LEVEL OF COMMUNITY PARTICIPATION IN RURAL HEALTH CARE AND THE ASSOCIATED FACTORS IN KAKUYUNI HEALTH CENTRE, MACHAKOS COUNTY

LUCY WANZA DAVID

MASTER OF SCIENCE

(Nursing)

JOMO KENYATTA UNIVERSITY

OF

AGRICULTURE AND TECHNOLOGY

2022

Level of Community Participation in Rural Health Care and the Associated Factors in Kakuyuni Health Centre, Machakos County

Lucy Wanza David

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Nursing (Community Health Nursing) of the Jomo Kenyatta University of Agriculture and Technology

2022

DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

Signature…… Date……..

Lucy Wanza David

This thesis has been submitted for examination with our approval as University Supervisors

Signature…… Date……..

Dr. Grace Mbuthia, PhD

JKUAT, Kenya

Signature…… Date……..

Mr. Peter Monda

JKUAT, Kenya

DEDICATION

This book is dedicated to my loving husband for always helping me with great research ideas, believing in me and cheering me on. To my children who always made my heart to smile despite the tough journey of education. To my mother who always kept my hope high and entire family and friends: thank you for all your support, prayers and encouragement.

ACKNOWLEDGEMENT

I recognize and acknowledge everyone who made this work come to completion. To my husband, children and my mother for always keeping my hope on track. Thank you. To my Supervisors for your continued guidance and support, thank you. To residents of Kakuyuni Sub-location for genuinely answering the questionnaires, thank. To my pastor and Mentor for uour prayers and encouragements, thank you. To my prayer partners your support was amazing, thank you and above all to my God, I honor and adore you. Thank you

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

CBRHNA	Community based rural health needs assessment
CHCs	Community Health Committees
CHEW	Community health extension health worker
CHIS	Community Health Information System
CHVs	Community Health Volunteers
CHW	Community Health Worker
DCHS	Division of Community Health Services
JKUAT	Jomo Kenyatta University of Agriculture and Technology
M&E	Monitoring and evaluation
MOH	Ministry of Health
NGOs	Non-governmental organization
NHSSP	National Health Sector Strategic Plan
PEPFAR	President's Emergency Plan for Aids Relief
PHC	Primary Health Care
SPSS	Statistical Package for Social Science
UNICEF	United Children's Fund
U.S. A	United States of America
USAID	United States' Agency for International Development
WHO	World health organization

OPERATIONAL DEFINITIONS

Community participation This is the collective participation of people in a local area in identifying and evaluating their needs and coming up with organized strategies to meet those needs by allowing the people to become active participants in their own health care. Community members partner in health care by generating and contributing their own ideas, assessing their needs, involvement in decision-making process, planning, implementing, and even evaluating the care they receive.

Community This is a group of people sharing common characteristics, who interact and associate with each other, and who do their things collectively regarding common concerns. They have common ethnicity or culture or living in a specific geographical location and have similar interests, goals, or occupations.

Health professionals These are members of the health care team to include the nurses and all categories of health workers working in community health centers.

Primary Health Care communities For this study, it means the health professionals working in the health center and the community served by the health center.

Rural community Geographically, this is an area away from towns and cities with farmland, villages and homesteads.

ABSTRACT

Community participation is of paramount importance for the success of any community project. This study aimed at determining the level of community participation in rural health care services and the associated factors in enhancing community participation in Kakuyuni sub-location, in Machakos County. The planning and implementation of rural health care services, is dominated by the individual interests of their leaders or influenced by other local leaders, political leaders and facility in charges rather than the community itself. The objectives of this study were to; To determine at what level the community participates in rural health services, to determine the socio-demographic and community related factors that affect community participation in rural health services and to determine the challenges hindering community participation in rural health care in Kakuyuni Sub location, in Machakos County. An interviewer administered questionnaire which was both closed ended and open ended was used to collect data from 384 participants. A cross-sectional analytical study design was used to conduct this study. The quantitative data obtained was analysed using SPSS software version 24, and Chi square was used to determine significant results. The sociodemographic factors were analysed using descriptive statistics. To analyse the factors, cross tabulation and independent chi square (χ^2) tests were used with P values of 0.05 to determine the significant factors. The significant factors were then entered in for Binary Logistic Regression, and finally to multivariate regression. The researcher found out that, 59 (15.4%), of the respondents were involved in needs assessment, 36 (9.4%) at implementation stage, 1.6% at monitoring and evaluation, and 1.3% were involved in all levels of rural health care. However, most 278 (72.4 %) of the respondents reported no involvement at any level of rural health care. The following factors were significantly affecting community participation towards rural health care services; length of stay in the area and community mobilization. Some of the challenges hindering community participation in rural health care facility services included; lack of laws specifically governing implementation of community projects; majority of community members lacked knowledge on community participation 349 (90.9%) on when and where to participate in, lack of community empowerment, poor leadership in the community, lack proper representation and poor infrastructure, poor management systems and poor communication systems. In conclusion, Kakuyuni community members community participation in Kakuyuni Sub-location was low at 106 (27.6%). The study recommends that the community should be enlightened on community participation and their role in rural health care facility services, there is need for increased community mobilization and empowerment to the community members on community participation to ensure increased participation and more so in males and the need for Community leaders to be sensitized on governance, community empowerment and establishing good communication systems. All this together will make the community members to gain control of the program and decisions that shape their health care.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Community participation refers to the action of local people being collectively involved in assessing and identifying their needs, implementing and evaluating health programs and sharing the benefits **(**Rifkin, 2014). Community participation in health plays a vital role in the provision of primary health care (PHC) services to the community. Community participation has been a continuous theme in development discussions for the past 50 years (Rifkin, 2014).

Primary health was initiated as a government policy priority for health systems strengthening due to PHC's ability to provide accessible and continuous care. In accepting primary health care as a government policy, all members of World Health Organization (WHO) recognized the importance of involving the community in rural health facility services, since the community is the intended beneficiaries of these services **(**Rifkin, 2014). It was also agreed that community was to be involved all the way from need assessment, planning, implementation and evaluation. This is what constitutes levels of rural health care (Lock**,** 2017). An effective partnership between community residents and the health professionals and stakeholders of health is essential for community-based solutions. This helps by advancing health equity and making community involvement a shared vision and value, by increasing the community's capacity to shape outcomes, and fostering multi-sectoral collaboration (Baciu *et.al*, 2017).

Community participation lays emphasis in PHC collaborations, the residents and health providers need to work in together because each has an area and some level of expertise to participate. Partners are able to employ different unique skills and access resources to serve as a variety of roles in rural health care. A partner could serve as a convener of coalitions in data collection and analysis, as a funder, and also as philanthropy. Through all these skills, the Partners get involved in actions and interventions that address the underlying or predisposing causes of rural health

inequity through engaging the community to participate **(**Mitchell & Black, 2016). In recent years, community participation in healthcare design and co-production is increasingly highlighted in health policy reform in the United States, Canada, Australia, Asia, and Europe as good for rural communities. Implicit in this policy is a view that rural communities require solutions tailored to their challenges and that rural communities provide appropriate places of community health participation.

There is an assumption that, when community members are involved in community health care delivery that local citizens will build the resilient, self-determined communities needed to deal with complicated rural issues of financial and structural access to health care and poor health. Collaborative approach is used, to bring together health care professionals, people using the services in the community setting and citizens to harmoniously develop and deliver rural health services. The key interest in encouraging community participation is that by giving decision making powers to the community members, the members will be responsible of their own health, costs will be contained and health care outcomes will improve (Kenny *et al.*, 2015).

Even after the importance of community involvement in health services has widely been expounded, the actual involvement is less apparent in the community level. Community involvement is viewed as a gate way to success in the delivery of health care, however, there seems to be very little or no actual community involvement in the community context **(**Musau *et al*., 2010). The community members can either be directly involved or indirectly involved in provision of primary health care. Indirect involvement means the elected officials and professional administrators should act on behalf of the community members in representing their democracy. Direct involvement includes direct participation of community members in delivery of these services such that they own the government and should be involved in the decisions of the State (Kenny *et al*., 2014).

1.2 Statement of the Problem

In 1978,the Alma Ata Declaration set principles to guide the planning, implementation, and evaluation of community-oriented health programs. One of the principles as per Alma Ata Declaration outlined the right and duty of people to participate individually and collectively in planning and implementation of rural health care. Despite the Alma Ata Declaration principles, community participation has not yet cultivated enough success in the past **(**WHO, 1978). Despite a uniform consensus that communities should be actively involved in improving their own health, evidence for the effect of community participation on rural health care outcomes is low (Marston *et al.*, 2013).

There is a growing body of work that documents different levels and models of community participation, significant gaps and outlined practical challenges of community participation in rural health care. Many African countries face challenges in involving communities in rural health care services (WHO, 2014). In the recent past, the process of planning development regarding health care activities in many countries was coordinated and controlled by the central governments. When this strategy failed to achieve the expected development from centralized planning system, policy makers and planners, opted for a decentralized planning and implementation approach from central government down to the community (WHO & UNICEF, 2014).

Communities still face problems in trying to participate in rural health care since decision making and the allocation of resources for primary health care remains in the hands of medically trained people. Until those who make decisions and resource allocations understand that primary health care extends beyond provision of rural health services to help cultivate the culture of community participation, it is likely that community participation will remain a mere theoretical outline (Porche, 2004).

Despite the efforts of the government availing policies, guidelines, and community representative organs, actual implementation of community participation has been poorly achieved. The national policy is well defined with greater focus as improved health care delivery services (Oyore et.al, 2010). The underpinning proposition is

that by giving decision-making powers to community members, health care will be locally responsive, costs will be contained, and health outcomes will improve. What happens in the practice of enacting community participation in health-care decision making is less clear. Despite the growing body of work that documents different levels and models of community participation, significant gaps that outline the practical challenges inherent in rural community participation remain (Rifkin, 2014)

Again, there is much recognition of public and community participation by the Kenyan constitution in Articles 10 and 232 and Chapter 6, in which a people-centered approach and social accountability in planning and implementation has been encouraged. Despite all this recognition, there has not been much success in improving the situation of community participation. The planning and implementation of services in rural health facilities, has been seen to be dominated by community leaders' individual interests or the community participation is influenced by other local leaders, political leaders and facility in charges rather than the community itself (WHO, 2015). The level of community involvement in Machakos County is not well documented. Therefore, this study seeks to establish the level of community participation in Kangundo Sub- County in rural health care, in Machakos County.

1.3 Justification of the Study

Different community have different health needs, to understand individual community's' challenges, it is necessary to encourage community participation or public participation. (Runnels & Andrew, 2013). The Kenyan constitution considers public participation as fundamental pillar in providing services to its citizens. It promotes democracy by providing the public with the opportunity to take part in decision-making process in government.

Community involvement is the key to success in the delivery of rural health care, yet there seems to be very little or no actual community involvement in the community context (Kenny, 2014). Although in the Alma Ata conference (1978), community involvement in health was identified as one of the principles in PHC practice (Alma Ata, 1978), forty years post this conference there is still a missing link between the

community and health care system. Community members are being mere recipients of the health care and not involved in the decision making and planning of rural health care (Grady, 2010).

Therefore, the results of this study will be useful in constructing local participatory strategy and programs aimed at enhancing local community participation in Kangundo Sub-County rural health facilities, in Machakos County. Consequently, the results of this study will also be used in policy formulation for community participation purposes in Kenya. The findings will also be used in various regions of this country with the same geographic and socio-economic characteristics with the aim of improving rural health care. Again, the results of this study will also be important in building the body of knowledge to all people working with the communities in Kangundo Sub-County.

1.4 Research Questions

i. At what stage does the community participate in rural health care in Kakuyuni sub-location, in Machakos County?
ii. What is the socio-demographic and other related factors affecting community participation towards rural health care in Kakuyuni sub-location, in Machakos County?
iii. What are the challenges hindering community participation in rural health care in Kakuyuni sub-location, in Machakos County?

1.5 Objectives of the Study

1.5.1 Broad Objective

To determine the level of community participation in rural health care and the associated factors in Kakuyuni sub-location, in Machakos County.

1.5.2 Specific Objectives

i. To determine at what level the community participates in rural health care in Kakuyuni Sub Location, in Machakos County.

ii. To determine the socio-demographic and community related factors that affect community participation in rural health care in Kakuyuni sub-location, in Machakos county

iii. To determine the challenges hindering community participation in rural health care in Kakuyuni Sub location, in Machakos County.

1.6 Research hypothesis

Null Hypothesis (H_0)**:** there is no association between socio-demographic/ community related factors and community participation.

Alternative Hypothesis: there is an association between socio-demographic/ community related factors and community participation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents related existing written information on community participation in rural health facility services. It examines community participation in terms of the community involvement in rural health care, perception of the community towards community participation and the challenges facing community participation in rural health care. The chapter ends with a presentation of the theoretical and conceptual framework.

2.2 The level at which Community participates in rural health care facility services in Kakuyuni, Machakos County

Community Participation is a strategy through which community members and other stakeholders are able to influence various levels of rural health care (Mremi, 2018). When the community members are involved in assessing their own needs and in coming up with strategies to meet those needs; there is an increase the intervention ownership and sustainability of the project, while responsiveness to community needs in planning and implementation of the suggested health program can help in improving health equity, service delivery and uptake of care (Marston *et al*., 2013). Community participation has been seen to lead to improved health (Rifkin, 2014**)**.

Every project whether small or large has essential milestones at the beginning, middle and towards the end and this is what is termed as project development cycle. In project development cycle, the beginning is need assessment and planning. In the middle, there is implementation and at the end, there is monitoring and evaluation, and closure. This is what is referred to as project development cycle. Community participation entails involvement in the development process affecting communities. Working with an understanding of the project development cycle helps to keep facility projects organized and on track from ideation to completion (Lock**,** 2017).

Recent research has shown that additional emphasis has been placed on community involvement in planning, decision-making and evaluation (Mitchell & Black, 2016).

Developing community based rural health needs assessments (CBRHNAs) has been a cornerstone of local health and human service planning for decades. This is because it is a process of engaging the community in data collection, analyzing the data, and in interpretation on health outcomes and health determinants. It also involves identification of health disparities, and identification of resources that can be used to address priority needs (Vest & Gamm, 2017). Community participation in healthcare is a core element of health which requires going beyond consultation to enable citizens to become an integral part of decision making and action process **(**WHO, 2004).

In the recent past, community participation has become an important concept in health care delivery, and it has greatly been guiding the development of policy and health care programs. The policy in direct community involvement and ownership through active participation in the identification of the problem areas occurs in a cyclic process which includes, assessing, planning, implementing, monitoring and evaluating health facility development projects in the community. The actual practice shows that local community leaders commonly complain about the failures of the central authorities to respond to local priorities, and having a central power in making decisions without consulting the community (Rifkin, 2014).

Selection criterion of community representatives is an open process and transparent process within each community. For full representation, ten members have to be selected in the locality of each rural health facility. Community committee members should be elected or endorsed by the community members. They should also be honorable community members who are socially acceptable with good communication skills. They should also be of certain academic level and be willing to attend initial training and periodic refresher training courses. They should also be residents of that particular community sharing the local language and culture **(**WHO, 2014**)**.

Community participation varies a lot from one communal area to another. Some people consider community participation as a matter of principle while to others its termed as a matter of good practice that allows communities to participate in assessing their own needs, planning on how to meet them, deciding on meeting those needs and evaluation. Since Community participation is the involvement of community in a project to solve their own problems, community Participation can involve processes such as information sharing, consultation, debate and empowerment (WHO, 2014).

It is evident that effective community participation can lead to the project ownership and its success. However, lack of effective community participation can contribute to failure of project to attain its goal. Therefore, it is necessary to understand that effective community participation attains both interactive and spontaneous community and resource mobilization. Interactive participation is that beneficiaries join with external staff to analyze their situation, develop action plan, implement and monitor. In spontaneous mobilization, people take their own decision independently of external professionals to change their life situation. There are other important variables which can be achieved through community participation. These are community empowerment and community capacity building. Community participation has been seen as an empowering instrument to gain control over life enhancing systems and structures. Community participation is a fundamental right of community members and a means of Journal of Public Policy and Administration engaging poor people in joint analysis and development of priorities in their own area. The ultimate goal of the participation should foster the existing capacities of poor, local women and men to increase their self-reliance in health care (Chambers, 2013).

Different countries have put in place various mechanisms to engage the rural communities in delivery of health care services and community programs. In Tanzania, although the government made great efforts to reform the health care systems by developing the comprehensive policies and guidelines, there were still challenges in terms of accountability, getting the community voice and feedback (WHO, 2015).

Kenya has a legal framework for Public Participation. It includes the Kenyan constitution and the Acts of Parliament. An act of parliament is a form of legislation passed by both houses of parliament (Senate and National Assembly) to create a new law. The Kenyan Constitution has several Articles which dictate on how citizen should participate. Some of these articles include; Article 1(2) of the constitution that indicates that all sovereign power belongs to the people of Kenya. The people of Kenya may exercise their sovereignty directly or through their elected representatives. Another article is, Article 10 (2) a, b and c which dictates that the national values and principles of governance include; democracy and participation of the people; inclusiveness, good governance, integrity, transparency and accountability. Article 27 of the Kenyan constitution guarantees equality and non-discrimination. Therefore, public participation should ensure equality and non-discrimination. In the same constitution, Article 33states that public participation should respect the freedom of expression of all participants. These and many more others provide a ground for public participation in developmental projects either at national level or the community level. It is therefore paramount to identify the factors that affect community participation in rural health care aimed to benefit the community. The subsequent sub-chapters shed light on some factors that have been associated with community participation in previous studies.

2.3 Factors that affect community participation

Community participation is an approach used to have the local people being able to get involved in rural health care. A study shows that, there are many facilitating and inhibiting factors to community participation to include community governance and management among others (Kaseje et.al, 2010). Review of literature on factors affecting community participation in this study has been done in three areas: demographic factors, cultural factors and political factors.

2.3.1 Demographic factors affecting community participation

Individual demographic characteristics like age, gender, and education level contribute directly or indirectly participation of community members in rural health care. In Bangladesh, it was reported that lack of transparency in decision making and

management of resources led to dissolving of community committees and compromised trust necessary for villagers to work together for the success of the community projects (Kaseje *et. al*, 2010**).** Factors like cultural beliefs, education and level of knowledge, age and gender affects community participation in rural health care. In reference to Global strategy for women's, children and adolescent's health, it is clear that women, children and adolescents are potentially the most powerful members of the community known for improving their own health and achieving prosperous and sustainable societies through community participation (Marston *et al*., 2016).

2.3.1.1.Gender

As per previous studies, gender and gender differences was found to affect social and community participation; for example, older women were found to be more likely to participate in community activities, while men were more engaged in physical activities. This was showing how gender roles affect participation of community members. The study also revealed that in implementation of community projects each gender had specified roles (Naud *et al*, 2015). Moreover, a multiple case study was conducted with an aim of in-depth exploration of the perspective of older adults, their families and health professionals in community participation, the study showed that women's and men's social participation needs were different (Turcotte *et al.*, 2015). In another study, more women indicated a desire to participate in more activities compared to men (Kirkland *et al*., 2015).

It is well established that gender is a significant factor influencing community participation in rural health care. Men and women will often pose different views and perspectives in terms of infrastructure problems and requirements. It is therefore important that these different views are known, acknowledged and are incorporated in planning phase. Evidence shows that while there is a tendency for African men to make the decisions about physical improvements in the community, it is actually the women who are the primary implementers of these activities (Grabman *et al.*, 2017).

On the other hand, community participation is considered a prerequisite for a good sense of ownership, its successful implementation and sustainability of the rural

health care in the community. Therefore, the global strategy for women, children and adolescents, realized the knowledge gap and chose to empower them so that they could realize their rights highest attainable standards of health and well-being. Participation does not mean acceptance of all ideas from diverse groups. In participation, there is a need to combine indigenous and intellectual knowledge. However, care must be taken so that intellectual knowledge does not influence that of the indigenous origin (Marston *et al*., 2016).

2.3.1.2 Education and Literacy

While education cannot be easily separated from related factors such as economic and social status, aspirations, attitudes and skills, it is notable that education and literacy levels are significant factors affecting a community's willingness and ability to participate in health care. The degree and form of participation adopted depends on individual level of education and literacy. Literacy levels should affect the choice of strategies and mechanisms used to facilitate participation, and micro-planning tools and techniques may need to vary from literate to illiterate areas. Experience shows that employers target workers with specific level of education (Mwaura & Ngugi, 2014)

The existing knowledge base and the skills found in a poor neighborhood are determining factors in the form of participation that a neighborhood group is able or willing to take on. At the outset, communities are generally not familiar with the various aspects of service delivery and have little understanding of participatory processes or governmental procedures. The knowledge and skills gained in working at various levels in rural health care, can be accrued and help in implementing rural health care, the scope of knowledge and skills already available in the community impacts upon community and individual participation. Political awareness, technical know-how and management skills may also affect the stage and form of participation. The availability of specialist trade skills financial or accountancy skills, for instance will promote more willingness and offer broader opportunities for participation in rural health care. Successful municipal initiatives build on the

existing knowledge and skill base as well as creating opportunities for developing that skill base (Sally & Rosemary, 2017).

2.3.1.3 Age

As the proportion of older adults around the world has grown and is projected to increase further, global organizations have stressed the importance of ensuring that seniors live in enabling environments and age-friendly communities to enhance community participation in health care (United Nations Population Fund, 2012). Two important components of these environments are a positive social setting and opportunities for social participation, since research has generally found associations between social participation and positive older-adult health outcomes (Menec *et al*., 2011). Indeed, these relationships have been identified across numerous contexts, including North America (Gilmour, 2012). No previous study has shown disparities in age affect community participation. The association between age and areas of residence also not clearly indicated how it influences community participation. In particular, researchers have just begun to study how social environments differ between rural-urban contexts; and the implications this may have for older adults living in these places (Levasseur *et al*., 2015).

2.3.2 Political factors

Survey respondents highlighted the role played by ministry officials, politicians and other leading figures that are willing and able to advocate, pass legislation and implement health reforms that support PHC. However, it was also noted that formal institutional arrangements such as ministerial councils set up to oversee PHC help to ensure that gains are sustained beyond electoral cycles (WHO, 2018).

2.3.3 Cultural factors

Culturally-appropriate materials in local languages are needed that are suitable for a range of literacy and numeracy skills for programs where community members participate in analysis of health data as a basis for decision-making and action (MASCOT, 2014). Programs in Indonesia, India and Nepal highlighted the

importance of programme personnel understanding and working to mobilize social networks in culturally-sensitive ways to bring about changes in social norms Women's low status appears to have influenced how community priorities were set, how decisions were made at the household level, and also influenced women's level of participation (Ahluwalia, 2010). Gender inequity manifested in different ways in different places. For instance, in Peru, Quechua women were discriminated against and treated poorly by health services staff. Ongoing local conflict also affected their sense of security and limited access to health facilities (Harkins *et al.*, 2018). Similarly, in India husbands were reluctant to participate in maternal health interventions, describing maternal health as a "women's issue." Study authors reported, "It was clear that efforts to make husbands more supportive questioned deep-rooted norms and beliefs, and met with considerable resistance; consequently, husbands were slow to change their views." (Kaufuman & Yang, 2012). The studies in Bangladesh showed how women suffered from violence in multiple settings: at home, in communities and in rural health services (Hossain & Ross, 2012).

2.4 Challenges affecting community participation in rural health facility services

Globally, community involvement is covered and highlighted in health policy reform needed for rural communities. Inherent in this policy is the fact that the complexities of the rural environment are too difficult with no easy solutions and that community participation available to build resilient, self-determining communities capable of managing complex rural access and equity issues and control poor health outcomes (Kenny *et al*., 2015).

On the other hand, policy environment views community participation as good practice for rural communities. Scholars of community participation list the related concepts as active citizenship, democracy, transparency, government scrutiny, collective problem solving, social capital, and improved efficiency and effectiveness of service delivery. Questions regarding the practice relate to purpose, goal and focus are fundamental and need, if not resolution have arisen, at least to enact acknowledgement and discussion in policy arenas (Head, 2011). Community

participation has got its own shortcomings according to many researchers. The researchers criticized that, community participation does not lead to local people empowerment, because participatory methodologies fail to change and challenge the bureaucratic, centralized and administrative structures that control decision making and resource allocation (WHO, 2014).

2.4.1 Lack of project ownership

Community participation is affected by absence of sense of ownership. If we accept that communities exist, then it is important for the communities to be involved in all levels of health care. It is when the community members get involved in generating their own issues in order of priority, plans for effective strategies to sort the issues and gets involved in implementing the strategies that the community members can own rural health care (Runnells & Andrew, 2017). When community members are not engaged in their own rural health care, then they lack sense of ownership and brand health care as sponsored. Lack ownership is an indicator of failure.

2.4.2 Equity and equality

Community participation is influenced by equity and equality. Equity includes distributing the projects in a rural community depending on the need. Equity implies that community are diverse and should be treated as unique as possible, and equality dictates that although communities are diverse, everyone in the community should profit in the same manner from rural health care (Rifkin, 2014**)**. Community participation accepts that communities must mean more than rich getting together to get themselves a good hospital to receive services but putting hands together and make better the local health facilities. To deal with this view of community means to acknowledge diversity.

2.4.3 Poor leadership

Community participation is challenged by leadership and governance issues since the ancient of time. The intention of control processes is to produce strategy and order. However, the lack of knowledge of governance processes to support effective

community participation is a gap in influencing community participation. With the desire to be involved by all local leaders with the current community in the rural health care results in the misunderstanding in leadership and governance. In establishing community participation initiatives, brings a complex question of inclusion, representation, and legitimate types of knowledge. However, even if these issues can be dealt with, there is often tension between innovation and documentation of evidence on what works in the community participation space.

Community participation possess the big question of how sustainable it can be. The challenge of enacting community participation and strategic imperatives of organizations results in questions about the sustainability of health care. Sustainability as an outcome might be represented by improved livability and strengthened social connection. The role of each leader in all levels of health care should be clear. The fundamental message is that stakeholders should be clear about what they are participating in rural healthcare, and once the issue has been explored and considered, it may be appropriate to cease participation on that issue **(**Kenny *et al*., 2015**)**.

Community participation may be misused by some leaders for their own self-interest. Through community participation, what could be considered to be local knowledge might be a construction of the planning context that cover a complex micro-politics of knowledge production and use in local communities (Oakley, 2017).

2.4.4 Community support systems

Community participation sometimes can be dominated by some local authorities which may affect its power. Domination of community participation by some individuals and groups does limit participation since participatory activities take place in groups. Such participatory techniques may conceal traditional local relationships of power and fail to deal with situations where local culture hinders participation by being oppressive to certain people. Due to this, participation in rural health care is affected by political factors, social influence and cultural beliefs. Therefore, to ensure successful community participation, there is need to put it in the community context within the existing local environment, because the contexts in

which community participation stakeholders operate are complicated and diverse (Oakley, 2017). Community participation in healthcare is a core element of health which requires going beyond consultation to enable citizens to become an integral part of decision making and action process (WHO, 2008). In developing countries, the concepts of health promotion, self-care and community participation are still in early stages, with some of the challenges experienced by health workers trying to facilitate meaningful participation in decision making relating to lack of clarity in defining the concepts of community and participation and the range of processes participation to include health workers (Rifkin, 2014).

Community participation majors on quantity and not quality especially that which is partner supported. Historical profiles of developing nations record an increased number of NGOs during the eighties and nineties but they often tended to focus on how much to deliver rather than on what to deliver. The language of participatory development was increasingly couched in terms of effectiveness, efficiency and sustainability, putting the accent of professionalism and technical capacity to deliver (Lockwood *et al.*, 2010).

Nevertheless, Participation fatigue can be a real issue in rural communities during community participation. Developing different ways for people to participate might be one strategy, but there is also a need to clearly recognize that all participation does not have to be protracted for a long time period to be sustainable. There are risks associated with community participation processes being viewed as outcomes or outputs, in that community fatigue from being involved in a multitude of projects in a rural health facility set up, impacts on the ability to really harness sustained, long-term participation for change in service delivery (Kenny *et al*, 2014). Despite all this recognition, there is a big gap on effective community participation in rural health facility services in sub-Sahara Africa for the last two decades, (WHO, 2014).

In Bogota, Columbia, the national policies emphasized on a non-profit based and market-oriented health care system. The Bogota local government felt that its rights were limited with less approach rooted in community participation and minimal empowerment of social groups and inter-sectoral work (Mosquera, *et al*., 2013).

With the inception of the Kenya's Community Strategy, the ministry of health (MOH) has experienced difficulties in implementing, monitoring and evaluation (M & E) framework to assess the impact and efficacy of community participation in health care compared to its intended results (Oyore, 2010). As a result, community members only received whatever service, good, decision or resources that was offered to them. In Kenya, despite the multiplicity of government arms, low citizen involvement exists in health care (Zhang, 2012). In 2007, MOH established the Division of Community Health Services (DCHS) to facilitate the strategy implementation. There was an observation that only the areas that had implemented the strategy enjoyed better health seeking behaviors in communities and better health outcomes, limiting those other areas (Oyore *et al.*, 2010**)**.

2.4.5 Laws related to project implementation and community participation

Since the enactment of the new constitution, there emerges numerous and substantial organizational and legislative challenges within the local government in the implementation of the strategy. The devolution of the national government places the county governments as independent required a reassessment of the DCHS capacity to effectively execute its community participation mandate both at the national and community levels and to provide policy and technical guidance to the independent local governmental structures **(**GoK, 2010**)**.

At the national level, DCHS recognized that key elements were missing in its capacity to identify and respond to the need for quality health information and data. Among the areas that the strategy addressed were health care referral service system and the civil registration and vital statistics system (GoK, 2010). In another study, the functions and responsibilities of the community units needed definition, which would, in turn, determine the scale of health services delivery at the community level (Oyore, 2010).

The community unit structure which was developed, so as to get in touch directly with community health extension workers, households, and affiliate health facilities. This forms the nearest health facility within a community's and link for seeking all health services. It was identified that the community unit, which draws its members

from the catchment local area, is led by the community health workers and office personnel to support the community health extension workers in their community related health work. The community unit structure requires data for routine decision making at the community level (MOH and USAID, 2013). Lack of proper tools posed a challenge for a long time, at all levels of the Kenya CHIS. Tools such as: standard guidelines and data collection forms, and a consistent system to ensure the availability of quality data for use in decision making. The problem is not helped due to the high turnover of CHWs and the limited demand and use of CHIS information (MEval-PIMA, 2016).

An efficient community unit constitutes a key component for the community level structure to promote health activities, and therefore, constant assessment is needed to determine the functionality at community Level. Community health services implementers, on the other hand, need to understand CHIS functionality and how it influences community health indicators. In the past community unit functionality had no clear categorization (USAID & PEPFAR, 2014).

2.5 Theoretical Framework

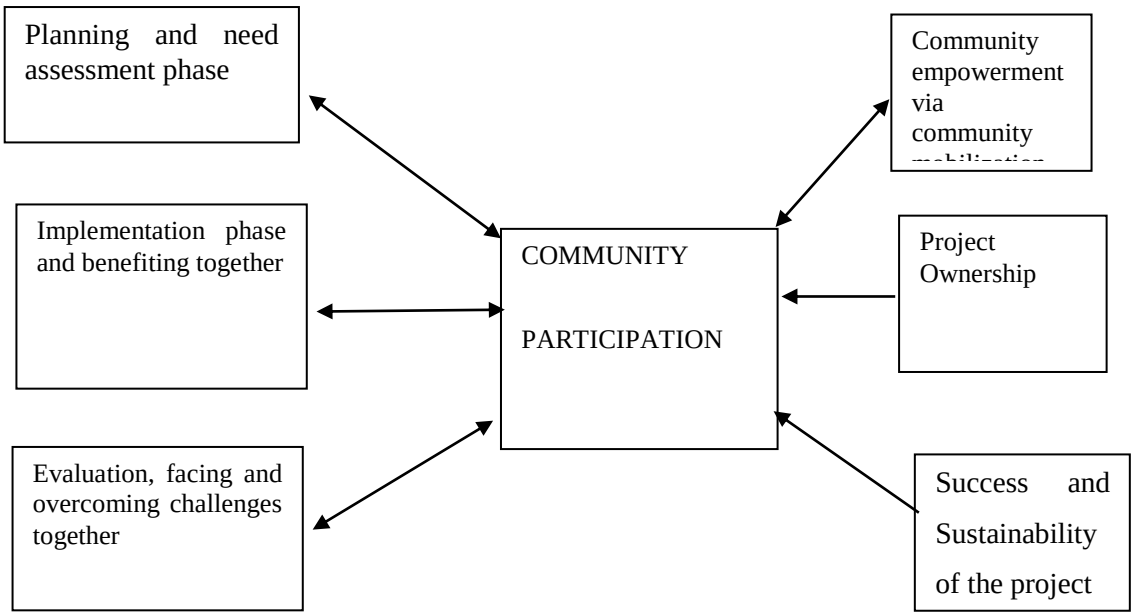


Figure 2.1: Model partnership (Source; Reedy 2002),

Narayana Reddy (Reddy, 2002), in his book entitled, "Empowering communities through Participatory Methods." Reddy (2002) explains that the governments and communities work together in each stage of project development cycle, from planning and decision-making, implementation and evaluation to achieve long-lasting results and sense of ownership. He described the main objective of community participation is meant to achieve. He also interpreted community participation as a means of generally mobilizing all resources to get things done, where participation is identified as a development goal process whose outcome is increasingly meaningful in the development process.

2.6 Conceptual Framework

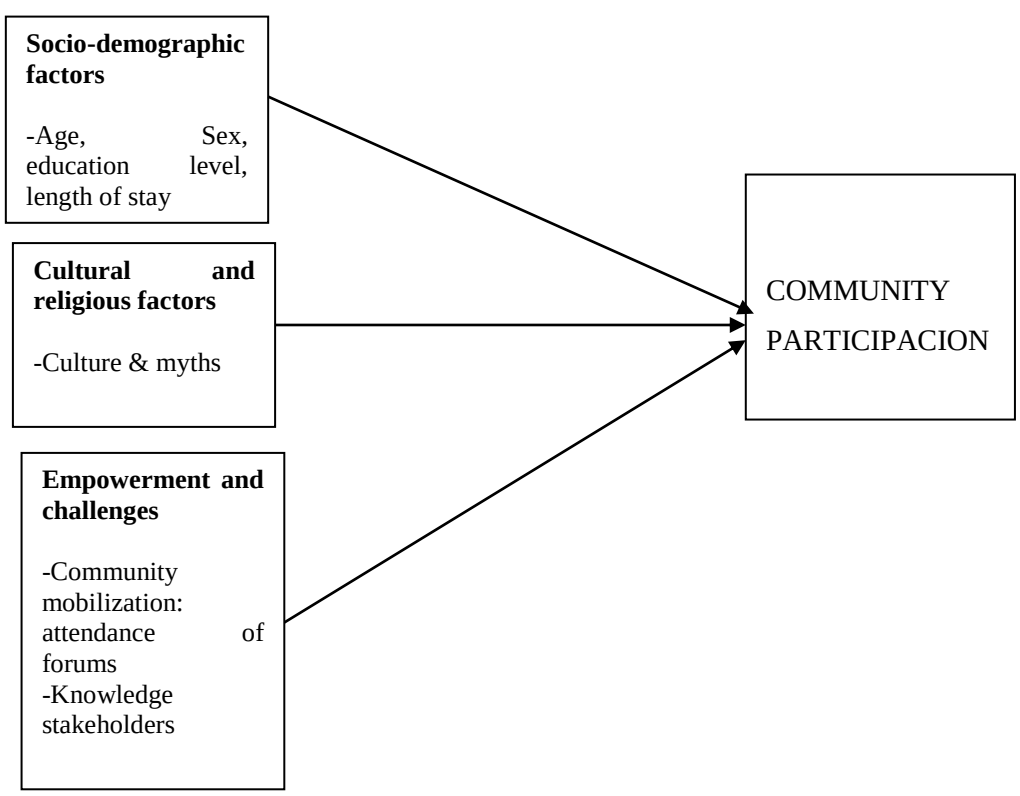


Figure 2.2: Conceptual frame work

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

Analytical cross-sectional study design was used in this study. Research design is often used in reference to the techniques and methods applicable by an investigator or researcher when systematically putting together the different components in a research in a logical manner meant to assist in analyzing the issue under study (Akhtar, 2016).

3.2 Study Area

The study was conducted in Kakuyuni Location, which consists of the catchment population of Kakuyuni Health Centre in Kangundo Sub-County, Machakos County. Kakuyuni Health Centre serves an estimated catchment population of 10800 people in an area of about 8 km square. It is found on the southern part of Machakos county headquarters.

3.3 Study Population

Population is an entire group of individuals' events or objects having common observable characteristics (Mugenda & Mugenda, 2003). For the current research, the study population involves the permanent residents of Kakuyuni, sub-location. This study focused on all adult residents of Kakuyuni location, Kangundo Sub-County.

3.4 Sample Size determination

Kakuyuni location has a population of 10800 people according to census 2009. It also has 1200 homesteads.

Fisher's formula was used to estimate the sample size. Since there was no estimate available of the proportion in Kakuyuni, the target population assumed to have the characteristics of interest was estimated to be 50% as recommended by Fisher et al.

$$n = \frac{Z^{2pq}}{d^2}$$

Where:

n = the desired sample size (if the target population is greater than 10,000)

z = the standard normal deviation at the required confidence level.

p = the proportion in the target population estimated to have characteristics being measured.

q=1-p.

d=the level of statistical significance set.

The proportion of a target population with a certain characteristic is 0.50, the z-statistic is 1.96, and we desire accuracy at the 0.05 level, then the sample size is;

$$n = \frac{(1.96)^2(.50)(.50)}{(.50)^2}$$

= 384

The minimum required sample size was 384 respondents.

3.5 Sampling method:

Multistage sampling procedure was applied on the Kakuyuni residents. First, 2 sub-locations were randomly selected out of the 4 sub-locations of Kakuyuni Location. After that, six villages were randomly selected out of the 12 villages in the sub-location, whereby 3 villages were from each sub-location. This was followed by systemic sampling of the homes in each of the selected villages, where by every 3rd homestead was interviewed. In the selected homesteads, one adult of sound mind, either male or female was interviewed; this helped to eliminate gender bias.

3.6. Inclusion and exclusion criterion

3.6.1 Inclusion criterion

Residents of Kakuyuni sub-location who are of 18 years and above

Residents of Kakuyuni who are permanent residents in the area or those who have stayed in the area for more than 3 years.

3.6.2 Exclusion criterion

Residents who are mentally ill.

3.7 Data Collection Tools

A structured interviewer administered questionnaire with both closed ended and open-ended questions was administered to the residents of Kakuyuni Sub location.

The questionnaire was pretested in Kivaani Sub-location prior to the real data collection procedure. The research supervisors were consulted after the pretest and ambiguous questions were eliminated from the tool to ensure tool validity of data instrument was done prior to the main data collection activity. The tools used in the study were tested for reliability and found reliable. The tools' reliability was calculated using half split method. Reliability alpha coefficient value was .78 which was accepted.

3.8 Data Analysis

The contents of the questionnaires were systematically organized in tables and checked for completeness, edited for errors and mistakes, after which they were coded. After that they were entered into excel spread sheet and then imported into SPSS software version 24 for analysis. The sociodemographic factors were analysed using descriptive statistics.

To analyze the factors, cross tabulation and independent chi square (χ^2) tests were used with P values of 0.05 to determine the significant factors. The significant factors

were entered in for Binary Logistic Regression, and finally to multivariate regression. A confidence interval of 95%. Odds ratio and p-value were worked out to find out if to some extent there is relationship exists between the two variables being investigated i.e., confounding factors. Multivariate logistic regression model was used to identify the important determinants of community participation in facility sub-project development cycle in rural health facility services by controlling for possible confounding effects and was conducted by calculating adjusted odds ratios with a 95% confidence interval. The findings were presented in form of table, figures and pie charts.

3.9 Ethical Considerations

The researcher received an introduction letter from JKUA university school of nursing to seek approval from the African Medical Research Foundation (AMREF) Ethics and scientific Review Committee (ESRC). Permit to conduct the research was given by NACOSTI and clearance gain entry to the community was by County Government of Machakos. The respondents were explained on the purpose of the study and a written informed consent was sought from all participants after explaining the objectives of the study. They were assured of their right to withdraw from the exercise at any time. The researcher filled in the questionnaire and assure confidentially to the respondent and anonymity. To observe privacy, the collected data was strictly utilized for the intended purpose and was completely inaccessible to anyone not concerned in the study.

CHAPTER FOUR

RESULTS

4.1 Introduction

The chapter presents the research findings and their interpretation. The findings are presented as per the research objectives. Significant results are shown in tables and pie charts. The questionnaire was researcher administered and therefore 100% response rate.

4.2 Socio-demographic data

Majority of the respondents n=285, (74.2%) in the study were women. This can be explained by the fact that most women are found at home for family chores while men attended to other duties or go out to socialize with each other which is a common culture in this region. The age of the respondents was varied: n=282 (73.4%) were aged between 18-28 years, n=57 (14.4%) is aged between 29-38 years, n=31 (8.1%) is aged between 39 and 48 years while n=14(3.6%) were aged above 49 years. Among the participants, n=342 (89.1%) were form four leavers, while n=41 (10.6%) of the participants had completed college level of education and n=1 (0.3%) had university level of education. Other characteristics of the participants are summarized in table 4.1.

Table 4.1: Summary of socio-demographic characteristics of participants

Variable (N=384)	Frequency	Percentage (%)
Gender		
Male	99	25.8
Female	285	74.2
Age		
18-28	282	73.4
29-38	57	14.8
39-48	31	8.1
Above 49	14	3.6
Highest level of education		
Secondary	342	89.1
College	41	10.6
University	1	0.3
Religion of participants		
Christians	373	97.1
Muslims	11	2.9
Period one has been part of the community		
Less than 3 years	53	13.8
More than 3 years	331	86.2

4.3 Socio-demographic factors with community participation

4.3.1 Community participation stage in rural health facility services.

The respondents were asked to indicate the particular level or stage in which they have ever participated in rural health services. The study found out that only 106 (27.6%) respondents had participated in various stages in rural health facility services. The results revealed that, n=59 (15.4%,) of the respondents were involved in needs assessment, n=36(9.4%) at implementation stage, 1.6% (n=6) at monitoring and evaluation, and n=5 (1.3%) was involved in all the stages of rural health facility services. However, most n=278 (72.4%,) of the respondents were not involved at all, as illustrated in Table 4.2 below.

Table 4.2: Level of community members' participation

Level of participation	Frequency	Percentage
Needs assessment	59	15.4
Implementation	36	9.4
Monitoring and evaluation	6	1.6
All of the above stages	5	1.3
None of the three (needs assessment, implementation and M&E)	278	72.4

4.3.2 Being a member of Sub- County Health Management Committee

The respondents were asked to indicate whether they are members of the Sub-County Health Management committee or a member of the county assembly health committee. The respondents revealed that n=35 (8.1%) was or had at one time been members of the sub-county health management committee while n=349 (91.9%) were not. The findings were as shown in Figure 4.1.

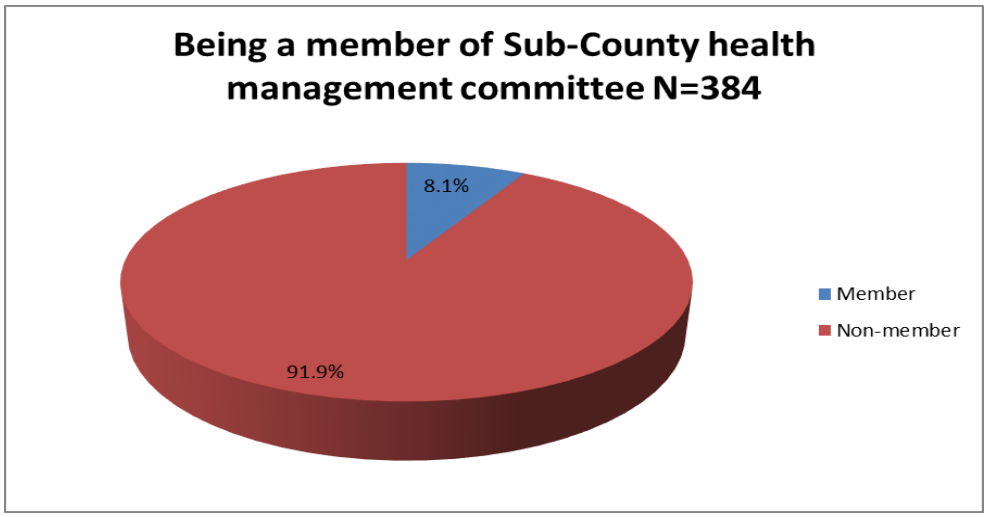


Figure 4.1: Being a member of the sub-county health management committee

It was evident that being a member of community health committee gives one a high chance to participate in the community projects as shown in Figure 4.2 This could be due to a higher level of empowerment in terms of knowledge on community participation. Out of the n=35 respondents who had ever been members of community health committee n=15(42. %) of them had a chance to participate in rural health services while n=20 (58%) never had a chance to participate.

Figure 4.2: Participation of Sub-County health committee members in community projects

4.3.3 Stakeholders in Rural Health Care Service Delivery

The respondents were asked to name the stakeholders that they know in rural health service delivery. The following were indicated as stakeholders in rural health care facility services: Community n=291, (75.8%), Government n=22, (5.7%), NGO n=26, (6.8%), Faith based organization, n=14, (3.6%), while n=31 (8.1%) reported that stakeholders all the above as stakeholders of health. Figure 4.3.

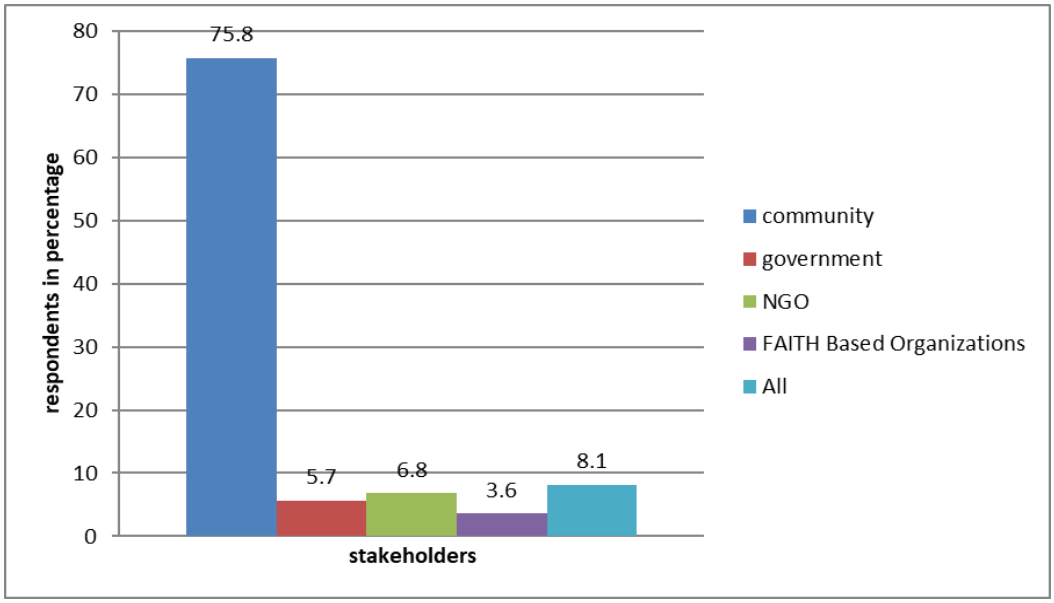


Figure 4.3: Stake holders in rural health care programs

4.3.4 Stakeholder's Representation in Rural Health Care Service Delivery

Majority of the respondents n=294, (76.6%) indicated that there was no adequate representation of stakeholders in delivery of health care services programs while; n=32 (8.3%) reported that stakeholders were adequately represented. Another n=58, (15.1%) were unaware if there was adequate representation or not as shown in Figure 4.4 below.

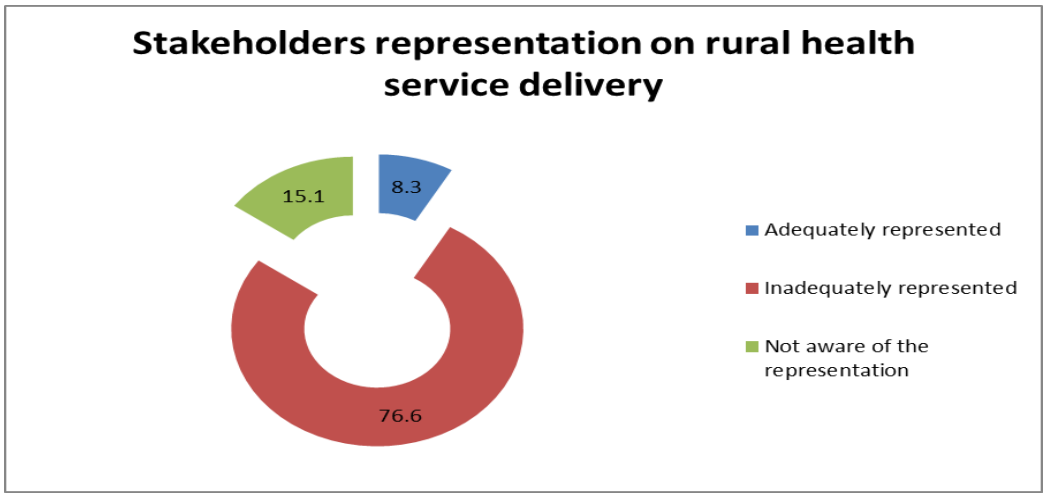


Figure 4.4: Stake holders' representation on rural health services delivery

4.3.5 Community members attendance on NGO stakeholder's meeting in the community

The community members were to indicate if they have ever attended any meeting for an NGO in the community. The researcher found out that n=357 (93%) of the respondents had never attended such a meeting in the community while only n=27 (7%) of the respondents had attended such a meeting. Out of the 27 participants, only 12 of them had participated in community health programs and out of 357 who never attended such meetings, 94 were found to have had a chance and therefore participated. This means that attendance to such meetings empowered the community members on community participation. The results were as 4.5 below.

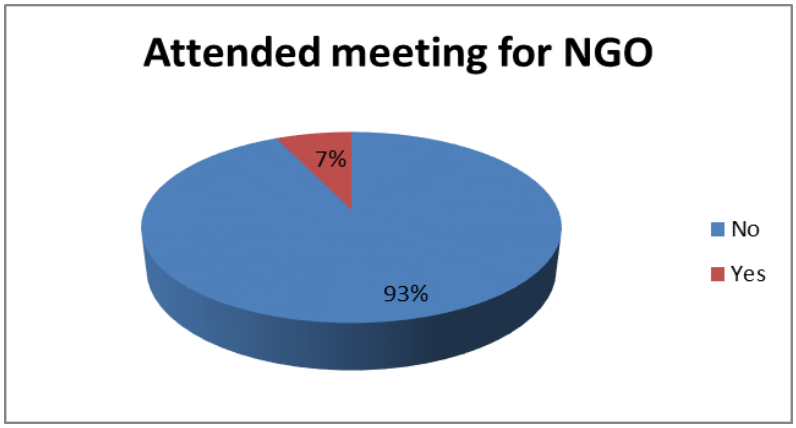


Figure 4.5: Attendance of NGO meetings by community members

4.4 Factors Affecting Community Participation in Rural Health Care

The study also sought to determine the socio-demographic factors and community related factors that affect community participation in rural health services in Kakuyuni sub-location, in Machakos County. The respondents were asked to indicate some of the factors that affect community participation in health care this community.

Association of demographic factors

Table 4.3 below shows the socio-demographic factors and how they are statistically associated with community participation. It shows that only length of stay significantly influence or affect community participation

Table 4.3: Association between socio-demographic characteristics of participants and participation in community

Variable	Category	Community participation		P. Value
		No	Yes	
Gender of participant	Female	204	81	χ^2=.369
	Male	74	25	P=0.543
Age of participant	18-28	203	79	χ^2=1.023
	29-38	44	13	P=0.796
	39-48	21	10	
	49 and above	10	4	
Highest level of education	Secondary	241	101	χ^2=5.889
	College	36	5	p=0.053
	University	1	0	
Religion of participant	Christian	270	103	χ^2=.001
	Muslim	8	3	P=0.980
For how long have you lived in this community/ length of stay	Over three years	242	100	χ^2=4.186
	Less than three years	36	6	P=0.041

4.4.1 Bivariate analysis of the factors affecting community participation in rural health programme.

The table 4.4 below shows a summary of significant factors that were found to affect community participation in rural health services in Kakuyuni Sub-Location after performing Chi square cross tabulations. In this study, 70.1% (n=269), reported that the local authority was responsible for deciding who should participate and who should not. Fifty-seven participants (14.8%) reported that health workers choose the community members to participate in health care programs in the community and this significantly affected community participation. On analysis, the members who participated in rural health care facility services depended on who chose them. There was a strong relationship between being a member of the county committee and participation in rural health care facility services. There was then a strong relationship between those persons who decided on who to participate ($P< 0.01$) and community participation in rural health care facility services. There was a strong relationship between being a member of the county committees ($P < 0.034$) and participation in rural health care facility services.

Majority of the respondents (n=349, 90.9%) had not heard of campaigns or community mobilization on community participation towards health service delivery in this community of Kakuyuni. However, 77.1% (n=296) participants reported that community mobilization can influence the community to participate in healthcare programs in the community. The members who knew and participated in community mobilization were more likely to participate in community rural health care programs than those not mobilized. This showed that there was a strong relationship between community mobilization ($P<0.008$) and community participation in rural health facility services.

The study revealed that there were limited forums like meetings that are held in the community to allow members to be engaged in healthcare programs. Majority (93.5%, n=359) of the respondents reported that they have never been involved in such meetings. Therefore, attendance to the community forums highly influenced community participation in rural health care services ($P<0.042$).

The length of stay in Kakuyuni Sub-location deternied the level of community participation in the rural health care services. Those who had been in the community for more than 3 years had a high chance of being selected to participate in rural health (P<0.041). All the factors were found to significantly affect community participation since they all had a P value of less than 0.05 as show in Table 4.4 below

Table 4.4: Association of significant factors affecting community participation n Kakuyuni Sub-Location as per Chi square cross tabulation

Variable	Category	Community participation		Chi square vales	P value,
		No	Yes		
Community mobilization knowledge	Yes	65	12	χ^2=6.963	P=0.008
	No	213	94		
Attendance on any stakeholders meeting for NGO in the community	No	263	94	χ^2=4.121	P=0.042
	Yes	15	12		
Being a member of Sub-County health management committee	No	258	91	χ^2=4.483	P=0.034
	Yes	20	15		
Who decided on whom to participate in rural health care services.	Local authority	188	55	χ^2=13.212	P=0.010
	Community committee	11	6		
	Political leaders	17	5		
	Health workers	45	34		
	All the above	17	6		
For how long have you lived in this community/ length of stay	Over three years	242	100	χ^2=4.186	P=0.041
	Less than three years	36	6		

In this study, upon bivariate regression of all the factors affecting community participation in the above table, only two factors were found to affect community participation. That is, the knowledge on community mobilization and the length of the stay in the area of study. For the knowlwdge on community mopbilization, it was found that those who had heard about community mobilization on community participation were 2.7 times more likely to participate in rural health services more than those who had not heard of community mobilization. On the length of stay, those who had been in the study area for more than three years were also 2.6 times more likely to participate in rural health care facility services than those who were less than three years old in the study area. This implied that the longer you stay in Kakuyuni, the more the other residents know you and the higher the chances of being elected to participate in community rural health services. These results were in line with those found in Tanzania which showed that community members who were raised up in the same community and lived there for long period of time were more likely to participate in community activities than newer residents (Rifkin, 2014). The results are as shown in Table 4.5 below.

The table 4.5 shows bivariate regression of all significant factors.

Table 4.5: Binary logistic of significant factors affecting community participation in Kakuyuni Sub-Location.

Variable	Category	Community participation		Crude Odds Ratio (COR)	Sig	Confidence Interval	
		Yes	No			Lower limit	Upper limit
Knowledge on community mobilization	Yes	94	213	2.739	.004	1.373	5.462
	No *	12	65				
Attendance to any stakeholders meeting for any NGO in the community	No	94	263	0.767	.551	0.320	1.837
	Yes *	12	15				
Being a member of Sub-County health management committee	No	91	258	0.469	.059	0.214	1.029
	Yes *	15	20				
Who decided on whom to attend rural health programs	Local authority*	55	188				
	Community committee	6	11	0.683	.463	0.247	1.893
	Political leaders	5	17	.619	.637	0.195	1.785
	Health workers	34	45	2.916	.864	0.927	4.054
	All the above	6	17	.618	.860	0.998	1.825
For how long have lived in this community	Over three years*	100	242	2.698	.036	1.069	6.813
	Less than 3 years	6	36				

***The first category is the reference category for each variable**

Upon multivariate regression, it is evident that only two factors that significantly affected community participation in rural health services, in Kakuyuni Sub-location upon removal of confounding factors. They were: the level of knowledge on community mobilization and the length of the stay in study area which is Kakuyuni sub-location. For the level of knowledge on community mobilization, those who had no knowledge on community mobilization, were 0.63 or 63% less likely to participate in rural health care facility services than those who had had knowledge on community mobilization. On the length of stay, with the reference group being those who have been in the community for more than 3years, then those who had lived in the community for less than three years were 0.67 or 67% times less likely to participate in rural health care services, than those who had been in the community for more than 3 years. These results are illustrated in Table 4.6 below.

Table 4.6: Multivariate regression table

Variable	B	S. E	Wald	Df	Reference category	Adjusted Odds Ratio (AOR)	95% C.I for EXP(B)	
							Lower	Upper
Who decides on who to participate in health care facility services in the community	.381	.520	.538	1	Local authority	1.464	.529	4.054
Are you a member of the sub-county health management committee	.756	.401	3.563	1	Yes	2.131	.971	4.673
Have you ever attended any stakeholders meeting for any NGO in the community	.266	.446	.355	1	Yes	1.304	.544	3.125
For how long have lived in this community	-.993	.473	4.413	1	Over 3 years	.371	.147	.936
Knowledge on community mobilization	-1.007	.352	8.180	1	Yes	.365	.183	.728

4.5 Challenges hindering community participation

Majority of respondents 89.6% (n=344) reported that there were various challenges facing the community that hindered it from participating in healthcare programs in the community.

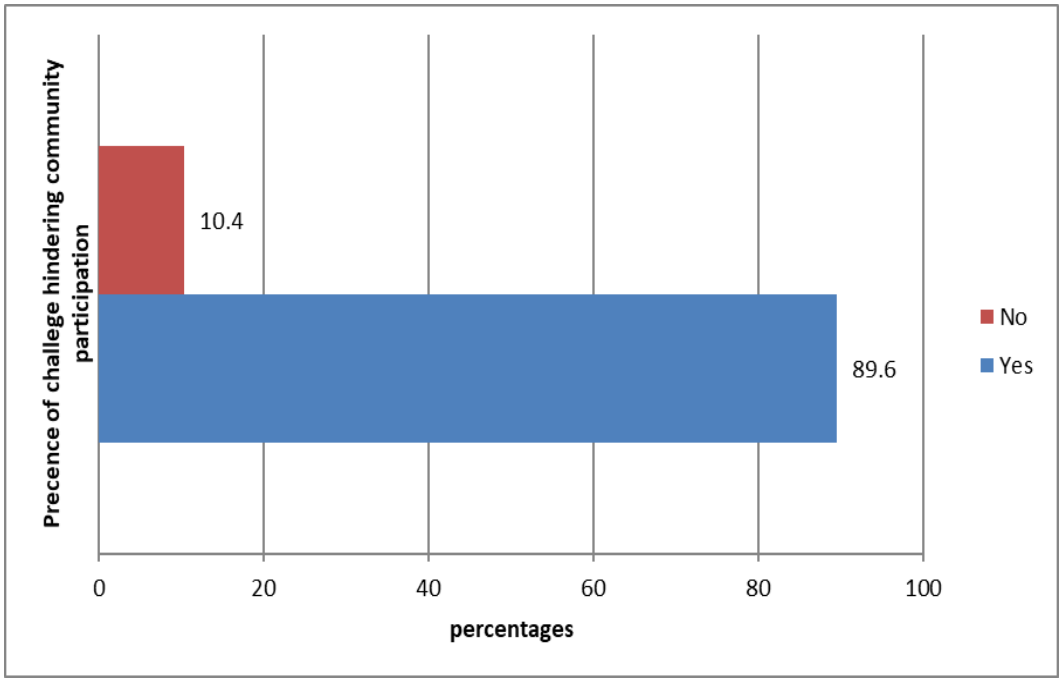


Figure 4.6: Presence of challenges hindering community participation

4.5.1 List of challenges hindering community participation.

Among the challenges indicated included; lack of clear laws on community participation, lack of knowledge on who should participate, ignorance, lack of community empowerment, devolution concentrates with leaders only, lack of proper representation, poor leadership, lack of support from leaders, poor infrastructure, poor management system, corruption and poor communication systems as illustrated in table 4.7 below..

Table 4.7: Challenges hindering community participation in rural health

Challenge	Frequency	Percentage
Lack of clear laws	102	27
Lack of knowledge on who should participate	130	34
Ignorance	125	33
Lack of community empowerment	111	29
Devolution	82	21
Lack of proper representation	94	24
Poor leadership	89	23
Lack of support from leaders	73	19
Poor infrastructure	78	20
Poor management system	56	15
Poor communication system	69	18

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents discussion of findings for the study in relation to the objectives. It also includes study conclusions, comparisons with other studies done elsewhere, recommendations and suggestions for further research.

5.2 Discussion

5.2.1 The Level in which community participates in rural health care facility services

From the research findings, it was evident that minority of the participants were engaged as either members of county assembly health committee or members of sub-county health management committee. The results further revealed that there were more chances of sub-county health committee members to be involved in community participation than the chances of an ordinary community member to be involved. These results replicate those found by Mitchele et al., (2016) which showed high odds of a committee member to be involved in community participation than an ordinary community member.

The community members of Kakuyuni, knew and were informed of who the stakeholders of health were in rural health care services. However, it was revealed that each of the stakeholders had a say in whom to participate, on what was to be done, where and when. Some members who had participated in community rural health services earlier pointed it out that they had been selected by some stakeholders; this was significantly associated with community participation in rural health care services. The researcher didn't find published previous study on the influence of stakeholders in community participation.

The community members in Kakuyuni felt that they were not adequately represented in rural health care facility services; the stakeholders were not also adequately

represented. It was found that some rural health facilities did not involve all the stakeholders. However, there was another proportion of the community members who were not sure if they were well represented or not. This made the researcher realize that even in the community there are those members who are not informed on their role in community participation, who should be a stakeholder and who should represent the community in rural health care matters meant to benefit the community. This revealed a gap in knowledge and information to the community members on community participation, on when to participate, who to participate and who to represent them in rural health care service matters and programs. Despite these facts, it was found out that there is a strong association between adequate representation of the community and community participation in rural health care services. Those who reported that they were adequately represented, were found to have participated in rural health care services compared to those who were not adequately represented or never knew about their representation.

The respondents reported that a number of stakeholders had a hand in deciding who should participate in rural health care services and who should not. Top on the list were the local authority at 63.1%. The participants indicated that the members of local authority were the ones choosing those to participate in rural health facility services. The study, further revealed that for you to participate in rural health care, it depended more on who knew you and not just being a community member. The members were not given a fair chance to participate but were chosen to participate depending on how they were known. The more one is known, the more one had chances to participate in rural health care facility services. These results concur with those of Kenny et al., (2014) which indicated that leaders in authority had a strong say on who to participate in rural health care services.

The community members were found to be involved in various levels of community participation in rural health care services. It is expected that for the community members to own the projects and services offered to them, they should be involved at all levels of rural health care services. However, in the current study it was found out that majority of the members were not involved in any level of rural health care services. The few members who were involved, reported that they were involved at

implementation stage. There was a need for the community members to be involved in needs assessment stage so that the rural healthcare services identified will benefit and fulfill the needs of the community. These results differ with those found by Lock et al., (2017) which showed that the community was involved at all levels of rural health care facility services. There is a need to explore more on why the community in Kakuyuni Location was not involved at all levels of rural healthcare facility services.

Some members were found to have attended community stakeholders forums of NGO meetings about rural health care services. The members who had attended such meetings, had high odds of being involved and participated in community rural healthcare facility services than those who had never attended.

In addition to all, being a member of the county committee, who decided on whom to attend the rural health programs, and attending NGO meetings in the community were significantly associated with the level of community participation in rural health care services.

5.2.2 Factors affecting community participation

The researcher found out that, community participation was affected by factors like, lack of community empowerment via community mobilization and length of stay in the community. There was no significant association between the age of the respondents, gender of respondents and level of education of the respondent with their participation in community projects.

There was evidence from the study findings, several factors were found to affect community participation. That is, some members had heard about community campaigns or community mobilization, some had participated in community participation campaigns. There was also evidence of community mobilization in the community towards community participation in rural health care; the members of the community who participated in the current study reported that little had been done on community mobilization. However, for the few members who had heard and participated in community mobilization, there was significant evidence that

community mobilization can influence community participation in rural health care. These results concur with those of Baciu et al., (2017) which indicated that to empower the community and involve them in community projects, community mobilization was necessary.

The findings of the current study indicated that some members attended community stake holders forums and NGO meetings which informed them on the importance of community participation in rural healthcare. The participants who had attended such meetings were 0.767 times more likely to participate in rural health care compared to the community members who had never attended such forums. These results are in line with the findings of Mitchell (2016) which recommended that community forums should be encouraged in the community to foster knowledge on community participation; who to participate where, when and why they should participate. It was found out from this study that health services had been devolved. However, the respondents did not feel that devolution of the health services had any effect on community participation in rural healthcare services. The community was not empowered in terms of information about the rural health care in the community level. Out of all the participants in the current research, most of the community members were not empowered. However, for the few participants who reported to be empowered either through community mobilization or attendance to stakholders meetings, majority participated in community rural healt hcare. This was significantly associated with community participation. The researcher found out that once the community is empowered, community participation increases. The results replicate those reported in a study in Tanzania by Baciu (2017). Community mobilization efforts and community empowerment were found to be affecting community participation.

5.2.3 Challenges facing community participation

The research findings found out that community participation was faced by various challenges. These challenges included; lack of laws specifically governing implementation of community projects; some members had no idea if there are such laws, community members lack of knowledge on community participation; when and

where to participate in, lack of community empowerment, poor leadership in the community, lack proper representation and poor infrastructure, poor management systems, corruption and poor communication systems.

In the previous studies on challenges facing community participation, it was evident that poor leadership posed a challenge in implementation of community projects (Kenny, 2014 & Okeley, 2017). In another study lack of project ownership was significantly contributing to failure of community projects (Runnells and Andrew, 2013). Therefore, the current study adds more of the other challenges facing community rural health programs.

5.3 Conclusion of the results

The study found that community participation in Kakuyuni Sub-County was low. That is: community members in Kakuyuni Sub-County were less involved in rural health care, where by the results revealed that only 27.6% of the interviewed population was involved. One of Sociodemographic characteristics had influence on community participation which is the length of stay in the area. The longer one stayed in the area the higher the chances of being selected to participate in community projects.

Other factors that affected community participation included: being a member of the county committees, and attending NGO meetings in the community were significantly associated with community participation in rural health facility services. Community members who attended community forums for NGOs, community mobilization efforts and community empowerment were found to be affecting community participation.

Some of the challenges reported to hinder community participation in rural healthcare facility services included; lack of laws specifically governing implementation of community projects; some members had no idea if there are such laws, lack of community empowerment in terms of knowledge on community participation by community members; when and where to participate in, poor

leadership in the community, lack proper representation and poor infrastructure, poor management system and poor communication systems.

5.4 Recommendations

1. The community should be enlightened on community participation: who is to be involved, at what level, and their role in rural health care. This will increase community participation which is currently low.
2. Members choosing who to participate in community projects should employ equity, equality, and transparency. in Kakuyuni Sub- County it depended on who knew you for you to participate in rural health care.
3. Community leaders need to be sensitized on transparency in governance, community empowerment and establishing good communication systems.

REFERENCES

Adamson, D. (2010). Community empowerment: Identifying the barriers to "purposeful" citizen participation. *International Journal of Sociology and Social Policy*, *30*(3/4), 114-126.

Ahluwalia, IB, Robinson, D, Vallely, L, Gieseker, KE, & Kabakama, A. (2010). Sustainability of community-capacity to promote safer motherhood in northwestern Tanzania: what remains? *Glob Health Promot. 17*(1), 39–49.

Akhtar, I. (2016). Research Design. In *Research in Social Science: Interdisciplinary Perspectives* (pp. 68–84). New Delhi: Pearson.

Alma-Ata, WHO. (1978). *Primary health care.* Geneva: World Health Organization.

Baciu, A., Negussie, Y., Geller, A., Weinstein, J. N., & National Academies of Sciences, Engineering, and Medicine. (2017). The State of Health Disparities in the United States. In *Communities in Action: Pathways to Health Equity*. US: National Academies Press.

Ben, M. A. (2002). *Community self-Assessment, monitoring and evaluation: Technical support mission report notes*. New York: World Bank:

Botes, L., & Van Rensburg, D. (2000). Community participation in development: nine plagues and twelve commandments. *Community Development Journal*, *35*(1), 41-58.

Brown, E. R., Holtby, S., Zahnd, E., & Abbott, G. B. (2005). Community-based Participatory Research in the California Health Interview Survey. *Preventing chronic disease*, *2*(4), A03.

Chambers, R. (2013). Participation for development: A good time to be alive. *Development Bulletin*, *75*(1), 2-4.

Clarke, P., & Nieuwenhuijsen, E. R. (2009). Environments for healthy ageing: A critical review. *Maturitas*, *64*(1), 14-19.

Gilmour, H. (2012). Social participation and the health and well-being of Canadian seniors. *Health Rep*, *23*(4), 23-32.

Government of Kenya (2010). *Kenya Constitution,* Nairobi: Government printers.

Grabman, H, Rosato, M., Laverack, G., Tripathy, P., Nair, N., Mwansambo, C., ... & Costello, A. (2008). Community participation: lessons for maternal, newborn, and child health. *The Lancet*, *372*(9642), 962-971.

Grady, M. D. (2010). The missing link: The role of social work schools and evidence-based practice. *Journal of Evidence-Based Social Work*, *7*(5), 400-411.

Hall, J. J., & Taylor, R. (2003). Health for all beyond 2000: the demise of the Alma-Ata Declaration and primary health care in developing countries. *The Medical journal of Australia*, *178*(1), 17-20.

Hall, J. J., & Taylor, R. (2003). Health for all beyond 2000: the demise of the Alma-Ata Declaration and primary health care in developing countries. *The Medical journal of Australia*, *178*(1), 17-20.

Harkins, T, Drasbek, C, Arroyo, J, & McQuestion, M. (2018). The health benefits of social mobilization: experiences with community-based integrated Management of Childhood Illness in Chao, Peru and San Luis. Honduras Promot Educ. *15*(2), 15–20.

Head, B. W. (2011). Why not ask them? Mapping and promoting youth participation. *Children and Youth services review*, *33*(4), 541-547.

Hossain, J, & Ross, SR. (2016). The effect of addressing demand for as well as supply of emergency obstetric care in Dinajpur. *Bangladesh IJOG, 92*(3), 320–8.

Howard-Grabman, L., Miltenburg, S.A., Marston, C. & Portela, A. (2017). Factors affecting effective community participation in maternal and newborn health programme planning, implementation and quality of care interventions. *BMC Pregnancy and Childbirth, 17,* 268.

Human Rights Watch, (2014). Extractive Industries: Transparency Group Rewards Repression, *Resources Policy, 37*(2), 131-137.

Kaseje, D, Olayo, R, Musita, C, Oindo, CO, Wafula, C, & Muga, R. (2010). Evidence-based dialogue with communities for district health systems' performance improvement. *Global public health. 5*(6), 595-610.

Kenny, A., Farmer, J., Dickson-Swift, V., & Hyett, N. (2015). Community participation for rural health: a review of challenges. *Health Expectations*, *18*(6), 1906-1917.

Kilpatrick, S. (2009). Multi-level rural community engagement in health. *Australian Journal of Rural Health, 17*(1), 39-44.

Kirkland, S. A., Griffith, L. E., Menec, V., Wister, A., Payette, H., Wolfson, C., & Raina, P. S. (2015). Mining a unique Canadian resource: the Canadian longitudinal study on aging. *Canadian Journal on Aging/La Revue canadienne du vieillissement*, *34*(3), 366-377.

Lang, R. (2000). The role of NGOs in the process of empowerment and social transformation of people with disabilities. *Asia pacific disability Rehabilitation journal*, *1*(1), 1-19.

Levasseur, M., Cohen, A. A., Dubois, M. F., Généreux, M., Richard, L., Therrien, F. H., & Payette, H. (2015). Environmental factors associated with social participation of older adults living in metropolitan, urban, and rural areas: The NuAge Study. *American Journal of Public Health*, *105*(8), 1718-1725.

Lock, D. (2017). *The essentials of project management*. London: Routledge.

Lockwood, M., Davidson, J., Curtis, A., Stratford, E., & Griffith, R. (2010). Governance principles for natural resource management. *Society and natural resources*, *23*(10), 986-1001.

Marston, C., Hinton, R., Kean, S., Baral, S., Ahuja, A., Costello, A., & Portela, A. (2016). Community participation for transformative action on women's, children's and adolescents' health. *Bulletin of the World Health Organization*, *94*(5), 376.

Marston, C., Renedo, A., McGowan, C. R., & Portela, A. (2013). Effects of community participation on improving uptake of skilled care for maternal and newborn health: a systematic review. *PloS one*, *8*(2), e55012.

MASCOT, (2014). *Study group. Systematic review draft protocol: Health system and community-based interventions for improving maternal health and for reducing maternal health inequalities in low- and middle-income countries: a two-stage mixed-methods research synthesis*. London: MASCOT.

Menec, V. H., Means, R., Keating, N., Parkhurst, G., & Eales, J. (2011). Conceptualizing age-friendly communities. *Canadian Journal on Aging/La revue canadienne du vieillissement*, *30*(3), 479-493.

(MEval-PIMA), USAID Kenya and MOH. (2016). *Best practices in strengthening Community Health and information systems Kenya*, Nairobi: USAID Kenya.

Mitchell, nS. A., & Black, M. J. (2016). *Freud and beyond: A history of modern psychoanalytic thought*. London: Hachette.

MOH and USAID, (2013). *Community Health Volunteers (CHVS), Handbook.* Nairobi: MOH and USAID.

Mosquera, P. A., Hernández, J., Vega, R., Labonte, R., Sanders, D., Dahlblom, K., & San Sebastián, M. (2014). Challenges of implementing a primary health care strategy in a context of a market-oriented health care system: the experience of Bogota, Colombia. *The International journal of health planning and management*, *29*(4), e347-e367.

Mremi, B. J. (2018). *Factors Contributing to Poor Community Participation in Management of Water Resources: A Case of Mungonya Sub-catchment in Kigoma District, Tanzania*, Unpublished PhD dissertation, Mzumbe: Mzumbe University.

Mugenda, O.M. & Mugenda, A.G. (2003). *Research Methods, Qualitative and Quanritative approaches.* Nairobi: ACTS.

Musau, S., Chee, G., Patsika, R., Malangalila, E., Chitama, D., Van Praag, E., & Schettler, G. (2011). Tanzania health system assessment 2010. *Bethesda, MD: Health Systems*, *20*, 20.

Mwaura, M. & Ngugi, K. (2014). Factors Affecting Performance of Community Based Organizations Projects in Kisii County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, *1*, 51-67.

Naud, D., Généreux, M., Bruneau, J. F., Alauzet, A., & Levasseur, M. (2019). Social participation in older women and men: differences in community activities and barriers according to region and population size in Canada. *BMC public health*, *19*(1), 1124.

Oakley, P. (2017). Community involvement in health development: An examination of the critical issues. In *Community involvement for health development*. Geneva: World Health Organization.

Oyore, J., Mwitari, J., Ouma, J., & Ndung'u, E. (2010). *Evaluation report of the Community Health Strategy implementation in Kenya.* Nairobi: Ministry of Public Health and Sanitation.

Plummer, J. (2002) *Municipalities and Community Participation: A Sourcebook for Capacity Building*, London: Earthscan.

Porche, D. J. (2004). *Public and community health nursing practice: A population-based approach*. Newcastle upon Tyne: Sage.

Reddy, G. N. (2002). *Empowering communities through participatory methods*. Orissa: Manak Publications.

Rifkin, S. B. (2014). Examining the links between community participation and health outcomes: a review of the literature. *Health policy and planning*, *29*(suppl_2), ii98-ii106.

Rosato, M., Laverack, G., Grabman, L. H., Tripathy, P., Nair, N., Mwansambo, C., ...& Rifkin, S. (2008). Community participation: lessons for maternal, newborn, and child health. *The Lancet*, *372*(9642), 962-971.

Runnels, V., & Andrew, C. (2013). Community-based research decision-making: Experiences and factors affecting participation. *Gateways: International Journal of Community Research and Engagement*, *6*, 22-37.

Sally, M.W. & Rosemary, J. (2017) Effect of Community Participation in the Implementation of Community Based Projects in Kieni Sub-County. *International Journal of Project Management, 1*, 1-19.

Schouten, T. & Moriarty, P. (2003) *Community Water, Community Management*, London: ITDG.

Turcotte, P. L., Côté, C., Coulombe, K., Richard, M., Larivière, N., & Couture, M. (2015). Social participation during transition to adult life among young adults with high-functioning autism spectrum disorders: Experiences from an exploratory multiple case study. *Occupational Therapy in Mental Health*, *31*(3), 234-252.

UNFPA, H. (2012). *Ageing in the twenty-first century: A celebration and a challenge.* London and New York: UNFPA.

USAID, PEPFAR & FANIKISHA. (2018). *Strategy for Community Health 2014-2018. Transforming health.* Washington, D.C: USAID.

Vest, J. R., & Gamm, L. D. (2010). Health information exchange: persistent challenges and new strategies. *Journal of the American Medical Informatics Association, 17*(3), 288-294.

WHO/UNICEF. (1978). *Primary health care.* Report of the International Conference on Primary Health Care. Alma-Ata, USSR, 6-12 September 1978. Geneva: WHO.

World Health Organization (WHO). (2008). *The Report of the Commission on the Social Determinants of Health*. Geneva: World Health Organization.

World Health Organization (WHO). (2014). *Curriculum and facilitator's guide for training in the engage-TB approach (integrating community-based TB activities into the work of NGOs and other CSOs): training manual (No. WHO/HTM/TB/2014.04).* Geniva: World Health Organization.

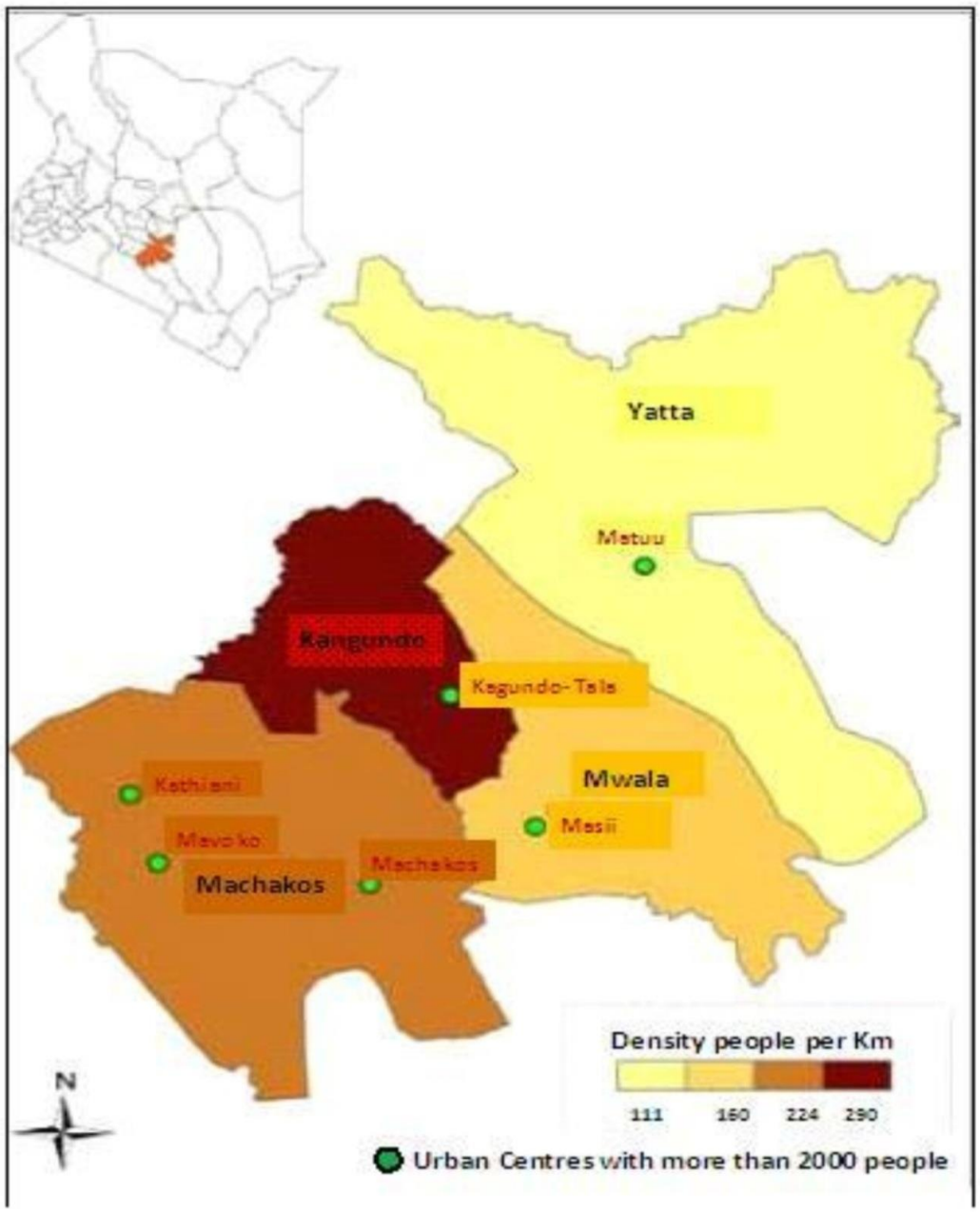
World Health Organization. (2014). WHO *Recommendation on community mobilization through facilitated participatory learning and action cycles with women's groups for maternal and new born health*. Geneva: WHO.

World Health Organization. (2015). *WHO recommendations on health promotion interventions for maternal and newborn health 2015*. Geneva: WHO.

Zhang, K. (2012). *Increasing citizen demand for good government in Kenya*. Unpublished PhD thesis)., Palo Alto, CA: Stanford University.

APPENDICES

Appendix I: MAP of Machakos County



Appendix II: Informed consent form

Informed Consent Form

[This ICF should only be used for those who have attained the age of majority, 18 years]

Study Title

COMMUNITY PARTICIPATION IN RURAL HEALTH CARE FACILITY SERVICES IN KAKUYUNI HEALTH CENTRE, MACHAKOS COUNTY.

Investigator(s)- Lucy Wanza, Telephone: 0720 061 788

Part I: Information Sheet

Lucy Wanza David, a nurse at Kangudo Level 4 hospital and a student at JKUAT University pursuing Master's Degree in Nursing is doing research on Community participation in rural health care facility services in Kakuyuni Health Centre, Machakos County. We are giving you this information because we would like you to participate in our research project. If you prefer not to participate, you are free to choose to do so. You will continue to receive health services the way that you normally would, with no negative impact. We want to make sure that you have all the information that you need before you decide. Members of our team are here to help you understand more about the project. If you do not understand any of the words or ideas that you see on this form, please ask us to explain the information to you. You can talk to anyone from our team whom you feel comfortable with about the research.

Why is this Project Important?

This study will explore at what stage of facility sub-projects development cycle the community participates in rural health facility services. It will also be used to determine the factors that affect community participation towards rural health services as well as outlining the challenges hindering community participation in rural health facility services in Kakuyuni Sub Sub-location, in Machakos County.

Who Can Participate?

You are being invited to take part in this research project because we feel that your experiences with a mature age (above 18 years) and being a permanent resident of this area, you will be able to assist us.

Participation is Your Choice

Your participation in this research is completely voluntary. You will make the choice about whether you will participate or not. If you choose not to take part, you will continue to receive all of the services that you usually get in your community and nothing will change.

What Is Involved in this Project?

This study will be done by administering a guided questionnaire, which is a set of structured questions. You will be required to answer all the questions whose aim will be to gather information on community participation in rural health delivery services in Kakuyuni Health Centre, the associated factors and the challenges you face in participation. This will take around 45 minutes of your time. If you prefer not to participate, you are free to choose to do so or withdrawing at any time in the process of interview. You will continue to receive health services the way that you normally would, with no negative impact.

How Long will the Project Last?

This study takes place over one month.

What are the Risks?

There is a risk that you may share some personal or confidential information by chance, or that you may feel uncomfortable talking about some of the topics in this study. However, we do not wish for this to happen. You do not have to answer any

question or take part in the survey if you feel the question(s) are too personal or if talking about them makes you uncomfortable.

What are the Benefits?

There will be no direct benefit to you, but your participation is likely to help us find out more about how to improve community involvement/participation in our rural health care services here in Kakuyuni health center.

How will we Protect your Information and Confidentiality?

The research being done in the community may draw attention and if you participate you may be asked questions by other people in the community. We will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is.

What will Happen with the Results?

The knowledge that we get from this research will be shared with the community leaders in Kakuyuni Location and your facility in charge in Kakuyuni health Centre and thereafter to the relevant county leaders. Later as a requirement by JKUAT the results shall be published in a journal, where it can be accessed by public.

Can I Refuse to Participate or Withdraw from the Study?

You do not have to take part in this research if you do not wish to do so. If you choose not to participate, you will continue to receive all of the normal services that you usually get and nothing will change. If you wish to stop participating in the study after you begin, you can stop at any time by telling the interviewer. If you choose to stop taking part, you will continue to get all of the normal services that you usually get in your community.

Who Can I Contact?

If you have any questions, the interviewer now or later. If you have questions later, you may contact: Lucy Wanza, Telephone: 0720 061 788, lucykariuki7@mail.com. If you have questions about your rights as a research participant, you may contact:

The Research Officer

AMREF Kenya

Wilson Airport, Lang'ata Road

Office Tel: +254 20 6994000

Fax: +254 20 606340

P.O Box 30125-00100

Nairobi, Kenya

Part II: Certificate of Consent

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Name of the participant …….

Signature of the participant …….

Date …….

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1. At the visit the participant will complete a 45 minutes questionnaire.

2. The participant's information will be kept confidential.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name of the researcher: Lucy Wanza David

Signature of the person taking the consent:

……

Date ……

Appendix III: Questionnaire

This questionnaire has been designed to collect information on the level of community participation in rural health care facility services and the associated factors in Kangundo Sub County, in Machakos County.

Instructions

Tick appropriately in the box [ ] circle appropriate answer or fill in the space provided.

Kindly answer all the questions

PART A: RESPONDENT'S PROFILE (Please tick appropriately)

1. Please record your sex.

a) Male []
b) Female []

2. How old are you?

a) 18-28 years []
b) 29-38 years [].
c) 39-48 years []
d) 49 and above [].

3. What is the highest level of schooling that you completed?

a) Form 4 level []
b) College []
c) University []

4. What is your religion?

a) Christian []

b) Muslim []
c) Hindu []
d) None of the above []

5. How long have you been in this community?

a) Less than 3 years []
b) Over 3 years []

PART B

Community participation stage in rural health facility services

6. Are you a member of the Sub-County Health Management committee?

a) Yes []
b) No. []

7. If yes, how do they contribute?

8. Who are the stakeholders in rural health service delivery?

9. Do you think there is adequate representation of all stakeholders in delivery of healthcare service?

a) Yes []
b) No []
c) I don’t know []

10. Who decides on who participates in healthcare programs in the community?

a) Local authority []
b) Community committees []
c) Political Leaders []
d) Health workers []
e) All the above []

11. At what stage does community members participate in rural health services?

a) Need assessment and planning phase []
b) Implementation []
c) Monitoring and evaluation []
d) All of the above []
e) None of the above []

12. Have you ever attended any stakeholders meeting for any NGO in this community?

a) Yes []
b) No []

Factors that affect community participation

13. What are some of the factors that affect community participation in health care this community?

a) Cultural and religious factors []
b) Empowerment level []
c) Attitude of community members []
d) Devolved government []
e) Influence of local authority []
f) All the above []

14. Do you think that healthcare programs offered within the community are in harmony with the community way of life (in terms of religion and cultural values?)

a) Yes []
b) No []
c) Some of them []

15. Are there some of the cultural values and religious inclinations that are not in line with the healthcare programs being offered?

a) Yes []
b) No []
c) I am not aware []

16. In your view, do these cultural and religious values affect the participation of the community in healthcare programs in the community?

a) Yes []
b) No []

17. If yes above, how do you think they influence participation of community members in healthcare programs?

a) Positively []
b) Negatively []

18. Have you heard about any campaigns or community mobilization on community participation towards health service delivery in this community?

a) Yes [ ]
b) No [ ]

19. Do you think mobilization/campaigns have got influence on community participation in healthcare in this community?

a) Yes []
b) No []

20. If yes above how?

a) Positively []
b) Negatively []

21. Are there any forums like meetings that are held in this community which allow community members to be engaged/involved in rural health service delivery?

a) Yes []
b) No []
c) I don’t know []

21. Do you think devolution has effect on community participation towards health facility services.

a) Yes []
b) No []
c) I don’t know []

22. If yes how?

a) Positively []
b) Negatively []

23. In your view, are members of this community empowered on participation in rural health service delivery?

a) Yes []
b) No []

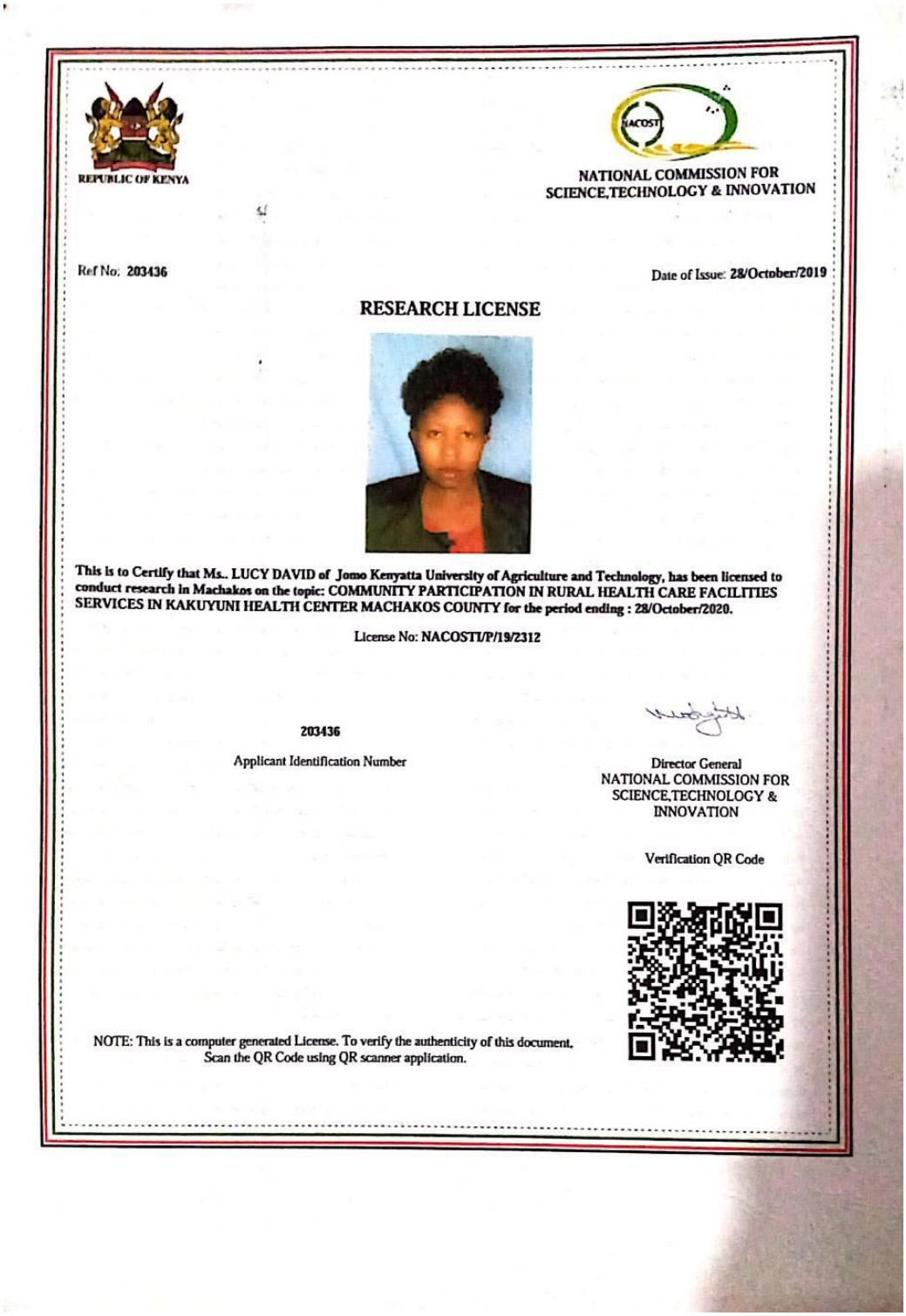
Challenges affecting community participation in rural health facility services

24. Do you think there are some challenges that face community participation in rural healthcare facility services?

a) Yes []
b) No []

25. If yes above, what are some of the challenges faced?.....

Appendix IV: NACOSTI Research License



REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 203436

Date of Issue: 28/October/2019

RESEARCH LICENSE

This is to Certify that Ms.. LUCY DAVID of Jomo Kenyatta University of Agriculture and Technology, has been licensed to conduct research in Machakos on the topic: COMMUNITY PARTICIPATION IN RURAL HEALTH CARE FACILITIES SERVICES IN KAKUYUNI HEALTH CENTER MACHAKOS COUNTY for the period ending : 28/October/2020.

License No: NACOSTI/P/19/2312

203436

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix V: Research Ethical Approval

amref health africa

Amref Health Africa in Kenya

REF: AMREF – ESRC P675/2019

September 24, 2019

Lucy David
Kangundo level 4 Hospital
P.O. Box 1002-90115
Kangundo, Kenya
Tel: 0720061788
Email: lucykariuki7@gmail.com

Dear Lucy David,

RESEARCH PROTOCAL: COMMUNITY PARTICIPATION IN RURAL HEALTH CARE FACILITY SERVICES IN KAKUYUNI HEALTH CENTRE, MACHAKOS COUNTY.

Thank you for submitting your protocol to the Amref Ethics and Scientific Review Committee (ESRC).

This is to inform you that the ESRC has reviewed and approved your protocol. Your application approval number is P675/2019. The approval period is from September 24, 2019 to September 23, 2020 and is subject to compliance with the following requirements:

a) Only approved documents (including informed consents, study instruments, advertising materials, material transfer agreements etc) will be used.
b) All changes including (amendments, deviations, violations etc.) are submitted for review and approval by Amref ESRC before implementation.
c) Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the Amref ESRC within 72 hours of notification.
d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to Amref ESRC within 72 hours.
e) Clearance for export of biological specimen must be obtained from the relevant government authorities for each batch of shipment/export.
f) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
g) Submission of an executive summary report within 90 days upon completion of the study to the Amref ESRC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and innovation (NACOSTI) https://oris.nacosti.go.ke/ and obtain other clearances needed.

Please do not hesitate to contact the ESRC Secretariat (esrc.kenya@amref.org) for any clarification or query.

Yours sincerely,

AMREF - ESRC
24 SEP 2019
P.O. Box 30125 - 00100, NAIROBI

Prof. Mohamed Karama
Chair, Amref ESRC

CC: Samuel Muhula, Monitoring & Evaluation and Research Manager, Amref Health Africa in Kenya.

Appendix VI: Publication

East African Medical Journal Vol. 98 No. 6 June 2021

COMMUNITY PARTICIPATION IN RURAL HEALTH CARE FACILITY SERVICES IN KAKUYUNI HEALTH CENTRE, MACHAKOS COUNTY

Lucy Wanza, Kakuyuni Level 3 Hospital in Kangundo sub-county, Machakos County and a student at the Jomo Kenyatta University of Agriculture and Technology (JKUAT), P.O. Box 164 Masii, Kenya, Grace Wambura Mbuthia (PHD), Department of Community Health Nursing, College of Health Sciences, Jomo Kenyatta University of Agriculture and Technology (JKUAT). P. O. Box 62 000 – 00200, Nairobi, Kenya, Peter Nyobendo Monda (MScN), Department of Community Health Nursing, College of Health Sciences, Jomo Kenyatta University of Agriculture and Technology (JKUAT). P.O. Box 62 000 – 00200, Nairobi, Kenya

Corresponding author: Lucy Wanza, Kakuyuni Level 3 Hospital in Kangundo sub-county, Machakos County and a student at the Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya P.O. Box 164 Masii, Email: lucykariuki7@gmail.com

COMMUNITY PARTICIPATION IN RURAL HEALTH CARE FACILITY SERVICES IN KAKUYUNI HEALTH CENTRE, MACHAKOS COUNTY

L. Wanza, G.W. Mbuthia and P.N. Monda

ABSTRACT

Background: Community participation is the collective involvement of local people in assessing and identifying their needs, implementing and evaluating health programs. Community projects project have various phases, assessment, planning, implementation, and monitoring and evaluation phase. Community members should be involved in all phases to own the projects. This study sought to establish the level of community participation in Kangundo Sub-county in rural health care facility services, in Machakos County, Kenya.

Methods: Analytical cross-sectional study design was used for this study. 384 respondents from Kakuyuni Location were involved in the study. Structured interviewer administered questionnaire

Results: The study found out that most of the community members (n=278, 72.4%) were not involved in any stage of development in community project development cycle in rural health care facility services. As per the results 106 respondents had participated in various stages of project development cycle. Again, 15.4%, (n=59) of the respondents were involved in needs assessment, 9.4% (n=36) at implementation stage. 1.6% (n=6) at monitoring and evaluation, and 1.3% (n=5) were involved in all the stages of development cycle. However, most 72.4%, (n=278) of the respondents were not involved at any stage of development.

Some factors were significantly affecting community participation; being a county committee member, length of stay in the community and having attended an NGO meeting and community mobilization. Several challenges affected community participation.

Conclusion: Kakuyuni community members are less involved in rural health care facility projects, whereby the results revealed that only 27.6% of the interviewed population was involved.

INTRODUCTION

Community participation refers to the action of collective involvement of local people in assessing and identifying their needs, implementing and evaluating health programs and sharing the benefits[1]. In health, it plays a vital role in provision of primary health care (PHC) services to the community. Community participation has been a continuous theme in development discussions for the past 50 years[1].

Community projects have various phases; assessment, planning, implementation, and monitoring and evaluation phase. The community members should be involved in all the phases to own the project[1]. Community is to be involved from need assessment, planning, implementation and evaluation. This is what constitutes a project development cycle[2]. Effective partnerships between residents, the health professionals and stakeholders of health are essential for community-based solutions. This helps by advancing health equity and making community involvement a shared vision and value, by increasing the community's capacity to shape outcomes, and fostering multi-sectoral collaboration[3].

Community participation lays emphasis in PHC collaborations, the residents and health care providers need to work together to participate fully. Partners are able to employ different unique skills and access resources to serve as a variety of roles in rural health care projects. Through all these skills, the Partners get involved in actions and interventions that address the predisposing causes of rural health inequity through engaging the community[4].

Collaborative approach is used, to bring together health care professionals, people using the services in the community setting and citizens to harmoniously develop and deliver rural health services. The key interest in encouraging community participation is by giving decision making powers to the community members. The members will be responsible of their own health and to improve health care outcomes[5]. Community involvement is viewed as a gate way to success in the delivery of health care; however, there seems to be very little or no actual community involvement in the community context[6].

Community participation is affected by absence of sense of ownership. If we accept that communities exist, then it is important for the communities to be involved in all stages of project cycle. This will help in generating their own issues in order of priority for community members to own the projects[7].

In 1978, Alma Ata Declaration set principles to guide the planning, implementation, and evaluation of community-oriented health programs. One of the principles outlined the right and duty of people to participate individually and collectively in planning and implementation of health care. Despite the Alma Ata Declaration principles, community participation has not yet cultivated enough success in the past[8].

Despite the efforts of the government availing policies, guidelines, and community representative organs, actual implementation of community participation has been poorly achieved. The national policy is well defined with greater focus as improved health care delivery services[9].

The level of community involvement in Machakos County, Kenya is not well documented. Therefore, this study sought to establish the level of community participation in Kangundo Sub-county in rural health care facility services, in Machakos County, Kenya.

MATERIALS AND METHODS

Study design: Analytical cross-sectional study.
Study setting: This study was conducted at Kakuyuni sub-location, kangundo Sub-County, Machakos County, Kenya. This

study focused on all adult residents of Kakuyuni location, Kangundo Sub-County. A total of 384 adult residents participated in the study.

Sampling procedure: Kakuyuni residents were sampled using multistage sampling. First, two sub-locations were randomly selected out of the 4 sub-locations of Kakuyuni Location. After that, six villages were randomly selected out of the 12 villages in the sub-location, whereby 3 villages were from each sub-location. This was followed by systemic sampling of the homes in each of the selected villages, whereby every 3rd homestead was interviewed. In the selected homesteads, one adult of sound mind, either male or female was interviewed; this helped to eliminate gender bias.

Data collection tools and methods: Data on Community Participation in rural health care facility services was collected using a structured interviewer administered questionnaire with both open and closed ended questions.

Validity and reliability of data Collection instruments: The data collection tool was pretested at Kivaani sub-location. The pretest was done to ensure that each question was able to capture the information required to answer each study objective. The research supervisors were consulted after the pretest and ambiguous questions were eliminated from the tool to ensure tool validity of data instrument was done prior to the main data collection activity.

Data analysis: The data was coded, entered and analyzed using SPSS version 24 software. Descriptive statistics including frequency distribution and proportions were done for different groups and analysis was done using Pearson's chi square (χ^2). A confidence interval of 95% and p value of 0.05 were used to determine significant results. Binary logistic regression models were conducted, the variables were entered in a forward step wise regression and a model further adjusting for socio-demographic correlates that were statistically significantly associated with community participation was also conducted. The findings were presented in form of table, figures and pie charts.

Ethical considerations: The researcher sought approval from the AMREF Ethics and scientific Review Committee (ESRC). Clearance was through National Commission for Science, Technology and Innovation (NACOSTI) and County Government of Machakos. The respondents were explained on the purpose of the study and a written informed consent was sought from all participants after explaining the objectives of the study; were assured of their right to withdraw from the exercise at any time. The researcher filled in the questionnaire and assured confidentially to the respondent and anonymity. To observe privacy, the collected data was strictly utilized for the intended purpose and was completely inaccessible to anyone not concerned in the study.

RESULTS

Demographic characteristics of the respondents

Majority of the respondents (n=285, 74.2%) in the study were women. The age of the respondents was varied: 73.4% (n=282) were aged between 18-28 years, 14.8% (n=57) were aged between 29-38 years, 8.1% (n=31) were aged between 39 and 48 years while 3.6% (n=14) were aged above 49 years. Among the participants, 89.1% (n=342) were form four leavers, while 10.6% (n=41) of the participants had completed college level of education and 0.3% (n=1) had university level of education.

Table 1

Summary of socio-demographic characteristics of participants

Variable (N=384)	Frequency	Percentage (%)
Gender		
Male	99	25.8
Female	285	74.2
Age		
18-28	282	73.4
29-38	57	14.8
39-48	31	8.1
Above 49	14	3.6
Highest level of education		
Secondary	342	89.1
College	41	10.6
University	1	0.3
Religion of participants		
Christians	373	97.1
Muslims	11	2.9
Period one has been part of the community		
Less than 3 years	53	13.8
More than 3 years	331	86.2

Level of community participation

The study found that only 106 respondents had participated in various stages of project development cycle. The results revealed that, 15.4%, (n=59) of the respondents were involved in needs assessment, 9.4% (n=36) at implementation stage where they were hired to implement the programs, 1.6% (n=6) at monitoring and evaluation, and 1.3% (n=5) were involved in all the stages of development cycle. However, most 72.4%, (n=278) of the respondents were not involved at any stage of development.

Table 2

Community members' participation in project development cycle

Stage of project development cycle	Frequency	Percentage
Needs assessment	59	15.4
Implementation	36	9.4
Monitoring and evaluation	6	1.6
All of the above stages	5	1.3
None of the three (needs assessment, implementation and M&E)	278	72.4

Factors affecting community participation

The table 3 below shows a summary of significant factors that were found to affect community participation in rural health services in Kakuyuni Sub-Location.

Table 5

Binary logistic of significant factors affecting community participation in Kakuyuni Sub-Location (N=384)

Variable	Category	Community participation		Crude Odds Ratio (COR)	Sig	Confidence Interval	
		Yes	No			Lower limit	Upper limit
Knowledge on community mobilization	Yes	34	262	1.982	0.031	0.814	3.611
	No	18	70				
Attendance to any stakeholders meeting for any NGO in the community	Yes	11	3	5.299	0.004	1.609	11.926
	No	41	329				
	No						
community member empowerment	Yes	11	31	2.605	0.011	0.645	4.228
	No	41	301				
Being a member of Sub-County health management committee	Yes	13	18	5.815	0.001	1.112	4.254
	No	39	314				
Who decided on whom to attend rural health programs	Local authority	250	19	1.334	0.002	1.135	1.720
	Community committee	6	7				
	Political leaders	16	6				
	Health workers	45	12				
	All the above	15	8				
For how long have lived in this community	Over three years	36	295	3.544	0.001	1.843	8.331
	Less than 3 years	16	37				

p Fisher exact test p value*

Community participation was at 27.6%. The study assumed community members to be those individuals who had resided in the location for more than three months or those who were permanent residents of that community. The chances for a community member to participate in community projects was determined by a number of variables. Firstly, the study found out that 70.1% (n=269) of those who participated in the community projects were chosen by the local authority (area chief). Fifty-seven participants (14.8%) reported that health workers choose the community members to participate in health care programs in the community and this significantly affected community participation. On analysis, the members who participated in rural health care depended on who choose them, different stakeholders had apart in deciding who should be involved. There was a strong relationship between being a member of the county committees and participation in rural health care facility services.

The study revealed that majority (72.4%, n=278)) of the respondents reported that they have never been involved in such meetings. Most of the respondents felt that healthcare

programs offered within the community are in harmony with the community way of life (88.3%, n=339), and this made them to easily participate. For community participation process, community mobilization was made. Majority of the respondents (n=349, 90.9%) had not heard of campaigns or community mobilization on community participation towards health service delivery in this community of Kakuyuni. On analysis, awareness of the campaigns was not significantly associated with community participation (χ^2=0.147, p=0.702). However, 77.1% (n=296) participants reported that community mobilization can influence the community to participate in healthcare programs in the community. The members who knew and participated in community mobilization were 1.982 times more likely to participate in community rural health care programs than those not mobilized.

After community mobilization, the community members were called for *barazas* (community meetings) and were informed of the rural health facility projects. The study revealed that majority (93.5%, n=359) of the respondents had never been involved in such meetings. The members who attended the community meetings and forums were 6.094 (odd ratio) times more likely to participate in community rural health care programs than those who didn't attend the forums.

Community empowerment plays a critical role in sustainability of community projects. The current study found out that the community empowerment level was low, this was supported by 89.1% (n=342), out of the 342 members who reported not to be empowered, 41 of them had participated in rural health care programs. Among the 42 participants who reported to be empowered, 11 of them participated in rural health services. The results were significantly associated with community participation in rural health care services. Those empowered were 2.505 times more likely to participate in rural health care facility services than those who were not empowered.

On regression analysis, all the factors that were studied under community participation in facility sub-project development cycle in rural health facility services were entered in a stepwise regression model. The Omnibus test of Model Coefficients was significant. The model was fit at p<0.001

From the results it is evident that the significant factors affecting community participation in Kakuyuni Sub-County are: who decides on who to attend the projects, members are chosen depending on who they know in the team choosing participants; being a member of the Sub-county health committee team increases chances of participating in the project and attending NGO forums and stakeholders meetings in the community increases knowledge and skills about community projects, this was seen to increase the probability of participating in future rural health facility community projects.

DISCUSSION

The young adults of an average age of 18-38 years were the majority (73.4%) of the participants. On religion, majority of the participants were Christians with a few Muslims. However, whether a participant was a Christian, or a Muslim did not have an effect on their participation in community rural health facility services. Majority of the participants were women, however, in the current study, the gender of the participant was not a factor in determining their participation in community rural health facility services.

This study found an association between length of stay in the area and community participation. The majority of respondents (n=331, 86.2%) who had lived in Kakuyuni for more than three years, have high chances of being selected to participate in community projects increased with the length of stay in

the community. This implied that the longer you stay in Kakuyuni, the more the other residents know you and the higher the chances of being elected to participate in community rural health services. There was a positive correlation between the length of stay in the area and participation in rural healthcare programs in the area. These results were in line with those found in Tanzania which showed that community members who were raised up in the same community and lived there for long period of time were more likely to participate in community activities than newer residents[1].

The researcher found that, community participation was affected by cultural and religious factors, the attitude of the participants, lack of community empowerment and devolution of services and influence of the local authority. There was no significant association between the age of the respondents, gender of respondents and level of education of the respondent with their participation in community projects.

There was evidence from the study findings that some members had heard about community campaigns, some had participated in the campaigns. There was also evidence of community mobilization in the community towards community participation in rural health facility; the members of the community who participated in the current study reported that there was little done on community mobilization. However, for the members who had heard and participated in community mobilization, there was significant evidence that community mobilization can influence community participation in rural health care facility services. Community mobilization was found to increase the chances of community members to participate in rural health care facility services. These results concur with those of Baciu *et al.*, [3] which indicated that to empower the community and involve them in community projects, community mobilization was necessary[3].

The findings of the current study indicated that some members attended community forums and NGO meetings which informed them on the importance of community participation in rural healthcare facility services. The participants who had attended such meetings were 5.094 times more likely to participate in community projects compared to the community members who had never attended such forums. These results are in line with findings of Mitchelle *et al.*, [4] which recommended that community forums should be encouraged in the community to foster knowledge on community participation, who to participate where, when and why they should participate [4,10].

It was found out from the research that health services had been devolved. However, the devolution of the health services had no significant effect on community participation in rural healthcare facility services. The community was not empowered in terms of information about the projects implemented in the community level. Out of all the participants in the current research, 89.1% were not empowered. However, for the few participants who reported to be empowered, they participated in community rural healthcare facility services. This was significantly associated with community participation. The researcher found out that once the community is empowered, community participation increases. The results replicate those reported in a study in Tanzania by Baciu[3].

In general, community participation was found to be significantly affected by community members attending community forums for NGOs, community mobilization efforts and community empowerment were found to be affecting community participation.

CONCLUSION

Community members in Kakuyuni Sub-County were rarely involved in rural health care projects. This was contributed by various factors: being a member of the county committees, who decided on whom to attend the rural health programs and attending NGO meetings in the community were significantly associated with community participation in facility sub-project development cycle in rural health facility services. Community participation was found to be significantly affected by harmonious coexistence of community cultural and religious values and the health facility teachings. Members who attended community forums for NGOs, community mobilization efforts and community empowerment were found to be affecting community participation. The study found out challenges that affect community participation include lack of laws specifically governing implementation of community projects; community members lack of knowledge on community participation; when and where to participate in, lack of community empowerment, poor leadership in the community, lack proper representation and poor infrastructure, poor management systems, corruption and poor communication systems.

The study recommends that the community should be enlightened on community participation, who is to be involved, at what stage, and their role in community projects. This will increase community participation which is currently low. Members choosing who to participate in community projects should employ equity, equality, and transparency. In Kakuyuni Sub-county it depended on who you knew for you to participate in the community projects. Community leaders need to be sensitized on transparency in governance, community empowerment and establishing good communication systems.

REFERENCES

1. Rifkin, S. B. Examining the links between community participation and health outcomes: a review of the literature. *Health policy and planning*. 2014. *29*, suppl_2. 98-106.
2. Lock, D. *The essentials of project management*. London: Routledge. 2017.
3. Baciu, A., Negussie, Y., Geller, A., Weinstein, J. N., & National Academies of Sciences, Engineering, and Medicine. The State of Health Disparities in the United States. In *Communities in Action: Pathways to Health Equity*. National Academies Press , US. 2017
4. Mitchell, nS. A., & Black, M. J. *Freud and beyond: A history of modern psychoanalytic thought*. London: Hachette. 2016
5. Mremi, B. J. Factors Contributing to Poor Community Participation in Management of Water Resources. 2018.
6. Musau, S., Chee, G., Patsika, R., Malangalila, E., Chitama, D., Van-Praag, E., & Schettler, G. 2011. Tanzania health system assessment 2010. *Bethesda, MD: Health Systems*. 2011. *20*@20.
7. Runnels, V., & Andrew, C. 2013. Community-based research decision-making: Experiences and factors affecting participation. *Gateways: International Journal of Community Research and Engagement*. 2013. *6*. 22-37.
8. WHO/UNICEF. 1978. *Primary health care*. Report of the International Conference on Primary Health Care. Alma-Ata, USSR, Geneva: WHO. 1978. 6-12.
9. Oyore, J., Mwitari, J., Ouma, J., & Ndung'u, E. Evaluation report of the Community Health Strategy implementation in Kenya. Nairobi: *Ministry of Public Health and Sanitation*. 2010.
10. Kenny, A., Farmer, J., Dickson-Swift, V., &Hyett, N. Community participation for rural health: a review of challenges. *Health Expectations*, 2015. *18*@6, 1906-1917.