



## Efficiency of citizen participation on healthcare service delivery in Sirisia sub-county, Bungoma county, Kenya

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### Abstract

With the onset of Kenya's devolution in March 2013 as provided for in the new Constitution of Kenya of 2010, healthcare resources have been at the dispensation of the counties. However, health service delivery in Sirisia Sub County has generally lagged behind in comparison to other Sub Counties in Bungoma County. The general objective of this study was to examine the efficiency of citizen participation on healthcare service delivery in Sirisia sub-County. Specifically, this study tested the hypotheses that there is no significant relationship between efficiency of citizen participation on healthcare service delivery in Sirisia Sub-County, Kenya. The study used empowerment theory. Both correlational and descriptive research designs were used. The target population was 17659 household heads and 107 healthcare workers in Sirisia Sub-County. 32 (30%) healthcare workers and 376 household heads in the Sub-County were selected. The healthcare workers were purposively selected while the households were randomly selected. The study relied on both primary and secondary data. Data was analyzed using both qualitative and quantitative analysis. For descriptive analysis, both mean and standard deviation were computed. Inferential statistics of Correlation, Regression and ANOVA were used in the study. Results are presented using figures such as tables, charts and graphs. Results also established that improvement in efficiency of citizen participation is likely to have a commendable effect on service delivery at the health facilities ( $r=.617^{**}$ ;  $P=.000$ ). The study also noted that the null hypothesis was rejected, implying that there is a statistical relationship between the efficiency of citizen participation and healthcare service delivery. The study recommends that in order to achieve the main goal of public participation, there is need to create structures, mechanisms and guidelines for citizen participation. Secondly, there is need for the study area to come up with a comprehensive public participation process which should involve all the stakeholders in the health sector. The results are expected to benefit the hospital staff, the health departments at the counties, Citizens of Sirisia Sub-County, both public and private health care providers in Bungoma County, scholars, researchers and other stakeholders in Kenya.

**Keywords:** citizen participation, efficiency, health care, service delivery, sirisia sub-county

### Introduction

Citizen participation refers to any process that directly engages the citizens in decision-making and considers public input in reaching a decision. Participation contributes to implementable and sustainable decisions because the decisions consider the needs and interests of all the stakeholders, including the vulnerable and marginalized populations (Tenbense, 2010) [28]. When properly done, it helps the stakeholders manage their social issues and appreciate each other's values and interests. Participation efforts have two primary drivers. First, the promotion of sustainable health and healthcare grounded in a sound, publicly accessible evidence base; the second is the conviction that involvement is intrinsically valuable, given its democratic commitment to promoting the interests of citizens (Farmer *et.al* 2018) [9].

The global push for decentralization has made deep roots into the health sector. As a means of encouraging greater citizen participation in the delivery of services, decentralization is consistent with the health sector's emphasis on cost-effective investment in primary healthcare and outreach services that began with the Alma Ata Conference on Primary Healthcare in 1978. This has been more recently reinforced by the World Bank's 1993 World Development Report and the latest World Health Report

(Saltman *et al.*, 2007; WHO, 2008) [26, 8]. Within the health systems of Western, developed countries, participation programs occur within the "subdomains" of "treatment, service delivery, and broad macro-or system-level decision-making contexts.

According to World Health Organization (2014) [35], Sub-Saharan Africa (SSA) faces many public health problems such as shortage of drugs and medical personnel. This calls for strong healthcare systems and workforce that can deliver healthcare services reliably and consistently to address these challenges. However, focus has been on the inadequacy of the region for well-equipped systems to train healthcare professionals to tackle the drawbacks of the 21st century. Ansari *et al.* (2011) [3], notes that a number of countries in Africa including Benin, Ghana, South Africa, Zimbabwe, Senegal, Uganda and Kenya have adopted a decentralized healthcare system to assess challenges affecting efficiency of the system. Such challenges that are given a lot of focus have included managerial, operational, political and cost related effectiveness.

Recent devolution reforms in healthcare across Africa have displayed some interesting outcomes, although a key undercurrent remains central governments' reluctance to let go of power (Chege, 2017). Wanzala and Oloo (2019) [31] noted that despite advances in the implementation of more

ambitious health-care, decentralization plans in Ghana, Malawi and Tanzania, the three countries' policymaking is still based at the center and local governments report a high dependence on central government for funds, allowing for central government interference. In Uganda, conditional central grants have historically made up 70-85% of district-level budgets (Obosi, 2019).

The healthcare sector in Kenya has developed over time for the last many decades. The study assessed this development right from the pre-colonial, colonial to the post-colonial periods. According to Njoh (2016) [21], medical services were purely traditional in the precolonial period. This was the era before 1895. The indigenous communities depended on herbal medicine, which were administered by the medicine men and herbalists. Belief systems also played a major role in matters of healthcare. Some diseases were cured through performance of rituals and cleansing ceremonies. Medicine men and ritual performers determined the type of medicine to be used by their clients (Chege, 2017).

In August 2010, 67 per cent of voters approved a new constitution in a referendum commencing devolution as the latest round of decentralization in Kenya. The new constitution introduced a devolved system of government where many national government services including health, were delegated to the designated forty-seven county governments. These newly created counties were based on Kenya's 1992 district framework (KPMG Africa, 2014) [11]. The 2010 constitution envisages a robust participation of citizens, right from the grassroots in decision-making processes. This is guaranteed through devolution and platforms provided for this purpose. According to Article 174 of the new constitution, the main objectives of devolution are: to promote democratic and accountable exercise of power; to foster national unity by recognizing diversity and to give powers of self-governance to the people and enhance the participation of the people in the exercise of the powers of the state and in making decisions affecting them. Article 43 provides that Kenyans be entitled to the highest attainable standards of health, which includes the right to healthcare services including reproductive healthcare (Stewart, 2013) [27].

The Council of Governors in their report of 2014, placed Bungoma County among the best performed in terms of healthcare service delivery. However, the Health Sector Analysis Report of 2017-2018 shows that its relative efficiency is 43.1%, which is below average. Life expectancy in Sirisia Sub-County is at 56 years with an infant mortality rate of 43.1 per every 1000 live births whereas the under 5 years' mortality rate is at 83 per every 1000. The bed capacity occupancy is 115 per cent with a nurse-patient ratio of 1:900 (DHIS, 2019) [8], against the 1:400 recommendation of the World Health Organization. It is against this background that the current study sought to establish the extent to which citizen participation has been used as an avenue for the improvement of healthcare services in Bungoma County with key focus on Sirisia Sub-County.

### 1. Statement of the Problem

Chapter 11 of the 2010 new constitution of Kenya entails the concept of devolution which paved way for devolved functions. Healthcare is one of the devolved functions of county governments in Kenya. Article 118 of the new

constitution provides for public participation which gives room for citizen participation in issues affecting them, including healthcare. Unfortunately, Sirisia sub County still lags behind in matters of healthcare service delivery as evidenced by low bed capacity, small number of healthcare providers and high bed occupancy. There is however dearth of information on effectiveness of citizen participation on healthcare service delivery. This study therefore, sought to analyze the efficiency of citizen participation on healthcare service delivery in Sirisia sub county of Bungoma county Kenya,

### 2. General Objective

The general objective of this study was to examine the Effectiveness of Citizen Participation on Healthcare Service Delivery in Sirisia Sub County of Bungoma County, Kenya.

### 3. Hypotheses of the Study

The study sought to test the following hypothesis;

**H0<sub>1</sub>:** There is no significant relationship between the efficiency of citizen participation and healthcare service delivery in Sirisia Sub County.

### 4. Significance of the Study

While carrying out the study on efficiency in reference to decentralized public health sector, the researcher noted that there was no attention given by other scholars on understanding efficiency in healthcare systems. This study is therefore of great significance to the stakeholders in the health sector; the central and County Governments which need to understand the various types of efficiencies that exist in the healthcare system in relation to public participation and how they can be applicable in policy making and also in decision making in the counties health sector. The ministry of health will use the findings of this study to improve on policy implementation and to come up with new policies that will help to enhance the efficiency of the systems.

The findings of this study are also of great benefit to the patients and their families as it will ensure that they get services at the hospital within the shortest time possible and that the widely experienced delays are going to be avoided because of the understanding of efficiency. The results will also form a basis for further research in the area of efficiency in healthcare sector, which has experienced many challenges. This will offer the researcher an understanding of the operation of the healthcare and how to make it more effective.

### Literature Review

#### 1. Efficiency of Citizen Participation on Healthcare Service Delivery.

In the world today, efforts to involve patients and citizens in decision making in the field of health are well established across a range of issues in healthcare provision and public health (Kahssay & Oakley, 1999). This breadth is evident in the work of the World Health Organization (WHO) that refers to engagement in the context of primary care and public health. The need for person-centered care is central to the 1978 Declaration of Alma-Ata which states that People have a right and duty to participate individually and collectively in the planning and implementation of their healthcare (WHO 1978) [33]. Wainright *et.al* (2014) [30], distinguish between "patient involvement," which refers to

people “making decisions about their own health” and “public involvement,” which engages “members of the public in strategic decisions about health services and policy at a local or national level.

According to WHO (2012) <sup>[32]</sup>, social participation can be considered an innovative social practice that could be applied at all governance levels and in a variety of sectors. In general, responsibility for organization of participatory processes falls to the public administration, but participatory processes can also be initiatives of other social actors, such as companies, social entities or nongovernmental organizations, enabling numerous entry points and opportunities to promote more participatory social processes even in contexts in which there is no participatory tradition. Social participation promotes a shared definition of well-being and supports the subjective identification of individuals with this definition. If social participation processes are inclusive – meaning that all of the population are entitled and have the skills to participate – social participation can be understood as a key driver of health equity (Mbithi *et.al*, (2019) <sup>[17]</sup>).

Waheduzzaman (2010) <sup>[29]</sup>, conducted a study to determine the effect of the participation of people on Bangladesh good governance. The aim of the study was to examine the hindrances to the practice of participation of people in the local administration and to come up with the appropriate means for improving the participation of people in plans for development which can add to quality governance. To get more astute responses for the research questions, the study used a qualitative method. The study found that there are multiple setbacks leading to the people’s participation incompetence. Some of the obstacles were lack of awareness and lack of a robust legal system for participation. This present study used a mix of both qualitative and quantitative methods with an aim of seeking to understand the effectiveness of citizen participation in Sirisia Sub-County Kenya.

Musoke (2011) <sup>[19]</sup> conducted a study in Uganda to analyze the peoples’ participation level and its effect in the implementation of government projects between October 2000 and June 2003 using a cross sectional research design. This was in regards to improving essential services delivery so as to stimulate the development of the economic growth and alleviation of poverty, improve the local administrations Institutional efficiency for sustainable, decentralized service delivery in accordance to the Government decentralization policy. The results showed that the participation of people in the governance and growth discussion was highlighted as a tool for enhancing the ability of the underprivileged in the countryside in pursuit for poverty alleviation and good leadership. The researcher in this present study has however used a descriptive and correlational research designs to investigate the effectiveness of citizen participation on healthcare service delivery in Sirisia Sub-County, Kenya.

Mary (2009) <sup>[16]</sup> conducted a descriptive research design study, to determine the factors hindering the participation of people in coming up with the development plans for the local administration in Nsangi Sub-County Local administration in Wakiso region of Uganda. The results revealed that where the local residents at the community level are drawn in the classification of projects of main concern by incorporating their suggestions, they are normally dissatisfied as their much preferred projects are in most instances not applied and the society in general does

not participate in the execution, supervision and assessment of such projects. It also showed that the major test related to community involvement in planning process is late project execution, lack of logistics, the moment for carrying out such meetings together with narrow awareness and polarization of such meetings. The current study used both descriptive and correlational research designs to assess the relationship between effectiveness of citizen participation and healthcare service delivery.

Kugonza and Mukobi (2016) <sup>[14]</sup>, conducted a study to ascertain community involvement in the provision of project services in Buikwe district local administration in Uganda. The study used a causal comparative research design and identified three major issues that affect the involvement of the public in local leadership right to use information, capability to incorporate information successfully, and awareness of citizens’ rights, roles and responsibilities. The study purely employed qualitative method of data analysis. The study findings indicated that these issues had a positive effect on the general involvement of the respondents’ in community administration projects by 10.2%, 19% and 22% in that order with regard to the coefficients of Pearson Correlation. Moreover, the results indicated that information is not easily available for efficient distribution to most of the people and hence it is not completely utilized for setting up, supervision and assessment of administration projects. This immediate study however adopted a mixed method of both qualitative and quantitative analysis, by the aid of a descriptive survey research design.

Ngondo (2014) <sup>[20]</sup>, conducted a survey research design study to investigate the effect of the participation of the society in project running activities, as a catalyst for the completion of constituency development funds (CDF) project within the stipulated time in Kanyekini ward in Kirinyaga central. The findings showed that project recipients had not been directly involved in either of the CDF projects operation teams throughout the CDF projects setting and execution, nonetheless, wherever involvement took place, their contribution was factored quite well and that completion limits were achieved to rally round set calendar, financial plan and integrity. As opposed to the above scholar, the current scholar adopts a descriptive research design to assess the impact of the independent variable to the dependent variable.

Papa’s (2016) study focused on the issues affecting the participation of community in the development of projects in Busia County Kenya, with the aid of a descriptive research design and mixed approach of data analysis methods. The main purpose for the study was to examine the effect of training, governance and economic issues on the participation community in the development of projects in Busia County. The results showed that Busia County leadership demonstrates weak decision process involving public participation; acknowledged persons, funds, organizations and service provider necessary for carrying out an assortment of aspects of public contribution. Despite similarity in the research design and data analysis method, the current study focused on the effectiveness of citizen participation on healthcare service delivery in Sirisia Sub-County, Kenya.

## 2. Empowerment Theory

This theory was developed by Lydia Rappaport in 1987. The main tenet of this theory is that the gate-pass towards attaining community goals was through empowering the

people to ensure that they are in charge of their own problems and they can influence the direction of their development process. To the scholar, empowerment is a force behind attaining long lasting control, skills, methods and understanding given problems in the society. Healthcare is one of the most important social issues that require long lasting solutions to the problems it faces. Citizens need to be made part of the process in the healthcare service delivery so as to attain the primary goals of healthcare sector. This theory can be applied in different development initiatives through the action of working together with the community for maximization of their potential and realization of sustainable change. Community empowerment also enables people to identify power structures that are responsible for providing solutions ranging from an individual, community to policy, level (Power 2008). The new 2010 Kenyan constitution in its article 118, gives room for citizens to take part in public participation hence citizen participation. Citizen participation is a form of community empowerment as it

gives an opportunity to citizen to take part in managing their affairs, including healthcare, at the county level. This has made the healthcare system pulley rather than pushy as it was before the new constitution was adopted. The development of healthcare system has majorly depended on the effort put by citizens at various levels of their participation. Efficiency of citizen participation has really enhanced effectiveness in healthcare service delivery. This has seen improvements in matters of infrastructure, equipment, medical personnel and generally, healthcare provision at the county level. Healthcare service delivery, being the dependent variable of the study, depends on the effectiveness of citizen participation which is the independent variable of the study, which in turn, entirely depends on how citizens at the county levels are empowered to perform the role of decision making. This theory guided the study by explaining the role of citizen participation in promoting effective and efficient healthcare service delivery in Sirisia Sub-County, Bungoma County, Kenya.

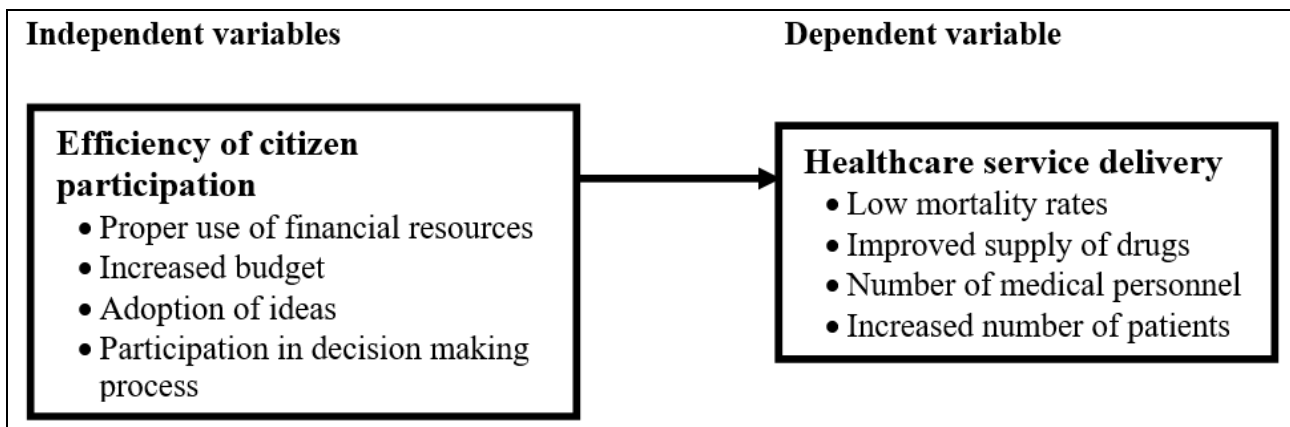


Fig 1: Conceptual Framework

**Research Methodology**

**1. Introduction**

This chapter describes the research methodology that was employed by the study. The focus of the chapter is to describe the research site, research design, target population, sample and sampling procedures, research instruments, data collection and analysis procedures and ethical consideration.

**2. Research Design**

The study used both descriptive and correlational research designs. Descriptive studies are observational and qualitative in nature and they seek to establish the effect of the independent variables on the dependent by considering data from various entities (Kothari, 2019) [10]. Descriptive design was appropriate because the researcher collected and record information based on their views and opinion without manipulating the variables. Descriptive research design entails collecting data that describes a phenomenon. It helps to address five critical research questions of what, how, when, who and where (Mugenda & Mugenda, 2012) [18]. Descriptive research was used to provide a picture of the effect of citizen participation on healthcare service delivery in the Sub-County.

Correlational research design was used to establish relationship between variables of the study hence the use Pearson’s correlation analysis. Furthermore, inferential statistics of Regression analysis and ANOVA was used to

determine the effect of the independent variable on the dependent variable. Inferential statistics were further used to make conclusions about the population using the data gathered from a representative sample.

**3. Target Population**

The study targeted 17659 households in Sirisia Sub-County to collect the views and opinions of the citizens regarding their participation in decision involving health sector in Sirisia Sub-County generally. It also targeted 107 healthcare workers who were used as key informants in the study since they have a proper understanding of the concept of health service operations in relation to the shift from centralization to devolution. This helped in the triangulation process of the results under study.

This study focused on Sirisia Sub-County, which is one of the sub-Counties in Bungoma County. The choice of the Sub-County is because it is one of the remote areas of Bungoma County hence the need to assess the trickle-down effect of devolution in relation to citizen participation. Another reason is in relation to the fact that the Sub-County has got indicators of poor healthcare service delivery as noted by the Bungoma County District Health Information System. This is evident by very high bed occupancy and high child mortality rate as depicted in the DHIS report. The sub county has 17 health facilities where 14 are pubic while others are private and faith-based, serving a population of



around 102,422. The total number of healthcare workers in the sub County is approximately 107. The number of households as per the Wards is presented in table 1 as follows;

**Table 1: Target Population**

Name of the Ward	Target Population
Namwela	4751
Malakisi	6046
Lwandanyi	6862
Total	17659

**4. Sample size and Sampling Procedure**

To determine the sample for the households, the required sample size was obtained using the Krejcie and Morgan (1970) formula. Thus,

$$n = \frac{\chi^2 \times N \times P(1-P)}{(ME^2 \times (N-1)) + (\chi^2 \times P \times (1-P))}$$

Where;

*n* = sample size

$\chi^2$  = chi-square for the specified confidence level at 1 degree of freedom = (3.841) from tables

*N* = population size

*P* = population proportion (0.50 in the table)

ME = desired margin of error (expressed as a proportion =0.05)

For the households it will be as follows;

$$n = \frac{3.841 \times 17659 \times 0.5 \times 0.5}{0.05^2 \times (17659-1) + 3.841 \times 0.5 \times 0.5}$$

= 376 households

Using the formula, the sample size for the target population of the study was 376 households. The sample size of 376 households and 32 healthcare workers was used in the study. The usage of 32 healthcare workers is in line with Mugenda and Mugenda (2012) [18], who noted that for populations of less than 1000; a sample size of between 10%-30% is used. This study used 30% to derive the sample of 32 healthcare workers as proposed by Mugenda and Mugenda (2012) [18].

Both cluster and purposive sampling were used to select the sample of the respondents who participated in the study. Powell and Connaway, (2004) indicated that in cluster sampling, the accessible population is classified into various natural groupings to represent the different groups from which the sample will be drawn from. In this study, the clusters are the three wards of the Sub-County. Simple random sampling was finally adopted to select the respondents that participated in the study from among the three wards. Purposive sampling was applied to select the healthcare workers who took part in the study. The healthcare workers were purposively selected based on the fact that they had adequate knowledge about the operation of the healthcare system right from the time devolution of healthcare system had not been adopted. The samples of the Wards were calculated through proportional allocation. This is as elaborated in table 2 below,

**Table 2: Sample for the Study**

Name of the Ward	Target Population (Households)	Sample
Namwela	4751	101
Malakisi	6046	129
Lwandanyi	6862	146
Total	17659	376

**5. Data Collection Instruments and procedures**

Primary data was majorly considered for this study. It was collected by use of questionnaires and interview guides. The researcher developed questionnaires and interview schedules addressing key areas of the study based on the objectives.

**5.1 Questionnaire**

Questionnaires are usually preferred for a study where the participants are dispersed in a wider area, they are very easy to administer and analyse. They are also economical in terms of resources since the respondents will be required to fill them in at their own convenient time (Mugenda & Mugenda, 2012) [18]. The level of confidentiality is assured, as the researcher is not exposed to the respondents. However, the accuracy of the data is a big challenge because some respondents may decide not to participate or withdraw from the study. The questionnaires were administered to the selected household heads. The questionnaire comprised of sections A and B. Section ‘A’ contained items seeking personal information pertaining to the age, gender, work experience, and academic qualifications of the participants. Section ‘B’ contained items on specific issues in line with the research objectives.

**5.2 Interview Guide**

Interview guides comprised of open-ended questions geared towards gathering in-depth understanding of varied information on the topic of study as understood by key informants. They were administered to the healthcare workers. The interviews were guided by lead questions formulated from the objectives of the study to guide the study; while the researcher controlling the discussion to make sure that the respondents do not go out of the topic of discussion. Probing was done where necessary to ensure that the respondents gave adequate information required.

**6. Piloting of the Research Instruments**

The pilot study was conducted in Kopsiro Sub-County; Kapkateny and Chepyuk wards of Mount Elgon constituency since the main study was conducted in Sirisia Sub-County. The number of households piloted were 38, which represents 10% of the sample for the main study. Four (4) healthcare staff were piloted. This was in line with the suggestion of Connelly (2008) [6], and Mugenda and Mugenda (2012) [18] who suggests that a pilot study sample should be between 1-10 percent of the sample projected for the actual study. This guided the choice of 38 and 3 respondents respectively, for the pilot study. All deficiencies in the study instruments were identified and corrected after conducting the pilot. The researcher also rephrased the items that were considered ambiguous in order to enhance the validity of the instrument. This helped to streamline research instruments before the actual study.

## 7. Validity of the Research Instruments

In order to assess the ability of the instrument to measure what it is supposed to measure, validity was tested. According to Mugenda & Mugenda (2012) [18], a research instrument is said to be valid if it measures what it was supposed to measure. For this study, both face and content validity were tested. Face validity measured the extent to which the instrument generated the required data. Content validity on the other hand examined the content of the constructed questionnaires. Using Amin (2005) [2] Coefficient Validity Index formula, the validity was determined as shown below.

$$\begin{aligned} \text{CVI} &= \frac{\text{Number of items with same response}}{\text{Total number of items on the questionnaire}} \\ &= 19/25 \\ &= 0.76 \end{aligned}$$

According to Amin (2005) [2], a research instrument is said to be valid if the CVI is 0.6 and above. For this study the validity was computed and the results showed that the respondents agreed on 19 items out of the 25 and hence the validity index was 0.76 indicating that the questionnaire was valid. This was further confirmed by computing a Kaiser-Meyer-Olkin Measure of Sampling Adequacy test using factor analysis where the results indicated a factor of 0.72. This implies that the questionnaire was valid and hence appropriate for use in the study.

## 8. Reliability of the Research Instruments

The ability of a research instrument to give similar results after repeat trials on the same or on different samples selected from the same population is referred to as reliability (Orodho, 2009) [22]. The researcher used test-retest method to measure the reliability of the questionnaire. A group of respondents of the same characteristics with the subjects of the study were selected for this purpose. The questionnaires were administered to the respondents within an interval of one week and the response from the two tests analysed. The two sets of responses were correlated using Pearson's Product Moment Formula to calculate the co-efficient of correlation in order to establish the extent to which the contents of the questionnaires are consistent in eliciting same responses. A correlation coefficient (r) of more than 0.7 was to be considered appropriate for this study. According to Kothari (2019) [10], a reliability coefficient of 0.7 and above is considered appropriate for use in a descriptive study. For this study the reliability coefficient was computed using SPSS Version 26 and the results showed an alpha reliability coefficient of 0.83 for the 25 items of the questionnaire.

## 9. Data Collection Procedure

The researcher requested for an introduction letter from the Board of Post Graduate studies of Maasai Mara University and also made an application to the National Commission of Science, Technology and Innovation (NACOSTI) for the research permit. Furthermore, other approvals were sought from the relevant county and Sub County offices and departments. By the help of the research assistants, the researcher delivered the questionnaires to the selected participants after establishing contacts and creating rapport with the targeted respondents. The researcher agreed with

the respondents on the most convenient duration of time after which the completed questionnaires will be collected back. The interview guides were also scheduled on the agreed dates and time in consultation with the respondents.

## 10. Data Analysis and Presentation

Quantitative and qualitative data analysis techniques were adopted for the study. Data analysis begun by the researcher checking for completeness and the accuracy of the responses given on the questionnaires as well as the uniformity of interpretation of the questionnaire items. This enabled the researcher to draw a proper compilation and coding of data for analysis. Those questionnaires, which were not complete were discarded. All the complete questionnaires were coded by assigning numerals to the responses for entry into the system for analysis. Quantitative data analysis involved calculation of frequencies and averages, which were used to summarize the responses alongside the main variables of the study. Further analyses were built on the initial findings, seeking patterns and relationships in the data by use of correlation analysis of the spearman's rank. Correlation helped to establish the relationships between the variables while Regression analysis was done in order to establish the effect of relationship between variables. ANOVA was used to establish whether the null hypothesis would be accepted or rejected in the study. This was done with the help of Statistical Package for Social Sciences (SPSS) (Version 26). The results were presented by use of figures such as tables, charts and graphs.

## 11. Test of Hypothesis

The study developed simple linear regression model which is expressed as shown below;

$$y = \beta_0 + \beta_1 x + e \text{ (Simple linear regression model)}$$

Where Y is the dependent variable, which represents delivery of healthcare services  
 $\beta_0$  Represents the constant  
 $x$  Represents Level of Citizen Participation  
 $e$  Represents the Error Term  
 Statistical Packages for Social Science (SPSS Version 26) was used to assist in the analysis for all the research objectives. The study's quantitative results were presented using tables, pie charts and graphs while qualitative findings were presented in thematic and narrative form.

## Results and Discussions

### 1. Introduction

The findings of the study are presented in this chapter based on the data available from the field survey. The chapter presents the analysis to indicate whether the response rate was adequate for further analysis. SPSS version 26 was used as the main tool for data analysis, where the means, frequencies and percentages were computed.

### 2. Findings of the Study

#### 2.1 Response rate

The study targeted a total of 376 respondents from among the households in Sirisia Sub-County of Bungoma County. Members from the households aged eighteen years and above were considered for the study. The results are presented in table 3.

**Table 3:** Response Rate

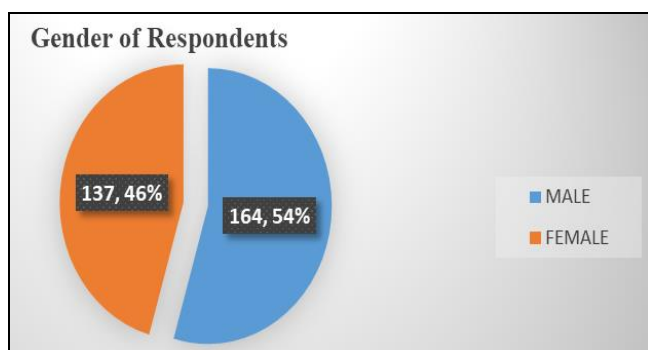
Response	Distributed	Returned	Non response
Number of questionnaires	376	301	75
Percentage %	100	80.05%	19.95%

A total of 301 out of 376 questionnaires were returned, screened for completeness and coded for analysis. This represented 80.05% response rate and was considered adequate for use in the analysis process. The 19.95% of the questionnaires were not returned and this was contributed to, by the fact that during the time of data collection, there was no responsible person at the household to fill the questionnaires even after making follow ups. It was also noted that some of the questionnaires were not filled to the end hence they were discarded and not considered for the study. Others were not collected back completely because the respondents could not be traced during the time of collection. Furthermore, key informant interviews were conducted in the Sub-County and all the 32 officers that were targeted were interviewed. The response rate for key informants was 100% since they were not many and data could be collected from them face to face in less than 1 hour per person. The results were in agreement with Kothari (2019) [10], who established that a response rate for a field survey of above 70% was appropriate for use in data analysis.

**3. Demographic Factors**

According to Lunning (2021), demographic analysis is the collection and analysis of broad characteristics about groups of people and populations. This study sought to establish response about the demographic factors of the respondents. Among the demographic factors that were analyzed are gender and age distribution of the respondents, educational levels of the respondents and the number of years they had lived in the study area.

**3.1. Gender of the Respondents**



**Fig 2:** Gender of the Respondents

In this study, it was very important to understand the distribution of the gender as it has an influence on the household well-being. In regard to gender of the respondents, the study sought to establish the distribution of male and female respondents who participated in the study. Gender has an influence on health issues at the household in any country because the males may have different perspective on the issue of health from that of females. The response is presented in figure 4.1. The results show that there were more male respondents than female respondents

who participated in the study. From the figure above, 54% of the respondents were male while 46% were female. These results represent scenarios from male dominated communities where men are key decision makers in the family and hence are given first priority when it comes to any issue that involves the household including health.

**3.2 Age of respondents**

The study sought to analyze the age of respondents since it is a very important component in analyzing the trends that people have studied over time in relation to healthcare service delivery in Sirisia Sub-County of Bungoma County, Kenya. The study considered residents of Sirisia sub-County who are 18 years and above. The results are presented in table 4 below.

**Table 4:** Age of the respondents

	Frequency	Percent
18 -25 years	84	27.9
26-35 years	126	41.9
36-45 years	50	16.6
46-59 years	24	8.0
Above 60 years	17	5.6
Total	301	100

The results show that 41.9% of the respondents who participated in the study were aged between 26-35 years followed by 27.9% who were aged between 18 and 25 years. It was further established that 16.6% were aged between 36-45years while 8% were aged between 46-59 years. Those who were above 60 years of age were 5.6% of the respondents. This implies that most respondents were in their adult age of 26-35 years and participated actively in healthcare matters of their families hence they can be considered to have knowledge on healthcare in the study area.

**3.3 Educational level of Respondents**

The study also sought to establish the level of education of the respondents who took part in this study from Sirisia Sub-County, Kenya. This factor was important to this study because of the presumption that the level of education gives a person the opportunity to make appropriate decisions on how to manage a particular situation. Furthermore, education is important since it promotes creativity and innovation in a person. The results are presented in table 5 below.

**Table 5:** Educational level of Respondents

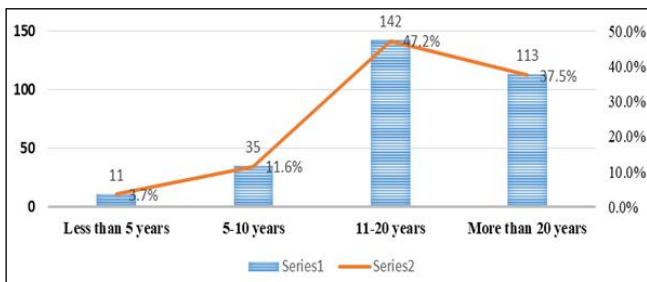
	Frequency	Percent
None	4	1.3
Primary school	48	15.9
Secondary school	97	32.2
College	72	23.9
University	80	26.6
Total	301	100.0

From the results presented in table 5, it is established that 32.2% of the respondents had attained secondary level of education, 26.6 % had attained university education, and 23.9% had attained college education. Further, the analysis indicated that 15.9% of the respondents had attained primary education. 1.3% had not attained any level of education. This implies that most of the respondents had

basic education, which they use in making appropriate decision related to matters healthcare. This was in accordance with Asige and Obushe study of 2022 on Influence of Post-Harvest technology on Food Security in Narok East sub-County, who established that education is key in enabling people to act rationally on issues affecting their lives including food security, healthcare and many other aspects that are related to life.

**4.3.4 Duration of stay in Sirisia Sub-County**

The study sought to further analyze the number of years that the respondents had lived in Sirisia Sub-County and their ability to articulate on the development of healthcare service delivery in the study area. Results are presented in figure 3 below.



**Fig 3:** Duration of Stay in Sirisia Sub-County

The study established that majority, (47.2%) of the respondents had stayed in Sirisia Sub-County between 11-20 years. Further, analysis revealed that 37.5% of the respondents had stayed in the Sub-County for more than 20years while 11.6% of the respondents had stayed in the study area between 5-10 years. Only 3.7% of the respondents had stayed in the study area for less than 5 years. This implies that majority of the respondents had stayed in the study area for a relatively long period of time and therefore had knowledge about the healthcare system of the study area. This further asserts that the respondents were better placed to give sufficient information about healthcare service delivery in the study area over time.

**4. Analysis on the Efficiency of citizen participation on Healthcare Service delivery in Sirisia Sub-County**

The third objective of the study sought to examine the efficiency of citizen participation on healthcare service delivery in Sirisia Sub-County. The respondents were required to give their opinion on various statements that described efficiency of citizen participation on a Likert scale of 1-5. Where; 1=Minimal extent; 2= Moderate extent; 3= Not sure; 4= Great extent; 5=Very great extent. The respondents were rated with respect to the mean and standard deviation. The results are presented in the table below.

**Table 6:** Efficiency of Citizen Participation on Healthcare service delivery in Sirisia Sub-County.

Statement	Minimal extent	Moderate extent	Not sure	Great extent	Very great extent	M	SD
Efficiency of citizen participation in Sirisia Sub-County has promoted healthcare service delivery	6.3%	17.9%	8.6%	21.9%	45.2%	3.82	3.82
Financial resources have been utilized appropriately in Sirisia Sub-County and this has promoted healthcare service delivery	4.7%	13.6%	27.2%	30.9%	23.6%	3.55	1.129
It is due to increased budget that healthcare service delivery in Sirisia Sub-County has been improved	0.7%	9.6%	26.6%	22.6%	22.3%	3.93	1.058
Ideas of the public in regard to healthcare are adopted in Sirisia Sub-County and this has improved healthcare service delivery	20.6%	13.0%	15.9%	28.6%	21.9%	3.18	1.446
Members of the public always participate in decision making process in Sirisia Sub-County and this has improved healthcare service delivery	10.3%	6.3%	13.3%	32.2%	37.9%	3.81	1.289
Community members are allowed to attend finance meetings to ensure every item and allocation is clear for their own benefit in Sirisia Sub-County	9.0%	4.3%	28.9%	41.9%	15.9%	3.51	1.094
Citizen participation brought by devolution has promoted efficiency of healthcare service delivery in Sirisia Sub-County	7.3%	5.3%	11.6%	30.9%	44.9%	4.01	1.200

The study sought to examine whether efficiency of citizen participation in Sirisia Sub-County has promoted healthcare service delivery. The study established that 45.2% and 21.9% of the respondents strongly agreed and agreed with the statement above respectively. 17.9% of the respondents disagreed with the statement that there is efficiency of citizen participation in Sirisia Sub-County and has promoted healthcare service delivery. Further, analysis indicates that 8.6% of the respondents were not sure as to whether efficiency of citizen participation in Sirisia Sub-County has promoted healthcare service delivery while 6.3% of the respondents.

Further analysis on whether financial resources have been utilized appropriately in Sirisia Sub-County and this has promoted healthcare service delivery indicated that 30.9%

agreed while 27.2% were not sure with the statement. In addition, results revealed that 23.6% of respondents strongly agreed that financial resources have been utilized appropriately in Sirisia Sub-County and this has promoted healthcare service delivery. However, a considerable number of respondents disagreed with the statement above. This indicates that most of the respondents are not aware as to whether financial resources have been utilized appropriately in order to improve the healthcare system in the Sub-County.

The results also established that 26.6% of the respondents were not sure whether it is due to increased budget that healthcare service delivery in Sirisia Sub-County has been improved. Analysis further revealed that 22.6% and 22.3% of the respondents agreed and strongly agreed with the



above statement respectively. 9.6% of the respondents disagreed with the statement that it is due to increased budget that healthcare service delivery in Sirisia Sub-County has been improved. These results indicate that most of the members of the public are not sure whether it is due to increased budget that healthcare service delivery in Sirisia Sub-County has been improved. Furthermore, most of the respondents could not tell whether there was budget increase in the first place since public participation in the budgeting process is minimal.

On whether ideas of the public concerning healthcare are adopted in Sirisia Sub-County and this has improved healthcare service delivery, the study established that 28.9% of respondents strongly agreed while 21.9% agreed with the statement. The study further established that 20.6% and 15.9% of the respondents strongly disagreed and were not sure whether ideas of the public concerning healthcare are adopted in Sirisia Sub-County and this has improved healthcare service delivery. 13% of the respondents disagreed with the statement. This implies that respondents have mixed results on the statement above indicating that they are not sure whether some of the ideas the public gives concerning the above subject matter are accepted or not.

The study also established that most respondents (37.9%) strongly agreed while 32.2% agreed with the statement that members of the public always participate in decision-making process in Sirisia Sub-County and this has improved healthcare service delivery. Only 6.3% were not sure and 10.3% of the respondents disagreed with the statement above. The mean response of 3.81 with a standard deviation of 1.084 further stressed the level of agreement with the above statement indicating that majority of the members of the public truly take part in decision making process in Sirisia Sub-County.

This was complemented by the interview from healthcare worker HCW007 as shown below;

*“.....Majority of the decisions made in the Sub-County are bottom up in nature. The devolution era embraces a pull system which is democratic rather than a push system which is dictatorial in nature as it used to happen before devolution was propounded. Some of these decisions have helped to improve on the budgetary allocation, the community can attend financial meetings and in the long run the ideas of the community are implemented in some projects”.*

Concerning whether community members are allowed to attend finance meeting to ensure every item and allocation is

clear for their own benefit in Sirisia Sub-County, 41.9% of the respondents agreed with the statement above. However, 28.8% of the respondents were not sure whether community members are allowed to attend finance meetings to ensure every item and allocation is clear for their own benefit in Sirisia Sub-County. Further analysis revealed that 15.9% of the respondents strongly agreed that community members are allowed to attend finance meetings to ensure every item and allocation is clear for their own benefit in Sirisia Sub-County. The rest of the respondents (12.6%) disagreed with the statement above. This implies that members of the Sub-County were allowed to attend financial meeting to ensure every item and allocation is for own benefits in Sirisia Sub-County. However, majority of the respondents who were not sure claimed that it could not be ascertained as to whether all the ideas were meant to benefit members of Sirisia Sub-County.

The study findings indicated that most of the respondents (44.9 %) strongly agreed that citizen participation brought by devolution has promoted efficiency of healthcare service delivery in Sirisia Sub-County. 30.9% of the respondents agreed that citizen participation has been brought by devolution and has promoted efficiency of healthcare service delivery in Sirisia Sub-County. Further analysis revealed that 11.6% of the respondents were not sure while 7.3% of the respondents strongly disagreed whether citizen participation brought by devolution has promoted efficiency of healthcare service delivery in Sirisia Sub-County. Lastly, the study established that 5.3% respondents moderately disagreed with the statement above. The results indicate majority of the respondents are of the opinion that citizen participation has been brought by devolution has promoted efficiency of healthcare services delivery in Sirisia Sub-County.

**5. Opinion on Healthcare Service delivery in Sirisia Sub-County, Kenya.**

The dependent variable of the study is healthcare service delivery in Sirisia Sub-County. The respondents were required to give their opinion regarding various statements that described the variable on a Likert scale of 1-5. Where; 1=Minimal extent; 2= Moderate extent; 3= Not sure; 4= Great extent; 5=Very great extent. The respondents were rated with respect to the mean and standard deviation. The results are presented in the table 7 below.

**Table 7:** Healthcare Service delivery in Sirisia Sub-County, Kenya

Statement	Minimal extent	Moderate extent	Not sure	Great extent	Very great extent	M	SD
There is efficiency in healthcare service delivery in Sirisia Sub-County	.7%	. 6.6%	11.3%	33.6%	47.8%	4.21	.935
In Sirisia Sub-County, there is low mortality rates and this has promoted efficiency in healthcare service delivery	1.7%	13.6%	15.9%	48.8%	19.9%	3.72	.988
There is improved supply of drugs in Sirisia Sub-County due to efficiency in healthcare service delivery	7.0%	18.3%	14.6%	23.3%	36.9%	3.65	1.325
The number of medical personnel in Sirisia Sub-County has increased and this has led to the efficiency in healthcare service delivery	3.3%	17.3%	18.5%	28.3%	32.6%	3.45	1.117
Many health centers in Sirisia Sub-County have experienced increased number of patients due to efficiency in healthcare	15.9%	11.3%	21.6%	11.6%	39.5%	3.48	1.493

service delivery							
Public participation is necessary in the improvement of healthcare services and this has led to efficiency in healthcare service delivery	3.7%	9.6%	26.2%	26.9%	33.6%	3.77	1.124

The study sought to analyze whether there is efficiency in healthcare service delivery in Sirisia Sub-County of Bungoma County. The results revealed that 48.7% of the respondents strongly agree with the statement above while 33.6% of the results agreed with the statement above. However, a considerable number of respondents (11.3%) were not sure as to whether there is efficiency in healthcare service delivery in Sirisia Sub-County. Further analysis revealed that around 7% of the respondents disagreed with the statement that there is efficiency in healthcare service delivery in Sirisia Sub-County. These results indicate that there is an improvement in the healthcare sector in the study area but some of the respondents still feel that the efforts that have been put in place to promote efficiency still need to be stressed further.

The data from the interview conducted with the healthcare worker HCW015 is as captured below;

*“.... Currently, In Sirisia Sub-County, the healthcare facilities are efficient because there is support from the Sub-County and the County generally. The healthcare facilities are adopting a preventive approach rather than a curative approach. .... Furthermore, there is improved medical supplies and equipment. All these strategies when cumulatively applied have improved healthcare services in the Sub-County”.*

The study sought to analyze whether in Sirisia Sub-County, there is low mortality rates and this has promoted efficiency in healthcare service delivery. The study established that most of the respondents (48.8%) were of the opinion that in Sirisia Sub-County, there is low mortality rates and this has promoted efficiency in healthcare service delivery while 19.9% of the respondents agreed with the statement above. However, the study further established that 15.9% of the respondents were not sure with what is happening in the Sub-County regarding the above matter. Further analysis revealed that 13.6% of the respondents disagreed that indeed in Sirisia Sub-County, there is low mortality rates and this has promoted efficiency in healthcare service delivery. This is a clear indication that indeed in Sirisia Sub-County, there have been notable improvements in the health sector, which has drastically reduced mortality rates. However, some of the respondents are of the opinion that the Sub-County should be in a position to do more in this area in order to promote zero mortality rates.

The study sought to further analyze whether indeed there is improved supply of drugs in Sirisia Sub-County due to efficiency in healthcare service delivery. The study results indicate that 36.9% of the respondents strongly agree with the statement while 23.3% of the respondents agree with the statement above. Further analysis revealed that 18.3% of the respondents disagreed while 14.65 of the respondents were not sure at all as to whether there is improved supply of drugs in Sirisia Sub-County due to efficiency in healthcare service delivery. A further 7% of the respondents strongly disagreed with the statement above. From the above results, it is established that Sirisia Sub-County has made commendable strides when it comes to issues healthcare but

a section of the population still felt that there is need to improve the sector further in order to realize better results.

On whether the number of medical personnel in Sirisia Sub-County has increased and this has led to the efficiency in healthcare service delivery, 22.6% of the respondents strongly agreed with the statement above while 23.3% of the respondents agreed. However, 18.5% of the opinion were not sure if the number of medical personnel in Sirisia Sub-County has increased and this has led to the efficiency in healthcare service delivery. In addition, the study established that 17.3% of the respondents disagreed with the statement above. A further 3.3% of the respondents strongly disagreed with the statement above. This indicates that indeed it is due to devolution that there is increased personnel in the Sub-County. However, majority of the respondents were not sure whether it has led to the efficiency of the healthcare system or not. Key informants who were interviewed cited that devolution is good since it has made power and services to be closer to the people but there are still challenges like corruption, salary delays, inadequate support from the County and Sub-County and frequent strikes from healthcare workers that are inherent with it.

According to the results, 39.5% of the respondents were of the opinion that many health centers in Sirisia Sub-County have experienced increased number of patients due to efficiency in healthcare service delivery. However, 21.6% of the respondents were not sure indeed many health centers in Sirisia Sub-County have experienced increased number of patients due to efficiency in healthcare service delivery. The results further indicated that 15.9% of the respondents strongly disagreed that many health centers in Sirisia Sub-County have experienced increased number of patients due to efficiency in healthcare service delivery. These respondents noted that in as much as devolution has helped in improving the health sector, there are still many issues that have not been dealt with in order to ensure the system is effective and efficient.

The findings above were supported by the views of healthcare worker coded HCW027 whose sentiments are as depicted as;

*“.....With mitigation of retrogressive cultural practices in the County, most people are considering going to the hospital as an option when they are sick. In Bungoma County, there are some cultures-religious beliefs, traditional circumcision and women giving birth at home that had inhibited the development of healthcare services. There has been recent improvement in the number of people who seek medical services in the sub-Counties health facilities.*

Public participation is necessary in the improvement of healthcare services and this has led to efficiency in healthcare service delivery according to 33.6% of the respondents who strongly agreed with the statement above. The study further indicated that 26.9% of the respondents agreed that public participation is necessary in the improvement of healthcare services and this has led to efficiency in healthcare service delivery. However, 26.2%

of the respondents were not sure as to whether public participation is necessary in the improvement of healthcare services and this has led to efficiency in healthcare service delivery. This is because they noted that the concept of public participation is overrated and that it was not being effectively used to integrate citizens into the services that were being provided in health sector in Sirisia Sub-County. In addition to that, 9.6% of the respondents were of the opinion that Public participation is not necessary in the improvement of healthcare services. They noted that there is need to have a willing government that will change the fate of its citizens through implementation of sound and sustainable solutions. This indicates public participation is a key ingredient in ensuring that key sectors like the health sector in the study area are thriving. However, there is need for relevant stakeholders to implement it well in order to meet the needs of the public.

The results from the interviews with the healthcare workers was analyzed and the verbatim from one of them, HCW009 was as recorded below;

*“.....In Sirisia Sub-County, there is a lot of improvement in the healthcare sector since the beginning of devolution. Some other neighboring sub-Counties and wards seek medical services from our health centers. We have improved on the healthcare facilities by getting more x-ray machines, medical supplies in the form of other machines and drug supplies. Furthermore, we have laboratory equipment all over the Sub-County and this has led to efficiency in healthcare service delivery in the Sub-County. The Sub-County further does the External Quality Assessments (EQAs) around the County because as Sirisia, we are highly ranked by our neighbors in terms of healthcare provision.*

**6. Analysis of Inferential Statistics**

The study sought to assess whether there was a statistically significant relationship between the variables. The analysis was done at three levels, determining the factor loading, Pearson’s correlation and regression analysis.

**6.1 Correlation Analysis**

Correlation analysis helps to test the relationship between independent and dependent variables. The study sought to establish the nature of the relationship between development of healthcare service, level of citizen participation, and efficiency of citizen participation, which are the independent variables, and healthcare service delivery, which is the dependent variable. This analysis was determined by testing the correlation between the target variables. This was tested using correlation coefficients as suggested by Cohen, West and Aiken, (2003). Correlation analysis helps to test the Linearity of the study variables in order to make inferences.

The analysis sought to test the linearity of the study variables in order to make inference to the entire population. This study used Pearson correlation (r) to test whether the relationship between the variables was significant or not at 95% confidence interval. The relationship between the two variables was considered to be strong and significant if the correlation (r) value was more than 0.6 and the p value was < 0.05. It was considered moderate if the correlation (r) was between 0.5 and 0.6 and it was considered weak if the correlation (r) was < 0.5. The results of the correlation are presented in the table 8 below.

**Table 8:** Correlation Analysis for the Variable

Efficiency of Participation		
Service Delivery	Correlation Coefficient	.617**
	Sig. (2-tailed)	.000

The results revealed a very significant, positive and moderate relationship between efficiency of citizen participation and healthcare service delivery in Sirisia the Sub-County (r=.617\*\* and a p-value of .000). This indicates that improvement in efficient citizen participation is likely to have a recommendable effect on service delivery at the hospitals. This is expected to improve decision-making and hence service delivery as the needs and interests of all stakeholders are put into consideration. This agreed with the findings of Ngondo (2014) [20], who noted that public participation has to promote inclusion and equity in public resource allocation and service delivery for all. In addition, it must enhance legitimacy and build mutual trust and commitment between the people in government/power and citizens who are actually recipients of the services.

**6.2 Hypothesis Testing**

In order to test the study hypothesis and hence create a ground for making effective conclusions and recommendations the study did a simple liner regression and a multiple regression. The simple linear regression was used to test each hypothesis based on the study objectives. The model summary results of the study were summarized in the following tables 9.

The hypothesis sought to test whether; *H01: There is no significant relationship between the efficiency of citizen participation and healthcare service delivery in Sirisia Sub County.* The results were presented by first showing the model summary as presented in table 9.

**Table 9:** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	.617 <sup>a</sup>	.381	.372	.317

a. Predictors: (Constant), efficiency of participation

From the results, the values of R represent the correlation between the dependent and the independent variables. In this case, the correlation between effectiveness of citizen participation and service provision in the healthcare was seen to be strong, positive and significant (R =0.617; p-value = 0.000). Further analysis was done using the R square which indicates the proportion of variance in the dependent variable that can be explained by a unit change in the independent variable. The results show that a unit change in efficiency of participation can only explain a 38.1 % change in service delivery (R<sup>2</sup> = 0.381). The analysis of variance was computed to establish whether the model was a good predictor of the relationship between effectiveness of citizen participation and service provision at the referral hospital and the results presented in table 10.

**Table 10:** Anova

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	33.820	1	33.820	336.557	.000 <sup>b</sup>
	Residual	30.046	299	.100		
	Total	63.867	300			

a. Dependent Variable: Service delivery

b. Predictors: (Constant), efficiency of participation



The results show that the F statistic was significant at a 5% level of significance implying that the model is a suitable predictor. The study also established the model fitness by comparing the F- calculated and F-critical values. The results show that the F calculated,  $F_{0.05, 1, 299} = 336.557$ , was greater than F-Critical,  $F_{0.05, 1, 299} = 3.873$ ; the study concluded that the model fits well and hence can be used effectively to explain the relation between the variables. Since the F calculated is greater than the F critical then the null hypothesis is rejected implying that there is a statistical relationship between efficiency of participation and Service delivery in the sub county health facilities.

The null hypothesis  $H_{03}$ : There is no significant relationship between the efficiency of citizen participation and healthcare service delivery in Sirisia Sub County was therefore tested based on the F value and the results indicated that the null hypothesis is not accepted and hence the alternative hypothesis is accepted indicating that efficiency in citizen participation affects healthcare service delivery. In order to determine the contribution of effectiveness of citizen participation on the service delivery in the sub-County, the regression coefficient was computed and the results presented in table 11.

**Table 11:** Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.223	.137		8.937	.000
1 Effectiveness of participation	.675	.037	.728	18.345	.000

a. Dependent Variable: Service delivery

Using the standardized beta values, the results show that the independent variable has a relationship with the healthcare service delivery. The results show that a unit increase in the efficiency of citizen participation in matters of the healthcare improves service delivery by 72.8%. The T value of 18.345 show that the relationship is not just by chance but it is statistically significant as the p value was less than 0.05.

The regression model is expressed as shown below;

$$y = \beta_0 + \beta x + e \text{ (Simple linear regression model)}$$

$$Y = 1.223 + 0.675x + 0.37$$

**Discussion of the Study findings**

**1 Efficiency of citizen participation on Healthcare Service delivery in Sirisia Sub-County**

The study sought to examine the efficiency of citizen participation on healthcare service delivery in Sirisia Sub-County. The study sought to analyze the extent to which efficiency of citizen participation has promoted in utilization of financial resources. Results indicated that community members indicated that through public participation, financial resources are managed relatively well. This has helped to promote health care development in the sub-County. On whether ideas of the public are included in the development plans of the sub-county, the results indicated that since devolution is bottom up, some of the ideas are implemented in order to capture the needs of the people.

The results indicate that majority of the respondents are of the opinion that citizen participation has promoted efficiency of healthcare services delivery in Sirisia Sub-

County. These results agree with the findings of Papa (2016) who noted that Busia County leadership demonstrates weak decision process involving public participation; acknowledged persons, funds, organizations and service providers necessary for carrying out an assortment of aspects of public participation. Papa (2016), further suggested that decision making process needed to be made more inclusive so as to achieve better results. Moreover, respondents said there were inadequate democratic social networks and gender inclusion techniques in designing public participation program(s).

However, the study indicated that the arrangement of forums, workshops or public meetings requires adequate funds, long preparation time and enough staff to coordinate and capture the needs of the people. Comparing with the benefits, the transaction cost may be even higher in some instances making it harder to realize its objective. Therefore, conducting a participation project with a low cost is challenging especially due to inadequate financial resources that counties are allocated by the national government.

It is further established that participating in public meetings is usually not a priority for people when competing with work, household or other daily obligations. Less time is available after completing daily chores, which makes the engagement more difficult. Furthermore, traditional public engagement approaches generally take a longer time with less satisfying results, leading to an even lower rate of participation. Thus, increasing the efficiency of the participation approaches without compromising the outcomes is an urgent need that different county need to embrace.

These results agree with the findings of Waheduzzaman (2010) [29], which noted that hindrances to the practice of participation of people in the local administration can be mitigated using the appropriate means for improving the participation of people in plans for development which can add to quality governance. Waheduzzaman (2010) [29], further noted that there are multiple setbacks leading to the people’s participation incompetence. Some of the obstacles include lack of awareness and lack of a robust legal system for participation.

**Summary, Conclusions and Recommendations**

**1 Introduction**

This chapter presents the summary of research findings, conclusions and recommendations for the study. The objective of the study was to establish the efficiency of citizen participation on healthcare service delivery in Sirisia Sub County, Bungoma County, Kenya. The chapter further provides areas for further research based on the analysis of the data.

**2 Summary of Findings**

**2.1 Demographic variables**

The study achieved a response rate of 80.05% which was accepted as appropriate for further analysis of the study results. The results agreed with the view of Marton (2006), who noted that a response rate of above 70% is considered appropriate for a descriptive study. The response rate was further supported by the view of Kothari (2019) [10], who noted that a response rate for a field survey of above 70% is appropriate for use in the data analysis process of any descriptive survey. Furthermore, interviews were conducted in Sirisia Sub-County and all the 32 officers who were



targeted were interviewed. The response rate for key informants was 100% since their number was manageable during data collection process and the time taken in collecting data was less as compared to the data collection at the household level.

In regard to gender of the respondents, the study established that 54% of the households were headed by the males which implied that men were the main decision makers in the household unit in the study area. This is an indication of the dominance of men in male dominated societies especially in developing countries. In regards to age of the respondents, the study established that most of the respondents were in their adult age of between 26-35 years and participated actively in healthcare matters of their families hence they were considered to have knowledge on healthcare in the study area. On the issue of education, the study established that most of the respondents had attained basic education, which they use in making appropriate decision related to matters of healthcare. This was in line with Alawode *et.al.* (2020), who noted that education is key in enabling people to act rationally on issues affecting their lives including healthcare for the sake of this study. On whether respondents had stayed in Sirisia for a considerable period of time in order to give information on the subject under study, the study established the majority of the respondents had stayed in the study area for a long period of time and therefore had adequate knowledge about the healthcare system of the study area hence better placed to give sufficient information on the subject at hand.

The third objective of the study sought to examine the efficiency of citizen participation on healthcare service delivery in Sirisia Sub-County. The respondents were required to give their opinion regarding the various statements that described efficiency of citizen participation. On whether there is efficiency of citizen participation in Sirisia Sub-County and whether this has promoted healthcare service delivery, the study established that majority of the respondents agreed with the statement. In regards to whether financial resources have been utilized appropriately in Sirisia Sub-County and whether this has promoted healthcare service delivery, the study indicated that most of the respondents were in agreement with the statement above. However, the rest of the respondents were split between disagreements and not being sure whether financial resources have been utilized appropriately in Sirisia Sub-County and if this has promoted healthcare service delivery. Most of the respondents noted that the health sector had been marred with problems like corruption, inadequate staff-patient ratios, inadequate equipment, and frequent strikes by health workers amongst other challenges. All these issues have dwindled the achievements that were intended through devolution.

On whether it is due to increased budget that healthcare service delivery in Sirisia Sub-County has been improved, most of the respondents were in agreement with the same. However, a good percentage of the respondents noted that they were not part of the budget making process and therefore, they could not validate the statement above. Others noted that even if they were part of the process, most of the time, their ideas are never implemented in the long run. Results from key informants indicated that the health sector had indeed been starved of the resources it required in order to make sufficient gains in the study area. Also, most of the members disagreed that their ideas as the public in

regard to healthcare are adopted in Sirisia Sub-County and this has improved healthcare service delivery. They noted that in most cases, public participation had been used in a selfish manner by politicians to propagate their own agenda hence rejecting the essence of the process in improving the welfare of citizens.

On whether members of the public always participate in decision making process in Sirisia Sub-County and whether this has improved healthcare service delivery, the study noted that majority of the respondents agreed with the statement. According to them, they participate in the decision making process by giving their suggestions through CHV/Ws who in the long run forward them to concerned parties. To some extent, they noted that it had improved healthcare in the Sub-County. Lastly, the study sought to examine whether, citizen participation brought by devolution has promoted efficiency of healthcare service delivery in Sirisia Sub-County. Majority of the respondents were of the opinion that citizen participation brought by devolution has promoted efficiency of healthcare service delivery in Sirisia Sub-County. Respondents noted that the main aim of public participation was to encourage the public to have meaningful input into the decision-making process. In the long run, the main goal of public participation is to provide the opportunity for communication between agencies making decisions and the public so as to ensure there is ecumenism.

The results further revealed a very significant, positive and moderate relationship between efficiency of citizen participation and healthcare service delivery in Sirisia Sub-County ( $r=.617^{**}$  and a p-value of .000). This is a clear indication that improvement in efficient citizen participation is likely to have a recommendable effect on service delivery at the hospitals. This is expected to improve decision-making and hence service delivery as the needs and interests of all stakeholders are put into consideration. This agreed with the findings of Ngondo (2014) <sup>[20]</sup>, who noted that public participation has to promote inclusion and equity in public resource allocation and service delivery for all. In addition, it must enhance legitimacy and build mutual trust and commitment between the people in government/power and citizens who are actually recipients of the services. A unit change in efficiency of citizen participation accounts to 38.1% of healthcare service delivery.

### 3. Conclusions of the Study

The study concluded that there is a very significant, positive and moderate relationship between efficiency of citizen participation and healthcare service delivery in the Sub-County ( $r=.617^{**}$ ;  $p=.000$ ). The study noted that improvement in efficiency of citizen participation is likely to have a Commendable effect on healthcare service delivery at the health centers in Sirisia Sub-County. This is expected to improve decision-making and hence service delivery as the needs and interests of all stakeholders are put into consideration. Furthermore, there is a statistical relationship between efficiency of citizen participation and healthcare service delivery in the health centers in Sirisia Sub-County. This indicates that there is efficiency in healthcare service delivery in the study area. It was also established that some of the decisions have helped to improve on the budgetary allocation, the community attend financial meetings and in the long run the ideas of the community are implemented in many projects including the health sector.

#### 4. Recommendations for the Study

Based on the findings of this study, the following recommendations are drawn.

1. First, the study recommends that there is need to upscale public participation in Sirisia Sub County and Bungoma County at large, beyond resource allocation to project management including health projects just as public participation activities are done for budgetary discussions are planned for from time to time.

2. Furthermore, in order to achieve the main goal of public participation, the sub County and County should create structures, mechanisms and guidelines for citizen participation. The structures and guidelines should ensure participation is open to all without discrimination and have safeguards against domination of the consultations by one group. This will ensure that the outcome of these meetings are owned by the citizens and hence sustainability in development projects including health projects.

3. In addition to the above, there is need for Sirisia Sub County and Bungoma County Government as a whole to come up with a comprehensive public participation process which should involve stakeholders in the health sector. This will ensure that key issues of contention are established and solutions developed holistically to address them.

1. Members of the County Assembly in the area under study should be aware of their grass root support and what that means for meaningful public participation. Therefore, as stipulated in the Constitution, they should be heavily involved in organizing, mobilizing, and ensuring that the public's views are heard and incorporated in decision making processes in order to ensure that the main goal of devolution is achieved.

2. Furthermore, the Sub-County and the entire county should put in effort to plan for and conduct public participation for other governance processes such as project management which includes monitoring and evaluating key projects including health projects in the study area. This will ensure that there is transparency and accountability in the development process in the County generally and the Sub-County specifically.

3. Lastly, follow ups should be made up on policy implementation in various departments and projects. This will ensure that they are implemented without failure or blackmail. It is unfortunate that policies are just put on paper and there is no accountability in practices.

#### 5. Areas for further Study

Following the above recommendations, the study proposes the following areas for further studies and research;

1. Further research on the same factors need to be conducted in other Sub Counties and counties in Kenya in order to contrast and compare the findings. This will enable the current study to be inferred to the larger research universe. This will further ensure achievement of universalizability of research findings.

2. There is also need for further studies that will focus on a multi stakeholder approach including the National Government, Private hospitals, NGOs and other organizations working in the field of health in order to identify other factors that influence healthcare service delivery in the study area.

3. Further studies should dig deeper in assessing culture as a determinant of healthcare service delivery in the study

area so as to analyze the extent to which it influences healthcare delivery.

4. There is also need to apply other theories and models in ascertaining the extent to which public participation is key in Community development projects other than the health sector
5. Further research should be done to provide a clear direction for policies intended to respond to the spirit of the Constitution of Kenya 2010, and to bring about a people-centered and politically-engaged open society.

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