

**INFLUENCE OF COMMUNITY HEALTH VOLUNTEERS EMPOWERMENT ON
IMPLEMENTATION OF COMMUNITY HEALTH PROJECTS: A CASE OF MUKURU
SLUM, NAIROBI COUNTY, KENYA**

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**A Research Project submitted in Partial Fulfillment for the Award Degree of Master of
Arts in Project Planning and Management of the University of Nairobi**

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DECLARATION

This research project is my original work and has not been presented in any other institution.

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DEDICATION

To my children, Cynthia, Lynn and Connie. I also dedicate to my family and friends for their encouragement and standing by me throughout the preparation of this research project and my sister, Suzie for the purchase of a laptop at a time of need. Indeed, the journey and the waiting has been long, thank you for the patience, understanding and support

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ABBREVIATIONS AND ACRONYMS

MSDP:	Mukuru Slum Development Projects
ANOVA:	Analysis of variance
CBOs:	Community Based Organizations
CO:	Clinical Officer
CHV:	Community Health Volunteer
CHW:	Community Health Worker
CSRs:	Corporate Social Responsibility
MUA:	Mid-Upper Arm
NACOST:	National Commission for Science, Technology and Innovation
NGO:	Non-Governmental Organization
NGO's:	Non-Governmental Organizations
SDGs:	Sustainable Development Goals
SPSS:	Statistical Package for Social Sciences
WHO:	World Health Organization

ABSTRACT

Community health worker (CHW) programs are implemented in many low and middle income countries to increase access to quality care for underserved populations. Despite the importance of CHW as frontline workers in healthcare provision, evaluations of CHW programs show that these health workers often lack the necessary equipment and motivation to implement the community health projects. This study examined the influence of community health workers on implementation of community health project in Mukuru Slum, Nairobi County, Kenya. The specific objectives were to determine the influence of training, motivation, availability of health facilities and the moderating effect of resource mobilization on implementation of community health projects. Kanter's theory of empowerment, Maslow hierarchy of needs theory and resource mobilization theories were used to inform the study. Mukuru has nine villages; Mukuru kwa Reuben, Mukuru kwa Njenga, Sinai, Paradise, Jamaica, Kingstone, Mariguini, Fuata Nyayo and Kayaba. The study adopted a descriptive research design. The target population of the study was one thousand five hundred (1,500) - trained CHWs in Mukuru community slum. Yamane (1967) formula was utilized to obtain a sample size of 362 respondents. Stratified random sampling technique was employed select the sample. The study utilized both the questionnaires and interview guide, as the main data collection methods. SPSS software was used to generate the descriptive statistics and inferential statistics. Factor analysis was conducted to assess the convergent validity of the hypothetical constructs. The hypothesis on training, motivation, availability of health facilities and implementation of community health projects were adopted as they had values greater than 0.5. Correlation results indicated that training of community health workers, motivation of community health workers, availability of health facilities, resource mobilization and implementation of community health projects were positively and significantly related. Regression results indicated that training, motivation, availability of health facilities and implementation were positively and significantly related. In addition, the joint effect of training, motivation, availability of health facilities had a positive and significant effect on implementation of community health projects. The findings indicated that interaction in terms of training and resource mobilization, motivation and resource mobilization, health facilities and resource mobilization had a positive and significant effect on implementation of community health projects. The study concluded that the community health volunteers in Mukuru Slum Community receive regular training on new methods and techniques to implement health projects and they are required to conduct health services with professionalism regardless of the social status of the community. In addition, the community health volunteers occasionally receive some allowances from the community health facilitators (informal recognition) and there is no promotion of community health workers that promotes career development. However, there is moderate provision of remote diagnostics and medical kits that enhance service delivery and adequate transport when required to attend to emergency situations in the community. Under resource mobilization, there was no adequate funding from the relevant government entities that facilitates health service delivery. The study recommends that training of CHVs should be re-designed and delivered in phases covering more content. The study further recommends on harmonization of incentives to increase commitment through income for their families. Motivation through compensation, career development and work flexibility should be regularly revised for the implementation of the health projects. Lastly, there should be regular replenishment of supplies, medicines, and equipment since when the health facilities run out of supplies, the patients are not able to afford from the chemist and private facilities.

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Community health worker (CHW) programs are implemented in many low and middle income countries to increase access to quality care for underserved populations. As stipulated by World Health Organization (WHO) this requires among other things a knowledgeable, skilled and motivated health workforce that Kenya still lacks. While community health workers cannot substitute the highly skilled health workers' role, they are trusted members of the community who are trained to provide basic primary healthcare services to their community members. Due to shortages of healthcare providers and the rise in the number of people living with both communicable and non-communicable diseases in informal settlements and slums, Community health workers CHW are increasingly incorporated into healthcare projects. They provide lifesaving, culturally acceptable healthcare services that reduce preventable diseases (Perry, Zulliger & Rogers, 2014).

Community health workers (CHWs) are an instrumental group of health workers who provide these healthcare services at the community level. CHWs are extensively involved in the provision of promoting, preventive and some basic curative healthcare services, often substituting for professional health workers as a result of task shifting in a context of constrained human resources for health. It is therefore vital to recognize ways of improving the community health workers in health provision and attainment of universal healthcare (Muhula, *et al*, 2016).

Community health workers can impact on a number of individual and population health outcomes and when appropriately organized and managed, they can be an effective mechanism to improve health, empower communities and reduce healthcare costs where expensive, fully trained healthcare workers are not available. With more supervision that is appropriate and training, community health workers have been adopted in many low and middle income countries to promote health and wellbeing and help struggling health systems achieve the Sustainable Development Goals.

However, despite the importance of CHW as frontline workers in healthcare provision, evaluations of CHW programs show that these health workers often lack the necessary

equipment and motivation to implement the community health projects. According to Oliver (2015), improving the quality of training is not necessarily sufficient to improve long-term knowledge among CHW. The routine provision of refresher trainings is also important in reinforcing and updating skills and knowledge. Additionally, the inadequate of health equipment such as medical kits, remote diagnostics and care units as an aid to the community health workers hinders the smooth delivery and implementation of the health projects. Implementation of community health project among CHW can be rendered ineffective when they lack the materials and equipment to properly serve the community.

CHW need a regular replenishment of supplies, medicines, and equipment. When the supply of needed materials is disrupted, not only will productivity decrease but there may be other equally detrimental consequences, such as losing the respect of the community without which a CHW can rarely be productive. CHW productivity is influenced by a complex interplay of elements that comprise an enabling work environment workload, supportive supervision, supplies and equipment, and respect. Appropriate incorporation of these elements in a CHW program provides CHW with the working conditions conducive to doing their job more effectively (Jaskiewicz & Tulenko, 2012). The working environment of the community health volunteers (workers) in slums is usually enormous due to the high population and harsh environmental conditions. Motivation through compensation, career development and work flexibility is vital factor for the implementation of the health projects.

According to Oti, Gomez, Agyemang, Egondi, Kyobutungi and Stronks (2016), different sources of funds and utilization influences directly or indirectly, the implementation of the community based projects due to the conditions that go with them as well as the volume each strategy is likely to earn. Projects require funding. Funds form one of the major resources that enable day-to-day operations of most of the community-based projects. It is however, important to point out that due to poor fund management most projects fail to meet their budget constraints and end up incomplete and of little value to communities that instituted them.

The roles and activities of community health workers/volunteers are enormously diverse throughout their history, within and across countries and across programs. While in some cases CHW perform a wide range of different tasks that can be preventive, curative and/or developmental, in other cases CHW are appointed for very specific interventions (WHO,

2007). Globally, community health workers are an essential component of the healthcare delivery system. They provide the critical link between the healthcare and human service system and their communities (Ballester, 2005). Community health workers CHW improve access to and increase utilization of primary healthcare, reduce costs of care, improve quality of care, and reduce health disparities. They achieve these goals by serving as the bridge between clients in need and needed healthcare and human services.

In Africa, CHW have been used in the rural villages to carry out outreach activities such as networking with community peers and health screening, they provide services that link peers with health care providers, and they furnish cultural information to patients, families, and assistants. However, they face difficulties in carrying out their expected duties because the village population does not recognize in the CHW the skills necessary to carry out outreach activities. These difficulties are further accentuated by the fact that, in the almost total absence of healthcare professionals the CHW have to carry out medical duties (Sarli, Enongene, & Bulgarelli, 2015). The absence of a minimally equipped health center, and of a means of transportation, which would allow for the evacuation of patients considered to be in need of care by more qualified health personnel, make the healthcare programs less effective.

Locally, CHW(V) play a critical role in saving lives, especially at the community level where people lack access to the formal health system. The Kenyan government, as a signatory of '1 million community health volunteers (workers)' campaign, by WHO, which underlines importance of primary healthcare, recognizes the existence of CHW (WHO, 2016). The majority of CHV(W) in Kenya have been trained by non-governmental organizations (NGOs) in the context of primary healthcare from the early 90s. However, there has been minimal government or county council support and recognition for CHW leaving this mainly to NGOs (Ndetei, Khasakhala & Omolo, 2016).

Mukuru is a slum situated in the eastern side of Nairobi, and one of the largest slums in the city with a population of about 500,000 people according to the National census result of 2009. Mukuru residents are extremely poor; some leave their rural homes because of poverty and come to the city in hope of finding jobs around industrial area. Some are successful but majority, being unskilled and uneducated, remain jobless. Many do odd jobs and live in tiny rooms with large families and dependents. Mukuru Development Projects (MSDP) have trained CHV(W) to

provide such linkages between communities and health center's and whose key components of work was being self-perception, their role in enhancing community uptake of services and targeting of vulnerable groups. Most patients at risk are properly identified at a community level (Likoko, 2019). The CHV(W) facilitate the uptake of PHC services, including the most vulnerable households. The general training of CHV(W) has created a positive self-definition in these cadres of their medical, patient support and health service roles. Although with some variability across different groups community health volunteers (workers) work to bridge gaps in access to care that arise from lack of communication for patient follow-up.

1.2 Statement of the Problem

CHW increasingly play a prominent role in providing health services to the rural communities and urban informal settlements. The ideal situation is that there is need to ensure that CHW possess the necessary knowledge and competencies to satisfactorily perform their expanding roles. However, the actual situation is that numerous challenges such as limited training, low motivation and inadequate equipment exist that hamper CHWs' ability and willingness to effectively provide services to the beneficiaries (Muhula, Memiah, Mbau, Oruko, Baker, Ikiara & Ilako, 2016). Some mitigating factors implemented by the project managers include: providing airtime, monthly meetings to give reports from respective villages in terms of number of expectant mothers and care of those with HIV among others but without proper working equipment and training performance remains low.

The implementation of health-associated projects in Mukuru has not been to expectations (Likoko, 2019). Due to the rising population in the slum, the amount of work the community health Volunteers (workers) take, has been increasing. CHVs work at the complex interface of communities where the health sector, have increasing tasks and responsibilities, limited training and face numerous resource constraints. Policy makers and programme managers who aim to optimize and scale up CHV programmes are in search of ways and strategies that could support the performance of CHVs. In addition, the rising population in the slum has not been adequately matched with adequate training and motivation. Additionally, this has been without a corresponding increase in their monetary incentives for the community health workers (Oliver, 2015). Due to the level of outbreak of diseases, the volunteer spirit of implementation of health projects is diminishing. The population increase and demand for basic health services in most of

the urban slums in Kenya and lack of commitment has led to a constraint of resources available with the existing community health workers in the slum and therefore hindering implementations of community health projects.

A study of community-based reproductive health agents in Mathare slums in Kenya determined that the competency of CHW contributes to the success of CHW service provision but hindered by a lack of resources (Prata, Weirdert, Fraser & Gessesew, 2013). This was because training of the workers enabled them deliver on services more efficiently with expertise. A study of CHV and implementation of HIV prevention in Kibera slums, for example, found that after adjusting for socio-demographic factors, the knowledge level of CHW was the most important factor in adherence to HIV treatment among the youth (Muhula, *et al*, 2016).

The aim of this project was therefore to gain insight into how performance of CHVs in the slum can be improved, in order to contribute to the realization of better informed, more effective and sustainable CHV programmes and ultimately improved health status of the poor urban communities. This study examined the influence of community health workers on implementation of community health projects: A case of Mukuru Slum Community in Nairobi County, Kenya.

1.3 Purpose of the Study

The purpose of this study was to examine the influence of community health workers (volunteers) empowerment on implementation of community health project in Mukuru Slum Community, Nairobi County, Kenya.

1.4 Research Objectives

This study was anchored by the following objectives;

- i. To determine the influence of training of community health workers (volunteers) on Implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya.
- ii. To examine the influence of motivation of community health workers (volunteers) on Implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya.

- iii. To identify the influence of availability of health facilities on Implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya.
- iv. To determine the joint relationship of the training, motivation of community health workers (volunteers) and availability of health facilities on Implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya.
- v. To establish the moderating effect of resource mobilization on the relationship between community health workers (volunteers) empowerment and implementation of community health project in Mukuru Slum Community in Nairobi County, Kenya.

1.5 Research Questions

- i. How does training of community health workers (volunteers) influence the implementation of community health project in Mukuru Slum Community?
- ii. To what extent does motivation of community health workers (volunteers) influence the implementation of community health project in Mukuru Slum Community, Kenya?
- iii. How do health facilities impact the implementation of community health project in Mukuru Slum Community in Nairobi County, Kenya?
- iv. What is the joint relationship between training, motivation of community health volunteers (workers), availability of health facilities and Implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya?
- v. What is the moderating effect of resource mobilization on the relationship between community health workers (volunteers) empowerment and implementation of community health project in Mukuru Slum Community, Kenya?

1.6 Research Hypotheses

- i. **H₀₁**: Training of community health volunteers (workers) has no statistically significant relationship with the Implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya
- ii. **H₀₂**: Motivation of community health volunteers (workers) has no statistical significant relationship with implementation of community Health Project in Mukuru Slum Community, Kenya.

- iii. **H₀₃**: Availability of health facilities has no statistical significant relationship with implementation of community Health Project in Mukuru Slum Community in Nairobi County, Kenya.
- iv. **H₀₄**: Training, motivation of community health volunteers (workers) and availability of health facilities jointly have no statistical significant relationship with Implementation of community Health Project in Mukuru Slum Community, Kenya.
- v. **H₀₅**: Resource mobilization does not significantly moderate the relationship between community health volunteers (workers) empowerment and Implementation of community Health Project in Mukuru Slum Community, Kenya.

1.7 Significance of Study

The study will be significant in that the findings of the study will act as a basis for remodeling the implementation of community strategy in the study area. It will also act as primary benefit to the community by sensitizing on community strategy in Mukuru Slum and Nairobi in general. The findings of this study will inform the policy makers and the other stakeholders to come up with better mechanisms on improving the community strategy. This will propel the country to move faster towards achieving high quality healthcare as desired by the informal communities. The CHV(W) will benefit from the findings of this study as their working conditions and environments concerns will be highlighted for further action by the concerned authorities.

The Ministry of health at county level will utilize the study findings in identifying the best way of promoting maternal healthcare through involvement of CHV(W) in the informal settlements. This will end up reducing infant mortality rate and death from treatable and preventable diseases and thereby enhancing the achievement of SDGs. It is also expected that the study will be of great significance to the national government in developing policies relating to community access to better, efficient and quality health services. Lastly, the study findings will form basis for further research in the field of community health surveys.

1.8 Basic Assumptions of the Study

The study assumes that the respondents will give truthful and honest responses.

1.9 Delimitation of the Study

The study focused on the influence of community health volunteers (workers) empowerment on implementation of community health project in Mukuru Slum Community, Kenya. The study limited itself to obstacles that curtail empowerment of community health volunteers (workers) in Mukuru. Mukuru has eight villages namely Mukuru kwa Reuben, Mukuru kwa Njenga, Sinai, Paradise, Jamaica, Kingstone, Mariguini, Fuata Nyayo and Kayaba. The population of the slum exceeds 500,000. The target population of the study was the community health volunteers (workers) of Mukuru community slums, where the data was collected by administering structured and open-ended questionnaires. Stratified random sampling technique was employed to come up with a desirable sample size.

1.10 Limitations of the Study

The anticipated limitations to this study are: Unavailability of some of the community health volunteers (workers) in Mukuru slums since they are busy in their daily healthcare activities, lack of cooperation by the CHW(V) who take the study as an audit to their work rather than an exercise to learn from. Accessibility of the area might be a challenge due to the informal infrastructure and possibility of hostility by some residents.

In order to avoid the above scenario, as a researcher I studied the CHV(W) calendar of activities through their leaders, talked to clinical officers so as to understand when the target persons are available to fill questionnaire. I also sought to get a local assistant, Administration (Chief) who understands the structure of the area. Then I further sought to assure the CHV(W) that the study was for academic purpose and will be treated with confidentiality.

1.11 Definition of Significant Terms

Clinical officer: A clinical officer (CO) is a gazetted officer who is qualified and authorized to practice medicine

Community health volunteers (workers): A community health worker is a frontline public health worker who is a trusted member of the said community and/or has an unusually close understanding of the community they serve. They are identified by many titles such as community health advisors, lay health advocates, promoters, outreach educators, community health representatives, peer health promoters, and peer health educators.

Health Facilities and Equipment; these are the kits and instruments that aid community health volunteers (workers) in provision of health services. Examples include thermometers, BP machine, muac tapes, weighing scales; sphygmomanometer, contraceptive pills, HIV Testing kits, referral books, Communication cachets; in general a CHW's backpack

Implementation of Community Health Project; this is carrying out the activities described in the health work plan and making community health visions and plans become a reality.

Motivation of Community health volunteers (workers); This is the internal and external factors, incentives that stimulate desire, energy in the CHV(W)s to be continually interested and committed to providing healthcare services and projects implementation.

Resource mobilization; refers to all activities involved in securing new and additional resources for an organization. It also involves making better use of, and maximizing, existing resources

Training of Community health volunteers (workers): This is designed to strengthen the common skills, knowledge and abilities of the Community Health Worker.

Harambee: Tradition of community self-help events, e.g. fundraising or development activities.

1.12 Organization of Study

This study is organized into five main chapters as outlined below;

1. Chapter one comprise of the background of the study, statement of the problem, purpose of the study, research objectives, research questions, and research questions & hypothesis. Further the section has significance, assumptions, and limitations of the study, delimitations of the study, definition of significant terms and organization of the study.
2. Chapter two entails through the introduction, theoretical review, and empirical review on the areas of community health workers empowerment, conceptual framework, knowledge gaps and summary of the literature.
3. Chapter three consist of introduction, research design, target population, sampling frame and sampling design, study sample size, methods and tools of data collection, validity and reliability of instruments, operational definition of variables, data collection procedures, data analysis and ethical considerations and finally ethical considerations.
4. Chapter four focuses on the presentation of the findings using charts, graphs and tables. Further, discussion of the findings was presented.

5. Lastly, chapter 5 presents summary of the findings, conclusions, recommendations and areas for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the theories that informed the study and reviews scholarly literature related to this study. Key literature on community health workers (volunteers) empowerment in implementation of projects in Kenya, regionally and globally. It surveys critical indicators of community health workers (volunteers) in healthcare projects implementation. The conceptual framework is also presented. Lastly, the chapter is presents the research gaps emanating from the literature review.

2.1 Theoretical Framework

This study is based on three theories namely Kanter's theory of empowerment, Maslow hierarchy of needs theory and resource mobilization theory.

2.1.1 Kanters Theory of Empowerment

Kanter (1993) developed the theory and expresses the characteristics of a situation can either constrain or encourage optimal job performance, regardless of personal tendencies or predispositions. According to Kanter (1993), power is defined as the "ability to mobilize resources to get things done". Power is 'on' when employees have access to lines of information, support, resources, and opportunities to learn and grow. When these 'lines' or sources are unavailable, power is 'off' and effective work is impossible. These lines of power are sources of 'structural' empowerment within the organization (Valdez, Cayaban & Mathews, 2019).

According to Kanter, these lines of power emanate from formal and informal systems within organizations. Jobs that are highly visible permit discretion or flexibility in how work is accomplished, and are central to the overall purpose of the organization; describe positions that are high in formal power. When positive relationships among superior, peers, and subordinates are encouraged, the resulting alliances confer informal power. High levels of formal and informal power facilitate access to the lines of power and opportunity that enable employees to accomplish their work in meaningful ways. Formal power is derived from specific job characteristics such as; flexibility, adaptability, creativity associated with discretionary decision-making, visibility, and centrality to organizational purpose and goals. Informal power is derived

from social connections, and the development of communication and information channels with sponsors, peers, subordinates, and cross-functional groups (Laschinger, Sabiston & Kutzcher, 1997).

According to Kanter, the mandate of management should be creating conditions for work effectiveness by ensuring employees have access to the information, support, and resources necessary to accomplish work and that they are provided ongoing opportunities for development. Employees who believe their work environment provide access to these factors be empowered. The focus of Kanter's theory is on the employees' perception of the actual conditions in the work environment, and not on how they interpret this information psychologically. This 'structural' empowerment has been found to predict job satisfaction.

The theory is relevant as it reflects how empowerment leads to increased performance, job satisfaction, individual competence and self-esteem, which in turn, increase perceptions of personal control, which may have a direct effect on implementation of healthcare projects by the community health workers. According to the theory, empowered community health volunteers (workers) would be highly motivated and therefore able to motivate others 'experience less burnout and less job strain in their health projects.

2.1.2 Maslow's Hierarchy of Needs

Maslow's Hierarchy of Needs was developed by Abraham Maslow in 1943. His hierarchy of needs is an image familiar to most business students and managers. The theory is based on a simple premise: Human beings have needs that are hierarchically ranked. There are some needs that are basic to all human beings, and in their absence nothing else matters. As we satisfy these basic needs, we start looking to satisfy higher order needs. In other words, once a lower level need is satisfied, it no longer serves as a motivator.

The most basic of Maslow's needs are physiological needs. Physiological needs refer to the need for food, water, and other biological needs. These needs are basic because when they are lacking, the search for them may overpower all other urges. Imagine being very hungry. At that point, all your behavior may be directed at finding food. Once you eat, though, the search for food ceases and the promise of food no longer serves as a motivator. The theory is relevant as it illustrate how the society prioritizes their needs. The theory informs the study on how our most

basic need is for physical survival. This is the first thing that motivates our behavior in the community especially on health necessities.

2.1.3 Resource Mobilization Theory

This theory was initiated by Wernerfelt and Rumelt in 1984. RBV focuses attention on an organization's internal resources as a means of organizing processes and obtaining a competitive advantage. Resource mobilization theory is used in the study of social movements and argues that the success of social movements depends on resources (time, money, skills, etc.) and the ability to use them. When the theory first appeared, it was a breakthrough in the study of social movements because it focused on variables that are sociological rather than psychological. No longer were social movements viewed as irrational, emotion-driven, and disorganized. For the first time, influences from outside social movements, such as support from various organizations or the government, were taken into account (McIvor, 2014).

Resource mobilization theory is one means sociologists use to explain the characters and outcomes of social movements. Understanding the principles, applications, and strengths and weaknesses of resource mobilization theory is vital background for all those interested in the sociology of social movements. This study explains resource mobilization theory in three distinct parts: an overview of the main principles and origins of resource mobilization theory; a description of how resource mobilization theory is applied to analyze and understand the character and success of social movements; and a discussion of the main criticisms of resource mobilization theory (Collis & Montgomery, 2016).

Resource mobilization theory argues that social movements succeed through the effective mobilization of resources and the development of political opportunities for members. Social movements can mobilize both material and non-material resources. Material resources include money, organizations, manpower, technology, means of communication, and mass media, while non-material resources include legitimacy, loyalty, social relationships, networks, personal connections, public attention, authority, moral commitment and solidarity.

2.2 Implementation Community Health Projects

Project implementation is a process whereby project inputs are converted to project outputs. It involves putting in action the activities of the project, putting into practice what was proposed in the project document and management of the project or executing the project intentions. Although the topic under review has been previously explored extensively out of the country but most of these studies were context specific, their implementation and implication are usually limited to countries, and the operating environment where these studies were conducted (Toor & Ogunlana, 2019). There is a lack of effort to contextualise the findings into local context where the structure, culture and maturity of the concerned organisations are different. Although emphasis has been given on the integration of process improvement programmes and conflict resolution process in the project management, but potential of human-related factors is not explored in detail. On the other hand, Lim and Mohamed (2009) suggested that project success can be classified into two categories, which are the macro- and micro-view point. Both viewpoints consider the usual criteria of time, cost and quality but remain silent on human-related factors as well.

Effective project implementation is looked at, in many ways to include a large variety of criteria. However, in its simplest terms, effectiveness of project implementation can be thought of as incorporating four basic facets. A project is generally considered to be successfully implemented if it comes in on-schedule (time criterion), comes in on-budget (monetary criterion), achieves basically all the goals originally set for it (effectiveness criterion), and is accepted and used by the clients for whom the project was intended (client satisfaction criterion). By its basic definition, a project comprises a defined time frame to completion, a limited budget, and a specified set of performance characteristics (Schultz & Slevin, 2019). Further, the project is usually targeted for use by some client, either internal or external to the organization and its project team. It seems reasonable therefore; that any assessment of project implementation effectiveness should at least include these four measures among others.

Implementation of community health projects involves carrying out community healthcare activities with the aim to achieve communal improve health, empower communities and reduce healthcare costs where expensive. Mubyazi and Hutton (2012) defines implementation as process that integrate different spheres of the society at various stages of projects implementation such

as; priority setting, resource allocation, service management and monitoring and evaluation. According to Ramírez, Ruiz, Romero and Labonté (2011) weak community participation structures adversely influence the implementation of primary health care projects by devolved governance structures.

Ruiz-Rodríguez, Acosta- Ramírez, Villamizar, Uribe and León-Franco (2011) found evidence indicating that the collaboration of communities in the form of integration of community participation was important in the successful implementation of primary health care (PHC) projects by departmental governments in Colombia. Further, they contend that community participation through the involvement of women's groups was important in the implementation of maternal and child health (MCH) and family planning projects by departmental and municipal governments (Ruiz-Rodríguez, *et al.*, 2011).

Similarly, Sandoval and Cáceres, (2013) found evidence indicating that collaborations of communities which integrated community participation in the form of; Community representatives in regional governments health committees and partnerships with private sector health companies and Non-governmental Organizations (NGOs) was important in the successful implementation of health care projects by regional governments in Peru. They also noted that the positive influence emanating from this was more pronounced to access to health services related to; HIV, Tuberculosis (T.B) and Cancer in the regions of Peru (Sandoval & Cáceres, 2013).

Further, Ejaz, Shaikh and Rizvi (2011) observed that need to embrace collaborations of communities and in particular partnerships with NGOs for the successful implementation of health care projects by provincial governments in Pakistan. This they noted would assist in the filling of gaps such as those related to; primary health care information, human resources for healthcare (HRH) and medical supplies and new equipment technologies thereby positively influencing the implementation of health care projects at these devolved governance units (Ejaz, *et al.*, 2011). In his study, Nobuya (2011) postulated the need for inter-prefectures partnerships for the successful implementation of prenatal projects by these devolved governance units in Japan, he in particular observed that the positive influence emanating from this would be more pronounced in emergency responses to pregnant women in rural prefectures (Nobuya, 2011).

Ambaretnani (2012) found evidence indicating that partnerships between skilled midwives and traditional birth attendants and a provincial government was influential in the implementation of

healthcare projects whose target was decreasing maternal mortality and severe morbidity in Indonesia. He further contends that this was because most women in the rural areas believed more in being served by traditional birth attendants in their homes than going to provincial hospitals and therefore skilled midwives were integrated to provide medical attention in complicated cases (Ambaretnani, 2012).

2.3 Training of Community health volunteers (workers) and Implementation

Redick and Dini (2014) conducted a study on the state of CHW training programs in Sub-Saharan Africa and South Asia. The study found that although CHW programs are prevalent, little formal research has been conducted on CHW training programs or their effectiveness. To begin to address this, empowering Frontline Health Workers, through, USAID commissioned a literature review to identify, synthesize, and analyze research studies, gray literature, and project reports related to CHW training in sub-Saharan Africa and South Asia (specifically, India, Nepal, and Pakistan). The review found a variety of training providers in both regions, including governments, NGOs, and private-sector organizations such as community-based organizations (CBOs), although the latter operate at a smaller scale. CHW training occurs in a wide variety of settings and varies in duration. The literature points to a need for mandatory, consistent evaluation of training programs. Among the programs surveyed, only a small number actually implemented evaluation practices, and some of them did not implement the practices consistently. Although additional information may exist in nonpublic forms such as internal reports, the lack of readily available information about the programs hampers the ability to draw strong conclusions on optimal CHW training methodologies.

According Cole (2012), the purpose of training is mainly to improve knowledge and skills, and to change attitudes or behavior. It is one of the most important potential motivators which can lead to many possible benefits for both individuals and the organization. Changing technology requires that employees possess the knowledge, skills and abilities needed to cope with new processes and production techniques. Cole (2012) further argued that training brings a sense of security at the workplace which reduces labor turnover and absenteeism is avoided; change management training helps to manage change by increasing the understanding and involvement of employees in the change process and also provides the skills and abilities needed to adjust to new situations.

Omole (2011) sees training as any process concerned with the development of aptitudes, skills and abilities of employees to perform specific jobs with a view to increase productivity. An organization may have employees with the ability and determination, with the appropriate equipment and managerial support yet productivity falls below expected standards. The missing link in many cases is the lack of adequate skills, and knowledge, which is acquired through training and development.

Malaolu and Ogbuabor (2013) investigated the effects of training and manpower development on employees' productivity and organizational performance in Nigeria. The study applied structured questionnaires to a sample size of 75 respondents drawn by simple random sampling. The data generated was analyzed using descriptive statistics. The findings of the study showed that majority (70%) of the respondents agreed that training and manpower development has enhanced their efficiency and job productivity. Secondly, majority (80%) of the respondents overwhelmingly agreed that training and manpower development enhanced organizational performance. Still, there is often need to use more than one instrument for collecting data, since this enhances corroboration.

Wanduru, Tetui, Tuhebwe, Ediau, Okuga, Nalwadda and Rutebemberwa, (2016) on their study on the performance of community health volunteers (workers) in Lira, northern Uganda observed that the health projects implementation of CHW in Lira was inadequate. There is a need to consider pre-qualification testing before CHW are appointed. Providing ongoing support and supervision, and ensuring that CHW have at least secondary education can be helpful in improving their performance. Health system managers also need to ensure that the CHV(W)s' workload is moderated as work overload will reduce performance. Finally, although short training programs are beneficial to some degree, they are not sufficient and should be followed up with regular refresher training.

2.4 Motivation of Community Health Volunteers (workers) and Implementation

Owek, Abong'o, Oyugi, Oteku, Kaseje, Muruka, and Njuguna, (2013) carried out a study on motivational factors that influence retention of community health workers in Kenya. The study assessed the motivational approaches that determine the retention of community health workers in Busia, Kenya. Both quantitative and qualitative approaches were used to collect data from the CHW and other stakeholders. 300 questionnaires were administered to the CHW in while six key informants and seven focus group discussions were held. The study revealed that among the CHW interviewed, about 30% had served for at least three (3) years. Only 2% of the CHW who had been retained considered recognition as being able to motivate them to be retained, while 40% perceived recognition by the community as a determinant that would retain them. Currently 88% of them acknowledge reimbursements as motivation factor for them to continue serving as CHW. The current motivational determinants are recognition by the community members, skill development, provision incentives and supervision. The perceptions of the CHW on retention include; community support and healthcare system support. Prompt provision of the working materials for the CHW like bags, CHW kit, and reporting materials; harmonize the workload for the CHWs in order to improve on quality of care.

According to Raven, Akweongo, Baine, Sall, Buzuzi and Martineau (2015), CHW motivation and implementation are linked and appear to be determined by a number of inter-related factors including access to resources, community embeddedness, ongoing training and manageable workloads. Motivation and interventions that improve motivation and job satisfaction are considered likely determinants of CHW performance. Similarly, ineffective project implementation has been attributed to a lack of incentives, poor supervision, demotivation and the absence of ongoing training. Despite these considerations, human resource management for improving CHW performance in health interventions and programmes remains inadequately understood. While the current literature offers some guidance on what factors are involved in determining the performance of CHW, little is known about how these factors interact to influence CHW project implementation (Jaskiewicz & Tulenko, 2012). This is partially due to the methodological challenges of measuring motivation and performance and due to a preference for assessing the effects of an intervention solely on health outcomes.

Hill, Dumbaugh, Benton, Källander, Strachan, Ten Asbroek and Meek (2014), revealed that many CHWs do not feel supported nor respected by the upper level, which hinders motivation and performance. Joint training of CHWs with their supervisors could contribute to better relationships as understanding about each other's roles and competencies can be established. There is a need for improved, supportive supervision, including training of supervisors in technical skills, people management and implications of CHWs' intermediate position for relationship building with communities. As supervision is a form of human interaction, strategies that reduce social distance between supervisor and supervisee (such as team building events) could improve relationships and performance. Improved supervision from the side of the health sector could have a positive ripple effect on CHWs' relationships with their communities, through increased recognition.

Sanou, Jegede, Nsungwa-Sabiiti, Siribié, Ajayi, Turinde and Kyaligonza (2016) carried out a study on motivation of community health workers in diagnosing, treating, and referring sick young children in a multi-country study. Although CHWs are easy to recruit, motivating and retaining them for service delivery is difficult. This study investigated factors influencing CHW motivation and retention in health service delivery quantitative and qualitative data were collected to identify the key factors favoring motivation and retention of CHWs as well as those deterring them. They interviewed 47, 25, and 134 CHWs in Burkina Faso, Nigeria, and Uganda, respectively, using a structured questionnaire. Focus group discussions (FGDs) were also conducted with CHW, community participants, and facility health workers. Except for Burkina Faso, most CHWs were female. Average age was between 38 and 41 years, and most came from agricultural communities. The majority (52%–80%) judged they had a high to very high level of satisfaction, but most CHWs (approximately 75%) in Burkina Faso and Uganda indicated that they would be prepared to leave the job, citing income as a major reason. Community recognition and opportunities for training and supervision were major incentives in all countries, but the volume of unremunerated work, at a time when both malaria-positive cases and farming needs were at their peak, was challenging. Most CHWs understood the volunteer nature of their position but desired community recognition and modest financial remuneration.

2.5 Availability of Health Facilities and Implementation

Janneck, Cooper, Frehywot, Mowafi and Hein (2016) stated that availability of health equipment's to CHW for project implementation in humanitarian emergencies, where the need for such evidence is pressing. Health services in humanitarian emergencies are frequently non-existent or under pressure because of the ongoing violence and conflict, yet the needs for healthcare are increased. The impact of humanitarian emergencies on a population's health is severe and exacerbated by increases in food insecurity, population displacement, crowding and poor access to water and sanitation, lack of resistance to infection, the physical and psychological effects of weapons and exposure to violence, and the collapse of basic healthcare services. The impact of humanitarian emergencies on health workers and service provision is also extensive and includes the destruction of health facilities, infrastructure, frequent and prolonged shortages in drugs and equipment, loss of qualified health staff, and restricted access to healthcare.

Numerous humanitarian organizations have established community health programs as a means to increase access to health services during and after humanitarian emergencies in a bid to overcome infrastructural weakness, promote healthy behaviors and task-shift primary care to available cadres (Banatvala & Zwi, 2014). Specifically, CHW in emergency settings are often used to provide essential services under restrictive and sometimes dangerous situations, and have the potential to contribute to the sustainability of health programs in the post conflict and recovery stages. Optimizing the performance of CHW in humanitarian emergencies is likely to be critical to achieving good health outcomes across health conditions, age groups and contexts.

According to Sid (2014), about 80% of projects run late or over budget. According to Mobey and Parker (2015), the chances of a project succeeding can be increased if firms have an understanding of what the critical success factors are to systematically and quantitatively assess these critical variables, anticipating possible effects, and then choose. Projects differ from operations, because operations are continuous and repeating whereas projects are temporary. In addition, operations deliver the same or almost the same results over time whereas project results are in contrast unique. Implementation is the stage where all the planned activities are put into action. Before the implementation of a project, the implementers who are spearheaded by the

project committee or executive should identify their strength and weaknesses including internal forces, opportunities and threats, which include external forces.

According to Rusare and Jay (2015), the strength and opportunities are positive forces that should be exploited to efficiently implement a project. The weaknesses and threats are hindrances that can hamper project implementation. The implementers should ensure that they devise means to address the weaknesses. Monitoring is important at this implementation phase to ensure that the project is implemented as per the schedule. This continuous process should be put in place before project implementation starts. As such, the monitoring activities should appear on the work plan and should involve all stakeholders. If activities are not going on well, arrangements should be made to identify the problem so that they can be corrected.

2.6 Joint Relationship of Training, Motivation and Health Facilities on Implementation of Community Health Projects

The joint effect of training, motivation and health facilities on implementation of community health projects provides an integrated network on factors that affect the implementation of community health projects. A prerequisite for a well-functioning health system is a well-motivated staff. Low level of health worker motivation has often been identified as a central problem in health service delivery among existing human resources. Motivation and retention are major concerns in human resources for health. Health workers are susceptible to push factors such as pay and working conditions and pull factors such as job satisfaction and economic prospects. Ensuring staff receive adequate pay for their work is key to retention. However it is not just salary that is important. In many contexts, the low numbers of trained health staff in remote areas is due to the lack of supporting infrastructure and opportunities for staff and their families. In fragile contexts, these factors include poor living conditions, the lack of safety and security in the workplace, and the absence of continuous professional development.

Motivation is influenced by both financial and non-financial incentives. Though financial incentives are important, increased salaries are by no means sufficient to solve the problem of low motivation. More money does not automatically imply higher motivation. Low motivation has a negative impact on individual performance, health facilities and generally the health system.

A survey conducted by the Ministry of Medical Services in Kenya (Republic of Kenya, 2019) highlights some of the key issues related to the motivation and satisfaction of the health workers. In a representative sample of 32 health facilities in the republic, the survey on employee satisfaction sought information on several aspects such as job factors, compensation, work environment, supervision, and promotion among health staff working at the level of county public health facilities. Background characteristics of the sampled respondents provide insights into the profile of a typical health worker in a Kenyan health facility. The mean age of employees was 40 years; the majority (62%) were female. Most (78%) were married, and about three quarters of them (72%) had secondary education. The employees had served in the Ministry for an average of 15 years.

The survey also gathered information on motivation of Kenyan health workers. With regard to job satisfaction, although the majority of the staff (93%) reported that they liked their work, there was also an increase in the proportion who indicated that they lacked the resources to accomplish their tasks adequately. Over half of the employees have had training opportunities and the same proportion have had openings for career advancement. Compared to results of a similar survey conducted in 2017, there was an increase (by 5%) in the number of staff who felt that the current remuneration package that they receive negatively affects their work. Most of the staff indicated dissatisfaction with the civil service compensation package, compared to other people working outside the service. The majority of the staff (69%) had not received feedback on their performance in the last one month. Only 10% are satisfied with the promotion system.

Findings on a study on incentives for health worker retention in Kenya (Ndeti *et al.*, 2017) provide a number of insights. In public facilities, there are many unfilled positions. Primary Health Care (PHC) facilities are severely understaffed. Management practices are also important, but the strategic information needed for effective management is missing. Routine information needed to assess impact of incentives is not accessible. Other studies (Proper, Deeg, & Beek, 2019) also show that measures which promote challenges at work, together with financial stimuli, appear to hold promise in promoting longer workforce participation.

Tediosi, Gabriele and Longo (2009) observed budgetary constraints had an existing association with the implementation of health care projects. Further, they argued that occurrences that witnessed regional governments experiencing insufficient funds either that raised from local

taxes or that disbursed from the central government, their implementation of health care projects was derailed (Tediosi, *et al.*, 2009). Similarly, Ferrario and Zanardi (2010) found evidence that showed the existence of a correlation between both the amount of local taxes raised by regional governments and that disbursed from the central government and the implementation of health care projects by the regional governments in Italy. They also argued there was need to address health care budgetary constraints by increasing the number of local taxes at regional level which would enhance the implementation process of health care projects (Ferrario & Zanardi, 2010).

Jackson (2013), assert that the capacity to partake cannot be guaranteed merely by the right to do so: the means to get involved is also necessary. Practical participation requires both the right and the means. Even though Gray (1985) emphasises that community residents need adequate resources and skills to acquire the capacity to take part, the power to obtain them is often held by governments or other stakeholders who do not regard local residents as equal partners. The residents themselves often do not even know where to begin when it comes to participation (Gómez-Navarro et al., 2013).

2.7 Resource Mobilization and Implementation

Jaskiewicz and Tulenko (2012) stated that in order to carry out their tasks effectively, CHW need a regular replenishment of supplies, medicines, and equipment. Unfortunately, this is another weak link. When the supply of needed materials is disrupted, not only will productivity decrease but there may be other equally detrimental consequences, such as losing the respect of the community without which a CHW can rarely be productive. In Pakistan, poor supply caused embarrassment and made "Lady Health Workers" suspect in the eyes of the community because they were accused of selling drugs and contraceptives in the market. CHW need the trust of the community; when this is compromised CHW become ineffective.

In Kalabo District, Zambia, one of the two most important factors behind the dysfunction of the CHW programme was the shortage of drugs (Stekelenburg, Kyanamina & Wolffers, 2013).

The cost of travel is an important determinant of CHW effectiveness and should be factored in when considering how the supplies, materials, and equipment that CHW need was replenished. For example, lack of transport prevented some HSAs in Malawi from covering some of the villages in their catchment areas and from obtaining drugs and other needed supplies from their respective health centers.

Witmer, Seifer, Finocchio, Leslie and O'neil, (2015) noted that historically, most CHW programs in United states of America are run by community health centers and community-based organizations, which fund the programs either out of their own operating budgets or through specific grants. More recently, hospitals and health systems have incorporated more CHW into their workforce and have funded them in similar ways. These kinds of funding sources are unpredictable, often time-limited, and generally insufficient to support the full breadth of services and supports that CHW can provide. Using Medicaid reimbursement to more sustainably fund CHW services addresses these funding challenges. CHW services can be paid for in different ways through Medicaid, and the source of funding has important implications for which CHW services are reimbursable, who is eligible to be paid as a CHW, and how CHW are integrated into the care team and the healthcare system.

According to Kimathi (2017), challenges in resource mobilization for community health projects in Kenya have been witnessed whereby the allocation of funds to health projects is inconsistent.

This leads to stalling of functions at the local levels, further creating inefficiencies. This greatly disrupts the running of the essential healthcare services, as these funds are the ones used to primarily run the facility and cater for any arising emergencies. The lack of strong institutions at the local level means that there is no effective communication and follow-up between the two levels of government to speed up the disbursements, and therefore facilities are left on their own to follow up with the national government. The delay in funds disbursement is also experienced at the county level where allocations are often delayed leading to delays downstream with such results as frequent strikes over salaries by health personnel, lack of drugs and other necessities at health facilities and, ultimately, desertion of the health sector by qualified staff due to the arising frustrations.

Johansson, Eriksson, Sadigh, Rehnberg and Tillgren (2015) contend that for continued existence, financial self-reliance, and sustainability of the community-based organizations, exploring new avenues for financial support is very important. These organizations must not depend only on the external funding support, as it might be inconsistent, temporary and based on the priorities of funding agencies/ donors rather than on the real need at the grassroots. In order to devise an innovative strategy for fundraising, the community organization (CO) must first focus on its current activities, prioritize them and then must diversify accordingly. It must first understand its

own strengths, weaknesses, opportunities and threats to its resources or existence. In order to attain financial self-reliance, access to financial resources may be sought in more than one way.

McPake, Hanson and Mills (2013) stated that accessing financial support from foundations/ CSR/ local resources or bodies is the conventional and most common way of community health program raising funds. Yet, newer and innovative methods and approaches towards fundraising can make a difference. The community health organization must make their cause clear to the donor, explaining what activities they undertake and what impact it is making on the grassroots level. A well- documented impact report, testimonials; third-party evaluations (if possible) can establish the credibility and effectiveness of the community health organizations. Increasingly, donors and national governments are asking local governments, nongovernmental organizations (NGOs), private-sector companies, and communities to take more responsibility in finding ways to support health care programs at the local level. While it is natural to think in terms of funding, there are other equally important kinds of resources that can be mobilized at the local level. These might include human resources, space, pharmaceuticals, advocacy, and local transportation. Local groups are more effective if they recognize that there are many kinds of resources that can help support their health programs (Blevins, 2015).

2.8 Conceptual Framework

The conceptual framework outlines the various variables that directly or indirectly affect the subject matter and tries to establish a logical linkage between them (Kothari, 2006). In this study, the study sought to establish whether empowerment in terms of training of community health workers, motivation of community health workers, and availability of health equipment's and moderating effect of resource mobilization has an effect on implementation of health projects. In addition, the study will establish the joint relationship among the three independent variables and the dependent variable. The conceptual framework for this study is presented in Figure 2.1.

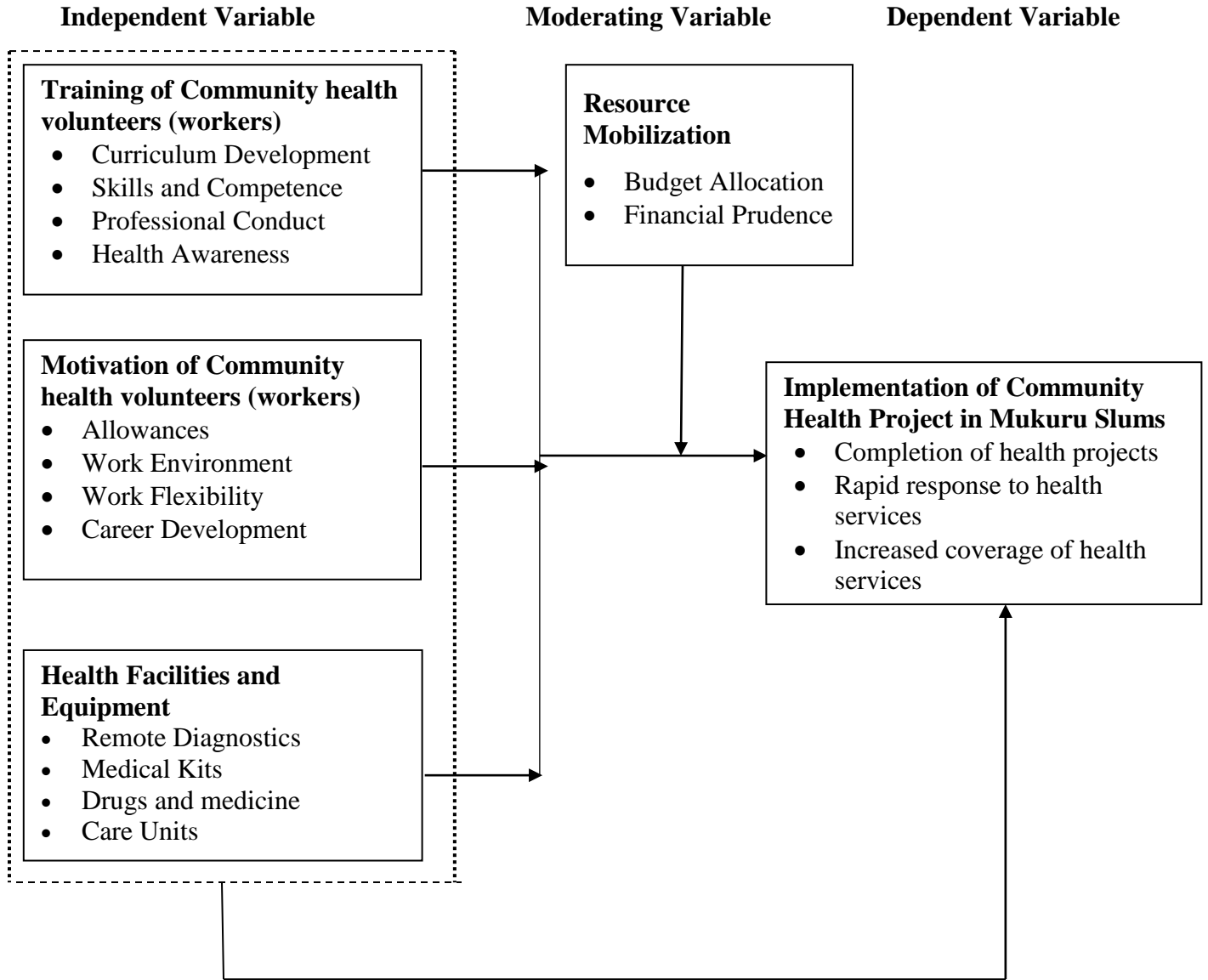


Figure 2.1: Conceptual Framework

2.9 Knowledge Gaps in Literature Review

Community health workers empowerment is a concept, which has been around for a while now. The concept has found its way from the pages in magazines, newspapers and books to the living documents in government institutions like the constitutions and act of parliament. However, there is still a lot of talk on Community health volunteers (workers) empowerment and tackling of health programs in our communities and way of doing it has not been fully agreed.

The concept of Community health workers empowerment though accepted across the board, its application has been marred with challenges. Wanduru, Tetui, Tuhebwe, Ediau, Okuga, Nalwadda and Rutebemberwa, (2016) argue that there is a need to consider pre-qualification testing before CHW are appointed. Providing ongoing support and supervision, and ensuring that CHVs have at least secondary education can be helpful in improving their performance. Owek, Abong'o, Oyugi, Oteku, Kaseje, Muruka, and Njuguna, (2013) indicated that prompt provision of the working materials for the CHW like bags, CHW kit, and reporting materials; harmonize the workload for the CHV in order to improve on quality of care.

Despite the fact that ways for community health workers empowerment toward implementation of health projects has been around for a while now gaps still exist and still needs to be made clear towards attainment of universal healthcare in our communities. Further gaps are summarized in Table 2.1.

Table 2.1 Summary of Gaps

Author	Year	Study	Findings	Gap
Wanduru, Tetui, Tuhebwe, Ediau, Okuga, Nalwadda and Rutebemberwa,	2016	The performance of community health volunteers (workers) in the management of multiple childhood infectious diseases	There is a need to consider pre-qualification testing before CHW are appointed	The study was conducted in Lira, northern Uganda while current study was conducted in Nairobi slums
Owek, Abong'o, Oyugi, Oteku, Kaseje, Muruka, and Njuguna	2013	Motivational factors that influence retention of community health workers in Kenya	40% of the sample size perceived recognition by the community as a determinant that would retain them	The current study expounds beyond motivational factors to training and availability of facilities
Redick and Dini	2014	The state of CHW training programs in Sub-Saharan Africa and South Asia	Among the programs surveyed, only a small number actually implemented evaluation practices, and some of them did not implement the practices consistently.	The current study expounds beyond training to motivational and availability of facilities. In addition the study was conducted in Asia while current study was conducted in Nairobi slums

Malaolu and Ogbuabor	2013	Effects of training and manpower development on employees' productivity and organizational performance in Nigeria	The findings of the study showed that majority (70%) of the respondents agreed that training and manpower development has enhanced their efficiency and job productivity	The current study expounds beyond training to motivational and availability of facilities. In addition the study was conducted in Nigeria while current study was conducted in Nairobi slums
Rusare and Jay	2015	The project implementation profile: A tool for enhancing management of NGO projects	Monitoring the project activities should appear on the work plan and should involve all stakeholders	The study was framed on funding for projects while the current study will factor on resource mobilization for the community projects.

2.10 Summary of Chapter

This chapter presents the theoretical framework; the theories include Kanter's theory of empowerment, Maslow hierarchy of needs theory and resource mobilization theory. Empirical literature was reviewed from previous related studies where research gaps were established. A conceptual framework was also presented where diagrammatic figure related the independent variables with the dependent variable.

The literature further reviewed studies on training, motivation, availability of health equipment's and resource mobilization and their effect on implementation of health projects. On resource mobilization we noted that in Kenya funds disbursement by government influenced the success of projects although marginally. This is to say projects require financing to take off but government health projects are influenced by other factors such as political interference which reduces the influence of funding.

The literature indicated therefore, that, a lot of talk on Community health volunteers (workers) empowerment and tackling of health programs in our communities and way of doing it has not been fully agreed. The concept of Community health workers empowerment though accepted across the board, its application has been marred with challenges.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter examined the research methodology that was used in the research. The section covered the research design, defined the target population, the sample size and sampling procedure, the methods of data collection, the reliability and validity of data, data collection procedure. The section further presents the data analysis techniques, ethical consideration and the operationalization of variables.

3.2 Research Design

A research design is the strategy for a study and the plan by which the strategy was to be carried out (Cooper & Schindler, 2001). It specifies the methods and procedures for the collection, measurement, and analysis of data. Gupta (2008) avers that a research design is the basic plan that indicates an overview of the activities that are necessary to execute the research project. Kothari (2004) defines a research design as a detailed plan on how the research is conducted. The research design that was employed in this study was descriptive survey design. Cooper and Schindler (2008) demonstrate that the essential features of descriptive that lie in the objectives. If the research is concerned with finding out who, what, where, when, or how much, then the study is descriptive. Descriptive studies are those to describe phenomena associated with a subject population or to estimate proportions of the population that have certain characteristics.

Mugenda and Mugenda (2003) indicate that descriptive survey designs are conducted to establish the extent of a range of issues. They argue that in descriptive designs, variables with greater dispersion indicate disparities within the community and provide important clues regarding the issues that the investigator should focus on. Orodho (2003) postulates that descriptive design is a method of collecting data by interviewing or administering a questionnaire to a sample of individuals which can be used when collecting information about peoples attitudes, opinions, habits or any other social issues.

Descriptive survey is a description of the state of affairs as it exists (Orodho & Kombo, 2002). Sekaran and Bougie (2011) agrees with Orodho and Kombo (2002) by asserting that descriptive

study is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in situation.

3.3 Target Population

According to Kombo and Tromp (2006), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated to generalize the results. This definition assumed that the population is not homogeneous. Lumley (2004) defines population as a larger collection of all subjects from where a sample is drawn. It refers to an entire group of individuals, events or objects having common observable characteristics (Mugenda & Mugenda, 2003).

Cooper and Schindler (2006) observe that a population is the total collection of elements about which one wants to make inferences. Kothari (2004) also expresses similar view. Target population in statistics is the specific population about which information is desired (Gupta, 2012). Target population is that population which the researcher wants to generalize results (Mugenda & Mugenda, 2003).

Mukuru has nine villages namely Mukuru kwa Reuben, Mukuru kwa Njenga, Sinai, Paradise, Jamaica, Kingstone, Mariguini, Futata Nyayo and Kayaba. According to the Nairobi Informal Settlement report (2017), there are approximately 1,500-trained CHW in Mukuru community. The distribution of the CHW for each of the eight communities are as shown in Table 3.1.

Table 3.1 Target Population

Mukuru Villages	Clinical Officers & Community Health Assistants	No of CHV(W)s
Mukuru kwa Reuben	1	274
Mukuru kwa Njenga	1	250
Sinai	1	172
Paradise	1	156
Jamaica	1	153
Kingstone	1	146
Mariguini	1	121
Futata Nyayo	1	127
Kayaba	1	101
Total	9	1,500

3.4 Sample Size and sampling Procedure

A sample is a subset of population (Hyndman, 2008). Marczyk, et al (2005) defined a sample as a subset of the population to be studied. It is a true representative of the entire population to be studied (Leary, 2001). A sample is a subset of a population (Desu, 2012). The study adopted Yamane (1967) simplified formula to calculate the sample size which provided the number of responses that need to be obtained using the equation;

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = sample size
 N = population size
 e = the level of precision
1 = Constant

The formula assumes a degree of variability (i.e. proportion) of 0.5, the level of precision of 5% and a confidence level of 95%.

$$\begin{aligned} n &= 1500 / [1 + 1500(0.05)^2] \\ &= 315.78 \approx 316 \text{ respondents} \end{aligned}$$

$$n = 316 \text{ respondents.}$$

Therefore, the 316 CHV(W) was apportioned as per the target population. Table 3.2 shows the sample size. Stratified random sampling technique was used to select the respondents. From the nine (9) villages, CHV(W) was picked randomly.

Table 3.2 Sample Size

Mukuru Villages	No of CHV(W)	Working	Sample Size
Mukuru kwa Reuben	274	274/1500*316	58
Mukuru kwa Njenga	250	250/1500*316	53
Sinai	172	172/1500*316	36
Paradise	156	156/1500*316	33
Jamaica	153	153/1500*316	32
Kingstone	146	146/1500*316	31
Mariguini	121	121/1500*316	25
Futata Nyayo	127	127/1500*316	27
Kayaba	101	101/1500*316	21
Total	1,500		316

The sample size for the community health workers was 316. A clinical officers and community health assistants was selected from each of the 9 Mukuru Villages.

3.5 Data Collection Instruments

This study utilized both the questionnaires and interview guide, as the main data collection tools. Naremo (2002) argues that the questionnaires condense all the authentic data against the question in it and is free from distortion at the time of analysis. The sentiments by Naremo (2002), were supported by Mugenda and Mugenda (1999), who emphasized on the use of questionnaires for survey designs. This study used primary data. Primary data was obtained using self-administered questionnaires and interview guides. The questionnaires entailed both closed and open ended questions focusing on the four objectives under study. Wherever necessary, the research also made use of interviews as data collection methods. The interview guide was administered to the clinical officers.

3.5.1 Pilot Testing

Prior to using a questionnaire to collect data it should be pilot tested. The purpose of the pilot test was to refine the questionnaire so that respondents have no problems in answering the questions and there is no problem in recording the data. In addition, it enables one to obtain some assessment of the question's validity and the likely reliability of the data to be collected. Preliminary analysis using the pilot test data can be undertaken to ensure that the data collected enabled the investigative questions to be answered (Saunders, Lewis and Thornhill 2012).

According to Mugenda and Mugenda (2003), a pretest sample ranges from 1% to 10% depending on the sample size. The study used 10% of the sample for pilot. Therefore, 32 respondents were used in a different health project in Kibera for pretesting and the findings were not included in the final data collection.

3.5.2 Validity of Instruments

According to Mugenda and Mugenda (2003), validity is the accuracy and meaningfulness of inferences, which are based on the research results. Validity exists if the data measure what they are supposed to measure. This study used both construct and content validity. For construct validity, the questionnaire was segregated into several sections to ensure that each section addresses a specific objective and ensures the same closely ties with the sub constructs given in the conceptual framework for the study. In order to test and enhance content validity, the questionnaire, industry expert such as the supervisors went through the questionnaire to verify validity.

3.5.3 Reliability of Instruments

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 2003). Orodho (2000) supports it as a degree to which particular measuring procedure gives similar results over a number of repeated trials. A measure is considered reliable if a person's score on the same test given twice is similar. Six questionnaires was piloted by issuing them to respondents who were not to be included in the final study sample. The questionnaires were coded and responses entered into SPSS, which was used to generate the reliability coefficient.

This study used the Cronbach's Alpha for the five point Likert scale items. The closer Cronbach's alpha coefficient was to 1, the higher the internal consistency reliability (Oncu, & Cakir, 2011). An alpha coefficient value of 0.7 was used as the cut-off. Table 3.3 gives a summary of the reliability results for questionnaire per variable in the study.

Table 3.3: Reliability Results

Variable	Items	Cronbach Alpha	Comment
Implementation	5	0.787	Reliable
Training	5	0.836	Reliable
Motivation	5	0.790	Reliable
Health Facilities	5	0.859	Reliable
Resource Mobilization	5	0.925	Reliable
Total	20	0.839	Reliable

The results showed that that Cronbach's alpha for all the items under implementation, training, motivation, health facilities and resource mobilization had an alpha coefficient of 0.839 and thus implied that the instrument was sufficiently reliable for measurement of the variables.

3.6 Data Collection Procedures

Having developed and pre-tested the tools, the necessary approvals was sought form the relevant authorities for data collection. In line with this therefore, a letter was obtained from Nairobi City County Government, NACOSTI offices in Nairobi. A visit to all the sampled locations was organized to create rapport and prepare the ground for the research and data collection. Two girls from an NGO plus Community Health Assistants supported the exercise. A schedule of visits to each location prepared and shared with the community members.

3.7 Data Analysis Techniques

The study used quantitative and qualitative techniques in analyzing the data. Factor analysis was conducted to assess the convergent validity of the hypothetical constructs. Descriptive analysis was employed which included mean and standard deviations. Inferential statistics included correlation and regression analysis. The organized data was interpreted on account of concurrence to objectives using assistance of computer packages especially Statistical Package for Social Sciences (SPSS) to communicate the research findings. The data was presented in form of tables for ease of understanding.

Correlation analysis was used to test the association between key independent variables and implementation and results presented in form of Pearson statistic, having been worked out at the significance level set at 0.05. A regression model was used to test the significance of the influence of the independent variables on the dependent variable.

The model for each variable analysis is as shown;

$Y = \beta_0 + \beta_1 X_1$	1
$Y = \beta_0 + \beta_2 X_2$	2
$Y = \beta_0 + \beta_3 X_3$	3
$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$	4
$Y = \beta_0 + \beta_1 X_1 * RM + \beta_2 X_2 * RM + \beta_3 X_3 * RM + \epsilon$	5

Where:

Y = Implementation of community health projects

X_1 = Training of community health volunteers (workers)

X_2 = Motivation of community health volunteers (workers)

X_3 = Availability of health facilities

X_4 = Resource mobilization

$X_1 * RM$ = Interaction term of Training and resource mobilization

$X_2 * RM$ = Interaction term of Motivation and resource mobilization

$X_3 * RM$ = Interaction term of health facilities and resource mobilization

RM = Resource mobilization

ϵ is error term

β_0 represents the constant

β_1, \dots, β_4 are regression coefficients for each independent variable.

The analysis of variance (ANOVA) was used to check the overall model significance. In particular, the calculated f statistic was compared with the tabulated f critical. A critical p value of 0.05 was used to determine whether the overall model was significant or not. The individual regression coefficient was checked to see whether the independent variables significantly affected the dependent variable. A critical p value of 0.05 was also used to determine whether the individual variables are significant or not.

3.8 Ethical Consideration

In this research the principles of ethics was adhered to ensure preservation of respondent's dignity and emotions when asking probing questions. The researcher appended an introduction letter which give an assurance of confidentiality to the respondents. Also, in conducting this research, care was taken to ensure no physical or emotional harm is caused to the respondents. The research study upheld the respondents' anonymity which according to Creswell and Poth (2017), refers to observance of secrecy by not identifying the cultural or ethnic background of respondents, refraining from referring to them by their names or exposing any other sensitive information about a respondent. This was achieved by designing and transmitting and analyzing the questionnaires in a manner that does not collect any sensitive personal data or information. The researcher ensured that relevant organizations related to the study provided explicit written authority to undertake this study, as well as ensure that all the information collected, analyzed and reported is only used for academic purposes.

3.9 Operationalization of variables

Table 3.4 presents the operationalization of the study variables.

Table 3.4: Operationalization of Variables

Objective	Variables	Indicators	Measurements	Scale	Data Analysis	Tools of Data Analysis
Independent Variable	Training of Community health volunteers (workers)	Curriculum Development Skills and Competence Professional Conduct Health Awareness				
Independent Variable	Motivation of Community health volunteers (workers)	Compensation/Remuneration Work Environment Work Flexibility Career Development	Ordinal Scale	Likert Scale	Descriptive, Correlation & Regression	SPSS
Independent Variable	Health Facilities and Equipment	Remote Diagnostics Medical Kits Drugs and medicine Care Units	Ordinal Scale	Likert Scale	Descriptive, Correlation & Regression	SPSS
Moderating Variable	Resource Mobilization	Budget Allocation Financial Prudence	Ordinal Scale	Likert Scale	Descriptive, Correlation & Regression	SPSS
Dependent Variable	Implementation of Community Health Project	Completion of health projects Rapid response to health services Increased coverage of health	Ordinal Scale	Likert Scale	Descriptive, Correlation & Regression	SPSS

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter focuses on data analysis, interpretation and presentation and presents the discussion and conclusion of the study. This includes the return rate, demographic information, factor analysis, descriptive statistics, correlation analysis and hypotheses testing. The chapter ends with a summary of the hypotheses of the study

4.2 Questionnaire Return Rate

The return rate was analyzed to show the representative from the sample size. The study administered a total of 316 questionnaires and the results are as shown in Table 4.1.

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	232	73.41%
Not Returned	84	26.59%
Total	316	100%

According to Babbie (2004), a return rate of above 50% are acceptable to analyze and publish, 60% is good and 70% is very good. Based on these assertions from renowned scholars, 73.41% response rate is very good for the study. A response rate is very important to the credibility of the research results. A low response rate may decrease the statistical power of the data collected and undermine the reliability of the results. It may also undermine the ability of the researcher to generalize the results to the larger target audience. This is further complicated by the fact that a low response rate can be indicative of a non-response bias within the sample.

4.3 Demographic Information

This section consists of information that describes basic demographic such as gender of the respondents, age of the respondents and education level of the community health volunteers (workers) in Mukuru Slum.

4.3.1: Gender of the Respondents

The study conducted demographics on gender for the respondents to establish the gender diversity. The respondents were asked to indicate their gender. The results shown in Table 4.2 indicated that majority were female represented by 72.7% and male at 27.3%.

Table 4.2 Gender of the Respondents

Gender	Percentage
Male	27.3
Female	72.7
Total	100

4.3.2 Age of the Respondents

The respondents were asked to indicate their age brackets. The results in Table 4.3 indicated that most of the community health workers were aged between 41-50 years represented where female were majority at 70 while male were 13. This was followed by 31-40 years who had 57 females and 16 male and the least was Below 30 years who had 18 female and 15 male. This indicated that majority of the workers were above the middle age and were female implying that gender had a key influence in the community health work. The female were more aligned to engage in the community health work than the male counterparts.

Table 4.3 Age of the Respondents

		Male	Female	Total
Age Bracket	Below 30 Yrs	15	18	33
	31-40 Yrs	16	57	73
	41-50 Yrs	13	70	83
	Above 50 Yrs	16	14	30

4.3.3 Education level of the Respondents

The respondents were asked to indicate their levels of education. The results in Table 4.4 show that most of the respondents had secondary education where female were 81 and male at 35. This was followed by primary where female were 52 female and 13 male. College level had 27 female and 10 male while university had only 2 male.

Table 4.4: Education Level of the Respondents

		Male	Female	Total
Education(Experience)	Primary	13	52	65
	Secondary	35	81	116
	College	10	27	37
	University	2	0	2

4.4 Factor Analysis

Factor analysis is a statistical technique for identifying which underlying factors are measured by a (much larger) number of observed variables. Factor analysis was conducted to assess the convergent validity of the hypothetical constructs. Mabert *et.al* (2003) stated that factor loading values (total variance) greater than 0.5 should be extracted and coefficients below 0.5 deleted from matrix since they are not important.

4.4.1 Training

Factor analysis was conducted on the statements on training. This was done by subjecting the statement to dimension reduction in SPSS where any sub variable with a value less than 0.5 was removed.

Table 4.5: Factor Analysis for Training

Statements	Factor Loadings
1. We receive regular training on new methods and techniques to implement health projects	0.751
2. We are required to conduct health services with professionalism regardless of the social status of the community	0.631
3. We acquire training that is objective and aimed towards curriculum development	0.783
4. We are engaged in study tours and benchmarking to other health community health projects for ideas acquisition	0.846
5. We take semi-annual tests for ability measuring in attending to community health services	0.875

According to Mabert *et al.*, (2003), factor loading values greater than 0.5 should be extracted and below 0.49 not considered. Under training all the statements were adopted as they had values greater than 0.5 and above.

4.4.2 Motivation

Factor analysis was conducted on the statements on motivation. This was done by subjecting the statement to dimension reduction in SPSS where any sub variable with a value less than 0.5 was removed.

Table 4.6: Factor Analysis for Motivation

Statements	Factor Loadings
1. Sometimes we receive some allowances from the community health facilitators	0.700
2. There is promotion of community health workers that promotes career development	0.772
3. Our working hours for the community health workers is flexible and allows for personal development	0.681
4. The management provides a suitable work environment that allows swift delivery of health services	0.829
5. We receive incentives and rewards when we deliver exceptional services in the community	0.713

Under motivation, all other sub variables had values more than 0.5 and above and therefore were accepted.

4.4.3 Availability of Health Facilities

Factor analysis was conducted on the statements on Facilities. This was done by subjecting the statement to dimension reduction in SPSS where any sub variable with a value less than 0.5 was removed.

Table 4.7: Factor Analysis for Facilities

Statements	Factor Loadings
1. We are provided with remote diagnostics and medical kits that enhance service delivery	0.586
2. We are provided with adequate transport when required to attend to emergency situations in the community	0.678
3. We have adequate medicine and drugs that can be prescribed to the patients in the community	0.705
4. We have sufficient care units in the community that the patients can visit when ill or for consultation	0.668
5. We have current and reliable communication equipment that enables us to get in touch with patients	0.591

The statements under health facilities had values more than 0.5 and above and therefore were accepted as indicated in Table 4.7.

4.4.4 Resource Mobilization

Factor analysis was conducted on the statements on resource mobilization. This was done by subjecting the statement to dimension reduction in SPSS where any sub variable with a value less than 0.5 was removed.

Table 4.8: Factor Analysis for Resource Mobilization

Statements	Factor Loadings
1. We receive adequate funding from the relevant government entities that facilitates health service delivery	0.733
2. We have a prudent and transparent system of utilizing resources for community health projects	0.792
3. We have partnered with well-wishers and donors to expand our resource base	0.790
4. The use of the available resources is aligned to the urgency and priority of the projects and services	0.776
5. The community is involved participation of resource allocation for health projects and services	0.764

The statements under resource mobilization had values more than 0.5 and above and therefore were accepted as indicated in Table 4.8.

4.4.5 Implementation of Community Health Project

Factor analysis was conducted on the statements on implementation of Community Health Project. This was done by subjecting the statement to dimension reduction in SPSS where any sub variable with a value less than 0.5 were removed.

Table 4.9: Factor Analysis for Implementation of Community Health Project

Statements	Factor Loadings
1. There is increased coverage of health projects within the community	0.734
2. The community health workers have reduced the rate of infant and mortality and preventable deaths due to appropriate medical attention	0.682
3. There is swift response in the case of health emergencies in this community	0.760
4. There is completion and operational of majority of the health project in this community	0.687
5. The established health projects are able to cater for majority of the health needs of this community	0.809

The statements under implementation of Community Health Project had values more than 0.5 and above, therefore were accepted as indicated in Table 4.9.

4.5 Descriptive Statistics

This section presents the descriptive results on training of community health workers, motivation of community health workers, availability of health facilities, resource mobilization and implementation of Community Health Projects.

4.5.1 Training

The respondents were asked to indicate their level of agreement with statements related on training of community health workers in Mukuru Slum Community, Kenya. The results are as shown in Table 4.10.

Table 4.10: Descriptive results on Training of Community Health Workers

Statements	Strongly Disagree	Frequency	Disagree	Frequency	Neutral	Frequency	Agree	Frequency	Strongly Agree	Frequency	Mean	Standard Deviation
We receive regular training on new methods and techniques to implement health projects	14.5	32	17.7	39	24.5	54	35.0	77	8.2	18	3.05	1.2
We are required to conduct health services with professionalism regardless of the social status of the community	13.6	30	16.4	36	14.5	32	38.6	85	16.8	37	3.29	1.3
We acquire training that is objective and aimed towards curriculum development	19.1	42	20.5	45	11.4	25	36.4	80	12.7	28	3.03	1.36
We are engaged in study tours and benchmarking to other health community health projects for ideas acquisition	34.5	76	28.6	63	16.4	36	18.2	40	2.3	5	2.25	1.18
We take semi-annual tests for ability measuring in attending to community health services	27.7	61	28.6	63	15.5	34	22.3	49	5.9	13	2.5	1.27
Average											2.82	1.26

Note: The figures for the responses were presented in percentage (%) and frequencies. From the results, majority of the community health volunteers (workers) were neutral that they receive regular training on new methods and techniques to implement health projects with mean of 3.05 and a standard deviation of 1.20 indicating that the values in the data set had variations from the mean. Further, majority of the community health volunteers (workers) also agreed that they are required to conduct health services with professionalism regardless of the social status of the community with a mean of 3.29 and a standard deviation of 1.30 indicating that that the values in the data set had variations from the mean. On whether they acquire training that is objective and aimed towards curriculum development, majority of the community health volunteers (workers) were neutral with a mean of 3.03 and a standard deviation of 1.36 indicating that the values in the data set had variations from the mean. The community health volunteers (workers) disagreed

they are engaged in study tours and benchmarking to other health community health projects for ideas acquisition with a mean of 2.25 and standard deviation of 1.18 indicating that the values in the data set had variations from the mean.

Lastly, the respondents disagreed that they take semi-annual tests for ability measuring in attending to community health services with a mean of 2.50 and standard deviation of 1.27. The standard deviation of 1.26 indicated that the values in the data set had variations from the mean of 2.82 and thus they indicated level of agreement to the statements on training of community health workers as posed to them.

Interviews were conducted for Community Health Assistants in community health project in Mukuru Slum Community. The Community Health Assistants were asked how training of the CHW influence implementation of community health Projects.

The responses are as shown below;

“Some of the trainings facilitated by NGOs and work through CHAs to ensured villages create awareness. The Community Health Assistants noted that the skills from training help the CHV(W) deal with the issues at the community level as guided therefore influencing implementation positively. Through trainings, targets are achieved at least above average complete of existing and new projects. They get knowledge on what they do not know and pass on to the community to improve their health and economically become better than they were before”.

The Clinical Officers were asked on whether they conduct training for CHV(W) and majority agreed quarterly and weekly to the community health workers.

4.5.2 Motivation

The respondents were asked to indicate their level of agreement with statements related on motivation of community health workers in Mukuru Slum Community, Kenya. The results are as follows shown in Table 4.11.

Table 4.11: Motivation of Community Health Workers

Statements	Strongly Disagree	Frequency	Disagree	Frequency	Neutral	Frequency	Agree	Frequency	Strongly Agree	Frequency	Mean	Standard Deviation
Sometimes we receive some allowances from the community health facilitators	60	27.3	35	15.9	25	11.4	87	39.5	13	5.9	2.81	1.36
There is promotion of community health workers that promotes career development	67	30.5	70	31.8	15	6.8	54	24.5	14	6.4	2.45	1.32
Our working hours for the community health workers is flexible and allows for personal development	40	18.2	31	14.1	23	10.5	93	42.3	33	15.0	3.22	1.36
The management provides a suitable work environment that allows swift delivery of health services	55	25.0	42	19.1	30	13.6	75	34.1	18	8.2	2.81	1.35
We receive incentives and rewards when we deliver exceptional services in the community	74	33.6	87	39.5	32	14.5	22	10.0	5	2.3	2.08	1.04
Average											2.67	1.29

Note: The figures for the responses were presented in percentage (%) and frequencies. From the results, majority of the community health volunteers (workers) disagreed that they sometimes receive some allowances from the community health facilitators with a mean of 2.81 and standard deviation of 1.36 indicating that the values in the data set had variations from the mean. They respondents disagreed that there is promotion of community health volunteers (workers) that promotes career development with a mean of 2.45 and standard deviation of 1.32 indicating that the values in the data set had variations from the mean. The community health workers were neutral that the working hours for the community health volunteers (workers) is flexible and allows for personal development with a mean of 3.22 and standard deviation of 1.36 indicating that the values in the data set had variations from the mean.

The community health volunteers (workers) disagreed that the management provides a suitable work environment that allows swift delivery of health services with a mean of 2.81 and standard deviation of 1.35 indicating that the values in the data set had variations from the mean. Lastly, the community health volunteers (workers) disagreed that they receive incentives and rewards when they deliver exceptional services in the community with a mean of 2.08 and standard deviation of 1.04 indicating that the values in the data set had variations from the mean. The clinical officers were asked on whether they engage to motivate the CHV(W) and majority agreed that they motivated the community health volunteers (workers) in variety of ways. The average standard deviation of 1.29 indicated that the values in the data set had variations from the mean of 2.67 and thus they indicated neutral to the statements on motivation of community health workers as posed to them.

The Community Health Assistants were asked how motivation of the CHWs influence implementation of community health projects does. The responses are as shown below;

“Some of the areas of motivation included giving them weekly or monthly incentive (were applicable) t-shirts, chances in community participation for instance polio campaigns and training. Ways of motivation included trainings, sanitization conducting meetings, through outreaches, in reaches, and through immunization programs. Motivation of the community health workers influenced implementation of community health projects in that they are readily available and active, agree to report monthly, are able to meet some basic needs, there is close monitoring of the projects and home and referrals are frequently done.”

The clinical officers were asked on whether they engage to motivate the CHW(V) and majority agreed that they motivated the community health workers in variety of ways, for example - terms and conditions of employment, job satisfaction or work environment, formal recognition, well-functioning health systems, responsive health systems, policies and legislation that support CHWs etc. just to mention a few.

4.5.3 Availability of Health Facilities

The respondents were asked to indicate their level of agreement with statements related on availability of health facilities for community health workers in Mukuru Slum Community, Kenya. The results are as shown in Table 4.12.

Table 4.12: Availability of Health Facilities

Statements	Strongly Disagree	Frequency	Disagree	Frequency	Neutral	Frequency	Agree	Frequency	Strongly Agree	Frequency	Mean	Standard Deviation
We are provided with remote diagnostics and medical kits that enhance service delivery	101	45.9	61	27.7	9	4.1	44	20.0	5	2.3	2.05	1.23
We are provided with adequate transport when required to attend to emergency situations in the community	109	49.5	69	31.4	15	6.8	20	9.1	7	3.2	1.85	1.09
We have adequate medicine and drugs that can be prescribed to the patients in the community	93	42.3	78	35.5	19	8.6	21	9.5	9	4.1	1.98	1.12
We have sufficient care units in the community that the patients can visit when ill or for consultation	95	43.2	60	27.3	16	7.3	34	15.5	15	6.8	2.15	1.31
We have current and reliable communication equipment that enables us to get in touch with patients	70	31.8	58	26.4	34	15.5	43	19.5	15	6.8	2.43	1.3
Average											2.09	1.21

Note: The figures for the responses were presented in percentage (%) and frequencies. The results showed that majority of the respondents disagreed that they are provided with remote diagnostics and medical kits that enhance service delivery with a mean of 2.05 and standard deviation of 1.23 indicating that the values in the data set had variations from the mean. The respondents further disagreed that they are provided with adequate transport when required to attend to emergency situations in the community with a mean of 1.85 and standard deviation of 1.09 indicating that the values in the data set had variations from the mean.

On whether they have adequate medicine and drugs that can be prescribed to the patients in the community, majority disagreed with a mean of 1.98 and standard deviation of 1.12 indicating that the values in the data set had variations from the mean. The respondents disagreed that they have sufficient care units in the community that the patients can visit when ill or for consultation with a mean of 2.15 and standard deviation of 1.31 indicating that the values in the data set had variations from the mean. Lastly, the respondents disagreed that they have current and reliable

communication equipment that enables us to get in touch with patients with a mean of 2.43 and standard deviation of 1.30 indicating that the values in the data set had variations from the mean. The average standard deviation of 1.21 indicated that the values in the data set had variations from the mean of 2.09 and thus they indicated level of disagreement to the statements on availability of health facilities of community health workers as posed to them.

The Community Health Assistants were asked how availability of health facilities and equipment to the CHWs influence implementation of community health projects. The responses were as shown;

“Some kits are given during training for demonstration by some NGOs, however they’re immediately retrieved for safekeeping. Availability of health equipment facilitates work for the CH(W) easier and thus are able to offer good services. Some of the equipment’s used include condoms, contraceptive kits and MUAs tapes, weighing machines, thermometers, BP machines, HIV testing kits.”etc.

In addition, the clinical officers responded that there was no adequate availability of resources for use by the community health workers (volunteers).

4.5.4 Resource Mobilization

The respondents were asked to indicate their level of agreement with statements related on resource mobilization for community health volunteers in Mukuru Slum Community, Nairobi County, Kenya. The results are as shown in Table 4.13.

Table 4.13: Resource Mobilization

Statements	Strongly Disagree	Frequency	Disagree	Frequency	Neutral	Frequency	Agree	Frequency	Strongly Agree	Frequency	Mean	Standard Deviation
We receive adequate funding from the relevant government entities that facilitates health service delivery	106	48.2	61	27.7	17	7.7	27	12.3	9	4.1	1.96	1.19
We have a prudent and transparent system of utilizing resources for community health projects	89	40.5	73	33.2	18	8.2	29	13.2	11	5.0	2.09	1.21
We have partnered with well-wishers and donors to expand our resource base	82	37.3	48	21.8	26	11.8	42	19.1	22	10.0	2.43	1.41
The use of the available resources is aligned to the urgency and priority of the projects and services	62	28.2	63	28.6	32	14.5	50	22.7	13	5.9	2.5	1.28
The community is involved participation of resource allocation for health projects and services	79	35.9	50	22.7	26	11.8	48	21.8	17	7.7	2.43	1.37
Average											2.28	1.29

Note: The figures for the responses were presented in percentage (%) and frequencies. The respondents disagreed that they receive adequate funding from the relevant government entities that facilitates health service delivery with a mean of 1.96 and standard deviation of 1.19 indicating that the values in the data set had variations from the mean. The respondents disagreed on whether they have a prudent and transparent system of utilizing resources for community health projects with a mean of 2.09 and standard deviation of 1.21 indicating that the values in the data set had variations from the mean. The respondents were further disagreed they have partnered with well-wishers and donors to expand the resource base with a mean of 2.43 and standard deviation of 1.41 indicating that the values in the data set had variations from the mean.

The respondents disagreed on the use of the available resources is aligned to the urgency and priority of the projects and services with a mean of 2.50 and standard deviation of 1.28 indicating that the values in the data set had variations from the mean. Lastly, the respondents disagreed on whether the community is involved participation of resource allocation for health projects and services with a mean of 2.43 and standard deviation of 1.37 indicating that the values in the data set had variations from the mean. The average standard deviation of 1.29 indicated that the values in the data set had variations from the mean of 2.28 and thus they indicated level of disagreement to the statements on resource mobilization of community health workers as posed to them.

The Community Health Assistants were asked how resource mobilization influenced implementation of community health projects. The responses are as shown below;

“The Government or country government does the mobilization of resources and thus CHV(W) are not involved directly, therefore they can’t tell resource allocation at village level. The CHV(W) are not allowed to mobilize any resources. NGOs normally mobilize their own resources and then work through them. However, resource mobilization is critical for sustainability of the health projects when the donors leave. It also advisable to increased budgetary allocations to improve preventive services. Lastly, resource mobilization has improved implementation of community health projects as the services offered by the facilities tend to improve an entire project implementation.”

Under resource mobilization, the clinical officers highly mentioned that they do not receive adequate resources from the government and donors and recommended that governments explored the mobilization of domestic funding to support CHVs programs which should include: engagement with domestic private sector, or PPPs etc.

4.5.5 Implementation of Community Health Project

The respondents were asked to indicate their level of agreement with statements related on Implementation of community Health Project in Mukuru Slum Community, Kenya. The results are as shown in Table 4.14.

Table 4.14: Implementation of Community Health Project

Statements	Strongly Disagree	Frequency	Disagree	Frequency	Neutral	Frequency	Agree	Frequency	Strongly Agree	Frequency	Mean	Standard Deviation
There is increased coverage of health projects in this community	33	15.0	32	14.5	39	17.7	90	40.9	26	11.8	3.2	1.26
The community health workers have reduced the rate of infant and mortality and preventable deaths due to appropriate medical attention	8	3.6	9	4.1	19	8.6	79	35.9	105	47.7	4.2	1.01
There is swift response in the case of health emergencies in this community	17	7.7	28	12.7	30	13.6	91	41.4	54	24.5	3.62	1.2
There is completion and operational of majority of the health project in this community	19	8.6	46	20.9	37	16.8	89	40.5	29	13.2	3.29	1.19
The established health projects are able to cater for majority of the health needs of this community	23	10.5	50	22.7	49	22.3	57	25.9	41	18.6	3.2	1.27
Average											3.5	1.19

Note: The figures for the responses were presented in percentage (%) and frequencies. The respondents were neutral that there is increased coverage of health projects in the community with a mean of 3.20 and standard deviation of 1.26 indicating that the values in the data set had variations from the mean. The respondents also agreed that the community health volunteers (workers) have moderately reduced the rate of infant and mortality and preventable deaths due to appropriate medical attention with a mean of 4.20 and standard deviation of 1.01 indicating that the values in the data set had variations from the mean. In addition they agreed that there is slow response in the case of health emergencies in this community with a mean of 3.62 and standard deviation of 1.20 indicating that the values in the data set had variations from the mean. On whether there is completion and operational of majority of the health project in this community, they were neutral with a mean of 3.29 and standard deviation of 1.19 indicating that the values in the data set had variations from the mean. Lastly, the respondents agreed that the established health projects are able to cater for majority of the health needs of this community with a mean of 3.20 and standard deviation of 1.27 indicating that the values in the data set had variations from the mean. The average standard deviation of 1.19 indicated that that the values in the data

set had variations from the mean of 3.50 and thus they indicated level of agreement to the statements on implementation of community health project as posed to them.

4.6 Correlation Analysis

Correlation analysis was conducted to establish the relationship between the independent and dependent variables. A weak positive correlation would indicate that while both variables tend to go up in response to one another, the relationship is not very strong. A strong negative correlation, on the other hand, would indicate a strong connection between the two variables, but that one goes up whenever the other one goes down. The correlation matrix is presented in Table 4.15.

Table 4.15: Correlation Matrix

		Implement ation	Train ing	Motivat ion	Facilit ies	Resource Mobilization
Implementation	Pearson Correlation Sig. (2-tailed)	1.000				
Training	Pearson Correlation Sig. (2-tailed)	.880**	1.000			
Motivation	Pearson Correlation Sig. (2-tailed)	.622**	.571* *	1.000		
Health Facilities	Pearson Correlation Sig. (2-tailed)	.499**	.427* *	.562**	1.000	
Resource Mobilization	Pearson Correlation Sig. (2-tailed)	.767**	.642* *	.555**	.565**	1.000
		0.000	0.000	0.000	0.000	

The correlation coefficient r measures the strength and direction of a linear relationship between variables. The correlation analysis was conducted for the independent variable against the dependent variable.

The results in Table 4.15 revealed that training of community health workers and implementation of community health projects is positively and significantly related by $r= 0.880$, $p=0.000$ and thus indicated a strong uphill (positive) linear relationship. The results further indicated that motivation of community health workers and implementation of community health projects are

positively and significantly related $r= 0.622$, $p=0.000$ and further indicated a strong uphill (positive) linear relationship.

Further, results showed that availability of health facilities and implementation of community health projects were positively and significantly related $r=0.499$, $p=0.000$ and thus indicated a moderate uphill (positive) linear relationship. Lastly, resource mobilization and implementation of community health projects were positively and significantly related $r= 0.767$, $p=0.000$ implying a strong uphill (positive) linear relationship. This implies that an increase in training of community health workers, motivation of community health workers, availability of health facilities and resource mobilization led to an increase on implementation of community health projects.

The findings are consistent with Hill, Dumbaugh, Benton, Källander, Strachan, Ten Asbroek and Meek (2014) who established a positive link of training community health workers. The study also revealed that many CHW do not feel supported nor respected by the “upper level”, which hinders motivation and performance. Joint training of CHW with their supervisors could contribute to better relationships as understanding about each other’s roles and competencies can be established. Wanduru, Tetui, Tuhebwe, Ediau, Okuga, Nalwadda and Rutebemberwa, (2016) on their study on the performance of community health workers established a posited relation in that providing ongoing support and supervision, and ensuring that CHW have at least secondary education can be helpful in improving their performance. According to Raven, Akweongo, Baine, Sall, Buzuzi and Martineau (2015), CHW motivation and implementation are linked and appear to be determined by a number of inter-related factors including access to resources, community embeddedness, ongoing training and manageable workloads.

4.7 Hypothesis Testing

The study also conducted regression analysis to establish the statistical significance relationship between the training of community health workers, motivation of community health workers, availability of health facilities and resource mobilization on implementation of community health projects. “According to Chatterjee and Hadi (2015), regression analysis is a statistical process of estimating the relationship among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent and one or more independent variables. More specifically, regression analysis helps one to understand

how the typical value of the dependent variable changes when any one of the independent variable is varied, while the other independent variables are held fixed (Gunst, 2018).”

4.7.1 Training of Community Health Workers and Implementation of Community Health Project

The second objective of the study was to determine the influence of training of community health workers (volunteers) on Implementation of community Health Project in Mukuru Slum Community, Kenya. The hypothesis was tested using simple linear regression and determined using p-value of less than 0.05 where p-value of <0.05 meant the null hypothesis was rejected.

H₀₁: Training of community health workers is not statistically significant related with the Implementation of community Health Project in Mukuru Slum Community, Kenya.

This hypothesis was tested by regressing Training of Community Health Workers and Implementation of Community Health Project guided by the equation;

$$H_{01}: Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Table 4.16: Model Fitness for Training and Project Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.880a	0.775	0.773	0.53975

Training of community health volunteers (workers), was found to be satisfactory variables in explaining implementation of community health projects in Mukuru Slum Community. This is supported by coefficient of determination also known as the R square of 0.775. This means that training of community health volunteers, explain 77.5% of the variations in the dependent variable, which is implementation of community health projects. This results further means that the model applied to link the relationship of the variables was satisfactory.

The Analysis of Variance (ANOVA) results are shown in Table 4.17.

Table 4.17: Analysis of Variance for Training and Project Implementation

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	218.13	1	218.13	748.745	.000b
Residual	63.509	218	0.291		
Total	281.64	219			

The findings further confirm that the regression model is significant and supported by The F-Calculated (1, 219) = 748.745 which is greater than F-Critical (1, 219) = 3.96 at 95% confidence level. The findings further confirm that the regression model of implementation of community health projects on training is significant and supported by $p=0.000 < 0.05$.

The study conducted a regression of coefficient analysis to establish the statistical significance relationship between training of community health workers on the dependent variable that was implementation of community health projects in Mukuru Slum Community.

Table 4.18: Regression of Coefficients for Training and project implementation

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	0.51	0.074		6.871	0.000
Training	0.73	0.027	0.88	27.363	0.000

The simple regression model was presented below.

$$H_{01}: Y = 0.51 + 0.73X_1$$

Where:

Y = Implementation of community health projects

X₁ = Training of community health volunteers (workers)

The regression results show that training of community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta=0.73$, $p=0.000$). The p-value was 0.000 which is less than 0.05. The null hypothesis was therefore rejected. The study therefore adopted the alternative hypothesis that training of

community health workers has a statistically significant relationship with the implementation of community Health Project in Mukuru Slum Community, Kenya.

This is in line with Cole (2012) who asserted that the purpose of training is mainly to improve knowledge and skills, and to change attitudes or behaviour. Cole (2012) further argued that training brings a sense of security at the workplace which reduces labor turnover and absenteeism is avoided; change management training helps to manage change by increasing the understanding and involvement of employees in the change process and also provides the skills and abilities needed to adjust to new situations. The study by Malaolu and Ogbuabor (2013) also agreed that training and manpower development enhanced organizational performance.

4.7.2 Motivation of Community Health Workers and Implementation of Community Health Project

The second objective of the study was to determine the influence of motivation of community health workers (volunteers) on Implementation of community Health Project in Mukuru Slum Community, Kenya. The hypothesis was tested using simple linear regression and determined using p-value of less than 0.05 where p-value of <0.05 meant the null hypothesis was rejected.

H₀₂: Motivation of community health workers has no statistically significant relationship with the implementation of community Health Project in Mukuru Slum Community, Kenya.

This hypothesis was tested by regressing motivation of Community Health Workers and Implementation of Community Health Project guided by the equation;

$$H_{02}: Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Table 4.19: Model Fitness for Motivation and Project Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622a	0.387	0.384	0.88971

Motivation of community health volunteers (workers), was found to be satisfactory variables in explaining implementation of community health projects in Mukuru Slum Community. This is supported by coefficient of determination also known as the R square of 0.387.

This means that Motivation of community health volunteers (workers), explain 38.7% of the variations in the dependent variable, which is implementation of community health projects. This results further means that the model applied to link the relationship of the variables was satisfactory.

The Analysis of Variance (ANOVA) results are shown in Table 4.20.

Table 4.20: Analysis of Variance for Motivation and Project Implementation

	Sum of Squares	df	Mean Square	F	Sig.
Regression	109.073	1	109.073	137.79	.000b
Residual	172.567	218	0.792		
Total	281.64	219			

The findings further confirm that the regression model is significant and supported by The F-Calculated (1, 219) = 137.79 which is greater than F-Critical (1, 219) = 3.96 at 95% confidence level. The findings further confirm that the regression model of implementation of community health projects on training is significant and supported by $p=0.000 < 0.05$.

The study conducted a regression of coefficient analysis to establish the statistical significance relationship between motivation of community health workers on the dependent variable that was implementation of community health projects in Mukuru Slum Community.

Table 4.21: Regression of Coefficients for Motivation and Project Implementation

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.25	0.183		1.368	0.173
Motivation	0.719	0.061	0.622	11.738	0.000

The simple regression model was presented below.

$$H_{02}: Y = 0.25 + 0.719X_1$$

Where:

Y = Implementation of community health projects

X₁ = Motivation of community health volunteers (workers)

The regression results show that motivation of community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta=0.719$, $p=0.000$). The p-value was 0.000 which is less than 0.05. The null hypothesis was therefore rejected. The study therefore adopted the alternative hypothesis that training of community health workers has a statistically significant relationship with the implementation of community Health Project in Mukuru Slum Community, Kenya. This is consistent with Raven, Akweongo, Baine, Sall, Buzuzi and Martineau (2015) who found that CHW motivation and implementation are linked and appear to be determined by a number of inter-related factors including access to resources, community embeddedness, ongoing training and manageable workloads. Hill *et al* (2014) also found that social distance between supervisor and supervisee (such as team building events) could improve relationships and performance. Improved supervision from the side of the health sector could have a positive ripple effect on CHWs' relationships with their communities, through increased recognition.

4.7.3 Availability of Health Facilities and Implementation of Community Health Project

The third objective of the study was to determine the influence of health facilities of community health workers (volunteers) on implementation of community Health Project in Mukuru Slum Community, Kenya. The hypothesis was tested using simple linear regression and determined using p-value of less than 0.05 where p-value of <0.05 meant the null hypothesis was rejected.

H₀₃: Availability of health facilities has no statistically significant relationship with the implementation of community Health Project in Mukuru Slum Community, Kenya.

This hypothesis was tested by regressing motivation of Community Health Workers and Implementation of Community Health Project guided by the equation;

$$\mathbf{H_{03}: Y = \beta_0 + \beta_1 X_1 + \varepsilon}$$

Table 4.22: Model Fitness for Health Facilities and Project Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.499a	0.249	0.246	0.98499

Availability of health facilities for community health volunteers (workers), was found to be satisfactory variables in explaining implementation of community health projects in Mukuru Slum Community. This is supported by coefficient of determination also known as the R square of 0.249. This means that Availability of health facilities for community health volunteers (workers), explain 24.9% of the variations in the dependent variable, which is implementation of community health projects. This results further means that the model applied to link the relationship of the variables was satisfactory.

The Analysis of Variance (ANOVA) results are shown in Table 4.23.

Table 4.23: Analysis of Variance for Motivation and Project Implementation

	Sum of Squares	df	Mean Square	F	Sig.
Regression	70.135	1	70.135	72.289	.000b
Residual	211.505	218	0.97		
Total	281.64	219			

The findings further confirm that the regression model is significant and supported by The F-Calculated (1, 219) = 72.289 which is greater than F-Critical (1, 219) = 3.96 at 95% confidence level. The findings further confirm that the regression model of implementation of community health projects on training is significant and supported by $p=0.000 < 0.05$.

The study conducted a regression of coefficient analysis to establish the statistical significance relationship between availability of health facilities for community health workers on the dependent variable that was implementation of community health projects in Mukuru Slum Community.

Table 4.24: Regression of Coefficients for Motivation and Project Implementation

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.695	0.198		3.509	0.001
Availability of Facilities	0.593	0.07	0.499	8.502	0.000

The simple regression model was presented below.

$$H_{03}: Y = 0.695 + 0.593X_1$$

Where:

Y = Implementation of community health projects

X₁ = Availability of facilities for community health volunteers (workers)

The regression results indicated that availability of health facilities for community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta=0.719$, $p=0.000$). The findings indicated that the p-value was 0.000 which is more than 0.05. The null hypothesis was therefore rejected. The study therefore adopted the alternative hypothesis that availability of health facilities has no statistically significant relationship with the implementation of community health project in Mukuru Slum Community, Kenya. This agrees with Janneck, Cooper, Frehywot, Mowafi and Hein (2016) who stated that availability of health equipment's to CHW for project implementation in humanitarian emergencies, where the need for such evidence is pressing.

4.7.4 Joint Relationship of Training, Motivation of Community Health Volunteers (Workers) and Availability of Health Facilities on Implementation of Community Health Project

The fourth objective was to determine the joint relationship of the training, motivation of community health workers (volunteers) and availability of health facilities on Implementation of community Health Project in Mukuru Slum Community, Kenya. The hypothesis was tested by a multiple regression analysis and determined using p-value of 0.05 where p-value of <0.05 meant the null hypothesis was rejected.

H₀₄: Training, motivation of community health volunteers (workers) and availability of health facilities jointly have no statistical significant relationship with Implementation of community Health Project in Mukuru Slum Community, Kenya

This hypothesis was tested by regressing motivation of Community Health Workers and Implementation of Community Health Project guided by the equation;

$$H_{04}: Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Table 4.25: Model Fitness and Project Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.921	0.849	0.846	0.44495

Training of community health volunteers (workers), motivation of community health volunteers (workers), availability of health facilities and resource mobilization were found to be satisfactory variables in explaining implementation of community health projects in Mukuru Slum Community. This is supported by coefficient of determination also known as the R square of 0.849. This means that training of community health volunteers (workers), motivation of community health volunteers (workers), availability of health facilities and resource mobilization explain 84.9% of the variations in the dependent variable, which is implementation of community health projects. This results further means that the model applied to link the relationship of the variables was satisfactory.

The Analysis of Variance (ANOVA) results are shown in Table 4.26.

Table 4.26: Analysis of Variance and Project Implementation

	Sum of Squares	df	Mean Square	F	Sig.
Regression	239.07	4	59.768	301.887	.000
Residual	42.566	215	0.198		
Total	281.64	219			

The findings further confirm that the regression model is significant and supported by the F-Calculated (4, 219) = 301.887 which is greater than F-Critical (1, 219) = 3.96 at 95% confidence level.

The study conducted a regression of coefficient analysis to establish the statistical significance relationship between the independents variables notably training of community health workers, motivation of community health workers, availability of health facilities and resource mobilization on the dependent variable that was implementation of community health projects in Mukuru Slum Community. The regression of coefficient results is as shown in Table 4.27.

Table 4.27: Regression of Coefficients and Project Implementation

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-0.047	0.101		-0.466	0.641
Training	0.520	0.030	0.627	17.071	0.000
Motivation	0.101	0.042	0.087	2.419	0.016
Health Facilities	0.007	0.041	0.005	0.159	0.874
Resource Mobilization	0.365	0.045	0.313	8.125	0.000

The multiple regression model was presented below.

$$H_{04} Y = -0.047 + 0.520X_1 + 0.101X_2 + 0.007X_3 + 0.365X_4$$

Where:

Y = Implementation of community health projects

X₁ = Training of community health volunteers (workers)

X₂ = Motivation of community health volunteers (workers)

X₃ = Availability of health facilities

X₄ = Resource mobilization

The regression results show that training of community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta=0.520$, $p=0.000$). The results further indicated that motivation of community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta= 0.101$, $p=0.016$). Further, results showed that availability of health facilities and implementation of community health projects in Mukuru Slum Community were positively related but insignificant ($\beta =0.007$, $p=0.874$). Lastly, resource mobilization and implementation of community health projects in Mukuru Slum Community were positively and significantly related ($\beta =0.365$, $p=0.000$). This implies that an increase in training of community health workers, motivation of community health workers, availability of health facilities and resource mobilization will lead to an increase in implementation of community health projects by the respective β value that is 0.520, 0.101, 0.007 and 0.365 respectively.

ANOVA results indicated that regression model is significant and supported by F-Calculated (4, 219) = 301.887 which is greater than F-Critical (1, 219) = 3.96 at 95% confidence level. The study therefore adopted the alternative hypothesis that training, motivation of community health volunteers (workers) and availability of health facilities jointly have a statistical significant relationship with Implementation of community Health Project in Mukuru Slum Community, Kenya.

The findings are in line with Cole (2012) who established that training brings a sense of security at the workplace which reduces labor turnover and absenteeism is avoided; change management training helps to manage change by increasing the understanding and involvement of employees in the change process and also provides the skills and abilities needed to adjust to new situations. Wanduru, Tetui, Tuhebwe, Ediau, Okuga, Nalwadda and Rutebemberwa, (2016) on their study on the performance of community health workers established that providing ongoing support and supervision, and ensuring that CHWs have at least secondary education can be helpful in improving their performance. According to Raven, Akweongo, Baine, Sall, Buzuzi and Martineau (2015), CHW motivation and implementation are linked and appear to be determined by a number of inter-related factors including access to resources, community embeddedness, ongoing training and manageable workloads.

Hill, Dumbaugh, Benton, Källander, Strachan, Ten Asbroek and Meek (2014), revealed that many CHW do not feel supported nor respected by the upper level, which hinders motivation and performance. Joint training of CHW with their supervisors could contribute to better relationships as understanding about each other's roles and competencies can be established. Similarly, ineffective project implementation has been attributed to a lack of incentives, poor supervision, demotivation and the absence of ongoing training. Despite these considerations, human resource management for improving CHW performance in health interventions and programs remains inadequately understood.

4.7.5 Resource Mobilization and Implementation of Community Health Project

The fifth objective of the study was to establish the moderating effect of resource mobilization on the relationship between community health workers (volunteers) empowerment and implementation of community health project in Mukuru Slum Community, Kenya. The hypothesis was tested by using multiple linear regression and determined using p-value of 0.05 where p-value of <0.05 meant the null hypothesis was rejected.

H₀₅: Resource mobilization does not significantly moderate the relationship between community health workers empowerment and implementation of community health project in Mukuru Slum Community, Kenya.

This hypothesis was tested by regressing motivation of Community Health Workers and Implementation of Community Health Project guided by the equation;

$$\mathbf{H_{05}: Y = \beta_0 + \beta_1 X_1 * RM + \beta_2 X_2 * RM + \beta_3 X_3 * RM + \epsilon}$$

Table 4.28: Model Fitness for Moderating Effect and Project Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888a	0.788	0.785	0.5254

The results indicated that the moderating effect of resource mobilization on training of community health volunteers (workers), motivation of community health volunteers (workers) and availability of health facilities were found to be satisfactory variables in explaining implementation of community health projects in Mukuru Slum Community. This is supported by coefficient of determination also known as the R square of 0.788

This means that moderating effect of resource mobilization on training of community health volunteers (workers), motivation of community health volunteers (workers) and availability of health facilities explain 78.8% of the variations in the dependent variable, which is implementation of community health projects. This results further means that the model applied to link the relationship of the variables was satisfactory.

The Analysis of Variance (ANOVA) results are shown in Table 4.29.

Table 4.29: Analysis of Variance for Moderating Effect and Project Implementation

	Sum of Squares	df	Mean Square	F	Sig.
Regression	222.014	3	74.005	268.087	.000b
Residual	59.626	216	0.276		
Total	281.64	219			

The findings further confirm that the regression model is significant and supported by the F-Calculated $(3, 219) = 268.087$ which is greater than F-Critical $(1, 219) = 3.96$ at 95% confidence level.

The study conducted a regression of coefficient analysis to establish the statistical significance relationship moderating effect of resource mobilization on the relationship between community health workers (volunteers) empowerment and implementation of community health projects. The regression of coefficient results is as shown in Table 4.30.

Table 4.30: Regression of Coefficients for Moderating Effect and Project Implementation

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.129	0.065		17.474	0.000
Training*Resource Mobilization	0.172	0.014	0.815	12.513	0.000
Motivation*Resource Mobilization	0.056	0.021	0.221	2.706	0.007
Health Facilities*Resource Mobilization	0.038	0.02	0.145	2.897	0.005

The multiple regression model was presented below.

$$H_{05}: Y = 1.129 + 0.172X_1*RM + 0.056X_2*RM + 0.038X_3*RM$$

Where:

Y = Implementation of community health projects

X_1*RM = Interaction term of Training and resource mobilization

X_2*RM = Interaction term of Motivation and resource mobilization

X_3*RM = Interaction term of health facilities and resource mobilization

RM = Resource mobilization

The regression results show that Interaction term of Training and resource mobilization on implementation of community health projects in Mukuru Slum Community was positively and significantly related ($\beta=0.172$, $p=0.000$). The regression results show that Interaction term of Motivation and resource mobilization on implementation of community health projects in Mukuru Slum Community was positively and significantly related ($\beta=0.056$, $p=0.007$). The results further indicated that the Interaction term of Motivation and resource mobilization on implementation of community health projects in Mukuru Slum Community was positively and significantly related ($\beta=0.038$, $p=0.005$). This implies that an increase in resource mobilization for training of community health workers, motivation of community health workers and availability of health facilities will lead to an increase in implementation of community health projects by the respective β value that 0.172, 0.056 and 0.038 respectively.

The findings showed that interaction term of training and resource mobilization, motivation and resource mobilization, health facilities and resource mobilization had p-values of $0.000 < 0.05$, $0.007 < 0.05$ and $0.005 < 0.05$. The null hypothesis was therefore rejected. The study therefore adopted the alternative hypothesis that resource mobilization has a statistically significant moderating effect on the relationship between community health workers empowerment and implementation of community health project in Mukuru Slum Community, Kenya. This is consistent with Jaskiewicz and Tulenko (2012) who found that in order to carry out their tasks effectively, CHW need a regular replenishment of supplies, medicines, and equipment

4.8 Summary of the hypothesis

The hypothesis testing was summarized as shown in Table 4.31.

Table 4.31: Summary of Hypotheses

Hypothesis	Test Conducted	Hypotheses Test Results
H₀₁: Training of community health volunteers (workers) has no statistically significant relationship with the Implementation of community Health Project in Mukuru Slum Community, Kenya	ANOVA. F-Test, showing a significant and valid model at $p < 0.05$ t-value > 1.962 shows statistical significance P-value < 0.05 shows significant correlation between variables	Hypothesis Rejected
H₀₂: Motivation of community health volunteers (workers) has no statistical significant relationship with implementation of community Health Project in Mukuru Slum Community, Kenya.	ANOVA. F-Test, showing a significant and valid model at $p < 0.05$ t-value > 1.962 shows statistical significance P-value < 0.05 shows significant correlation between variables	Hypothesis Rejected
H₀₃: Availability of health facilities has no statistical significant relationship with implementation of community Health Project in Mukuru Slum Community, Kenya.	ANOVA. F-Test, showing a significant and valid model at $p < 0.05$ t-value > 1.962 shows statistical significance P-value < 0.05 shows significant correlation between variables	Hypothesis Rejected
H₀₄: Training, motivation of community health volunteers (workers) and availability of health facilities jointly have no statistical significant relationship with Implementation of community Health Project in Mukuru Slum Community, Kenya.	ANOVA. F-Test, showing a significant and valid model at $p < 0.05$ t-value > 1.962 shows statistical significance P-value < 0.05 shows significant correlation between variables	Hypothesis Rejected
H₀₅: Resource mobilization does not significantly moderate the relationship between community health volunteers (workers) empowerment and Implementation of community Health Project in Mukuru Slum Community, Kenya.	ANOVA. F-Test, showing a significant and valid model at $p < 0.05$ t-value > 1.962 shows statistical significance P-value < 0.05 shows significant correlation between variables	Hypothesis Rejected

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary on key data findings, conclusions drawn and recommendations. The summary of findings, conclusions and recommendations were focused on five objectives of the study. The conclusions and recommendations drawn are in quest of addressing the purpose of this study which was to establish the influence of community health workers (volunteers) empowerment on implementation of community health project in Mukuru Slum Community, Nairobi County, Kenya.

5.2 Summary of Findings

In this section, summary of findings follow the order of research objectives and data as presented in chapter four. The purpose of the study was to assess the influence of community health workers empowerment on implementation of community health project in Mukuru Slum Community, Kenya.

5.2.1 Training of Community Health Workers and implementation of community health projects

The first objective of the study was to determine the influence of training of community health workers on implementation of community health projects in Mukuru Slum Community, Kenya. Correlation results indicated that training of community health workers and implementation of community health projects are positively and significantly related. Regression results indicated that a unitary improvement in training of community health workers leads to an improvement in implementation of community health projects by beta value of 0.73 units holding other factors constant. The null hypothesis was therefore rejected and the alternative hypothesis was adopted that training of community health workers has a statistically significant effect on implementation of community health projects in Mukuru Slum Community.

Some of the trainings facilitated by NGOs, work through CHA and CHV to ensure villages create awareness. The Community Health Assistants noted that the skills from training help the CHVs deal with the issues at the community level as guided therefore influencing implementation positively. They get knowledge on what they do not know and pass on to the community to improve their health and economically become better than they were before.

5.2.2 Motivation of Community Health Workers and Implementation of Community Health projects

The second objective of the study was to determine the influence of motivation of community health workers on implementation of community health projects in Mukuru Slum Community, Kenya. Correlation results indicated that motivation of community health workers and implementation of community health projects is positively and significantly related. Regression results indicated that a unitary improvement in motivation of community health workers leads to an improvement in implementation of community health projects by beta value of 0.719 units holding other factors constant. The null hypothesis was rejected and the alternative hypothesis was adopted that motivation of community health workers has a statistically significant effect on implementation of community health projects in Mukuru Slum Community.

Some of the areas of motivation included giving them chances in community participation for instance polio campaigns and training. Trainings on conducting meetings through outreaches, in reaches, and through immunization programmes. Motivation of the community health volunteers (workers) influences implementation of community health projects in that they are readily available and active, they agree to give monthly reports, they are able to meet their basic needs, there is close monitoring of the projects and home and referrals are frequently done.

5.2.3 Availability of Health Facilities and implementation of community health projects

The third objective of the study was to determine the influence of availability of health facilities on implementation of community health projects in Mukuru Slum Community, Kenya. Correlation results indicated that availability of health facilities and implementation of community health projects are positively and significantly related. Regression results indicated that a unitary improvement in availability of health facilities leads to an improvement in implementation of community health projects by beta value of 0.593 units holding other factors constant. The null hypothesis was thus rejected and thus availability of health facilities has a statistically significance effect on implementation of community health projects in Mukuru Slum Community.

Some kits are given during training for demonstration by some NGOs, however they're immediately retrieved for safekeeping. Availability of health equipment facilitates work for the CHV(W) who are able to offer good and better services. Some of the equipment's used include condoms, contraceptive kits and MUAs tapes, weighing machines, thermometers, BP machines, HIV testing kits etc.

5.2.4 Joint Relationship of the Training, Motivation of Community Health Volunteers (Workers) and Availability of Health Facilities on Implementation of Community Health Project

The fourth objective was to determine the joint relationship of the training, motivation of community health volunteers (workers) and availability of health facilities on Implementation of community Health Project in Mukuru Slum Community, Kenya. The regression results show that training of community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta=0.520$, $p=0.000$). The results further indicated that motivation of community health workers and implementation of community health projects in Mukuru Slum Community are positively and significantly related ($\beta= 0.101$, $p=0.016$). Further, results showed that availability of health facilities and implementation of community health projects in Mukuru Slum Community were positively related but insignificant ($\beta =0.007$, $p=0.874$). Lastly, resource mobilization and implementation of community health projects in Mukuru Slum Community were positively and significantly related ($\beta =0.365$, $p=0.000$).

This implies that an increase in training of community health workers, motivation of community health workers, availability of health facilities and resource mobilization will lead to an increase in implementation of community health projects by the respective β value that is 0.520, 0.101, 0.007 and 0.365 respectively. The study therefore adopted the alternative hypothesis that training, motivation of community health volunteers (workers) and availability of health facilities jointly have a statistical significant relationship with Implementation of community Health Project in Mukuru Slum Community, Kenya. This indicated that the joint effect of training, motivation of community health volunteers (workers) and availability of health facilities had a positive and significant impact on implementation of community health project.

5.2.5 Resource Mobilization and Implementation of Community Health Projects

The fifth objective of the study was to establish the moderating effect of resource mobilization on the relationship between community health workers (volunteers) empowerment and implementation of community health project in Mukuru Slum Community, Kenya. Interaction term of Training and resource mobilization on implementation of community health projects in Mukuru Slum Community was positively and significantly related ($\beta=0.172$, $p=0.000$). The regression results show that Interaction term of Motivation and resource mobilization on implementation of community health projects in Mukuru Slum Community was positively and significantly related ($\beta=0.056$, $p=0.007$). The results further indicated that the Interaction term of Motivation and resource mobilization on implementation of community health projects in Mukuru Slum Community was positively and significantly related ($\beta=0.038$, $p=0.005$). This implies that an increase in resource mobilization for training of community health workers, motivation of community health workers and availability of health facilities will lead to an increase in implementation of community health projects by the respective β value that 0.172, 0.056 and 0.038 respectively. The null hypothesis was rejected and the alternative hypothesis was adopted that resource mobilization has a statistically significant moderating effect on the relationship between community health workers empowerment and implementation of community health projects in Mukuru Slum Community, Kenya.

The Government or Nairobi Country Government does the mobilization of resources and thus CHVs are not involved directly, therefore they can't tell resource allocation at village level. The CHVs are not allowed to mobilize any resources. NGOs normally mobilise their resources and work through them. However, resource mobilization is critical for sustainability of the health projects when the donors leave. It also increased budgetary allocations to improve preventive services. Lastly, the findings indicate that resource mobilization has a positive impact on community health projects as the services offered by the facilities tend to improve project implementation.

5.3 Conclusion

Based on the findings the study concluded that training of community health workers, motivation of community health workers, availability of health facilities and resource mobilization had a significant effect on implementation of community health projects in Mukuru Slum Community.

The study found that the community health workers in Mukuru Slum Community receive regular training on new methods and techniques to implement health projects and they are required to conduct health services with professionalism regardless of the social status of the community (Appendix VI Field Study). They are also required to acquire training that is objective and aimed at curriculum development. They also engaged in study tours and benchmarking to other community health projects for ideas acquisition.

Under motivation, the community health workers occasionally receive some allowances from the community health facilitators and there is promotion of community health workers that promotes career development. The working hours for the community health workers is flexible and allows for personal development and management provides a suitable work environment that allows swift delivery of health services. They also receive incentives and rewards when they deliver exceptional services in the community.

However, there is moderate provision of remote diagnostics and medical kits that enhance service delivery and adequate transport when required to attend to emergency situations in the community. There is also inadequate medicine and drugs that can be prescribed to the patients in the community and insufficient care units in the community that the patients can visit when ill or for consultation. They also lack current and reliable communication equipment that would enable them to get in touch with patients. Under resource mobilization, there was no adequate funding from the relevant government entities that facilitates health service delivery. There was no prudent and transparent system of utilizing resources for community health projects. There was also moderate community involvement of resource allocation for health projects and services.

5.4 Recommendations

Based on the findings, this study makes the following recommendations:

- i. Introduction of training and benchmarking since the CHV(W) felt that if, they had the exposure, they would implement projects better. The study recommends that training of CHV(W) should be re-designed and delivered in phases (several short training modules spread over time) covering more content. Such multi-phased training will increase the retention rate because the CHV(W) will anticipate further training and probably develop a career path.
- ii. Harmonization of incentives to increase commitment through income for their families. Motivation through compensation, career development and work flexibility should be regularly revised for the implementation of the health projects. However, some NGOs (Red Cross) pay them for implementation of programs they wish to achieve.
- iii. Provision of CHVs with regular replenishment of supplies, medicines, and equipment since when the health facilities run out of supplies, the patients are not able to afford from the chemist and private facilities.
- iv. When the CHW(V) have a very sick patient, they go collecting monies through (Harambee) from the community in order to take the sick to hospital. To improve their acceptability and credibility to the communities they serve, the study recommends on provision of transportation for a referral.
- v. There is a need for advocacy to ensure that all partners and ministries of government adopt the community unit as the unit for all developmental work by providing key resources and funding.

5.5 Suggestions for Further Studies

The study suggests the following areas for further research:

1. To further investigate the proposition that future monetary incentive to motivate CHVs can be considered, this might cause a significant change in accountability and commitment to the implementation of projects in the slums future.
2. Investigation of contribution of the private sector and donors on technical capacity to the community health implementation of the projects in slums.
3. Other towns comparison study can be considered.

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APPENDICES

Appendix I: Student Introduction Letter

Dear Respondent,

RE: REQUEST FOR YOUR PARTICIPATION IN THE STUDY

I am a postgraduate student at the University of Nairobi undertaking a Master of Arts in Project Planning and Management. I am undertaking a research study on *“INFLUENCE OF COMMUNITY HEALTH WORKERS EMPOWERMENT ON IMPLEMENTATION OF COMMUNITY HEALTH PROJECT IN MUKURU SLUM IN KENYA”*.

I would like to kindly request you to help me fill out the attached questionnaire. Please note that your participation in this discussion is completely voluntary and anything you write or say will be held in confidence by me. I assure that you will not be victimized for anything you say or do during these discussions.

Please tick or fill in the required information on the spaces provided in the questionnaire.

Thank you for your support.

Yours faithfully,



Caroline Wairimu Kamau

L50/77378/2012

Appendix II: School Introduction Letter



UNIVERSITY OF NAIROBI
OPEN, DISTANCE AND e-LEARNING CAMPUS
SCHOOL OF OPEN AND DISTANCE LEARNING
DEPARTMENT OF OPEN LEARNING
NAIROBI LEARNING CAMPUS

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

Main Campus
Gandhi Wing, Ground Floor
P.O. Box 30197
N A I R O B I

REF: UON/ODEL/NLC/29/473

19th November, 2018

TO WHOM IT MAY CONCERN

RE: CAROLINE WAIRIMU KAMAU - REG NO: L50/77378/2012

This is to confirm that the above named is a student at the University of Nairobi, Open Distance and e-Learning Campus, School of Open and Distance Learning, Department of Open Learning pursuing Masters of Art in Project Planning and Management.

She is proceeding for research entitled "Influence of Community Health Workers Empowerment on Implementation of Community Health Project in Mukuru Slums in Kenya."

Any assistance given to her will be highly appreciated.



CAREN AWILLY
CENTRE ORGANIZER
NAIROBI LEARNING CENTRE



Republic of Kenya

MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone: Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

REGIONAL DIRECTOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 – 00200
NAIROBI

When replying please quote

Ref: RCE/NRB/RESEARCH/1/64/VOL.I

Date: 22nd February, 2019

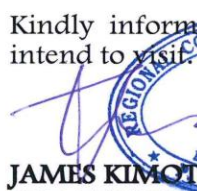
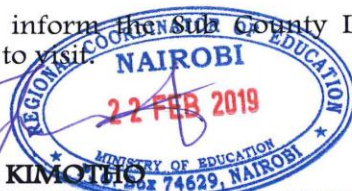
Caroline Wairimu Kamau
University of Nairobi
P. O. Box 30197-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on *"Influence of community health workers empowerment on implementation of community health project in Mukuru Slums."*

This office has no objection and authority is hereby granted for a period ending **12th February, 2020** as indicated in the request letter.

Kindly inform the Sub County Director of Education of the Sub County you intend to visit.

JAMES KIMOTI
FOR: REGIONAL DIRECTOR OF EDUCATION
NAIROBI

Copy to: Director General/CEO
National Commission for Science, Technology and Innovation
NAIROBI

25th January 2019

The Director Public Health
Nairobi City County
P. O. Box 30075 – 00100
Nairobi

Dear Sir

RE: REQUESTED TO DO ACADEMIC RESEARCH IN MUKURU SLUM VILLAGES

I am a postgraduate student at the University of Nairobi undertaking a Master of Arts in Project Planning and Management and undertaking a research study on **“INFLUENCE OF COMMUNITY HEALTH WORKERS EMPOWERMENT ON IMPLEMENTATION OF COMMUNITY HEALTH PROJECTS IN MUKURU SLUMS IN KENYA”**

I wish to kindly request for a letter allowing the Clinical Officers at the Health Centres around Mukuru fill out a questionnaire. The areas to visit are Starehe Sub-County (South B); Embakasi East and Makadara , Lungalunga.

Your support in this regard will be highly appreciated.

Yours faithfully,



Caroline Wairimu Kamau
L50/77378/2012

31/01/2018



Community Strategy Coordinator Kivalu asit

NAIROBI CITY COUNTY



Telegrams: "PRO-MINHEALTH", Nairobi
Telephone: Nairobi 217131/313481
Fax: 217148
E-mail: pmonairobi@yahoo.com

COUNTY HEALTH OFFICE
NAIROBI
NYAYO HOUSE
P.O. Box 34349-00100
NAIROBI

When replying please quote

Ref. No. CMO/NRB/OPR/VOL.1/2019/03

COUNTY HEALTH SERVICES

28th January 2019

Caroline Wairimu Kamau
L50/77378/2012
University of Nairobi

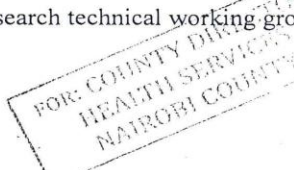
RE: RESEARCH AUTHORIZATION

This is to inform you that the Nairobi City County Operational Technical Working Team reviewed your research documents on **"Influence of Community Health Workers Empowerment on Implementation of Community Health Project in Mukuru Slums in Kenya"**.

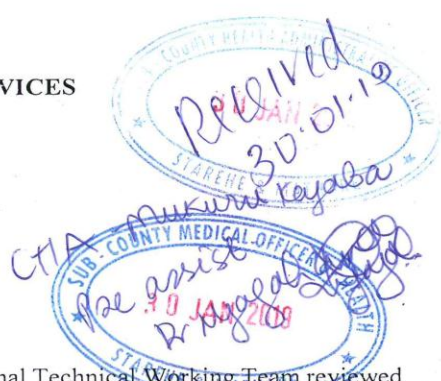
I am pleased to inform you that you have been authorized to undertake the research in Starehe, Embakasi East and Makadara Sub Counties, Nairobi County.

On completion of the study, you will submit **one hard copy and one copy in PDF** of the research findings to our operational research technical working group.

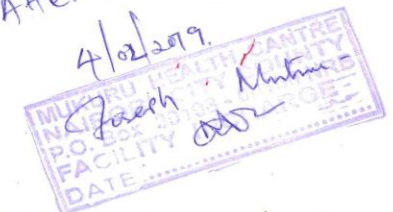
R. K. MULI
For: COUNTY DIRECTOR OF HEALTH SERVICES



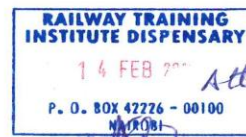
Cc: SCMOH – Starehe, Makadara, Embakasi East



Att: to SCMSF
Julia Kimani



Received 4/2/2019
To M above for SC Mgt Embak East



Att: Catherine (CHA)



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471.
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/72920/27959**

Date: **12th February, 2019**

Caroline Wairimu Kamau
University of Nairobi
P.O Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Influence of community health workers empowerment on implementation of community health project in Mukuru Slums”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **12th February, 2020.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

COUNTY COMMISSIONER
NAIROBI COUNTY
P. O. Box 30124-00100, NBI
TEL: 341666


22/02/2019

Appendix III: Questionnaire for Community health volunteers (workers)(CHV(W))

This questionnaire is divided into three short sections that should take only a few moments of your time to complete. Please respond by ticking the appropriate box or filling in your answers in the blank spaces provided. This is an academic exercise and all information collected from respondents will be treated with strict confidentiality.

Thank you very much for your cooperation

SECTION A: GENERAL INFORMATION

1. Gender of respondents (Tick as appropriate)

Male

Female

2. What is your age bracket? (Tick appropriately)

Below 30 years

31-40:

41-50:

Above 50:

3. What is your highest level of education?

Primary

Secondary

College

University

4. How long have you been a community health worker in Mukuru Slums?

less than 1 year

2 to 5 years

6 to 10 years

more than 10 years

SECTION B: IMPLEMENTATION OF HEALTH PROJECTS

Please rate the following statements used to implementation of health projects in Mukuru slums community on a scale of 1-5,

Where, 1= Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

SN	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1	There is increased coverage of health projects in this community					
2	The community health volunteers (workers) have reduced the rate of infant and mortality and preventable deaths due to appropriate medical attention					
3	There is swift response in the case of health emergencies in this community					
4	There is completion and operational of majority of the health project in this community					
5	The established health projects are able to cater for majority of the health needs of this community					

In your opinion, do you think the implementation of health projects in Mukuru slums has been successful?

- i) Yes
- ii) No

If yes, how?

.....

.....

.....

SECTION C: TRAINING OF COMMUNITY HEALTH VOLUNTEERS (WORKERS) AND IMPLEMENTATION OF HEALTH PROJECTS

Please rate the following statements used to establish the influence of training of community health volunteers (workers) and implementation of health projects in Mukuru slums community on a scale of 1-5,

Where, 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

SN	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1	We receive regular training on new methods and techniques to implement health projects					
2	We are required to conduct health services with professionalism regardless of the social status of the community					
3	We acquire training that is objective and aimed towards curriculum development					
4	We are engaged in study tours and benchmarking to other health community health projects for ideas acquisition					
5	We take semi-annual tests for ability measuring in attending to community health services					

In your opinion, does training of community health volunteers (workers) influence the implementation of health projects Mukuru slums community?

- i) Yes
- ii) No

If yes, how?

.....

.....

.....

SECTION D: MOTIVATION OF COMMUNITY HEALTH VOLUNTEERS (WORKERS) AND IMPLEMENTATION OF HEALTH PROJECTS

Please rate the following statements used to establish the influence of motivation of community health volunteers (workers) and implementation of health projects in Mukuru slums community on a scale of 1-5,

Where, 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

SN	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1	Sometimes we receive some allowances from the community health facilitators					
2	There is promotion of community health volunteers (workers) that promotes career development					
3	Our working hours for the community health volunteers (workers) is flexible and allows for personal development					
4	The management provides a suitable work environment that allows swift delivery of health services					
5	We receive incentives and rewards when we deliver exceptional services in the community					

In your opinion, does motivation of community health volunteers (workers) influence the implementation of health projects Mukuru slums community?

- i) Yes
- ii) No

If yes, how?

.....

.....

.....

SECTION E: AVAILABILITY OF HEALTH FACILITIES TO COMMUNITY HEALTH VOLUNTEERS (WORKERS) AND IMPLEMENTATION OF HEALTH PROJECTS

Please rate the following statements used to establish the influence of availability of health facilities to community health volunteers (workers) and implementation of health projects in Mukuru slums community on a scale of 1-5,

Where, 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

SN	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1	We are provided with remote diagnostics and medical kits that enhance service delivery					
2	We are provided with adequate transport when required to attend to emergency situations in the community					
3	We have adequate medicine and drugs that can be prescribed to the patients in the community					
4	We have sufficient care units in the community that the patients can visit when ill or for consultation					
5	We have current and reliable communication equipment that enables us to get in touch with patients					

In your opinion, does availability of equipment to community health volunteers (workers) influence the implementation of health projects Mukuru slums community?

- i) Yes
- ii) No

If yes, how?

.....

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.....

SECTION F: RESOURCE MOBILIZATION AND IMPLEMENTATION OF HEALTH PROJECTS

Please rate the following statements used to establish the influence of resource mobilization and implementation of health projects in Mukuru slums community on a scale of 1-5,

Where, 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

SN	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1	We receive adequate funding from the relevant government entities that facilitates health service delivery					
2	We have a prudent and transparent system of utilizing resources for community health projects					
3	We have partnered with well-wishers and donors to expand our resource base					
4	The use of the available resources is aligned to the urgency and priority of the projects and services					
5	The community is involved participation of resource allocation for health projects and services					

In your opinion, does resource mobilization influence the implementation of health projects Mukuru slums community?

- i) Yes
- ii) No

If yes, how?

.....

.....

.....

Thank You for Your Participation

Appendix IV: Interview Guide for Clinical Officer(s)

1. Do you conduct training for CHV(W)

- i) Yes
- ii) No

If yes, how frequent?

- i) Weekly
- ii) Monthly
- iii) Quarterly
- iv) Yearly

In your opinion, how does training of the CHV(W) influence implementation of community health Projects?

.....

.....

.....

2. Do you motivate the CHV(W)

- i) Yes
- ii) No

If yes, what are the various ways of motivating them?

.....

.....

.....

In your opinion, how does motivation of the CHV(W) influence implementation of community health projects?

.....

.....

.....

3. Does your health facility have adequate facilities and equipment's?

- i) Yes
- ii) No

What are some of the equipment's used by CHV(W)?

.....
.....
.....

In your opinion, how does availability of health facilities and equipment to the CHV(W) influence implementation of community health projects?

.....
.....
.....

4. Does your facility receive government and donor funding specifically for CHV(W) empowerment?
- i) Yes
 - ii) No

If yes, how much is the funding per year?

Year	Government	Donor	Total
2017			
2016			
2015			
2014			

In your opinion, how does resource mobilization influence implementation of community health projects?

.....
.....
.....

Thank You for Your Participation

Appendix V: Interview Guide for Community Health Assistants

1. Do you conduct training for CHV(W)

i) Yes

ii) No

If yes, how frequent?

i) Weekly

ii) Monthly

iii) Quarterly

iv) Yearly

In your opinion, how does training of the CHV(W) influence implementation of community health Projects?

.....
.....
.....

2. Do you motivate the CHV(W)

i) Yes

ii) No

If yes, what are the various ways of motivating them?

.....
.....
.....

In your opinion, how does motivation of the CHV(W) influence implementation of community health projects?

.....
.....
.....

3. Does your health facility have adequate facilities and equipment's?

iii) Yes

iv) No

What are some of the equipment's used by CHV(W)?

.....
.....
.....

In your opinion, how does availability of health facilities and equipment to the CHV(W) influence implementation of community health projects?

.....
.....
.....

4. Does your facility receive government and donor funding specifically for CHV(W) empowerment?
- i) Yes
 - ii) No

If yes, how much is the funding per year?

Year	Government	Donor	Total
2017			
2016			
2015			
2014			

In your opinion, how does resource mobilization influence implementation of community health projects?

.....
.....
.....

Thank You for Your Participation

Appendix VI: Field Study Images





The CHV as a front runner, ensuring that this child with cerebral Palsy (PS) is well, not left alone by the guardian and finally goes back to school



The CHVs also ensure cleanliness of the environment of the respective assigned one hundred (100) households.

Appendix VII: Monthly Reporting Tool

REPUBLIC OF KENYA - MINISTRY OF HEALTH



SERVICE DELIVERY LOG BOOK
MOH514

NAME OF CHU:	FUATA NYAYO-A.	COUNTY:	NAIROBI COUNTY
MCHUL CODE:		SUB COUNTY:	STAREHE
LINK FACILITY:	POLICE BAND	DIVISION:	SOUTH B.
NAME OF CHV:	JOSEPH ONYANGO	LOCATION:	KIKURU NYAYO
NUMBER OF HH:		SUB LOCATION:	NAIROBI SOUTH.
START DATE:	2020	END DATE:	1

INSTRUCTIONS ABOUT THE USE OF THE TOOL

DESCRIPTION

- ✓ The Service Delivery Log Book is a **diary** that is used to collect information from the household during the period of offering a health service, health messages or defaulter traced.
- ✓ The Service Delivery Log Book gives the numerator for measuring the effort of the caregiver. The period referred to is the previous completed month.

What type of information is collected?

- ✓ The basic information collected is factual data based on what was done or identified in the community, among households and/or individual (s) served. The Service Delivery Log Book measures the actual CHV's effort and should be written or filled during the household visitation.

Who should fill?

- ✓ CHVs

When and to whom it should be submitted?

- ✓ The Service Delivery Log Book should be submitted to the CHEW for summarization by 2nd of the following month.

Basic Information		
A	Date	The date when the household member receives a service from a Community Health Volunteer (recorded as DD/MM/YY) for example, 31/07/14
B	Village Name	The name of the village where the household is located
C	Household number	This is a unique identification number, which is assigned to a household during registration
D	Name of household member	Record the individual names that identify a household member - Record at least THREE names FOR EXAMPLE James Karani Bosiro.
Mother Information		
E	Pregnant	Record by indicating with a tick (✓) whether a household female member is pregnant or (X) if the household female member is not pregnant. The CHV should observe or ask the woman in the household. Record N/A if the member is not a woman of reproductive age (15-49 years).
F	Pregnant woman counselled on Individual Birth Plan (IBP)	Record by indicating with a tick (✓) whether the pregnant woman is counselled on Individual Birth Plan (IBP) or (X) if not. Record N/A if the member is not a pregnant woman
G	Woman delivered by unskilled attendant	Record by marking with a tick (✓) if delivery since the last visit was by unskilled attendant. Note – traditional birth attendants (TBA) are considered unskilled. Record N/A if the member is not a woman who delivered since last visit
H	Woman delivered by skilled attendant	Record by marking with a tick (✓) if delivery since the last visit was by skilled attendant. Note – traditional birth attendants (TBA) are considered not skilled attendants. Record N/A if the member is not a woman who delivered since last visit
I	New-born visited at home within 48 hours of delivery	Record by indicating with a tick (✓) if New-born was visited at home within 48 hours of delivery or (X) if not. Record N/A if the member is not a new-born
J	Mother with new-born counselled on Exclusive Breast Feeding (EBF)	Record by indicating with a tick (✓) if Mother with new-born (0-28 days) is counselled on Exclusive Breast Feeding (EBF) or (X) if not. Record N/A if the household member is not a mother of a new-born
K	Woman 15-49yrs provided with Family Planning commodities by CHVs	Record by indicating with a tick (✓) if a Woman 15-49 years is provided with Family Planning commodities by CHVs or (X) if a woman of 15-49 years was not provided. Record N/A if the member is not a woman of reproductive age (15-49 years)
Child Information		
L	Child 0-59 months participating in growth monitoring	Record by indicating with a tick (✓) if a Child 0-59 months participating in growth monitoring or (X) if not. Record N/A if the household member is not a child of 0-59 months
M	Child 6-59 months with MUAC (Red) indicating severe malnutrition	Record by indicating with a tick (✓) if a Child 6-59 months has MUAC (Red) indicating severe malnutrition or (X) if not. Record N/A if the household member is not a child of 6-59 months
N	Child 6-59 months with MUAC (Yellow) indicating moderate malnutrition	Record by indicating with a tick (✓) if a Child 6-59 months has MUAC (Yellow) indicating moderate malnutrition or (X) if not. Record N/A if the household member is not a child of 6-59 months
O	Child 12-59 months dewormed	Record by marking a tick (✓) when the child 12-59 months in the household was dewormed in the last 6 months or (X) if the child was not. Record N/A if the household member is not a child of 12-59 months
Referrals Information		
P	Pregnant woman referred for ANC	Record by marking a tick (✓) when the Pregnant woman is referred for ANC or (X) if not. Record N/A if the household member is not a pregnant woman
Q	Pregnant woman referred for skilled delivery	Record by marking a tick (✓) when the Pregnant woman is referred for skilled delivery or (X) if not. Record N/A if the household member is not a pregnant woman
R	Woman referred for family planning services	Record by marking a tick (✓) when the woman of 15-49 years is referred for family planning services or (X) if not. Record N/A if the household member is not a woman of 15-49 years
R	Home delivery referred for Post Natal Care (PNC) Services	Record by marking a tick (✓) if a home delivery is referred for Post Natal Care (PNC) Services or (X) if not. Record N/A if the household member is not a mother who delivered at home
S	Child 0-11 months referred for immunization	Record by marking a tick (✓) if a child 0-11 months is referred for immunization services or (X) if not. Record N/A if the household member is not a child of 0-11 months
T	Child 6-59 months referred for Vitamin A supplementation	Record by marking a tick (✓) if a child between 6 months of age to 59 Months is referred for Vitamin A supplementation or (X) if not. Record N/A if the household member is not a child of 6-59 months
U	Cough more than 2 weeks referred	Record by marking a tick (✓) if a chronic cough for two or more weeks is referred to a health facility or (X) if not. Record N/A when the household member has not had chronic cough or had had it for less than 2 weeks
V	Referred for HIV Counselling and Testing (HCT)	Record by marking a tick (✓) if referred for HIV Counselling and Testing (HCT) or (X) if not. Record N/A for a small child
W	Elderly (60+) referred for routine health check-ups	Record by marking a tick (✓) if elderly (60 years and above) is referred to a health facility for routine check-ups or (X) if not. Record N/A if the member is not elderly with 60 or more years
X	Known cases of chronic illness referred a=Diabetes, b=Cancer, c=Mental illness, d=Hypertension, e=Others (specify in remarks), f=None	Indicate one or more numbers (a=Diabetes, b=Cancer, c=Mental illness, d=Hypertension, e=Other, f=None) of a type of chronic illness with a corresponding tally of known cases of individuals referred to a health facility with that illness. e.g. d-1 for one person is suffering from hypertension in the household. It is a chronic illness if someone has been unwell for 1 year or more without healing
Defaulters Information		
Z	ANC defaulter referred	Record by marking a tick (✓) if ANC defaulter is referred to a health facility or (X) if not. Record N/A if the member is not an ANC defaulter
AA	Immunization defaulter referred	Record by marking a tick (✓) if Child 0-59 months of age who defaulted on immunization has been referred for immunization or (X) if not. Record N/A if the member is not a child of 0-59 months or is a child of 0-59 months but did not default on immunization
AB	TB treatment defaulter traced and referred	Record by marking a tick (✓) if a Tuberculosis (TB) defaulter is referred to a health facility or (X) if not. Record N/A if the member has not had TB or has had TB but did not default
AC	ART defaulter referred	Record by marking a tick (✓) if an ART defaulter is referred to a health facility or (X) if not. Record N/A if the member has not been on ART or has been on ART but has not defaulted
Death Information		
AD	Number of deaths in the month	a: 0-28 days (Record all deaths between zero to 28 days of age) which occurred in the month
		b: 29 days-11 months (Record all deaths between 29 days to 11 months of age) which occurred in the month
		c: 12-59 months (Record all deaths between 12-59 months of age) which occurred in the month
		d: Maternal (Record all deaths of women during pregnancy or child birth or within 42 days after delivery) which occurred in the month
		e: Other deaths (Record all deaths in the household and not counted above) which occurred in the month
Others		
AE	Remarks/other services provided	Write any remark which you think is important for follow-up or any other services provided not recorded among the indicators

	Household Level				
Date of Data Collection	Village Name	Household Number	Household has a functional latrine in use (✓/X)	Household with hand washing facilities (✓/X)	Household using treated water (✓/X)
AF	AG	AH	AI	AJ	AK



MINISTRY OF HEALTH

COMMUNITY REFERRAL FORM

SECTION: A

Patient /client data	
Date:	Time of referral:
Name of the patient:	
Sex:	Age:
Name of Community Health Unit:	
Reasons for referral	
Main problem:	
Treatment given:	
Comments:	
CHWs referring the patient	
Name:	Mobile No:
Village/Estate:	Sub location:
Location:	
Name of the community unit:	
Receiving officer	
Date:	Time:
Name of the officer:	
Profession:	
Name of the Health facility:	
Action taken:	

SECTION: B

Referral back to the Community		
Name of the officer:		
Name of CHW:	Mobile No:	
Name of the community unit:		
Call made by referring officer:	Yes:	No:
Kindly do the following to the patient:		
1.		
2.		

Official rubber stamp & signature:

Note: The County Government through the Community Health Assistants collect data monthly using the above tool.

Appendix VII: Plagiarism Report

Research Project

ORIGINALITY REPORT

12%	8%	3%	14%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to KCA University Student Paper	3%
2	pdfs.semanticscholar.org Internet Source	2%
3	www.human-resources-health.com Internet Source	1%
4	erepository.uonbi.ac.ke Internet Source	1%
5	Submitted to Saint Paul University Student Paper	1%
6	Submitted to Holborn College Student Paper	1%
7	citeseerx.ist.psu.edu Internet Source	1%
8	erepo.usiu.ac.ke Internet Source	1%
9	Submitted to Kenyatta University Student Paper	1%

Appendix IX: Work Plan

Activity	TIMEFRAME													
	Month 1 & 2		Month 3 & 4		Month 4 & 5		Month 5 & 6		Month 6 & 7					
Topic selection & approval	■													
Supervisor appointment		■												
Produce draft proposal			■	■										
Incorporate supervisor's reviews				■	■	■								
Proposal ready for presentation					■	■								
Incorporation of panel comments						■	■							
Pilot testing of questionnaire							■							
Data collection								■	■					
Data processing and analysis									■	■				
Review of draft by supervisor										■	■			
Incorporate supervisor comments											■			
Submit Project												■	■	
Defend Project														■