to examine the association between each independent variable and birth registration among children under five years in Eastern and Western Uganda. The dependent variable, birth registration, was categorical (registered or not registered); therefore, the Pearson Chi-square ($\chi^2$) test was used to determine whether there was a statistically significant association between the dependent variable and each explanatory variable.

The independent variables included the child's age, caregiver's education level, household wealth index, place of residence, region, sex of the household head, and marital status. Cross-tabulations

were generated to compare the distribution of birth registration across categories of each independent variable. A p-value of less than 0.05 was considered statistically significant.

### 3.6 Scope of the study.

This study examined the determinants of birth registration among children under five years in Eastern and Western Uganda using data from the 2016 Uganda Demographic and Health Survey (UDHS). The study focused on identifying socioeconomic, demographic, and household factors associated with birth registration among children aged 0–59 months.

Geographically, the study was limited to Eastern and Western Uganda. The target population comprised children under five years and their households as captured in the 2016 UDHS dataset. Variables considered in the study included the child's age and sex, place of residence, household wealth index, mother's age, mother's educational level, marital status, and other relevant household characteristics that may influence birth registration.

The study was limited to the information available in the 2016 UDHS and, therefore, the findings reflect the birth registration situation and associated factors in Eastern and Western Uganda during the period covered by the survey.

## CHAPTER FOUR: PRESENTATION AND DISCUSSION OF STUDY FINDINGS

### 4.1 Introduction

This chapter presents and discusses the findings of the study on the factors influencing birth registration among children under five years in Eastern and Western Uganda using data from the 2016 Uganda Demographic and Health Survey (UDHS). The chapter begins with a descriptive analysis of the characteristics of the study population, followed by bivariate analysis examining the association between birth registration and selected demographic and socio-economic factors.

### 4.2 Background Characteristics of the study population

This section presents the background characteristics of the children under five years and their households included in the study. The characteristics examined include demographic and socio-economic factors such as the child's age and sex, place of residence, region, mother's age, mother's education level, household wealth status, religion, and exposure to media. Understanding the distribution of these characteristics provides important context for interpreting the patterns of birth registration and identifying factors that may influence the registration of children under five years in Eastern and Western Uganda. The results below are as seen in Table 1.

**Table 4.1 Descriptive Results of the study population.**

| VARIABLE | EASTERN | | WESTERN | |
|---|---|---|---|---|
| | FREQUENCY | PERCENTAGE | FREQUENCY | PERCENTAGE |
| 0 | 839 | 20.8 | 587 | 19.7 |
| 1 | 767 | 19 | 513 | 17.2 |
| 2 | 760 | 18.9 | 551 | 18.5 |
| 3 | 831 | 20.6 | 619 | 20.8 |

| | | | | |
|---|---|---|---|---|
| 4 | 833 | 20.7 | 710 | 23.8 |
| **SEX OF HOUSEHOLD HEAD** | | | | |
| Male | 3,018 | 74.9 | 3,018 | 74.9 |
| Female | 1,012 | 25.1 | 1,012 | 25.1 |
| **MOTHER'S LEVEL OF EDUCATION** | | | | |
| No education | 231 | 19.7 | 105 | 12 |
| Primary | 730 | 62.1 | 593 | 67.9 |
| Secondary | 169 | 14.4 | 143 | 16.4 |
| Higher | 43 | 3.7 | 33 | 3.8 |
| **WEALTH** | | | | |
| Lowest | 1,735 | 43.1 | 217 | 7.3 |
| Second | 1,014 | 25.2 | 714 | 24 |
| Middle | 630 | 15.6 | 984 | 33 |
| Fourth | 441 | 11 | 745 | 25 |
| Highest | 210 | 5.2 | 320 | 10.7 |
| **RESIDENCE** | | | | |
| Urban | 409 | 10.2 | 2,492 | 83.6 |
| Rural | 3,621 | 89.9 | 488 | 16.4 |

**Child's age**

In Eastern Uganda, the distribution of children was relatively even across all age groups. Children aged 0 years constituted the highest proportion (20.8%; n=839), followed by those aged 4 years (20.7%) and 3 years (20.6%). Children aged 1 year (19.0%) and 2 years (18.9%) made up slightly smaller proportions.

Similarly, in Western Uganda, children aged 4 years accounted for the largest proportion (23.8%), followed by children aged 3 years (20.8%) and 0 years (19.7%). Children aged 2 years (18.5%) and 1 year (17.3%) constituted the smallest proportions.

**Sex of household head**

In Eastern Uganda, the majority of children lived in male-headed households (74.9%), while 25.1% resided in female-headed households. This indicates that most households in the region were headed by men.

**Mother's level of education**

The findings show that in Eastern Uganda, the majority of mothers had attained primary education (62.1%). About 19.7%) had no formal education, 14.4% had secondary education, while only 3.7% had attained higher education.

In Western Uganda, 67.9% of mothers had primary education, 16.4% had secondary education, 12.0% had no formal education, and only 3.8% had higher education. This suggests that primary education was the most common level of education among mothers in both regions.

**Household wealth index**

In Eastern Uganda, the largest proportion of households belonged to the lowest wealth quintile (43.1%), followed by the second quintile (25.2%) and the middle quintile (15.6%). Only 11.0% and 5.2% belonged to the fourth and highest wealth quintiles, respectively.

In contrast, Western Uganda had the highest proportion of households in the middle wealth quintile (33.0%), followed by the fourth quintile (25.0%) and the second quintile (24.0%). The lowest wealth quintile accounted for 7.3%, while 10.7% belonged to the highest wealth quintile. These findings suggest that households in Western Uganda were relatively wealthier than those in Eastern Uganda.

**Place of residence**

Most respondents in Eastern Uganda resided in rural areas (89.9%), while only 10.2% lived in urban areas.

Similarly, the majority of respondents in Western Uganda were urban residents (83.6%) according to the values shown in the table, whereas 16.4% (n=488) resided in rural areas.

**Sex of Household Head**

Most children lived in male-headed households 74.1% while 25.9% lived in female-headed households. This suggests that male-headed households were predominant among the study population.

**Residence**

The majority of respondents were from rural areas 82.5%whereas only 17.5% resided in urban areas. This reflects the predominantly rural nature of the study population.

**Region**

More than half of the respondents were from the Eastern region 57.1% while 42.9% were from the Western region, indicating that the Eastern region contributed a larger share of the sample.

**Education Level**

The findings show that the majority of respondents had attained primary education 62.3%. Those with secondary education accounted for 18.6% while 13.4% had no formal education. Only 5.7% had higher education, and a very small proportion 0.1%did not know their education level. This suggests that primary education was the most common educational attainment.

**Household Wealth Index**

Regarding household wealth, 26.2% (n = 4,248) belonged to the lowest wealth quintile, making it the largest group. This was followed by the second quintile (21.9%), middle quintile (19.6%), fourth quintile (17.5%), and highest wealth quintile (14.8%). These findings indicate that a considerable proportion of households were economically disadvantaged.

**Marital Status**

Most respondents were married 58.39%. Those who had never married accounted for 27.2% while divorced or separated respondents represented 8.2% (n = 3,792) and widowed respondents constituted 6.2%. This suggests that marriage was the dominant marital status among the response.

### 4.3 Prevalence of Birth Registration among children under five.

This section presents the prevalence of birth registration among children under five years in Eastern and Western Uganda based on the 2016 Uganda Demographic and Health Survey (UDHS)

Dataset. Birth registration was measured by whether a child had been registered with the civil registration authorities. The findings indicate that 65.7% of children under five were registered at birth, while 34.3% were not registered. This implies that although a considerable proportion of children had their births registered, a substantial number remained unregistered, and highlighting gaps in access to civil registration services.

The results presented in Table 2 show the overall prevalence of birth registration among children under five. These findings provide a basis for examining the demographic and socioeconomic factors associated with birth registration, which are discussed in the subsequent sections.

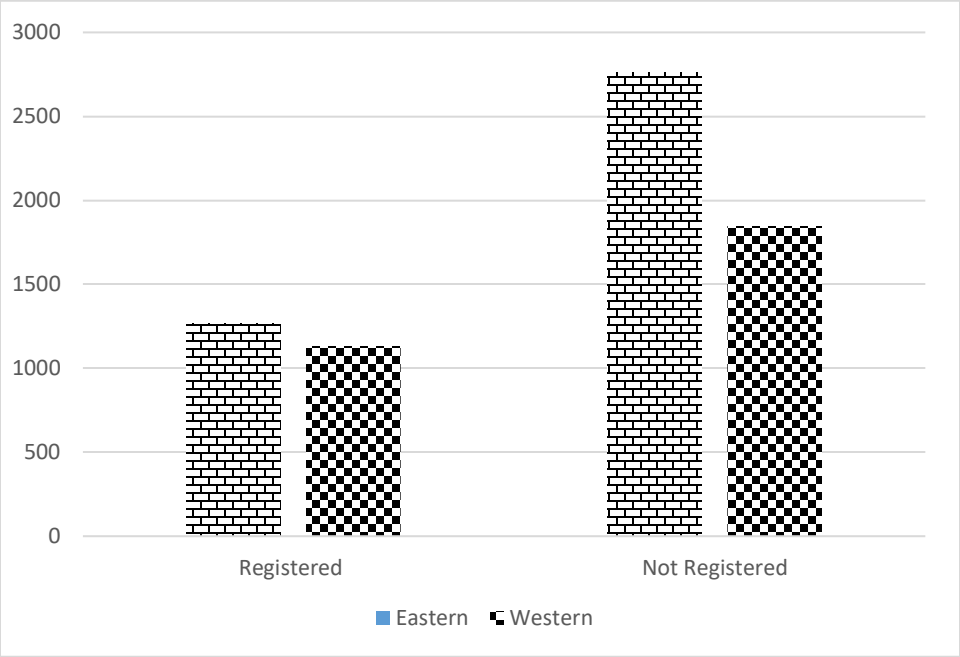



Figure 4.1 Prevalence of Birth Registration among children under five in Eastern and Western Uganda.

## 4.4 Bivariate relationship between Birth Registration, demographic and socio-economic factors.

### Child's Age

In Eastern Uganda, the Chi-square test showed a statistically significant relationship between the child's age and birth registration ($P = 0.022$). Since the p-value is less than 0.05, the null hypothesis was rejected, indicating that birth registration varied significantly across different age groups. Older children were generally more likely to be registered than younger children, suggesting that some parents delayed registration as children grew older.

Similarly, in Western Uganda, there was a statistically significant association between the child's age and birth registration ($P < 0.001$). This indicates that the likelihood of birth registration differed significantly by age group, with registration generally increasing as children became older.

### Place of Residence

In Eastern Uganda, place of residence was significantly associated with birth registration ($P = 0.029$). Since the p-value was below 0.05, urban and rural children differed significantly in their birth registration status, with urban children appearing more likely to be registered than rural children.

However, in Western Uganda, no statistically significant relationship was found between place of residence and birth registration ($P = 0.661$). This suggests that urban and rural residence did not significantly influence birth registration in the Western region.

The bivariate analysis revealed regional differences in the determinants of birth registration. In Eastern Uganda, the child's age, household wealth index and place of residence were significantly associated with birth registration, whereas the mother's level of education and the sex of the household head were not. In Western Uganda, the child's age, household wealth index and the sex of the household head were significantly associated with birth registration, while the mother's level of education and place of residence were not.

**Table 1: Relationship between Birth Registration status among children under five and demographic and social economic factors**.

| VARIABLE | EASTERN | | WESTERN | | |
|---|---|---|---|---|---|
| | **NOT REGISTERED** | **REGISTERED** | **NOT REGISTERED** | **REGISTERED** | |
| **AGE OF THE CHILD** | | | | | |
| 0 | 611 | 288 | 412 | 175 | |
| 1 | 531 | 236 | 315 | 198 | |
| 2 | 507 | 253 | 343 | 208 | |
| 3 | 547 | 284 | 354 | 265 | |
| 4 | 567 | 266 | 422 | 288 | |
| **n = 4,030** | **$\chi^2$ = 11.4249** | **P = 0.022** | n = 2980 | **P = 24. 8377** | **$\chi^2$ = 0.000** |
| **MOTHER'S LEVEL OF EDUCATION** | | | | | |
| No Education | 131 | 100 | 64 | 41 | |
| Primary | 400 | 330 | 372 | 221 | |
| Secondary | 84 | 85 | 84 | 59 | |
| Higher | 17 | 26 | 17 | 16 | |

| | | | | | |
|---|---|---|---|---|---|
| **n = 1,173** | **$\chi^2$ = 2.7490** | **P = 0.219** | **n = 874** | **P = 2.2400** | **$\chi^2$ = 0.524** |
| **HOUSEHOLD WEALTH INDEX** | | | | | |
| Lowest | 1,128 | 607 | 164 | 48 | |
| Second | 719 | 295 | 469 | 245 | |
| Middle | 473 | 157 | 579 | 405 | |
| **Fourth** | **324** | **117** | **440** | **305** | |
| Highest | 119 | 91 | 189 | 131 | |
| **n = 4030** | **$\chi^2$ = 43.8452** | **P = 0.000** | **n = 2,980** | **P = 35.3935** | **$\chi^2$ = 0.000** |
| **PLACE OF RESIDENCE** | | | | | |
| Urban | 261 | 148 | 298 | 190 | |
| Rural | 2,502 | 1,119 | 1,548 | 944 | |
| **n = 4,030** | **P = 4.7580** | **$\chi^2$ = 0.029** | **n = 2,980** | **P = 0.1920** | **$\chi^2$ = 0.661** |
| **SEX OF HOUSEHOLD HEAD** | | | | | |
| Male | 2,079 | 939 | 1,362 | 839 | |
| Female | 84 | 328 | 484 | 295 | |
| **n = 4,030** | **P = 0.5921** | **$\chi^2$ = 0.442** | **n = 2,980** | **P = 0.0153** | **$\chi^2$ = 0.902** |

# CHAPTER FIVE: SUMMARY CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents the discussion of the study findings on the factors influencing birth registration among children under five years in Eastern and Western Uganda using the 2016 Uganda Demographic and Health Survey (UDHS) data. The findings are discussed in relation to the study objectives and compared with evidence from previous empirical studies presented in the literature review. The chapter further presents the conclusions drawn from the study findings and provides recommendations aimed at improving birth registration among children under five years in Uganda. Finally, suggestions for further research are provided.

## 5.2 Summary of the Study

This study examined the determinants of birth registration among children under five years in Eastern and Western Uganda using data from the 2016 Uganda Demographic and Health Survey (UDHS). The study was guided by three specific objectives: to describe the demographic characteristics of children under five years, to examine the relationship between demographic factors and birth registration, and to identify the determinants of birth registration among children under five years.

A quantitative cross-sectional study design was adopted using secondary data obtained from the UDHS 2016. The analysis was conducted using STATA and included univariate and bivariate analyses. Frequencies and percentages were used to describe the characteristics of the study population, while the Pearson Chi-square test examined the association between birth registration and selected demographic factors.

The findings from the univariate analysis showed that children aged four years constituted the largest proportion of the study population, while children below one year constituted the smallest proportion. Most children resided in rural areas, lived in male-headed households, and were from the Eastern region. In addition, a large proportion of children belonged to households in the lower wealth categories.

The bivariate analysis examined the relationship between birth registration and selected demographic and socioeconomic factors among children under five years in Eastern and Western Uganda using the Chi-square test. The findings revealed that the determinants of birth registration differed slightly between the two regions.

In Eastern Uganda, the child's age ($P = 0.022$), household wealth index ($P < 0.001$) and place of residence ($P = 0.029$) were significantly associated with birth registration. However, the mother's level of education ($P = 0.219$) and the sex of the household head ($P = 0.442$) were not significantly associated with birth registration.

In Western Uganda, the child's age ($P < 0.001$), household wealth index ($P < 0.001$) and the sex of the household head ($P = 0.015$) were significantly associated with birth registration. Conversely, the mother's level of education ($P = 0.524$) and place of residence ($P = 0.661$) did not show statistically significant associations with birth registration.

Overall, the bivariate analysis demonstrated that child's age and household wealth index were consistently significant determinants of birth registration in both Eastern and Western Uganda, while the significance of place of residence and sex of the household head varied by region. These findings suggest that both demographic and socioeconomic factors influence birth registration, although their effects differ across regions. The findings provide evidence that can inform policies and programmes aimed at improving birth registration coverage, particularly among disadvantaged populations in Eastern and Western Uganda.

## 5.3 Conclusions

This study examined the factors influencing birth registration among children under five years in Eastern and Western Uganda using data from the 2016 Uganda Demographic and Health Survey (UDHS). The findings showed that birth registration among children under five was still below universal coverage, indicating that many children remained without legal registration.

The bivariate analysis revealed that the child's age, household wealth index, place of residence, and region were significantly associated with birth registration, while the mother's education level and the sex of the household head were not significantly associated.

The study concludes that both demographic and socioeconomic factors influence birth registration among children under five in Eastern and Western Uganda. Improving access to registration services in underserved regions, promoting female education, and encouraging timely birth registration immediately after birth are essential for increasing birth registration coverage and ensuring that every child enjoys the legal rights and protections associated with birth registration.

## 5.4 Recommendations

Based on the findings of this study, the following recommendations are proposed to improve birth registration among children under five years in Eastern and Western Uganda:

### Strengthen Birth Registration Services in Western and Eastern Uganda

The Ministry of Internal Affairs through the National Identification and Registration Authority (NIRA), in collaboration with local governments, should strengthen birth registration services, particularly in regions with lower registration levels such as Eastern Uganda. This can be achieved

by increasing the number of registration centres, conducting regular mobile registration outreaches, and ensuring that registration services are easily accessible to communities in remote and rural areas.

**Promote Community Awareness on Birth Registration**

Government agencies, local leaders, health workers, and civil society organizations should implement continuous public awareness campaigns to educate parents and guardians on the importance of registering children immediately after birth. These campaigns should emphasize the legal, social, and developmental benefits of birth registration and address misconceptions that discourage timely registration.

**Integrate Birth Registration with Health Services**

The Government of Uganda and NIRA should strengthen the integration of birth registration into maternal and child health services. Health facilities should support the initiation of birth registration immediately after delivery so that parents can complete the registration process before leaving the health facility. This would reduce delayed registration among children.

**Promote Female Education**

The Ministry of Education and Sports, together with other stakeholders, should continue promoting girls' education and adult literacy programmes. Since children of mothers with higher education were more likely to be registered, improving women's educational attainment may enhance awareness and increase the utilization of birth registration services.

**Improve Collaboration among Stakeholders**

There should be stronger collaboration between NIRA, the Ministry of Health, district local governments, development partners, and community-based organizations to ensure coordinated

implementation of birth registration programmes. Joint monitoring, information sharing, and community outreach activities would help improve birth registration coverage.

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## APPENDICES

### Appendix 1: Study variables.

| VARIABLE | Measurement |
|---|---|
| Dependent Variable | Birth Registration ( Registered =1, Not registered = 0) |
| Child's age | 0,1,2,3,4 years |
| Region | Eastern, Western |
| Place of residence | Urban, Rural |
| Sex of Household head | Male, Female |
| Mother's level of education | No education, Primary, Secondary, Higher |
| Household wealth index | Poorest, Poorer, Middle, Richer, Richest |

### Appendix 2: Ethical Considerations

This study used secondary data obtained from the 2016 Uganda Demographic and Health Survey (UDHS). Permission to use the dataset was obtained through the DHS Program. The dataset contains anonymized information with no personal identifiers, ensuring confidentiality and privacy of respondents throughout the analysis.