

**FACTORS IMPACTING THE IMMUNIZATION IMPLEMENTATION PROCESS IN
MARSABIT COUNTY'S SAKU CONSTITUENCY.**

By

UMAR SALIHA ORGE

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DECLARATION

This project is my original work and has not been submitted to any other academic institution.

Sign..... Date.....

UMAR SALIHA ORGE

ADM NO: DHD/8/00027/1/21

This project has been submitted with my approval the as the appointed University supervisor.

Sign..... Date.....

MS. RUTH KIILU

THE MANAGEMENT UNIVERSITY OF AFRICA

DEDICATION

I dedicate this project to my parents, Mr. Umar Garroh and Ms. Fatuma Jillo, for all the sacrifices they made for me over the years, both financially and spiritually. Almighty God bless you and raise you up in all your undertakings forever. I'm grateful for all the encouragement and support you provided, and I'm honored to be your daughter.

I also dedicate my project to all those who helped me with the research, as well as to my project manager, MS. RUTH KIILU, for her direction throughout. Without you, I could not have accomplished it.

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ABBREVIATIONS AND ACRONYMS

1. VPDs - Vaccine Preventable Diseases
2. EPI - Expanded Program on Immunization
3. BCG - Bacillus Calmette Guerin
4. OPV - Oral polio vaccine
5. HBV - Hepatitis B vaccine
6. MMR - Measles, mumps, and rubella
7. DVI - Division of Vaccines and Immunization
8. KEPI - Kenya Expanded Immunization Programme
9. PHLIP - Program for Public Health Law
10. WHO - Worldwide Organization for Health
11. UNICEF - United Nations International Children's Funds

DEFINITION OF TERMS

These are some of the words used often in this study:

Immunization - Is the process of stimulating a person's immune system by exposing them to an immunogenic agent considered a vaccine? (A substance that stimulates the immune system is said to be immunogenic)

Implementation/Execution - A specific series of actions intended to put a strategy or plan into action. In this study, it alludes to the collection of initiatives designed to boost vaccination coverage by ensuring that kids receive their shots.

Vaccination campaigns - Is a series of actions intended to guarantee that all eligible children and women in a certain area receive timely immunization and develop immunity against particular illnesses that can be prevented by vaccines. The programs cover both maternal and childhood immunization.

ABSTRACT

This study looked into the variables influencing the immunization program in Kenya's Saku Constituency in Marsabit County. It was done in the four local government area regions (north, south, east, and west). To gather the data, the study used a cross-sectional study and administered semi-structured interview questionnaire. Mothers and other caregivers of children ages 0 to 5 made up the study's population. Interviews were conducted with 400 moms and children under the age of five. According to the study, vaccination has a number of advantages, such as helping children grow up healthy and strong and reducing disease and death. Additionally, medication difficulties (unavailability), poor road/transport conditions, a baby or mother's poor health, and a busy schedule were the primary causes of each missed vaccine shot. The kid immunization rate in Saku is still unsatisfactory despite the fact that childhood immunizations are offered without cost and with increasing awareness. The study suggested that mothers' empowerment via education is necessary since it has been found to be a predictor of full vaccine uptake.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

With an estimated 2 million fatalities each year, mostly in Africa, vaccine-preventable diseases remain the most common cause of infant mortality (Young, Anita-Obong, & Effiong, 2013). According to estimates, vaccine-preventable illnesses caused 28% of deaths in children aged 1 to 58 months. Despite the advantages of childhood immunization, several Kenyan counties, like Samburu (42%), Turkana (55%) and Marsabit (58%), continue to have low rates of regular vaccination coverage for all vaccinations recommended as part of an expanded program on immunization (Michaela & Katherine, 2022).

According to a World Health Organization and United Nations International Children's Emergency Fund (UNICEF, 2020), vaccine-preventable illnesses are thought to be the cause of almost 25% of mortality among children aged 1 to 58 months. The global death rate for measles decreased by 84% between 2000 and 2016 as a result of measles vaccination (WHO, 2017; CDC, 2018). The efficiency of the pertussis vaccination also contributed to a global decline in pertussis mortality, which went from 390,000 fatalities among children under the age of 5 in 1999 to 160,700 deaths in 2014 (Schwartz, Kwong, Deeks et al., 2016).

Despite the advantages of immunization for children, regular vaccination coverage for all advised EPI vaccinations has remained low in numerous African nations, including Djibouti, Ethiopia, Uganda, and Ghana. Some African nations, including Tanzania in 2017 and Kenya in 2015, have greater coverage rates than others (Galadima, Zulkefli, Said et al., 2021). The prevalence of diphtheria, pertussis, and tetanus is also low in African nations like Nigeria (Babaniyi & Parakoyi, 2019).

The WHO's 2012 Global Vaccine Action Plan noted that these coverage levels were still below the objectives and sought to assure delivery of universal access to immunization with related targets achieving 90% of the national vaccine coverage and at least 80% coverage in every district. A variety of factors that impacted children's vaccination uptake were revealed by earlier observational studies conducted across countries in Africa and elsewhere in the world.

Mother's age, educational attainment, father's educational attainment, marital status, employment status, family income, wealth index, and ethnicity are only a few examples of sociodemographic variables (Bangura, Xiao, Qiu, Ouyang, & Chen, 2020; Zulkefli, Mohammad & Juni, 2016). There are other obstetric considerations such the site of delivery, the interval before the birth, and the follow-up of prenatal and postoperative treatment. The purpose of this study is to gather information on the variables that affect children's immunization uptake in Saku, Marsabit County, Kenya, as well as to give future researchers information they can use to develop, implement, and evaluate interventions among Kenyan populations that will enhance the country's implementation of childhood immunization.

Despite the low rates of children vaccination in African nations, there hasn't been a comprehensive research done recently that focuses on detailing the variables impacting immunization rates in Africa. Therefore, the goal of this study is to compile data on the factors that affect children's vaccination acceptance in Africa as well as to offer data for future researchers to create, implement, and evaluate interventions among African people that would increase newborn vaccination acceptability. This study will help create health promotion strategies and recommendations for children vaccination in Africa.

1.2 Statement of the Problem

As of the 2019 census, Saku, a constituency in the northern part of Kenya's eastern region, has a population of 459,785. There are 243,548 men, 216,219 females, and 18 intersex people in this population. 215,807 people in this group are under the age of 14, 230,067 are between the ages of 15 and 64, and 13,887 are above 65. Saku, on the other hand, has a total population of 465,020, of which approximately 25% are children between the ages of 0 and 14 (KNBS, 2019). As a result, they are at a higher risk of contracting diseases for which there is a vaccine and must be immunized. I used this as the foundation for my research to understand why that demographic cannot obtain the recommended childhood vaccinations. What barriers prevent the vaccination program from being implemented in this population?

The goal of this study is to identify the variables that affect the execution of the vaccination program, which is a crucial approach for preventing infant and child mortality as well as lifetime disability. Every year, vaccinations stop 2.5 million child deaths (WHO, 2009). Despite the increase in vaccination rates worldwide, which has seen 84% of children receive this potentially life-saving treatment, 10 million children in low- and middle-income nations still pass away before turning five (WHO 2014). In many nations, the promise for immunization has not yet been completely achieved, leaving 22.4 million children worldwide without the necessary vaccinations. 70% of children who are not completely vaccinated come from 10 countries, Nigeria included (WHO/UNICEF 2014).

Even in a dedicated nation like Kenya, low vaccine coverage remains a problem. This study looked at the variables influencing vaccine implementation in Saku Constituency Marsabit County in an effort to pinpoint intervention targets for increasing immunization coverage. The goal was to determine what causes missed vaccinations and how to decrease the number of lost vaccination

chances at the medical institutions. The GAVI partnership has worked hard to make vaccinations available, making it possible for governments to purchase the advised vaccines. For instance, despite the fact that vaccinations are readily available to the general population in Kenya, more than 20% of Kenyan youngsters do not receive their annual immunizations. This research aims to close the gap by identifying solutions for bettering the country's implementation of immunization programs, notably at the primary health care level in primarily rural regions.

1.3 Objectives of the Study

1.3.1 Main Objective

The overall purpose or major objective of this research is to examine the variables influencing the immunization program in the Saku Constituency in Marsabit County, Kenya.

1.3.2 Specific Objectives

The particular goals are:

- i. To comprehend the variables influencing the vaccination program's execution in Marsabit County's Saku Local Government Area.
- ii. To determine the vaccination issue in Kenya's Saku Constituency, Marsabit County
- iii. To understand the views of parents regarding immunizing their children in Saku constituency, Marsabit county.

1.4 Research Questions

1. What aspects of the vaccination program are being implemented in Kenya's Saku Constituency, Marsabit County?
2. What vaccination issues exist in Kenya's Saku Constituency, Marsabit County?
3. What do parents in Kenya's Saku Constituency, Marsabit County, think about immunizing their kids?

1.5 Significance of the Study

The project's findings are especially significant to managers of immunization programs and decision-makers in regions with sizable rural populations. It offers a foundation for logical actions to enhance the distribution of vaccines in primary healthcare institutions, enhance vaccination coverage indices, and lessen the burden of infectious illnesses in children.

The findings are helpful to the county health management team because they offer information that can be put to use in planning and policy decisions to enhance the county's administration of children immunizations. By offering an empirical examination of the difficulties experienced by program implementers, this study adds to the body of research on how to enhance the implementation of childhood vaccination programs in rural regions.

This study specifically aims to support the hypothesis that identifying intervention targets for enhancing the efficacy of vaccination programs in basic healthcare institutions in Saku Constituency Marsabit County, Kenya, is connected to the proof.

1.6 Assumptions of the Study

This study looks into the variables influencing the immunization program in Kenya's Saku Constituency, which is located in Marsabit County. Therefore, it will be done in the three wards of the local government region (Karare, Sagante, and Marsabit central ward).

1.7 Restrictions of the Research

Healthcare facilities always have incredibly hectic schedules and shift work. This was considered to be one of the drawbacks of choosing suitable times to conduct surveys. This was resolved by collecting the phone numbers of the administrators of healthcare facilities and setting up interview times in advance. The way respondents responded to questions in the data collecting tool may have also had an impact on the research; they could have selected responses that are seen to be acceptable by society in order to seem to be performing well.

CHAPTER TWO: LITERATURE REVIEW

2.1 Immunization History

Edward Jenner, a rural physician from Berkeley, England, is credited for performing the world's first vaccination in 1776. Using pus from a cowpox lesion on a milkmaid's hand, Jenner immunized James Phipps, then eight years old, starting the history of vaccines and immunization (Riedel, 2005). In order to bestow protection against snake bite and violation, Buddhist monks in 17th-century China began drinking snake venom (OpenLab, 2017). This tradition stretches back hundreds of years. Following the aforementioned occurrence with James Phipps, a 13-year-old, Edward Jenner is regarded as the father of vaccination in the west in 1776.

The first smallpox vaccine was created in 1788. Smallpox was eradicated worldwide in 1979 as a result of systematic mass vaccination programs that were implemented during the course of the 18th and 19th centuries (Stearns, 1950). The development of bacterial vaccines then exploded between 1890 and 1950, including the creation of the still-in-use *Bacillus Calmette-Guerin* (BCG) immunization (Lindberg, 1995). Alexander Glenny perfected the use of formaldehyde to render the tetanus toxin inactive in 1923 and the same process was used by East to create a diphtheria vaccine in 1926. The development of a pertussis vaccine took much longer, and a whole cell vaccination was first approved for use in the US in 1948 (Alexandra & Howard, 2005). Since the introduction of the Salk (inactivated) polio vaccine in 1955 thanks to viral tissue culture techniques, the illness has been completely eliminated from many parts of the world. Currently, measles is the next disease that might be eradicated by vaccine.

There has always been vaccine resistance in some groups, despite the fact that immunization programs have been shown to improve health. There were fewer firms manufacturing vaccines

throughout the late 1970s and early 1980s as a result of rising litigation and declining vaccine manufacturing profitability (Plotkin, 2014). The national vaccine injury compensation scheme was introduced in the US in 1986, which somewhat halted the trend (Siegrist, C.A. (2008).

In order to immunize all children in the nation against the six childhood killer illnesses of TB, polio, diphtheria, whooping cough, tetanus, and measles before their first birthday, the ministry of health developed the Kenya Expanded Immunization Program (KEPI) in 1980.

The country's vaccination services were improved, expanded, and intensified by the Ministry of Health through KEPI. This was accomplished by gradually providing additional healthcare institutions with cold chain (refrigeration) equipment, retraining healthcare professionals, and ongoing monitoring and assessment of vaccination programs.

Over time, KEPI included a program for prenatal women to receive vaccinations as well as new childhood immunizations. To help execute vaccination services, a draft immunization policy was created in 2000. However, when new antigens were added to the program and new means for administering vaccines emerged, this policy was surpassed by events. The Ministry of Health's new strategy for coordinating vaccination services for the general population is represented by the Division of Vaccines & Immunization (DVI), which went into force on July 1, 2007.

The Kenya Expanded Programme on Immunization (KEPI), from which the Division of Vaccines & Immunization (DVI) evolved, now encompasses all vaccination services that were previously managed by other departments within the Ministry of Health. Since then, the vaccination program has been expanded to include all of Kenya's counties, including Marsabit and the Saku constituency.

2.2 The Future of Vaccines

The trend of vaccines is swerving towards DNA vaccines, which have been found as simple to develop, cheap, and provide powerful, long-lasting immunity. Recombinant vector vaccines mimic the symptoms of an illness and are particularly effective in teaching the immune system how to fight pathogens (Chen & Hibbs, 1998).

2.3 Factors Affecting Immunization

The study demonstrates that there are various and complex factors that might affect whether or not to get vaccinated. There are many obstacles to immunization, thus in addition to tracking vaccine uptake and coverage (a rough measure of parents' behavior), it is essential to constantly focus on spreading awareness of the advantages of immunization.

Parents of children under the age of five can be divided into two categories based on the qualitative combination of factors impacting baby vaccination uptake, notably

Modifiable Factors

Modifiable variables are those that can be modified by health education interventions aimed at mothers, whereas non-modifiable factors are those that are extrinsic to mothers. Modifiable factors are intrinsic to mothers and caregivers (cannot be changed through health education intervention targeting mothers). The application of suitable health behavioral theory in planning an appropriate health education intervention would be made possible by this classification.

Obstetric elements, motherly knowledge, anticipation of maternal outcome, attitude, maternal self-efficacy, and environmental factors are factors that this review considers to be variable. These

characteristics were identified as significantly impacting the percentage of children in Africa who childhood immunizations, and numerous research had provided a wide range of AOR and 95% confidence intervals.

2.4 How to Enhance Immunization Coverage

Public self-reliance in immunization is important for maintaining and increasing vaccination uptake rates as well as for preventing outbreaks of diseases that can be prevented by vaccination (Bobo, Asante, Woldie, Dawson & Hayen, 2022). Broadly applicable vaccination laws with few exclusionary clauses and strict enforcement may encourage higher vaccination coverage rates. A virus causes the highly contagious respiratory infection known as measles. By sneezing and coughing, it spreads through the air. It begins with a fever, runny nose, cough, sore throat, red eyes, and follows with a rash that covers the entire body (Siegrist, C.A. (2008).

Nearly four out of every ten people who get the measles get one or more complications, such as pneumonia, ear infections, or diarrhea. Infants under the age of five and adults are more likely to experience complications. Each year, unvaccinated travelers who are affected while abroad bring the illness back to their home countries—Marsabit and Saku—where they transmit it to other individuals. The measles, mumps, and rubella vaccination can prevent measles (Tesema, Tessema, Tamirat et al., 2020). The MMR vaccine is extremely effective and has a perfect safety record. The effectiveness of the MMR vaccine in preventing measles is approximately 93% after one dose and 98% after two doses. In Kenya, widespread vaccination against the measles has resulted in a 60% drop in cases of the disease compared to the time before vaccination (Michaela & Katherine, 2022).

Policies to Increase Vaccination Rates One tactic to assist increase uptake rates is to advocate optimal practices at the state level. In order to maintain high vaccination coverage rates and, consequently, reduced incidence of vaccine-preventable illnesses, state and municipal vaccination requirements for admittance into daycare and kindergarten are crucial. Additional better methods for raising immunization rates include:

- a) Improving the availability of vaccination services.
- b) Rising level of vaccination demand in the community.
- c) System- or provider-based initiatives

Every state offers medical exemptions, and some state laws also provide exemptions for philosophical or religious grounds (type of exemption). State laws also create procedures for enforcing vaccination mandates and exemptions for attendance at schools (Zulkefli, Mohammad & Juni, 2016).

The body of evidence supporting the effect of state vaccination mandates for school-age children on vaccine uptake and the link between higher non-medical exemption rates and disease incidence is growing (Bangura, Xiao, Qiu, Ouyang, & Chen, 2020). Some notable discoveries include Geographic clustering of the use of logical exceptions and under vaccination puts some populations at higher risk for epidemics (Michaela & Katherine, 2022).

In addition to state vaccination requirements, stronger health care practices such as more in-depth discussions with hesitant parents and making vaccination the default are strategies to improve vaccination coverage rates (Babaniyi & Parakoyi, 2019). States can take into consideration strengthening the rigor of the application process, frequency of submission, and enforcement. For school vaccines, state legislation and regulations are being collated, with a focus on how states

have dealt with broad reach, restricted types of exemptions, and implementation methods for these concepts.

States have dealt with limited exclusions in the following ways: five states expressly define religious exemptions as excluding exemptions based on ethical or logical beliefs; two states permit only medical exemptions; twenty-eight states permit both medical and religious exemptions; and two states permit only religious exemptions (Zulkefli, Mohammad & Juni, 2016). In general, the requirements for exemptions vary from state to state.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter covers the technique and methods utilized in performing this study. It includes, among others, the research design, the study population, sample size, selection procedures, data collecting methods, instruments and ethical concerns

3.1 Research Design

The study sought to use descriptive research approach on factors affecting implementation of immunization process. Specifically, cross sectional survey design was used, where data was simultaneously collected from the respondents. Using quantitative and qualitative methods of collecting data, the researcher took note of study variables without influencing them. Descriptive study assisted the researcher to gather information from a cross section of a given population.

This study design was chosen because it is the most popular approach to doing social research and because the findings from a survey of this kind could be readily extended to the full community.

3.2 Target Population

The research population consisted of 60 SAKU people, comprising 10 village heads, 10 spiritual leaders, 20 health care providers from the Saku constituency, and 20 parents, including 10 men and 10 women.

3.3 Sample size

The study population was tiny, with just 60 responders, and was distributed as follows:

Table 3.1: Sample Size

Category	Study population	Sample techniques
Village chiefs	10	Census
Spiritual leaders	10	Census
Health care workers	20	census
Parents	20	Census
Total	60	

3.4 Methods of research

Prior to collecting data on the ground, the researcher ensured that the research instruments to be used, in particular the questionnaires obtained, as well as the introductory letter from the University, were approved. Only then did the researcher begin collecting data from the target population using the approved techniques.

3.5 Data Sources

Various techniques and instruments were used to acquire both secondary and primary data.

3.5.1 Primary information

Personal interviews, FGDs, and structured questionnaires and interview guides were used to gather primary data.

3.5.2 Secondary data

In order to gather secondary data on the planning and policy context that affects employee involvement in decision-making and organizational productivity, a number of existing documents were examined using a desk review checklist. The discussion of findings was influenced by the conclusions from the desk review. The References section contains a complete list of all the sources used.

3.6 Data collection Methods

3.6.1 Structured questionnaires

In-person interviews with various categories of respondents were conducted using various sets of structured questionnaires and interview schedules. To enable comparison of replies, the questionnaires were uniform for each Category and included both prompted and open-ended questions pertaining to the main study goals. Face-to-face interviewing was the method used for the Directors and Managers, while the questionnaire was self-administered by the workers. It is simpler to organize employees into groups, give general instructions, and distribute questionnaires for completion in this manner. In relation to the study's objectives, the questionnaires were created to address specific thematic areas, including youth involvement and project sustainability.

3.6.2 Interviews

A set of open-ended questions were included in the interview guide to help gather information from key participants on employee involvement in decision-making and organizational productivity at the Human Rights Movement. To enable comparison of variables and conclusions, the study instruments were standardized across all participating nations.

With the respondents, the researcher conducted both formal and informal interviews. As a result, the researcher was able to overcome resistance, gather more detailed information, and obtain personal data from the respondents.

This method's benefit is that it contributed to the further clarification of some of the questionnaire's data. Once more, the interview was used to verify some of the respondents' information.

3.6.3 Focus Groups Discussions

Data on client experiences with social work services were gathered through focus group discussions (FGDs) with clients using a discussion guide. The conclusions of the conversations were significant in determining the influence of employee input on organizational productivity and decision-making at the Human Rights Initiative. To prevent data loss, all of the talks were tape-recorded (with the participants' prior consent) in addition to being noted.

3.7 Methods of Data Analysis

3.7.1 Qualitative data

Editing raw data to remove inaccuracies and omissions, categorizing data based on recurring themes, and tabulating data to compile and arrange it are all examples of data processing. The qualitative method to data analysis entails finding the key themes that emerge from respondents'

responses and giving these key topics codes. Organizing the major responses into categories according to the main theme and including the responses in the report in a more analytical and descriptive way. Then, using content analysis to describe key themes from the thoughts and opinions of the respondents, data analysis can be carried out.

3.7.2 Quantitative data

In order to summarize the data gathered and arrange it to address research objectives, a variety of closely linked activities were done as part of the data processing and analysis process. After receiving the surveys, they were manually edited to remove any mistakes. After editing and coding, a clear presentation of the numerous replies and the importance of each interpretation was produced.

In tabulating the statistics used to analyze and interpret study findings, frequencies and percentages were used. Statistical software like Microsoft Word and Excel were used to show the obtained data using frequency tables, pie charts, graphs, and other charts to make it more concise and clear. The information supplied from the tables in the form of percentages was then subjected to analysis and interpretation.

3.8 Ethical Considerations

The researcher ensured that the information provided by respondents was kept private, and if it was necessary to release information, permission was first acquired. For reasons of privacy and confidentiality, the names of the respondents shall not be included in the questionnaire. To prevent the leakage of gathered data, questionnaires were burned after data collection.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.0 Introduction

The presentation, analysis, and discussion of the findings in light of the study's goals are the main topics of this chapter. The following conclusions are provided in frequency tables and percentage contributions using data from primary and secondary sources.

4.1 Sociodemographic characteristics

4.1.1 Gender

The sample set of the study captured more females than males, the proportions of frequency being 35 and 25 respectively, out of the total sample size of 60 respondents.

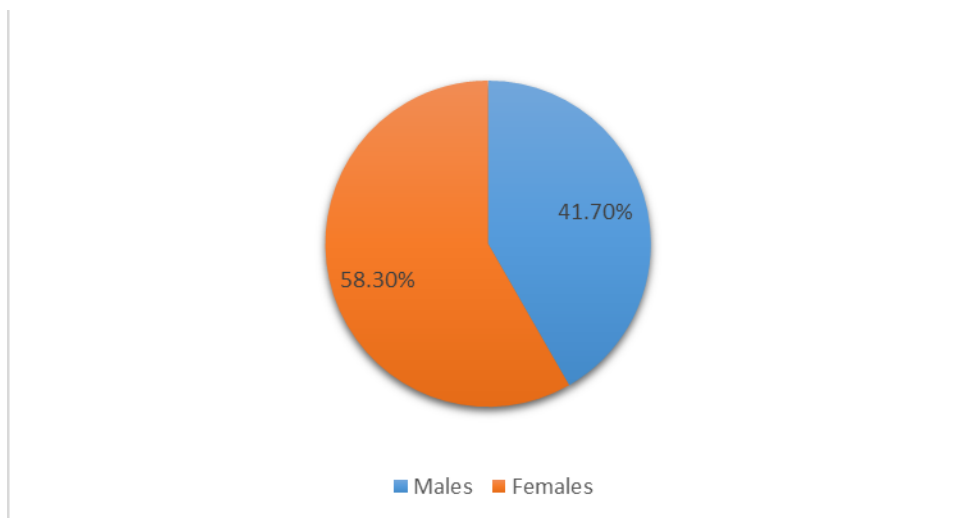


Figure 4.1: Gender characteristics of study sample

4.1.2 Age

The study then determined the respondents' ages and the results, which are shown in table 4.1 below. In order to base its conclusions on reliable information responses included in the survey were drawn from residents above the age of 18 years.

Table 4.1: Age Characteristics of study sample

Age range	Frequency
18-30	15
31-46	35
Above 46	10
Total	60

As shown the figure 4.2 below, the sample whose data was adopted by the study fell majorly between 31 and 46 years –who are middle aged adults. These are the age group mostly involved in active parenting. The young parents aged between 18 and 30 (15) followed in frequency while few were recorded to be above 46 years (16.7%).

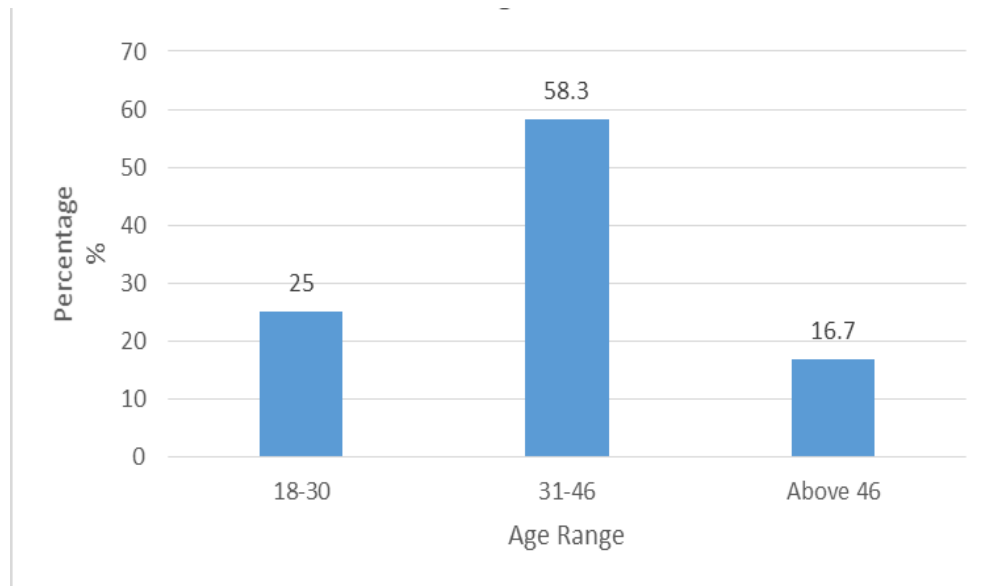


Figure 4.2: Age Distribution

This suggests that the research chose the appropriate responders from across the spectrum of parental ages.

4.1.3 Education Level

The distribution of the education level among the respondents was relatively distributed, with the field of professionalism proving a determining factor. Health care professionals and village leaders made up the majority of individuals with higher qualifications. From the study, it was noted that a majority 33.3% had attained an Undergraduate degree while the lowest level of education attained was the primary level, comprising of 11.7% as shown in the table 4.2 below.

Table 4.2: Education level of the respondents

Educational level	Frequency	Percentage
Certificates	5	8.3
Primary	7	11.7
Secondary	18	30
Undergraduate	20	33.3
Post graduate	10	16.7
Totals	60	100

4.1.4 Marital status

The study observed that 83.3% of the sample were parents, of whom 50% were in a marriage relationship at the time while 33.3% were single parents. The rest accounted for 16.7% as shown in the table 4.3 below.

Table 4.3: Marriage status of respondents

Marital status	frequency
Single	10
Married	30
Single parents	20
Total	60

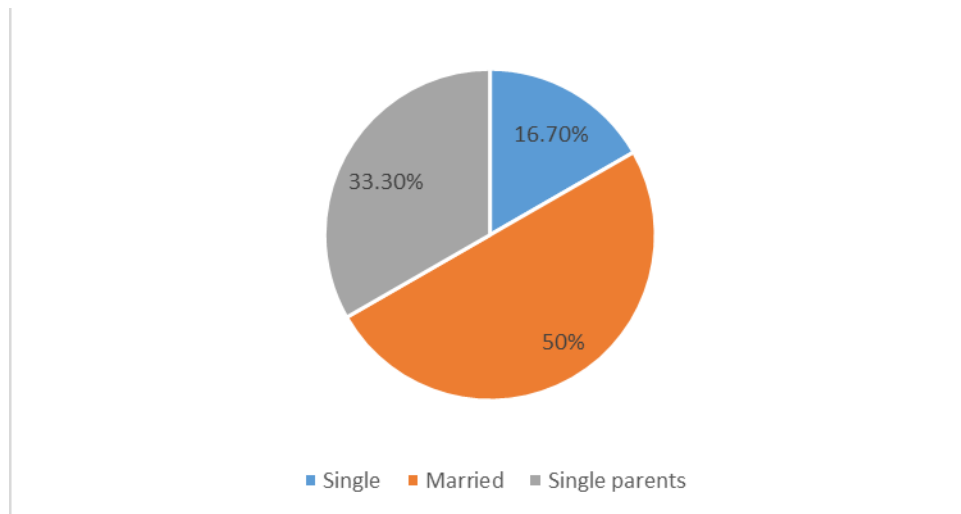


Figure 4.3: Marriage distribution of Respondents

4.2 Socioeconomic Characteristics

4.2.1 Respondents' designation

Parents and healthcare professionals accounted for the largest percentage of respondents, followed by village chiefs and spiritual leaders as shown in Table 4.4 below. All positions in the Saku community were representatively involved in the study in order to produce a balanced argument.

Table 4.4: The designation of respondents

Designation	frequency	Percentage
Village chiefs	10	16.7
Spiritual leaders	10	16.7
Health care workers	20	33.3
Resident Parents	20	33.3
Total	60	100

4.3 Factors influencing vaccination implementation

The respondents were cross-examined on the major aspects they felt as crucial to the implementation of immunization Programs. The responses were processed and summarized as shown in table 4.5 below. Among the most eminent factors brought out included Distance to a health facility (75%) and region of residence (66.7%).

Table 4.5: Variables influencing Saku's vaccination program

Factors influencing vaccination implementation	Frequency	Percentage
Maternal outcome expectations	9	15
Maternal attitude and self-efficacy	7	11.7
Maternal knowledge	25	41.7
Obstetric factors	10	16.7
Child socio-demographic factors	10	16.7
Parental socio- demographic factors	20	33.3
Area of residence	40	66.7
Religion	35	41.7
Environmental factors	45	75
Availability of vaccine	25	41.7
Quality of vaccine provider client relationship	9	15
Number of siblings	6	10
Place of delivery	15	25

These results demonstrate unequivocally that social norms, political concerns, and environmental variables all impact vaccine implementation.

The proposed measures mentioned to address issues impacting vaccination implementation are displayed in table 4.6 below.

Table 4.6: Suggested measures to address issues impacting immunization implementation

Immunization implementation factors and their solutions	Frequency	Percentage
Strategies for improving vaccination rates	45	75
Promoting best practices	40	66.7
Vaccination requirements for school entry	50	83.3
Lower rates of VPDs	30	50
Enhancing access to immunization services	60	100
Increasing community demand for immunization	59	98.3
Provider or system based interventions	45	75
Creating self-awareness on the dangers of immunisable diseases	58	96.7
Improved infrastructure to help in easy access of health facilities	60	100

4.4 Discussion

These factors were identified as having a numerical impact on the percentage of children in Africa who had childhood vaccinations, and numerous research have provided a wide range of AOR and 95% confidence intervals (Firew, Augustine, Mirkuzie, Angela & Andrew, 2022).

In a case-control study conducted in Saku with 548 children aged between 12 and 23 months, motherly age was found to be a factor influencing childhood immunization coverage; mothers over 19 years of age were approximately 10 times more likely to have their children fully immunized compared to mothers under 19 years of age; this may be due to knowledge gained over time on the importance of immunization by those mothers (Tesema, Tessema, Tamirat et al., 2020).

4.4.1 Child sociodemographic characteristics

A male child is roughly three times more likely to receive vaccinations than a female child in Saku, which may be related to parents' fears that immunization will harm their daughters when they become mothers. However, the effect of child age on immunization uptake was contradictory, with a male child being roughly three times more likely to receive vaccinations than a female child (Tesema, Tessema, Tamirat et al., 2020).

Compared to infants under 1 year of age (63.6%), children over 1 year of age had a higher immunization uptake (84.4%), which may be related to the fact that some mothers postpone immunizing their children until they reach a certain age out of a misguided belief that their young children are too young to receive immunizations.

Children under the age of one in Sagante had a higher immunization coverage rate than children who were older than one. This may be attributed to mothers hearing speeches during their gynecological and postpartum care about the importance of timely childhood immunization

coverage. The topic of the health education given to the mothers has probably changed, with a stronger emphasis now being placed on the value of childhood immunization coverage.

4.4.2 The Obstetric Factors

In a cross-sectional study done in Addis Ababa with 591 children aged between 12 and 23 months, pregnancy care follow-up was discovered to be a factor impacting childhood vaccine uptake. The study found that mothers who regularly attended prenatal care follow-up during their pregnancies had their babies fully immunized approximately four times more frequently than mothers who did not.

The findings of three additional studies from Saku as well as one conducted in Karare lend credence to this discovery. Pregnant women who frequent medical facilities may have received counseling on infant immunization where the advantages of prompt childhood immunization coverage may frequently be highlighted.

The perinatal check-up was also discovered to be an influential factor in children's acceptance, with children who had a check-up within two months of birth being twice as likely to be completely immunized as those who did not. This can be related to moms being presented educational materials during postnatal visits, when the need of the baby's timely immunization may be emphasized. In a case-control research carried out in Sagante, it was discovered that having strong mother knowledge of child vaccination was a predictor for children vaccine uptake. Children of mothers who had complete immunization records were shown to be three times more likely to have complete immunization records than children whose mothers had incomplete immunization records.

This outcome is in line with the thorough analysis by Marsabit Central. When compared to moms in Sagante with inadequate understanding, mothers with awareness of the preventative goals of vaccination were more likely to get their children immunized. Lack of maternal vaccine knowledge was identified as the primary factor influencing low childhood immunization uptake, accounting for 50% of reasons for non-vaccination, in a household-level cluster survey of 7815 children in Saku that included 40 polio high-risk wards.

Children whose mothers had good knowledge of vaccines and VPDs were found to be three times more likely to be fully vaccinated compared with children of mothers who had poor knowledge of vaccines and VPDs. Maternal knowledge of vaccines and VPDs was also shown to influence childhood immunization uptake in Ta.

Additionally, a similar discovery was made in Saku. Mothers were found to be four times more likely to fully immunize their children than mothers who were unaware of vaccine schedules, suggesting that maternal knowledge of child vaccine schedules statistically influences child immunization uptake. Mothers who are familiar with immunization schedules may know the precise moment to provide each childhood vaccination, as well as the advantages of giving their kids their shots on time.

In comparison to their peers, parents who were aware of immunization and immunization programs had their kids inoculated three times more frequently. The moms' degree of awareness may have a detrimental impact on the uptake of childhood immunizations. The likelihood that they will feel more confident in vaccinating their children grows as they get more knowledge.

4.4.3 Mothers' attitudes and self-efficacy

Compared to women without child vaccination records, research has indicated that parents who have their kid's immunization records are more likely to have their children properly vaccinated. In Sagante, more than 15% of the causes of the scant kid immunization coverage were attributed to the pathetic defiance of mothers.

More over half of the 248 defaulting moms in Marsabit Central, Saku, stated that they avoided getting their children vaccinated because they believed it to be unnecessary.

When compared to children whose moms had negative attitudes regarding vaccine side effects, those whose parents had a good attitude toward vaccine side effects were twice as likely to have received all recommended vaccinations.

Numerous studies found that the worst possible vaccine side effects had an impact on vaccination rates. Parents who lacked vaccination safety knowledge were less willing to vaccinate their children. In comparison to moms who had a bad opinion of vaccination, women with a positive perception of immunization were three times more likely to have their children completely vaccinated.

Their knowledge drives moms' opinions about children vaccine coverage. Their confidence in the coverage of childhood vaccinations may therefore decline.

4.4.4 Expectations for maternal outcomes

In comparison to their counterparts, parents who understood the importance of childhood immunization were five times more likely to have their children receive all recommended vaccinations. Childhood immunization is greatly encouraged by having faith in the safety that

comes with vaccination. Another factor that has been proven to predict non-submission is awareness of the urgency of illnesses that can be prevented by vaccination.

The likelihood that mothers will increase their practice confidence in childhood immunization uptake is higher the more information they get about the benefits of child immunization and the disadvantages of not vaccinating a kid. This conclusion is consistent with those of a prior comprehensive investigation that sought to uncover factors associated with vaccination coverage in urban slums and regions of extreme poverty.

4.4.5 Environment-related factors

Social, health care, and logistical considerations are all types of environmental influences. One of the societal factors impacting children's vaccine uptake in Saku was revealed to be religious belief.

Compared to moms who did not regard immunization to be undesirable in their religious beliefs, women who believed that immunization was incompatible with their religious beliefs were less likely to have their children fully vaccinated. In Marsabit County, Kenya, immunization failure was found to be caused by religious and traditional leaders' inadequate participation in vaccination/immunization activities.

These factors were identified as having a numerical impact on the percentage of children in Africa who had childhood vaccinations, and numerous research have provided a wide range of AOR and 95% confidence intervals (Firew, Augustine, Mirkuzie, Angela & Andrew, 2022).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Interviews were conducted with 400 moms and children under the age of five. According to the study, vaccination has a number of advantages, such as helping children grow up healthy and strong and reducing disease and death. Additionally, medication difficulties (unavailability), poor road/transport conditions, a baby or mother's poor health, and a busy schedule were the primary causes of each missed vaccine shot. The kid immunization rate in Saku is still unsatisfactory despite the fact that childhood immunizations are offered without cost and with increasing awareness. The study suggested that mothers' empowerment via education is necessary since it has been found to be a predictor of full vaccine uptake.

5.2 Conclusion

The factors influencing the immunization program's implementation were the subject of this study. Over two thirds of respondents had received all recommended vaccinations, and nearly all of them agreed that immunizations should begin during the first week of life. Preventing disease and mortality, as well as helping children grow up healthy and strong, are some advantages of vaccination.

The primary purpose of obtaining each vaccine dosage was to prevent disease and safeguard the kid, but reasons for missing doses of immunization included lack of medication, poor road or transportation conditions, a mother or infant being ill, and ignorance. Mother's educational background was a predictor of full vaccination uptake.

The regular availability of medications, health education/enlightenment, the availability of devoted and well-trained staff (manpower improvements), and incentives/rewards are some of the

suggested ways mothers in this community can be helped and encouraged to present their children for immunization and on time. If properly implemented, these recommendations will increase immunization uptake and ultimately benefit the lives of our children.

5.3 Recommendation

Since mothers' educational empowerment has been found to be a predictor of full immunization uptake, it is necessary. It will also deal with the issue of ignorance. To achieve the desired immunization uptake, mass mobilization and media sensitization must be strengthened. Since drugs (vaccines) are a common cause of missed immunization doses, they should always be made available. To alleviate the challenges resulting from such, social amenities like decent roads and other good forms of transportation should be made easily accessible.

Religious problems and cultural issues like beliefs should be promoted in a manner that they won't hinder immunization. For those who fully immunize their children, incentives or gifts like insecticide-treated nets might be given. Dedicated and skilled personnel should be deployed to provide immunizations and vaccinations.

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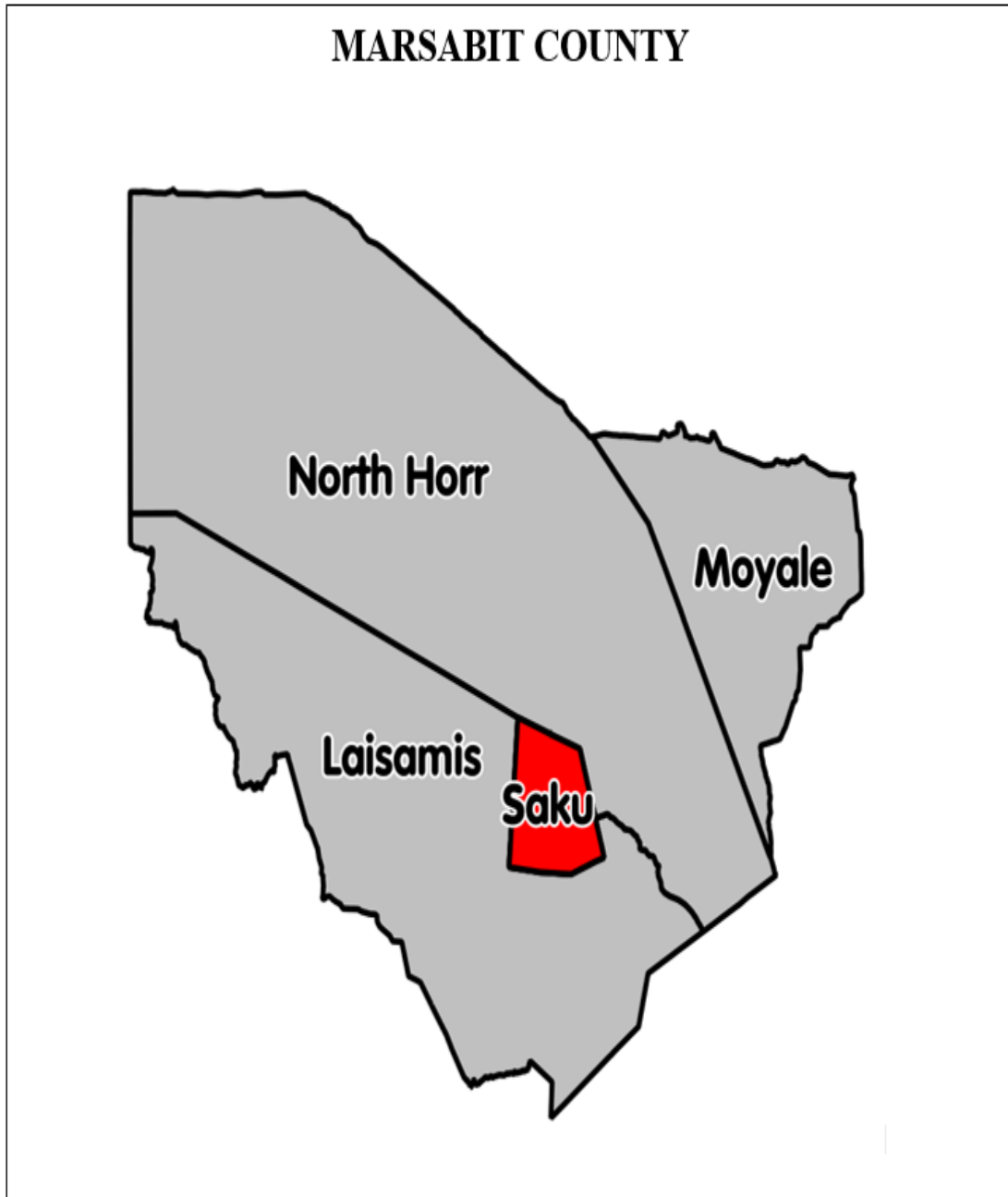
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APPENDICES

Appendix 1. Map of Study area



Appendix 2. Consent Form

STUDY ON FACTORS IMPACTING THE IMMUNIZATION IMPLEMENTATION PROCESS IN MARSABIT COUNTY'S SAKU CONSTITUENCY.

My name is Saliha Orge Umar, a student at The Management University of Africa pursuing a Diploma in Community Health and Development. This questionnaire is set to help in carrying out a study on what factors have a contributing variable effect on the implementation of immunization. The findings will be useful in, not only terrain on implementing immunization programs, but also inform the decisions of relevant stakeholders on how to effectively roll out the programs.

Assistance with honest and accurate information will be much helpful towards accomplishing this undertaking. In return, you are guaranteed of anonymity, and confidentiality of any information will be keenly upheld. Please note that you will not be required to record your name on any section of the research material. Additionally, your participation is voluntary and you may withdraw at any point of the study without any repercussion. There are no risks involved in this study and utmost professionalism will be adhered to during this study.

In case of any concerns or questions, please feel free to get in touch with me through:

Mobile Tel. No. 0768141316

Appendix 3. Questionnaire

(Eligible for persons above 18 years)

Fill in the questions and tick the boxes as appropriate.

Section A: Socioeconomic Background

1. What is the highest level of education you have attained?

- ☐ Primary School
- ☐ Secondary School
- ☐ Certificate level
- ☐ Undergraduate Level
- ☐ Post Graduate Level

2. Do you have any formal qualifications for any economic or professional activity?

- ☐ Yes
- ☐ No

3. If yes, what is your Field of professionalism?

.....

Section B: Immunization Programs

1. Have you personally taken any vaccine before?

- ☐ Yes
- ☐ No

2. Have you personally accompanied a family member (from your children to your elderly)
for any vaccination before?

- ☐ Yes
- ☐ No

3. Have you been part of an immunization initiative before in any active capacity? (whether with governmental or non-governmental organizations)

☐ Yes ☐ No

4. What factors do you see as crucial to the implementation of immunization programs in this constituency?

.....

5. What possible measure would you propose in addressing the factors you have mentioned in question 4 above?

.....

Section C: Sociodemographic background

1. How old are you? (Years)

2. What is your gender?

☐ Male ☐ Female ☐ Confidential

3. Do you have an offspring?

☐ Yes ☐ No

4. Are you currently in a marriage engagement?

☐ Yes ☐ No

Appendix 4. Time Frame for the Study

Task	Mar - May 2022	June 2022	July 2016	Aug 2022	Sept. 2022
Proposal preparation					
Submission for approval					
Pre-testing of research tool					
Training of research assistants					
Data collection					
Data analysis					
Report writing					

Appendix 5. Estimated Budget

ITEM DESCRIPTION	NO.	UNIT PRICE	AMOUNT
Stationery			
Note books A4	10	80	800.00
Printing paper rims	10	300	3,000.00
Biro pens	20	30	600.00
Pencils HB	10	15	150.00
Printing costs	N/A	N/A	5,000.00
Staplers	2	150	300.00
Staple pins	1box	100	100.00
Flash disk	2	1000	2,000.00
Travel costs	3 months	100 per day	9,000.00
Lunch	3 months	100per day×2people	14,000.00
Research assistant	1	10,000x2months per month×2months	10,000.00
Typing			5,000.00
Airtime		1000 per month×2	2,000.00
Data bundles		1000 per month×2months	2,000.00
Grand Total			65,950.00