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Examining the effects of incentive structures on the work of community health volunteers in Kwale County

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EXAMINING THE EFFECTS OF INCENTIVE STRUCTURES ON THE WORK OF COMMUNITY HEALTH VOLUNTEERS IN KWALE COUNTY

BY

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DECLARATION

I declare that this work has never been submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself:

Signature: …… Date:**18 May 2018**

Noreen. N. Zecha

Approval

This project is submitted with my approval as the supervisor:

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DEDICATION

I dedicate this work to my family and friends for their constant support and encouragement.

ACKNOWLEDGEMENT

I take this opportunity to thank the almighty God for the gift of life. I acknowledge my colleagues and family members for their continued support. Finally, thanks to my supervisor for their continued support and guidance.

ABSTRACT

The Community Health Strategy (CHS) is an approach that aims to improve the health status of communities through initiation and implementation of health actions at household and community levels. CHS is a highly effective way of changing healthcare practices and care-seeking behavior. However, implementation of the strategy remains patchy, mostly due to challenges of retaining community health Volunteers (CHVs). Kwale, like other Kenyan counties, continues to grapple with CHV challenges. This study sought to examine factors that CHVs consider most important in incentivizing them to do their work in Kwale County. The study used a mixed methods approach. The study population were 402 CHVs in Kwale. Random sampling was used to select 197 respondents, and a questionnaire administered to collect quantitative data, which was subsequently analyzed using SPSS (Version, 23). An interview topic guide was used to collect qualitative data, and content analysis done. The study found that socio-demographic characteristics and incentives the CHVs considered most important influenced their work. Key incentives that CHVs identified as important included wages and working conditions, performance-linked payments, career and professional development, workload management, flexible working arrangements and positive working environments, training and supervision positively affected the performance of CHVs, the community factors which influence Performance of CHV include norms traditions, beliefs and security, the community appreciated the CHVs and community factors which influence Performance included norms traditions, beliefs and security. The study recommends that the County explore sustainable financial and non-financial incentives for CHVs. These may include allowances, cost reimbursement (transport), exchange tours, badges, recommendations letters, and certificates of recognition. There is a need for production and dissemination of key health information regarding the Community health strategy and targeting high impact interventions. These should include effective communication mechanisms through radios, television.

Key words: *Incentives, CHVs Performance, Monetary incentives*

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LIST OF ABBREVIATIONS/ACRONOMYS

AFRO	Africa Regional Office
AMREF	African Medical and Research Foundation
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
APHIA	Population and Health Integrated Assistance
ASHAs	Accredited Social Health Activists
CBA	Community Based Approach
CBD	Community-Based Development
CBSVs	Community Based Surveillance Volunteers
CHAs	Community Health Assistants
CHS	Community Health Strategy
CHS	Community Health Sanitation
CHVs	Community Health Volunteers
CUs	Community Units
GoK	Government of Kenya
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICPHC	International Conference on Primary Health Care
JSY	Jannai Suraksha Yojana
KEPH	Kenya Essential Packages for Health
MDGs	Millennium Development Goals
MDGs	Millennium Development Goals
MoH	Ministry of Health
MoPHS	Ministry of Public Health and Sanitation
MPHS	Ministry of Public Health and Sanitation
NGO	Non-Governmental Organization
NHM	National Health Mission
NHSSP	Kenya's second National Health sector strategic plan
PHO	Public Health Officer

SPSS	Statistical Package for the Social Sciences
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
VHVs	Village Health Volunteers
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Hongoro and Normand (2006) points out that, labour markets adhere to economic theory in that "a health worker will accept a job if the benefits of doing so outweigh the opportunity cost". The benefits are the incentives, financial and nonfinancial, that make a health professional want to continue to participate in the workforce. Incentives can be positive or negative, financial or non-financial, tangible or intangible. Financial incentives involve "direct monetary payment from employer to employee", (Kingma, 2003 p.3) such as wages, bonuses and loans. Non-financial incentives include provision of work autonomy, flexibility in working time and recognition of work (Zurn *et al.* 2005; Hongoro & Normand 2006; Kingma 2003; Caldwell & Kingma 2007).

The World Health Organization defines incentives as "all the rewards and punishments that providers face as a consequence of the organizations in which they work the institutions under which they operate and the specific interventions they provide" (WHO 2000 p.61). Mathauer and Imhoff (2006) define an incentive as "an available means applied with the intention to influence the willingness of physicians and nurses to exert and maintain an effort towards attaining organizational goals". More tightly defined, an incentive is "an explicit or implicit financial or non-financial reward for performing a particular act" (Saltman quoted in Zurn *et al.* 2005 p.14). Incentives can also be viewed as the factors and/or conditions within health professionals' work environments that enable, encourage and motivate them to stay in their jobs, in their profession and in their countries.

Community health volunteers (CHVs) have been defined as lay persons who have received some training to deliver healthcare services but are not professionals (Glenton *et al.*, 2013). Broadly, CHVs can be viewed as individuals whose primary role is to extend the reach of the existing mainstream health system (Scott & Shanker, 2010) or playing a broader role by serving as cultural mediators or change agents by facilitating grass-roots community engagement to improve health outcomes (Scott & Shanker, 2010) . They have been proposed

as a means of bridging the gap in the current health systems in many low- and middle-income countries (LMIC) but have also shown promise, particularly with chronic disease management in high-income countries (O'Brien, Squires, Bixby & Larson, 2009)

The CHS intends to improve the health status of Kenyan communities through the initiation and implementation of lifecycle which are in six level cohorts as follows: pregnant women, delivery and new born (first 2 weeks of life), early childhood (2 weeks to 5 years), late childhood (5 to 12 years - school age), adolescent and youth (13 to 24 years), adults (25 to 59 years) and the elderly (over 60 years). The cohorts are focused health actions at community level that involve; providing community level services for all cohorts and socio-economic groups, including the "differently-abled", taking into account their needs and priorities, building the capacity of the community health volunteers (CHV) to provide services at community level, strengthening health facility–community linkages through effective decentralization and partnership for the implementation of community level, and strengthening the community to progressively realize their rights for accessible and quality care and to seek accountability from facility based health services (Dustin & Turin, 2010). This study seeks to establish factors influencing implementation of community health strategy in Kenya, with special focus on Kwale County.

1.2 Statement of the Problem

Despite recent evidence indicating improved behavior change and utilization of health services in areas with active community health units (Olayo *et al*., 2014), implementation of the community health strategy remains patchy and incomplete. Anecdotal evidence suggests that challenges such as high CHV attrition and excessive workload, coupled with poor motivation of CHVs are contributing to the low implementation levels. (unicef, 2010) The Community Health Strategy after review adopted the proposals to introduce salaried community Health Assistants to support CHVs in in carrying out promotive, preventive and curative tasks. The CHVs will mainly act as mobilizers, ensuring linkage between the communities. This will result in an anticipated increase in the number of CHVs nationally from 2100 to 25 000 by 2017.

It is vital that the CHVs are sufficiently motivated to carry out these task seeing as the aim is to increase their numbers. However, there is a dearth of information on drivers of motivation. In addition, there is little knowledge on the extent to which county governments will adopt and budget for implementation of the revised strategy, and how the performance of the CHVs will be gauged. As the revised strategy progresses towards implementation, there is a strong need for a better understanding of the incentives for CHVs and potential drivers for change in their performance. To date, little research has been done to identify factors influencing implementation of community health strategy. Despite marked progress in many areas over the past decades, Kwale continues to grapple with challenging health problems, most of which would be solved if the community strategy worked effectively. CHV programs face many problems, including remuneration, poor training, and inadequate supervision, lack of supplies, and poor relationships with communities. This underscored the importance of conducting research to examine effects of incentive structures on performance of community health Volunteers in Kwale County.

1.3 Objective of the Study

1.3.1 General Objective

To examine the effects of incentive structures on the work of community health volunteers in Kwale County, Kenya

1.3.2 Specific Objective

The study was guided by the following specific objectives

i. To explore how social demographic characteristics, influence the choice and value placed on the incentives.
ii. To examine what types of incentives contribute to jobs satisfactions among CHV.
iii. To assess ways in which incentive structures influence the performance of CHV.

1.4 Research Questions

The study sought to answer the following research questions

i. Do social demographic characteristics influence the choice and value place on the incentives by CHV?

ii. What type of incentives contribute to job satisfactions among CHV and why?

iii. In what ways do the incentive structures influence the performance of community health volunteers?

1.5 Scope of the Study

This study sought to examine the effect that incentive structures of different nature have on the work of community health workers in Kwale County. The study looked at socio-demographic characteristics, and investigated types of incentives that contribute to jobs satisfactions among CHV. The study targeted CHVs working in the community in Kwale.

1.6 Significance of the Study

The study may be beneficial to the following stakeholders;

1.6.1 The government and Policy makers

The information may guide policy on devising strategies to strengthen the community health strategy. Study findings might inform policy makers at the ministry of health and partners on the role of incentive structures for CHVs in Kenya. This might guide the development of future policies on the community health strategy in Kenya.

1.6.2 The Ministry of Health

The findings may be used to make relevant recommendations to the Ministry of Public Health and Sanitation regarding the implementation of strategies which can be used to motivate Community Health Volunteers in the whole country to ensure sustainability of the community health services which will be geared towards empowering communities with the main aim of reducing the disease burden at the community level.

1.6.3 Researchers and Academicians

The study may also inform future research aimed at strengthening the role of incentives and motivation in promoting primary and community healthcare services in low and middle-income countries.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the existing literature on factors influencing implementation of community health strategy with a focus on the incentive structure for community health volunteers. In specific the chapter reviewed the theoretical review, empirical review and conceptual framework.

2.2 Theoretical Review

This study was guided by systems theory; X and Y theories and organization theories. The framework was applied to major areas of existing CHV programs in order to review the incentives, and ultimately set the correct incentives in place. The goal of incentive structures should be to motivate CHVs to complete their tasks effectively, while ensuring that they stay committed with the intervention. Motivation can be achieved in many ways, either extrinsically or intrinsically. In analyzing an intervention, it is important to distinguish the types of incentives motivating CHVs in health care, because they reflect the sustainability of the program that can contribute to an improvement of health services.

2.2.1 Systems Theory

The system theory was developed by biologist Ludwig von Bertalanffy Littlejohn (1983) defines a system as a set of objects or entities that interrelate with one another to form a whole. System theory is basically concerned with problems or relationships, of structures, and of inter-dependence, rather than with the constant attributes of object. The systems theory views an organization as a social system consisting of individuals who cooperate within a formal framework, drawing resources, people, finance from their environment and putting back into that environment the products they produce or the services they offer.

This theory is based on the view that managers should focus on the role played by each part of an organization; rather than dealing separately with the parts (Hannagan, 2002). The systems theory maintains that an organization does not exist in a vacuum. It does not only

depend on its environment but it is also part of a larger system such as the society or the economic system to which it belongs.

The systems approach is concerned with both interpersonal and group behavioral aspects leading to a system of cooperation (Koontz, 2001). A community healthy strategy is a complex system consisting of the staff, and numerous stakeholders. The system theory emphasizes unity and integrity of the organization and focuses on the interaction between its component parts and the interactions with the environment. It suggests that organizations must be studied as a whole taking into consideration the interrelationships among its parts and its relationship with the external environment. Community Healthy Strategy is open systems hence it responds to the external influences as it attempts to achieve its strategic objectives.

2.2.2 X and Y Theories

Management theories are central to implementation of plans in any organization. Managers should strive to create an environment in which others are motivated to put in their best (Bhargara, 2003). It is incumbent upon the leader to provide direction and purpose for the organization and to carry everyone along with her/him. The manager must get commitment of his subordinates (employees). McGregor and other scholars for example have stressed the importance of mutual goals as a clue to commitment. For many years, the economic theory has proposed to buy worker cooperation by paying wages to be used by wage earners to buy progress toward the personal goals.

However, Judge and Robinson (2008) stress the provision of a conducive environment to the employees as key in achieving effectiveness and innovation. Essentially management involves accomplishing goals with and through people. As such, a manager must be concerned about tasks and human relationships. These management concerns seem to be a reflection of two of the earliest schools of thought in organization theory, the 'Scientific Management' movement led by Fredrick W. Taylor in early 1900s and the 'Human Relations' movement led by Elton Mayo and his associates in the 1920s and early 1930s (Cole, 2002).

According to Cole (2002) the Authoritarian Style of management behavior is often based on the assumption that the power of managers is derived from the position they occupy and that people are innately lazy and unreliable (Theory X). The Democratic Style assumes that the power of managers is granted by the group they are to lead, and that people can be basically self-directed and creative at work if properly motivated (Theory Y). Consequently, in the authoritarian style, all policies are determined by the manager; in the democratic style policies are open for group discussion and decision. Theory X employees need to be directed well during strategic implementation because they are not expected to take initiative like Theory Y employees, sometimes they may even need to be coerced.

McClelland (1961) advanced the psychological paradigm which postulates that people with an inner trait of high need achievement (n-arch) are more likely to be more successful at tasks. They feel the need to excel. This theory further states that people who are highly motivated are likely to take moderate risks, have an internal locus of control, have a strong drive to excel and solve problems. Achievement motivated people can be the backbone of most organizations. As we know, people with a high need for achievement get ahead because as individuals they are producers, they get things done. Managers with n-arch are likely to influence their departments and teams towards effective implementation of strategic plans.

2.3 Empirical Review

This section reviewed the empirical literature on incentive structures for CHVs. the Social demographic characteristics influence on choice and value placed on incentives, Type of incentives that contribute to job satisfaction among CHVs and incentive structures that influence the performance of CHVs.

2.3.1 Social Demographic Characteristics Influence on Choice and Value Placed on the Incentives

Literature globally reflects the diversity in the characteristics of CHV across programmes. Majority of programmes indicate that CHVs are selected from their communities and have acquired little education with majority having primary level education. The gender of the CHVs also varies with the females dominating in many programmes (Lehmann & Sanders,

2007). This has been discussed at different context like in Somali; the CHV programme which was dominated by males became problematic during implementation as the male CHVs had little contact with females in the community (Bentley, 1989). In Peru, the husbands resisted their wives been selected as CHVs as the community associates leadership with the male gender and therefore women could not enroll in the CHV programme (Brown, Malca, Zumaran & Miranda, 2006).

The level of education also varies across different CHV programmes. Many, programmes require a particular level of literacy. Literacy of CHVs is a requirement in countries like Peru, Uganda, Democratic Republic of Congo and Somali (Bentley, 1989; Brown, Malca, Zumaran & Miranda, 2006; Kasolo, 1993). In Kenya CHVs AMREF programme requires seven years of primary education (Johnson & Khanna, 2004). However, in Kenya, another community programme in Saridid, level of education was not literacy was not considered as a criterion for selection of CHVs (Kaseje, Sempebwa & Spencer, 1987). In Peru, understanding of the native language was considered as crucial, as well as some level of literacy. Bhattacharyya *et al.* (2006) comment that "literacy requirements often affect the age of the selected CHVs: literate people tend to be younger. There is some evidence, on the other hand, that older CHVs are more respected in their communities. It is often difficult to generalize the profile of CHVs globally. The fact is that while there are variations in the trends CHVs can be male or female, be literate or be illiterate or be old or young in age. The most important thing is that they have to meet the expectation of the communities and be acceptable in relation to the culture of the community.

Incentives play an important role in motivating community health volunteers (CHVs). In India, accredited social health activists (ASHAs) are female CHVs who provide a range of services, including those specific to reproductive, maternal, neonatal, child, and adolescent health. The sex of the CHV has been shown to influence uptake of services in different contexts. In Afghanistan, Viswanathan et al. reported a preference for female CHVs for the delivery of reproductive health services compared to male CHVs, because the norm was that women should not interact with men outside the family (Viswanathan *et al*, 2012).

Hill *et al*. (2008) suggested that having only male community based surveillance volunteers (CBSVs) working in maternal and neonatal health in Ghana might have limited the scope of the intervention, as families may not want the CBSVs to physically help putting babies in the skin to skin position or help with breastfeeding attachment (Hill *et al*., 2008). A family planning programme in Guinea recruited a female and male CBD per village. Only the female CBD, according to social custom, was allowed to approach women about family planning. However, male CBDs were able to engage with men and persuade them that family planning was also a men‘s concern (Diakite & Keita, 2009). In India, female CBDs working in promotion and distribution of contraceptives were limited in their interaction with men, which hampered their performance. This was a result of the norms of *purdah*, which strictly regulates interaction between men and women (Abbott & Luke, 2011). The same was found for women health volunteers in Iran.

Gender norms and roles affect expectations for income generation of men and women and can influence people to become or remain a CHV. In patriarchal settings, men are expected to be the family breadwinners. A study in Kenya, for example, showed that for this reason, it is difficult for male CHVs to provide voluntary services as it strained their ability to fulfill their financial responsibilities. As a result, they are forced to drop out to search for alternative sources of income. This cultural norm is not the only reason for the higher drop out of male CHVs as compared to female CHVs; it is also indicated that men lacked certain characteristics like instinct for tender care and tolerance that a sick person requires, whereas female CHVs believed it is their natural duty to care. Low levels of education and health knowledge in the population pose a challenge for CHVs in Kenya, who are perceived by some people in their communities to be ignorant and uncooperative (Takasugi & Lee, 2012). Community reproductive health workers in Uganda reported that misconceptions about contraception were the major factors hindering their work (Martinez *et al.*, 2008).

In Bangladesh’s BRAC programme CHVs “discontinued their work due to lack of time, lack of „profit“, and family's disapproval. The effects of the dropouts were decreased achievement of targets and a loss of money in the amount of $24 (U.S.) per dropout [CHV] for their training and supervision” (Khan *et al*., 1998). The turn-over of CHVs is high for a number of

reasons, the most important being poor selection and low remuneration". (Ofosu- Amaah, 1983) Another frequently cited reason was "movement upwards to higher positions in the health system, marriage or family matters, and finding better positions in other fields". Although volunteer programmes were cheaper in terms of salaries, "very high attrition rates mean not only that frequent training of new volunteers is required, but also that it is difficult to keep track of volunteers and to judge their usefulness" (Gilson *et al*., 1989; Battacharya *et.al*, 2001).

In Busia District, Kenya the dropout rate among CHVs after one year was 17.3%. The retention rate of CHVs was 30% after 3 years. The study findings indicated that CHVs were not being given any financial incentives. The CHVs reported that what would motivate them to continue working as CHVs included 75% the working materials (bags, IEC materials, notebooks, pens) and 65% financial incentives. There was an increase from their pre-recruitment expectations where only 43% of CHVs expected financial and material incentives. Financial incentives were linked to CHV retention (Oweke *et al.,* 2013). In a study done in Western Kenya, an attrition rate of 33% was observed among the CHVs. The reasons for dropout included: the cultural environment within which CHVs operated; lack of adequate support from area NGOs; poor selection criteria for CHVs; and power differences between NGO officials and CHVs which fostered lack of transparency in the NGOs' operations (Olang'o *et al.,* 2010).

Whether CHVs ought to be volunteers supported in kind by the community, or paid through community or government funds, has been much debated. Much of the literature tends to imply that volunteers are the ideal as it's assumed that there is a sufficient pool of willingness to conduct voluntary social services (WHO, 2007). However, the reality is different, in acknowledgement of the fact that as a rule CHVs are poor people, living in poor communities, who require income. Evidence shows that most programmes pay their CHVs either a salary or an honorarium. Even NGOs tend to find ways of financially rewarding their CHVs. (WHO, 2003). There are many advantages to providing CHVs with incentives. When agents are paid, rigorous supervision can be exercised, programs can be implemented rapidly, work routines can be standardized, and service quality can be maintained. Negative

reinforces such as firing or punishment can be used to encourage desired performance. Payment is also seen as helping to build some economic equity in a minimally literate or economically disadvantaged population. (Bhattacharyya *et. al*, 2001)

2.3.2 Types of Incentives that Contribute to Job Satisfaction among CHV

In Kenya the effectiveness of CORP-based programmes has been demonstrated in many districts throughout the country is it on pilot and small scale. However due to lack of incentives it is difficult to sustain the morale of CORPs and motivation for long. They have therefore fallen prey to agents whose agendas may not be consistent with those of either the community or the Ministry of Health, and who may thus disrupt operations towards set objectives. Incentives tend to be limited to uniforms, protective wear, drug kits, reimbursement of direct costs and periodic rewards for excellent performance. Whatever the incentives are, they seem to be best if handled by the local committees rather than being paid for centrally (MOH, 2006) .The CHVs have demonstrated that besides receiving various non-monetary incentives from the government and development partners, they would be satisfied if monetary incentives are provided to them (Oyore *et.al* ,2010).

In Thailand Village health volunteers are trained in primary health care aspect for 7 days and later on, specialized on-the-job training is provided for 15 days. The Village Health Volunteers (VHVs) are provided with simple non-prescription medicines that are effective in treating common illnesses. VHVs work under the direct supervision of a primary health care officer at the sub-district level, whereas the district health officer serves a second-level supervisor. There is no monetary incentive provided to the VHVs, except for free health services for themselves and their immediate family members. They also have special quotas for VHV families to apply to government nursing. As a part of non-monetary reward, VHVs receive public recognition from both the community as well as the formal health sector. VHVs are treated as part of the formal health system, and the district health services use them in the out-patient department at health centers, when there is a surge of work or a personnel shortage. (Zulfiqar *et.al*, 2010)

Community Health Worker programs have experienced challenges across countries which include remuneration, inadequate training, lack of well-structured supervision and inadequate support and appreciation by the communities they serve. High drop-out rates of CHVs has been one of the most frustrating elements of CHV programs across countries. High drop-out rates have been experienced in many programmes across countries with the drop-out rates of CHVs ranging between 3.2% and 77% (Bhattacharyya *et al*., 2001). High drop-out rates results in the loss of resources as the CHVs are already trained and some households may remain unattended before the replacement of the CHVs who remain inactive for a long period of time. The experiences regarding the remuneration of CHVs across countries vary with some recommending CHVs to be employees of the central government, others being part time employees receiving a stipend or receiving non-monetary incentives and some recommending a combination of monetary and non- monetary incentives while others recommend volunteers to be the ideal (WHO, 2007).

Community Health Workers support is very vital for the success of a CHV program. CHVs can be motivated through the use of monetary incentives and non- monetary incentives. CHV programs implemented across countries have different experiences with majority supporting the use of volunteers and the use of non-monetary incentives. CHVs require adequate training and refresher training coupled by adequate supportive supervision and feedback to enhance their performance. This would enhance their ability to achieve and exceed their performance indicators targets and increase their retention Small things can enhance the motivation of CHVs and assist them to gain a sense of pride in their work and improve their status in the community; this can include the issuing of badges for identification, certificates and recognizing their presence during community meetings. Provision of the CHV with kits and regular replenishment of supplies can help ensure that CHVs feel competent to do their jobs. Community support can also come in many forms, which include appreciating of their work by giving of tokens by community members after a good service is rendered to them. (WHO, 2007)

2.3.3 Incentive Structures Influencing the Performance of CHV

A review of incentives for CHVs found that they improve retention of workers (Bhattacharyya, Winch, LeBan & Tien, 2001). However, there are challenges as payments may be insufficient considering the level of effort required completing the work, or may not be paid regularly (Bhattacharyya, Winch, LeBan & Tien, 2001). In general, CHVs earn less than a living wage and may resort to other sources of generating income (Soeters & Griffiths, 2003; Dieleman, Cuong, Anh & Martineau, 2013). In addition, incentives can influence CHVs to focus on funded activities at the expense of unfunded activities (Bellows, Askew & Bellows, 2014) and can lead to mistrust in the communities as clients suspect CHVs push particular services rather than promoting what is best for the client (Amare, 2009). Incentives can also lead communities to view CHVs as government employees and either expect more services than what CHVs can provide or lose trust in them (Bhattacharyya, Winch, LeBan & Tien, 2001). It has also been demonstrated that non-financial factors, such as training and supervision, job aids, improved working conditions, and personal growth opportunities, are important in CHV programs and should be considered when designing incentive programs (Ndetei, Khasakhala & Omolo, 2008).

India's accredited social health activists (ASHAs) are female CHVs selected from the village to which they belong (one per 1,000 population) to perform the following services: (1) counseling pregnant women and facilitating access to antenatal care (ANC) and facility delivery; (2) distributing oral rehydration packets, iron folic acid tablets, chloroquine, oral contraceptive pills, and condoms; (3) facilitating access to immunizations for children; and (4) providing information on health and health practices. The ASHA is required to have completed 8 years of education (National Rural Health Mission, 2013) but in places with severe human resource shortages this requirement has been relaxed, and women with no education but with demonstrable leadership skills have been selected. The ASHA works under the direct supervision of the ASHA facilitator and auxiliary nurse midwife (ANM) based at the closest sub-center. The program, which started in 2005, envisioned the ASHA as the first port of call for any health-related needs of marginalized sections of the population, especially women and children, who find it difficult to access health services.

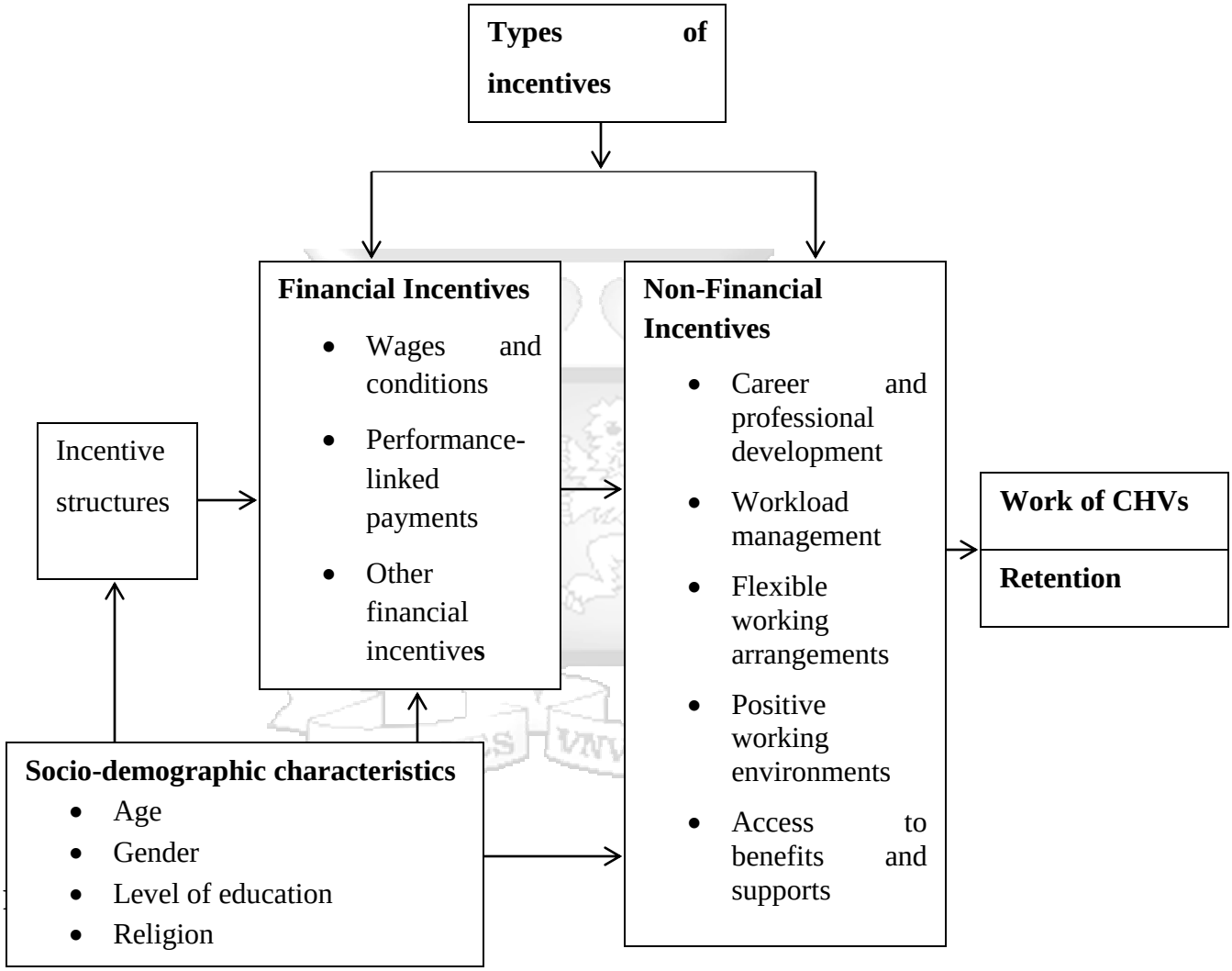
Accredited social health activists receive incentives for the activities they carry out which range from Rs 50 (US$0.83) for early registration of pregnancy to Rs 1000 (US$16.67) for facilitating permanent contraceptive methods. ASHAs are also paid for identifying and referring cases of leprosy, tuberculosis, and malaria, undertaking health surveys, and mobilizing village health meetings. Incentives are disbursed from the ASHA program of the National Health Mission (NHM) of the Government of India and are augmented by other funds and schemes. One such scheme is the Jannai Suraksha Yojana (JSY) under which pregnant women are paid for delivering at an institution, and ASHAs are paid for mobilizing the women for the same. A working paper prepared for the NHM Advisory Council in 2011 recommended providing higher incentives for ASHAs as the current amount of payment was not proportional to the work required (Bajpai & Dholakia, 2011). Revision of incentive rates on current and new activities has been proposed by NHM so that ASHAs receive at least Rs 1000 ($16.67) a month (Government of India, 2014). This has been implemented for certain routine procedures, such as attending monthly meetings and maintaining records.

ASHAs have expressed dissatisfaction with the incentives (Nandan *et al.,* 2009) and expectations of better or regular pay (Sharma, Webster & Bhattacharyya, 2014). However, one study found no association between the level of dissatisfaction on incentives and motivation among ASHAs, indicating that incentives do not always drive motivation and work performance among this cadre of workers (Gopala, Mohanty & Das, 2012).

There are state variations in the incentive amounts paid to ASHAs. Certain states, such as Kerala, Haryana, and West Bengal, have decided to provide monthly fixed remuneration to ASHAs from their own budgets (Business Standard, 2013). However, it is unclear whether this has been implemented. In Haryana, the state government has implemented a fixed monthly remuneration of Rs 500 translating to U$8.30 (National Health Mission, 2014), but anecdotal reports indicate that ASHAs have not been receiving this compensation. In Punjab, there is yet no fixed remuneration.

2.4 Conceptual Framework

The conceptual framework is a diagrammatic representation of the relationship between dependent and independent variables. The independent variables in this study incentive structures while dependent variable is work of CHVs and retention of CHVs



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology, study design, target population, sampling, data collection instruments and data analysis and presentation.

3.2 Research Design

The study adopted a descriptive research design to study the effects of incentive structures on work of community health workers in Kwale County, Kenya. According to Cooper and Schindler (2008), a descriptive study is concerned with finding out the what, where and how of a phenomenon. This design involves describing the characteristic, attitudes, possible behaviours and values of a particular phenomenon and therefore the researcher considers it most appropriate in establishing the effects of incentive structures on work of community health workers in Kwale County, Kenya.

3.3 Location of the study

Kwale County is a county in the former Coast Province of Kenya. Its capital is Kwale, although Ukunda is the largest town. Kwale county has an estimated population of 649,931(2009). Kwale is mainly an inland county, but it has coastline south of Mombasa. (Wikipedia)

The County has a total of three (3) government hospitals, eight health centers and sixty- four (64) dispensaries located in Msambweni, Kwale and Kinango constituencies. The doctor and nurse population ratio stands at 1: 76,741 and 1: 3,133 respectively. In addition, the county has two (2) private hospitals both located in Diani town. The average distance to the nearest health facility within the County is seven (7) kilometers as compared to the required maximum of three (3) kilometers. Health services delivery is poor mainly due inadequate health workers in the health facilities. Currently the 73 health facilities comprising of 3 district hospitals, 5 health centers and 65 dispensaries are manned by only 612 staff both medical and non-medical. Kwale county official website) This emphasizes the need for a functional level 1 services at the community level.

3.4 Target Population

The target population of the study were the CHVs in Kwale County. According to ministry of medical and public health report (2017) in Kwale County, there are 67 community health units. The study population comprised 6 CHVs from each CHU in Kwale County making a target population of 402 respondents.

3.5 Sample Size and Sampling Technique

Sampling is the process by which a relatively small number of individual, object or event is selected and analysed in order to find out something about the entire population from which it was selected. A sample is a small proportion of targeted population which is selected using some systematic format. The study used Fisher, Laing and Stoeckel (1983) formula to arrive at the sample size of the study. The selection formula was as follows:

$$n = Z^2 p.q \frac{N}{e^2(N-1) + Z^2 p.q}$$

Where n= the required sample size

P = proportion of population with the required characteristics of the study

Q = proportion of population without the required characteristics of the study (1-P)

N= Total population

e = accuracy level required. Standard error = 5%

Z= Z value at the level of confidence of 95% = 1.96

$$n=1.96^2 * 0.5 * 0.5\left(\frac{402}{0.05*0.05*401)+(1.96^2*0.5*0.5)}\right)$$

$$n=0.9604\left(\frac{402}{(1.0025)+(0.9604)}\right)$$

$n=\left(\frac{386.08}{(1.9629)}\right)$

n=196.688

n=197

The sample size of the study was 197 respondents.

3.6 Data Collection Instruments

Data was collected using questionnaires and an in-depth interview topic guide. The questionnaire was informed by the research objectives, and designed to collect quantitative data on characteristics and incentives for CHVs. The questionnaire had both open and close-ended questions. The close-ended questions provided more structured responses to facilitate quantitative analysis. The open-ended questions provided additional information that may not have been captured in the close-ended questions to enrich the study. In-depth interview guide was used collect qualitative data. In-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program, or situation. In-depth interviews are useful when you want detailed information about a person's thoughts and behaviors or want to explore new issues in depth. In-depth interviews provide much more detailed information than what is available through other data collection methods.

3.7 Data Collection Procedure

The questionnaires were administered by the researcher; the respondents were given one day to fill in the questionnaires before they were collected. This ensured that the respondents had enough time to fill in the questionnaires. The in-depth interview was conducted by the researcher with the help of three research assistants, who were trained on conducting qualitative interviews.

3.8 Data Analysis and Presentation

Quantitative data collected was analyzed using SPSS (Version, 23), and results presented through percentages, means, standard deviations and frequencies. The information was displayed by use of bar charts, graphs and pie charts and in prose-form. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of SPSS (Version 23) to communicate research findings.

Content analysis was used to arrange qualitative data into emergent themes, and analysis subsequently done through reading the interview notes and coding arising issues based on the themes that address the fourth research objective.

3.9 Ethical Considerations

Integrity and honesty was the guiding values of the researcher and the team in the field and throughout the data collection process from the beginning to the end. The researcher exercised utmost caution while administering the data collection instruments to the respondents to ensure their rights and privacy is upheld. Prior to actual administration of the instruments, an introduction on the aim and the purpose of the study was made to the respondents. The study also sought the consent of the respondents before they were provided with all the requirements of the study. To ensure confidentiality, the respondents' names did not appear on the questionnaire. Furthermore, no respondent was coerced into the exercise at any level. Staff participating in the study withdrew at any time. The study findings were presented without any manipulation or influence by the researcher in any way. The study was conducted in adherence with the approved proposal and all the IRB which have reviewed this proposal.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter discusses the data analysis, interpretation, presentation and discussion of the findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study.

4.1.1 Response Rate

The study sampled included 197 CHVs in Kwale County. Out of 197 respondents 185 filled and returned the questionnaire, forming a response rate of 94%. This is as shown in Table 4.1

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	185	94
Unreturned	12	6
Total	197	100

4.2 Characteristics of CHVs

This section discusses the characteristics of CHVs in response to specific objective one of the study.

4.2.1 Gender of the Respondents

The respondents were requested to indicate their gender (see figure 4.1).

Figure 4.1: Gender of Respondents

From the findings 54% of the respondents were female while 46% were male. This implies that both the male and the female can work as CHVs. Though, most CHVs are female.

4.2.2 Age of respondents

The respondents were asked to indicate their age. Findings are shown in table 4.2

Table 4.2: Age of respondents

Category	Frequency	Percent
Below 20 years	6	3
20-29 Years	35	19
30-39 Years	55	30
40-49 Years	69	37
50-59 Years	14	8
60 + Years	6	3
Total	**185**	**100**

Overall, 37% of the respondents were aged between 40-49 years, 30% were aged between 30-39 years, 19% were aged between 20-29 years, and 8% were aged between 50-59 years

while 3% were below 20 years and 60 years and above. This shows individuals of different age groups are accepted to work as CHVs.

4.2.3 Marital status of the Respondents

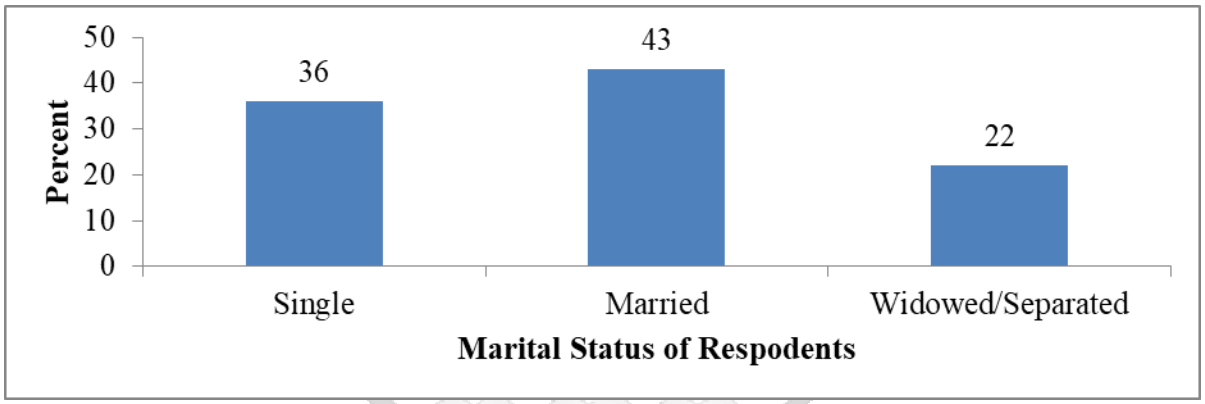


Figure 4.2: Marital Status of respondents

Overall, 43% of the respondents were married, 36% single, and 22% widowed or separated. This implies that individuals of various marital status can offer CHV services.

4.2.4 Level of education

The respondents were asked to indicate their level of education. The findings are as shown in figure 4.3

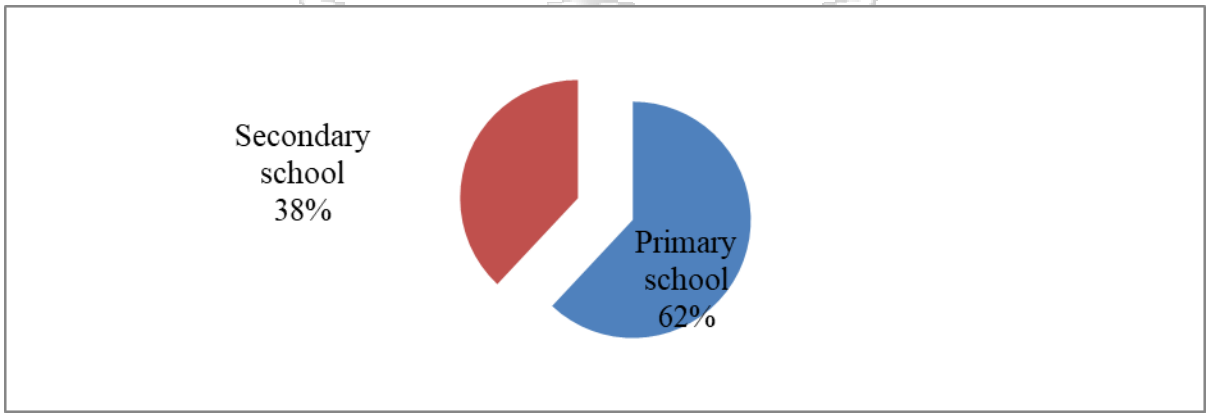


Figure 4.3: Level of Education

From the findings, 62% of the respondents which represents most of the respondents had primary school education. This shows that individuals with varied education level can work as CHVs.

4.2.5 Occupation of the Respondents

The respondents were asked to indicate their occupation (see table 4.3).

Table 4.3: Occupation of the Respondents

Category	Frequency	Percent
None	35	19
Business	41	22
Formal employment	24	13
Farmer (Peasant)	54	29
Farmer (Large scale)	31	17
Total	**185**	**100**

Roughly 29% of the respondents were peasant farmers and 22% business people. Overall, 19% said they had no particular occupation. This shows that individuals with different occupation level can work as CHVs.

4.2.6 Religion

The respondents were asked to indicate their religion. The findings are as shown in figure 4.4

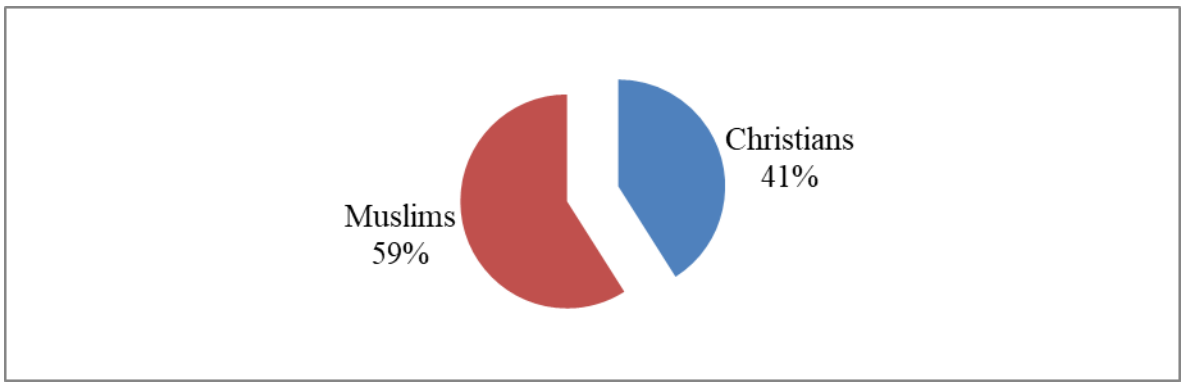


Figure 4.4: Religion

Overall 59% of the respondents were Muslims and 41% were Christians. This shows that individuals from different religions can work as CHVs.

The fact is that while there are variations in the trends CHVs can be male or female, be literate or be illiterate or be old or young in age, be married or single, be employed or unemployed or be Muslim or Christian. The most important thing is that they have to meet the expectation of the communities and be acceptable in relation to the culture of the community.

4.3 Incentives considered most important by CHVs

For specific objective two, the respondents were asked to indicate their level of agreement with the following statements about incentives that CHVs consider most important in determining their level of satisfaction with their work. Five statements were given to each respondent, and their level of disagreement or agreement reported. A five point likert scale was used (1- strongly disagree, 2-disagree, 3-moderate, 4-agree, 5- strongly agree).

Table 4.4: Incentives CHVs Considered Important

Statements	**1**	**2**	**3**	**3**	**5**
I prefer cash bonuses	5.9%	7.6%	10.8%	47.0%	28.6%
I feel good when my work is appreciated	6.5%	8.6%	10.3%	41.6%	33.0%
Training is the best incentive that I need	5.4%	8.1%	8.6%	48.6%	29.2%
Am of the opinion that we share profit gained from work	8.1%	10.3%	13.5%	35.1%	33.0%
I am satisfied with my work whether given incentives or not	7.0%	9.2%	11.4%	37.8%	34.6%

Overall, most respondents agreed that as shown by 47.0% prefer cash bonuses, 41.6% indicated that they felt good when their work is appreciated, 48.6% indicated that training is the best incentive that they need, 35.1% suggested that they should share profit gained from

work and 37.8% were satisfied with their work whether they were provided with incentives or not.

4.4 Relationship between CHV Characteristics and Incentive Preference

For specific objective three, respondents were asked to indicate their level of agreement with the following statements about CHV characteristics and incentive preference

Table 4.5: CHV Characteristics and Incentive Preference

Statements	1	2	3	3	5
CHVs with families prefer material compensation	7.0%	8.6%	13.0%	36.8%	35.1%
Aged CHVs prefer preferential access to health care or microcredit	8.1%	8.1%	9.7%	43.2%	30.8%
Widowed or separated CHVs prefer financial incentives	7.0%	6.5%	8.1%	45.9%	32.4%
Single CHVs prefer career and professional development	5.9%	9.2%	16.2%	39.5%	29.2%
CHVs are contented with Flexible working arrangements	7.6%	9.7%	10.3%	42.2%	30.3%
Positive working environments have a positive influence on CHVs performance	7.0%	8.6%	13.0%	36.8%	35.1%
CHVs with education trainings prefer Performance-linked payments	8.1%	8.1%	9.7%	43.2%	30.8%

Overall, 36.8% of the respondents agreed that CHVs with families prefer material compensation, 43.2% agreed that aged CHVs prefer preferential access to health care or microcredit, 45.9% agreed that widowed or separated CHVs prefer financial incentives, 39.5% agreed that single CHVs prefer career and professional development, 42.2% agreed that CHVs are contented with Flexible working arrangements, 36.8% agreed that positive working environments have a positive influence on CHVs performance and 43.2% agreed that CHVs with education trainings prefer Performance-linked payments.

4.4.1 Reasons for becoming a CHV

The respondents were asked to indicate why they became a CHV (table 4.6).

Table 4.6: Reasons for becoming A CHV

Category	Frequency	Percent
Felt the need to assist the community	63	34
Encouragement by the community	39	21
Encouragement by family members	20	11
Hope for recognition in the community	11	6
Hope for payment of a salary, stipend or in kind tokens	14	8
Hope for advancement of career in the medical field	38	21
Total	**185**	**100**

From the findings 34 of the respondents indicated that they became CHVs because they felt the need to assist the community, 21% indicated that they became CHVs because of encouragement by the community and hope for advancement of career in the medical field, 11% joined because of the encouragement by family members, 8% became CHV because of hope for payment of a salary, stipend or in-kind tokens and 6% became CHV because of hope for recognition in the community.

4.4.2 Rating CHV Job Satisfaction

The respondents were asked on a scale of 1 to 5 to rate their job satisfaction as a CHV in relation to their initial expectation. The results are a shown in table 4.7

Table 4.7: Rating Job Satisfaction

Category	Frequency	Percent
Totally unsatisfied	6	3
Not satisfied	11	6
Fairly satisfied	20	11
Satisfied	84	45
Very satisfied	64	35
Total	**185**	**100**

According to the findings 45% of the respondents indicated that they were satisfied in relation to their initial expectation, 35% indicted that they were very satisfied in relation to

their initial expectation, 11% indicated that they were fairly satisfied in relation to their initial expectation, 6% indicated that they were not satisfied in relation to their initial expectation while 3% indicated that they were totally unsatisfied in relation to their initial expectation.

4.4.3 Constraints Faced by CHVs

The respondents were asked to indicate the major constraints they face as a CHV. The findings are as shown in Table 4.8

Table 4.8: Constraints faced by CHVs

Category	Frequency	Percent
Lack of supplies	47	25
Lack of transport	30	16
Lack of support from the community	35	19
Lack of Supervisors support	40	22
Financial constraints	33	18
Total	**185**	**100**

From the findings, 25% of the respondents indicated that the major constraint they face is lack of supplies, 22% indicated that the major constraint they face is lack of supervisor's support, 19% indicated that the major constraint they face is lack of support from the community, 18% indicated that the major constraint they face financial constraints and 16% indicated that the major constraint they face is lack of transport.

4.4.5 Reasons for Quitting CHV Work

The respondents were asked to give their opinions about the main reason that would make them to stop being an active CHV. The findings are as shown in Table 4.9

Table 4.9: Reason for stop being an active CHV

Category	Frequency	Percent
Discouragement by family members	22	12
Inadequate compensation for work done	14	8

Inadequate appreciation by the community	16	9
Inadequate support and supervision by CHV	40	22
Uncooperative CHC members	38	21
Financial constraints	25	14
Inadequate training	30	16
Total	**185**	**100**

From the finding 22% of the respondents indicated that they can stop being active CHV because of inadequate support and supervision by CHV, 21% respondents indicated that they can stop being active CHV because of Uncooperative CHC members, 16% indicated that they can stop being active CHV because of Inadequate training, 14% indicated that they can stop being active CHV because of financial constraints, 12% respondents indicated that they can stop being active CHV because of discouragement by family members, 9% indicated that they can stop being active CHV because of inadequate appreciation by the community and 7% indicated that they can stop being active CHV because of inadequate compensation for work done.

4.5 In-Depth Reasons Underlying the CHV Choice of Incentives

Objective four sought to explore in-depth the responses and choices made by the CHVs using qualitative interviewing.

When CHVs were asked whether personal/family attributes influence their work, and if so, to mention some, they identified marriage as an important factor.

> *"Yes, families have to be given priority which means at times work has to wait or suffer." (CHV 02)*

On the effectiveness of governance of health service delivery at level one, the CHVs indicated that inadequacy in supervision was a barrier.

> *"The structures are in place but supervision is not so strong unless partner supported. But the Community health strategy focal person and public health have been*

encouraging us and setting up barazas to get us to work together with facilities and CHC"(CHV03)

About community factors which influence Performance, some CHVs mentioned cultures-norms traditions, beliefs and security as factors influencing their performance.

"Not really but for family planning most husbands do not want their wives getting it." (CHV 01)

The CHV were asked to comment on the support, supervision, training, supplies and financing they receive as CHVs, they indicated that they need more supplies and financing.

"We need the medicine tool kits and a monthly stipend or transport means like a motorcycle" (CHV03)

From the interview results of public health department in the sub-County, the following were the findings;

The public health officers were asked to indicate personal characteristics associated with Performance CHVs in Kwale County, they mentioned age, gender and marital status affects their performance.

"Younger CHVs perform better; female CHVs are better received in some areas" (PHO 01)

"Married CHVs are seen as role models to be emulated in the community" (PHO 02)

While others thought Divorced women performed better since they were only answerable to themselves and did not need permission to perform their duties.

"Divorced woman will not be trusted by the wives to talk to the men in the community."

(PHO 03)

On the health systems factors that influence Performance of CHVs in Kwale County, the respondents indicated that leadership, Policy on payment of CHVs, Partners support influence performance.

> *"Public health officers together with the chosen Community strategy focal persons are committed to ensuring that Community health functions at its best in Kwale County. Lack of tool kits to enable the CHVs better perform their function in Msambweni but in Lungalunga the partner WOFAK supported the CHVs with tool kits. The Policy on payment of CHVs was passed but there is reluctance to affecting the policy claiming a lot of money will be spent. Partners support but different partners have their own way of doing things, some partnerships are difficult because they don't offer as much support as they could in terms of the stipends for CHVs plus there is delayed disbursement of funds killing the morale of the CHVs. Partners supporting community health in Kwale include; 4Kenya, Base Titanium and Scope. WOFAK and Agakhan have closed their programme." (PHO 01, 02, 03,04,05)*

On community factors associated with Performance of CHVs in Kwale County, it was indicated that most CHVs work purely as volunteers in the county.

> *"CHVs work purely as CHVs in the county" (PHO 06)*

When asked about those involved in training of CHVs, Probe for number belonging to other partners, they indicated that it was supported by partners,

> *"All Trainings in Kwale County are partner supported, with some taking 5 days instead of the recommended 10 days. The trainings themselves are done by public health officers working in the county so it's collaboration between the two" (PHO 01)*

About subsequent trainings done on CHVs, the respondents indicated that they were provided with training.

"Yes, capacity building that is also partner supported the recent one being, on Nutrition and one on Disease surveillance" (PHO 02)

The respondents also indicated that they received non- monetary incentives.

"Bicycles, mobile phones, medicine kits, name tags, t-shirts, certificates and capacity building" (PHO 05)

When the PHOs were asked about the adequacy of support given to them by the MOH and the gaps which exist, they mentioned that they were not provided with enough support.

"No, they only support with the bicycles. Community units that have no partner support are not trained yet and most CHVs do not have medicine kits" (PHO 08)

About if there a difference in performance between the CHVs who are receiving monetary incentives and their counterparts who are not receiving monetary incentives, it was indicated that there is a difference in performance;

"Yes, those who receive monetary incentives are motivated to perform their work and it can be seen by the rise in the indicators they are responsible for" (PHO 03)

The report on whether the introduction of monetary incentives will assist in improving the CHVs performance revealed that the incentives will improve performance.

"Yes, it will that way their minds will be focused on the work to be done. The same should be extended to CHV at least in terms of transport for the meetings and supervision which is essential to CHV performance." (PHO 05)

On whether the community appreciates CHVs in the County, the respondents indicated that the community appreciates their work.

"Very much because they are members of the same community, some CHVs offer them transport to the facilities or even accompany them to the hospital, they are also recognized as authorities for health matters in the community." (PHO 04)

The main challenges that CHVs face in the County were lack of motivation and recognition in the facilities.

"The health workers consider them as only working for the public health department."

(PHO 05)

On whether the CHVs made any improvements in the area since the rolling out of the programme, the CHV mentioned that there have been great improvements.

"Yes, hospital deliveries are their biggest improvement, defaulter tracing for the TB, HIV and immunization programmes, referrals to health facilities, growth monitoring and health education in both the facilities and community." (PHO 02)

The health department recommendations regarding the CHV programme and the improving of services offered by the CHVs were as follows;

"Monthly stipends should be to all CHVs, Recognition of the CHVs in the facilities and hospitals as important members of the health team, when they arrive in facilities the health worker should give them a priority and the policy on payment of CHVs should be passed that would be a great boost to community health performance."

(PHO 02, 03,05)

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.

5.1 Introduction

This section is a discussion of the study findings. It contains a summary of major findings, conclusions and recommendations. The objective of this study was to examine the effects of incentive structures on performance of community health workers in Kwale County, Kenya.

5.2 Summary of Findings

The study found that training and supervision positively affected the performance. The respondents also indicated that they prefer monetary incentives, though some of the CHV did not receive any compensation. The community factors which influenced Performance included norms traditions, beliefs and security, whereas, support, supervision, training, supplies and financing received by CHVs, included the medicine tool kits, monthly stipend and transport means such as motorcycle. The study also established that the demographic characteristics which influenced performance of CHV were age and marital status. The study found that the performance of the CHV who receive monetary incentives was different from those receiving non- monetary incentives. CHV who received monetary incentives were motivated to perform their work. Further the introduction of monetary incentives assisted in improving the CHVs performance, as their minds were highly focused on the work to be done.

The study found that the community appreciated CHVs. They were highly appreciated because they were members of the same community and they offer the sick transport to the facilities or even accompany them to the hospital, and they are recognized as authorities in health matters in the community. The study further revealed that the main challenges that CHVs face in the County include lack of motivation and recognition in the facilities by the health workers who consider them as only working for the public health Department.

5.3 Discussion of Findings

The study found that training and supervision positively affected the performance of CHVs this is similar to a study done in Madagascar. Supervision was also found to increase the credibility of the CHVs in the community and made them feel like part of the team. The length of the trainings however varies depending on the partner support, this is one area that should be MOH driven to ensure uniformity of results. The MOH should compel partners to stick to the 10 days of training prescribed in the community health strategy but most partners insist on fewer days siting value for money, further studies on the length of trainings and their effectiveness is needed to inform this decision.

The study also found that monetary incentives were considered very important by CHVs, this was however not standardized and for those who received little to no payment it acted as a demotivation. Two forms of remunerations for community health workers are used worldwide there is the community volunteer who is less trained and only receives incentives and the community health worker who receives more training and is paid monthly or a combination of both. At the moment Kenya is using the volunteer method which has the risk of volunteers focusing on those programmes or indicators with incentives attached, this is similar to the study done on ASHAs in India however the proposed policy to pay them monthly and have them as community health workers has its own challenges; the choice of community health workers, working only as far as their job descriptions and not going above and beyond among others.

The study found that community factors which influence Performance included norms traditions, beliefs and security. Therefore, the customs of community influence CHV performance. This is similar to Diakite and Keita (2009) who noted that a family planning programme in Guinea recruited a female and male CBD per village. Only the female CBD, according to social custom, was allowed to approach women about family planning. However, male CBDs were able to engage with men and persuade them that family planning was also a man‘s concern. In India, female CBDs working in promotion and distribution of contraceptives were limited in their interaction with men, which hampered their performance. This was a result of the norms of *purdah*, which strictly regulates interaction between men

and women (Abbott & Luke, 2011). The same was found for women health volunteers in Iran.

The study revealed that the support, supervision, training, supplies and financing received by CHVs, included the medicine tool kits, monthly stipend and transport means such as motorcycle. This shows that CHVs receive support. This is similar to a report by WHO (2017) which stated that CHV support is very vital for the success of a CHV program. CHVs can be motivated through the use of monetary incentives and non- monetary incentives. CHV programs implemented across countries have different experiences with majority supporting the use of volunteers and the use of non-monetary incentives. CHVs require adequate training and refresher training coupled by adequate supportive supervision and feedback to enhance their performance.

The study also revealed that personal characteristics associated with Performance CHVs in Kwale County, included; age, it was noted that the younger CHVs perform better The age bracket of a majority of the CHVs of 40 to 49 years indicated the need of training younger Chvs to take over from the aging ones., about gender the study established that female CHVs are better received in some areas but this is because most interventions at the community level focused on women and children. with the introduction of male involvement in HIV treatment and in family planning a mix of both genders would be appropriate to achieve expected results. Finally, on marital status the study revealed that married CHVs are seen as role models to be emulated in the community, while others think that divorced women perform better since they are only answerable to themselves and do not require permission to perform their duties. This concurs with Lehmann and Sanders (2007) who stated that the gender of the CHVs varies with the females dominating in many programmes. This has been discussed at different context like in Somali; the CHV programme which was dominated by males became problematic during implementation as the male CHVs had little contact with females in the community (Bentley, 1989). In Peru, the husbands resisted their wives been selected as CHVs as the community associates leadership with the male gender and therefore women could not enroll in the CHV programme (Brown, Malca, Zumaran & Miranda, 2006).

It was mentioned that a divorced woman will not be trusted by the wives to talk to the men in the community.

The study found that the performance of the CHV who receive monetary incentives was different from those receiving non- monetary incentives. CHV who receive monetary incentives are motivated to perform their work. Further the introduction of monetary incentives will assist in improving the CHVs performance, as their minds will be focused on the work to be done. The same should be extended to CHAs at least in terms of transport for the meetings and supervision which is essential to CHV performance. This is similar to ASHAs, the accredited social health activists receive incentives for the activities they carry out which range from Rs 50 (US$0.83) for early registration of pregnancy to Rs 1000 (US$16.67) for facilitating permanent contraceptive methods. ASHAs have expressed dissatisfaction with the incentives (Nandan *et al.,* 2009) and expectations of better or regular pay (Sharma, Webster & Bhattacharyya, 2014). However, one study found no association between the level of dissatisfaction on incentives and motivation among ASHAs, indicating that incentives do not always drive motivation and work performance among this cadre of workers (Gopala, Mohanty & Das, 2012).

The study found that the community appreciates CHVs. They are highly appreciated because they are members of the same community and they also offer the sick transport to the facilities or even accompany them to the hospital, and they are recognized as authorities in health matters in the community. This is similar to a report by WHO (2007) which stated that community support can come in many forms, which include appreciating of CHV work by giving of tokens by community members after a good service is rendered to them.

The study further revealed that the main challenges that CHVs face in the County include lack of motivation and recognition in the facilities by the health workers who consider them as only working for the public health Department. This concur with WHO (2007) argued that CHVs require adequate training and refresher training coupled by adequate supportive supervision and feedback to enhance their performance. This would enhance their ability to achieve and exceed their performance indicators targets and increase their retention small things can enhance the motivation of CHVs and assist them to gain a sense of pride in their

work and improve their status in the community; this can include the issuing of badges for identification, certificates and recognizing their presence during community meetings. Provision of the CHV with kits and regular replenishment of supplies can help ensure that CHVs feel competent to do their jobs.

Finally, in regard to CHV programme and improving of services offered by the CHVs it was recommended that; the CHV should be given monthly stipends, the CHV should be recognized in the facilities and hospital as important members of the health team and the policy on payment of CHVs should be passed which would help in boosting the community health performance. Non-financial factors, such as training and supervision, job aids, improved working conditions, and personal growth opportunities, are important in CHV programs and should be considered when designing incentive programs (Ndetei, Khasakhala & Omolo, 2008).

Countries that have successfully managed to begin the long process of addressing their rural health needs have done so with high levels of government commitment and through a process of ongoing action, reflection and rethinking at every level. This is particularly evident in Ethiopia and Iran but is also seen in Nepal (Glenton, Colvin, Carlsen, Swartz, Lewin, Noyes & Rashidian, 2013). Whether paid or voluntary, the role of being a rural-based CHV is a demanding one, and selecting the right candidate who is community minded, resilient, can withstand challenges in the field and able to solve problems innovatively will be important whether paid or not. Presenting the programme in a way that builds the individual's altruistic capital may be important for planners to consider. Equally, having a regular flow of funds to remunerate CHVs is important to avoid demotivation.

While CHV programmes worldwide have taken a variety of approaches to payment, many have operated with relatively low budgets and engaged volunteers. Lack of remuneration has been an often-stated cause of poor retention of CHWs (Bhattacharyya, Winch, Leban & Tien, 2001). While this may be a contributing factor, the desire to give of one's time is determined by a number of issues. Volunteers in wealthier countries generally have other incomes, such as pensions, spousal income or part-time employment, and find it a meaningful way to occupy their time or make a contribution to society. In lower socio-economic environments –

despite low-education levels – building capacity to be able to contribute to one's community is an important consideration. A recent study in Uganda showed that CHVs while wishing to be remunerated felt that issues such as community recognition and development of new skills and knowledge (Ruiter & De Graf, 2006) outweighed the disadvantage of a lack of funding. Religious beliefs and spirituality seem important in all contexts (Ruiter & De Graf, 2006). The time one has to volunteer is, however, generally determined by one's income source. A female farmer in Africa, for example, will have limited time to volunteer compared to a pensioner in a higher income country.

Cherrington *et al.* (2010) note that there are those who feel that CHVs deserve to be paid and those who argue that receiving a wage is contrary to the very nature of lay advising but that there are legitimate arguments for utilizing both the paid and volunteer models, depending on the context, community needs and programme goals. To avoid the loss of the important characteristics that volunteers bring, it may be necessary to redefine what a "CHV" is, as some take on higher levels of training and a greatly expanded role in existing health systems.

5.4 Conclusions and Recommendations

5.4.1 Conclusions

The incentives provided to community health workers highly influence their performance. They are usually provided with both financial and non-financial incentives. Socio-demographic characteristics greatly affect the CHVs choice of incentives for example the young ones who are more educated could easily benefit from continued capacity building and would not be affected by the developments in technology in terms of data collection using smart phones and even tablets. They could also be depended on to treat small ailment with proper training. This was exhibited in Lungalunga,(sub-county in kwale) where WOFAK offered the CHVs medicine kits enabling them to test and treat for malaria. Incentives considered important were a mix of a monthly stipend, training, recognition from the community and health workers, and supervision. The study found that a mix of incentives was important. The qualitative interviews observed that if the incentives are not standardized, the performance suffers, because CHVs compare the incentives they receive. It also emerged

that monetary incentives were not very effective in the absence of supportive supervision by public health officers.

The study concludes that various demographic charateristics of CHVs affect their work. The CHV may have positive or negative effects on their work. The study concluded that both financial and non-financial incentives have a positive influence on the work of CHVs. The types of incentives provided influences the work of CHVs. If the incentives provided are prefered by the CHVs then they have a positive effect on their work. The incentive structures have a positive influence on performance of CHVs.

5.4.2 Recommendations

There is a need for government and partners to explore sustainable financial incentives for CHVs: allowances, reimbursements among others. Effecting of the policy requiring payment of CHVs would greatly assist in this. The CHVs in Kwale are advanced in age, a focus on coaching of younger CHVs would require them assurance of financial stability but it would come with the added advantage of an easily trained group of people. This has been the case in other countries such as Ethiopia where community health workers strategy has successfully been implemented. Suggestions from FGDs with CHVs averaged to a monthly allowance of about Kshs.3000. There is a need to explore non-financial incentives for CHVs that are performance based e.g. exchange tours, badges, recommendations letters, and certificates of attendance. This model has been effective in countries like India.

There is a need for production and dissemination of key health information regarding the Community health strategy and targeting high impact interventions. These should include effective communication mechanisms through radios, television. There should be improved staffing of the facilities where community units are linked in order to strengthen referrals and linkage systems especially taking into consideration the spatial distribution and population density. This may improve support supervision of CHVs during their community work.

5.4.3 Areas for Further Research

The study noted that CHVs would be motivated if they received incentives both financial and non-financial. It would be helpful to undertake a research to investigate sustainable

incentives that would motivate CHVs the most. Further research should be done to investigate the community factors that affect the Community Health volunteer programmes. This would assist policy makers in ensuring that the CHVs improve their performance and are retained in the program.

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APPENDICES

Appendix I: Questionnaire

Questionnaire number…….

Community Unit……..

Name of Village…….

SECTION A: SOCIO-DEMOGRAPHIC DATA

1 Sex:

Male ( ) Female ( )

2 Age

Below 20 years ( )

20-29 Years ( )

30-39 Years ( )

40-49 Years ( )

50-59 Years ( )

60 + Years ( )

3 Marital status

Single ( )

Married ( )

Widowed/Separated ( )

4 Level of education

Primary School ( )

Secondary school ( )

Post-secondary School ( )

5 Occupation

None ( )

Business ( )

Formal employment ( )

Farmer (Peasant) ( )

Farmer (Large scale) ( )

Other specify……..

6 Religion

Christian ( )

Muslim ( )

Hindu ( )

Others specify……

Section B: Incentives CHVs Consider Most Important

7 Indicate your level of agreement with the following statements about incentives that CHVs consider most important in determining their level of satisfaction with their work. Scale 1- strongly disagree, 2-disagree, 3-moderate, 4-agree, 5- strongly agree

Statements	**1**	**2**	**3**	**3**	**5**
I prefer cash bonuses					
I feel good when my work is appreciated					
Training is the best incentive that I need					
Am of the opinion that we share profit gained from work					

I am satisfied with my work whether given incentives or not					

Section C: CHV Characteristics

8 Indicate your level of agreement with the following statements about CHV characteristics and Incentive preference

	1	**2**	**3**	**3**	**5**
CHVs with families prefer material compensation					
Aged CHVs prefer preferential access to health care or microcredit					
Widowed or separated CHVs prefer financial incentives					
Single CHVs prefer career and professional development					
CHVs are contented with Flexible working arrangements					
Positive working environments have a positive influence on CHVs performance					
CHVs with education trainings prefer Performance-linked payments					

9 Why did you become a CHV?

Felt the need to assist the community ( )

Encouragement by the community ( )

Encouragement by family members ( )

Hope for recognition in the community ( )

Hope for payment of a salary, stipend or in kind tokens ( )

Hope for advancement of career in the medical field ( )

Others specify……

10 On a scale of 1 to 5 how would you rate your job satisfaction as a CHV in relation to your initial expectation :

1 ( )

2 ( )

3 ( )

4 ( )

5 ( )

[1.Totally unsatisfied, 2. Not satisfied, 3.Fairly satisfied, 4. Satisfied, 5. Very satisfied]

11 What major constraints do you face as a CHV?

Lack of supplies ( )

Lack of transport ( )

Lack of support from the community ( )

Lack of Supervisors support ( )

Financial constraints ( )

12 What in your opinion is the main reason that would make you to stop being an active CHV?

Discouragement by family members ( )

Inadequate compensation for work done ( )

Inadequate appreciation by the community ( )

Inadequate support and supervision by CHV ( )

Uncooperative CHC members ( )

Financial constraints ( )

Inadequate training ( )

Others Specify…….

Appendix II: In-Depth Interview Guide for CHVs

1. Are there personal/family attributes which influence your work? e.g. marriage
2. How effective is governance of Health service delivery at level one?
3. Are there Community factors which influence your Performance (cultures- norms traditions, beliefs and security)?
4. Kindly comment on the support, supervision, training, supplies and financing your receive as CHVs
5. Any others issues?

Thank you for your participation

Appendix III: In-depth interview topic guide for public health officers.

1. Any personal characteristics associated with Performance CHVs in Kwale County?
2. Any health systems factors that influence Performance of CHVs in Kwale County?
3. What is the community factors associated with Performance of CHVs in Kwale County?
4. Who is involved in training of CHVs? Probe for number belonging to other partners
5. Are there subsequent trainings done on CHVs? Explain
6. What non- monetary incentives are the CHVs receiving in your County?
7. Is the support given to CHVs by the MOH adequate and which gaps exist?
8. Is there a difference in performance between the CHVs who are receiving monetary incentives and their counterparts who are not receiving monetary incentives?
9. Do you think the introduction of monetary incentives will assist in improving the CHVs performance?
10. Does the community appreciate CHVs in the District, explain
11. What are the main challenges that CHVs face in the
12. Have the CHVs made any improvements in the area since the rolling out of the programme? Explain
13. Do you have any recommendations regarding the CHV programme and the improving of services offered by the CHVs?

Thank You