

**ASSESSMENT OF FACTORS INFLUENCING PERFORMANCE OF HEALTH WORKERS IN HEALTH CARE DELIVERY IN MITYANA DISTRICT,
UGANDA**

A Postgraduate research dissertation submitted to the Institute of Health Policy and Management in partial fulfillment of the requirements for the award of Masters in Public Health of International Health Sciences University

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DECLARATION

I, Nshimye Angela, hereby declare that this research is my own original work and has never been submitted by any other person to this or any other University or institution for any academic award.

Signature.....Date.....

DEDICATION

I dedicate this piece of work to all the people who helped me throughout my study time especially my parents.

APPROVAL

I certify that this dissertation on Factors Influencing Performance of Community Health Workers has been composed by Nshimye Angella under my supervision and examination for the award of Masters of Public Health of International Health Sciences University.

Name of Supervisor.....

Date

Signature

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LIST OF ACRONYMS

- AMREF - African Medical and Research Foundation
- CBID - Canadian Bahai International Development Services
- CHW - Community Health Workers
- CIDA - Canadian International Development Agency
- CPHA - Canadian Public Health Association
- DANIDA - Danish International Agency
- ICOB I - Integrated Community Based Initiative
- PHC - Primary Health Care
- RDT S - Reproductive and Development Toxicology Sub Committee
- UBID - Uganda Bahai Institute for Development
- UNDP - United Nations Development Programme
- USAID - United States Agency for International Development
- VHC - Village Health Communities
- VHT - Village Health Teams
- WHO - World Health Organisation

ABSTRACT

Community Health Workers are frontline public health workers who are trusted members of and/or have an unusually close understanding of the community they serve. This trusting relationship enables CHWs to serve as an intermediary between health services and the community to facilitate access to services and improve the quality and cultural competence of health care service delivery.

The study examined the different factors that influence performance of CHWs activities in health care delivery in Mityana District. The main objective was to investigate factors affecting performance of community health workers in health care delivery in Mityana District. The specific objectives were to; establish the extent to which availability of supplies influenced performance of CHW; to identify social -demographic factors influencing performance of CHWs, determine the extent to which motivation/incentive factors influence performance of CHWs and; examine the extent to which support supervision influenced performance of CHWs in health care delivery. The study was conducted in Mityana District in the three Health Sub Districts; Mityana North, Mityana South and Busunju. It was a descriptive cross sectional study involving both quantitative and qualitative methods. The quantitative sampling size was 121. Participation was stratified by sex and similar socio-demographic background. Pre-tested, standard questionnaires with close ended questions were administered to the CHWs and community members by the researcher and research assistants. All quantitative data from the field was edited, coded and entered in a computer using Statistical Package for Social Scientists (SPSS version 10.0). Data was cleaned before analysis. Key findings on the factors influencing performance of community health workers were mainly availability of supplies, support supervision and incentives which had an impact on performance of CHWs. Availability of supplies positively influenced performance, incentives acted as motivation factor and support supervision promoted to sustainability of CHWs activities. Major recommendation to improve performance of community health workers included government support, capacity building for CHWs, provision of adequate supplies, need of facilitation in terms of transport, having a national uniform for CHW and recognition by giving certificates of merit and excellence in work related performances by CHWs.

OPERATIONAL DEFINITIONS

BAREFOOT DOCTORS: These are lay health care workers trained in activities such as first aid, dispensing of drugs and preventive medicine. They have basic training and work in rural areas.

COMMUNITY HEALTH AIDES: These are paraprofessionals who assist in the treatment or support of patients (in their residential setting) within the patient community environment.

COMMUNITY HEALTH WORKERS: These are generally local inhabitants given a limited amount of training to provide specific basic health and nutrition services to mothers of the surrounding communities. They are expected to remain in their home village or neighborhood and usually only work on part-time basis as health workers.

The WHO (1989) indicates that “community health worker” (CHW) embraces a variety of community health aides selected, trained and working in the communities from which they come.

HEALTH AGENTS: Is a person you choose in advance to make health care decisions for you in the event that you are not

in position to do so.

HEALTH AUXILIARIES:

These are health care assistants that work with the hospital or community setting under the guidance of qualified health care professionals.

HEALTH PROMOTERS:

These are members of the community that are trained and expected to perform health promotion education and service delivery within a limited scope. They are not nurses or doctors.

HEALTH VOLUNTEERS:

These are people who agree to participate in health care delivery for reasons other than medical purposes and receive no direct health benefits from participating.

VILLAGE HEALTH COMMITTEE:

These are persons trained to assist professional health personnel in communicating with residents in the community concerning needs and availability of health services.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The study aimed at investigating the factors affecting performance of community health workers in health care delivery in Mityana District. Chapter one focuses on the background information of the study area, problem statement, purpose of the study, objectives and research questions, statement of hypotheses, scope, significance of the study and conceptual framework.

1.1 Background to the study

The purpose of health care delivery is to strengthen the skills and capabilities of individuals to take action and the capacity of communities to act collectively to exercise control over the determinants of health and achieve positive change (WHO,1978)

According to the Ottawa charter(1986), health care delivery/promotion is determined by a combination of strategies which include, creating supportive health environments, strengthening community action and developing personal skills. There have been various challenges in health care delivery globally. Different countries worldwide have different problems with health delivery at national level. In developing countries especially the sub Saharan Africa the health status is not any better. In Uganda for example, the Ministry of Health has tried to address the health challenges, but the health care performance is still wanting.

In the context of this study, Community Health Workers (CHWs) according to Witmer et al (1995) are community members who work almost exclusively in community settings and serve as connectors between health care consumers and providers to promote health services among groups that traditionally lacked access to adequate health care. By identifying community health problems, developing possible solutions, and translating them into practice, community health workers respond creatively to local needs.

The community health workers system was established by the Ministry of Health through the National Health Policy and Health Sector Strategic Plan in 2003 and managed at the village level. It embraces all former community health volunteer categories. It comprises a team of 9 -10 members in a village (HSSP, 2000) selected on a popular vote after sensitization and consensus building of all village members from all households and selected on purely voluntary terms to oversee the health status and activities. Each CHWs is in charge of 25 to 35 households (MOH, 2009).CHWs are members of the community that are trained by different agencies to carry out duties related to health care. They act as advocators for the community to improve the community health status. CHWs are not supposed to include the trained medical staff such as nurses, paramedical workers, medical assistants and physicians. However, in some communities these medical staff double and do the work of CHWs in their communities. WHO (1989) indicates that “community health worker” (CHWs) embraces a variety of community health aides selected, trained and working in the communities from which they come.

To be trained as CHWs, there have to be no segregation on demographic factors such as age or sex. They could be male or female, young or old as long as they live in that community.

The global policy of providing primary healthcare level was initiated with the Declaration of Alma-Ata in 1978. The countries signatory to Alma Ata Declaration considered the establishment of CHWs program as synonymous with Primary Health Care approach (Mburu, 1994; Sringeriyuang, Hongvivatana, & Pradabmuk, 1995). Thus, in many developing countries, PHC approach was seen as a mass productive activity for training CHWs in 1980s (Matomora, 1989). During these processes, the voluntary health workers or CHWs were identified as the third workforce of “Human resource for Health” (Sein, 2006). Following this approach, CHWs introduced to provide PHC in 1980s are still providing health care in the remote and inaccessible parts of the world (WHO, 2006).

1.1.1 The role of community health workers

CHWs carry out important roles in the communities. These include first aid and treatment of simple ailment, immunization, nutrition education, family planning, HIV/AIDS education (i.e. counseling, peer and treatment support and palliative care), TB care and malaria control.

Community health workers provide outreach, education, referral and follow-up cases, advocacy and home visiting services to women who are at highest risk of birth outcomes, particularly low-birth weight and infant morbidity. Community health workers have been working in various countries of the world, for example, in India community health workers have been utilized to increase mental health service utilization and decrease stigma associated with mental illness (Isaacs , Srinivasan , Neerakkal & Jayaram , 2006). In this program, respected female members of the community were chosen to participate. All women who were married, came from a good social standing background, displayed keen interest in the program, and were encouraged by their families to participate. The women chosen were then trained to identify and refer patients

with mental illnesses, the common myths and misconceptions prevalent in the area and in conducting community surveys.

In Tanzania, village health workers (VHWs) were part of a community based safe-motherhood approach (Ahluwalia, Schmid, Kouletio & Kanenda, 2003). The VHWs assisted pregnant women with birth planning, which included timely identification of danger signs, preparation and accumulation of two or more essential supplies such as soap, razors, gloves for safe delivery, and mobilizing household resources, people and money to manage a possible emergency.

Before the introduction of Western medicine in Uganda, communities were responsible for the health of their members. Some community members were variously assigned the responsibility to lead or serve others in health matters. The advent of Western medicine made health care more scientific, but it also largely disarmed communities of their responsibility towards health action. (Sekimpi, (2007)

In Uganda, from the very early times, communities utilized locally available health providers. These resource people included Traditional Birth Attendants, Traditional Healers, Herbalists and Bone setters. With evolution of community health service delivery, there has been need to improve the services of the community resource persons mainly through training. (Sekimpi, 2007)

The situation in Mityana District is not any different from the rest of the country CHWs programmes have been set up by agencies such as MildMay, Integrated Community Based Initiatives (ICOBI) etc. But these programmes have worked alongside donor funding. When funding stops even the programmes end. (Steve worth July-September 1999, Bahai international community letter. vol 11, issue 2.)

In Mityana District, community health workers provide preventive, promotive health care and sensitization. Most of the community health workers are volunteers while others double as fully employed by the District Local Government. The CHWs are recruited by the community members with the help of Sub county chiefs, In-charges of Health Units and Political Leaders. They report to the In-charge of the Health Centers in their respective villages.

1.1.2 The Training of Community Health Workers.

CHWs are trained majorly by the host governments through the Ministry of Health but there are many more organizations that come in to train them. In Uganda ,Mildmay, ICOBI, African Medical and Research Foundation(AMREF), United Nations Development Programme, (UNDP) (Millennium promise project), Uganda Bahai Institute for Development, Health Child Uganda, Canadian Public Health Association, Canadian International Development Agency, Canadian Bahai International Development Services have all participated in the training of CHWs.

According to the Corp report between 2004 and 2009 Health Child Uganda developed and implemented a model CHWs program in 175 villages in South Western Uganda. Two volunteers were selected from each village (by the village community) and were trained to promote child health. They were taught how to treat and prevent common illnesses and recognize when and who to refer to the hospital.

Uganda Bahai Institute for Development trained Community Health Workers in Kumi and Soroti Districts and helped significantly to increase immunization rates and awareness of basic hygiene in 30 villages. The training given to each volunteer included information on prevention, treatment of diarrhea, worms, child spacing, first aid, immunization, nutrition education, child

health care, pregnancy health and sanitation. Refresher courses were offered after 3-4 months of monitoring them in the field.

Save the Children Uganda has supported implementation of a family planning program in Luwero and Nakaseke Districts. The program trains CHWs with no official medical training to deliver contraceptives to women in their communities.

1.2 Background of the study area

The study was conducted in Mityana District found in Central Region of Uganda about 60Kms west of Kampala. It borders the Districts of Mpigi to the South, Kiboga to the North, Mubende to the west, Nakaseke and Wakiso Districts to the East. The total area of Mityana District is about 1953.36 Km². Mityana District has three Counties namely Busujju & Mityana North and South which are subdivided into eight sub-counties and one Town Council. The District has a total of 64 Parishes and 513 villages.

The total population of Mityana District according to the 2002 Population and Housing Census was 265,994 of which 132,989 were males and 133,005 females with a 2.8% growth rate. The total number of households is 61,406 and average household size was 4.4. More than 60% of the population was under 18 years of age, of which children below 8 years were estimated at 90,969. Of these, 46,017 were between 0-5 years.

Mityana is a rural District with 13% of the population found in urban areas with a population density of approximately 136 persons per Sq. Km. The District has a fertility rate of 7.7% compared to the national average of 6.9%. The current projected population is estimated at 368,401 and about 73,680 households. Each Household has on average 5 persons.

Available statistics from the Planning Unit indicate that Districts has a total of 55 health units. In the District, some of the health units lack basic equipments and health personnel. On average, about 60% of the population lives within 5 kms from a health facility, the distance widely recommended for reasonable access to health care.

Services provided include out patients' department, maternal and child health/family planning, Immunization, environmental health services, maternity services, Laboratory services, Mental and Dental Services, and Voluntary Counseling and Testing. The table Appendix vi shows the different health units in Mityana District per health sub District.

1.3 Scope of the study

The research study focused at Community Health Workers in Mityana District. A total number of 127 community health workers were involved in the study. The study intended to investigate how motivation/incentives factors, support supervision factors and demographic factors (independent variables) influence performance (dependent variable) of CHWs.

1.4 Problem statement

In Uganda from the very early times, communities utilized locally available health providers. These resource people include Traditional Birth Attendants, Traditional Healers, Herbalists, Bone setters. With evolution of Community Health Service delivery, there has been need to improve the services delivered by the community health workers.

The Community Health Workers are involved in promotion of health related programs such as, encouraging utilization of health services, implementing Community Based Health Management

Information System, health sensitization, distribution of mosquito nets, drugs and ,participating in health education. (Sekimpi, 2007)

However, despite the intervention of the Ugandan government through the Ministry of Health as regards training of community health workers in order to improve the health situation in the country, little success has been achieved. It's been reported that there is high child mortality rate (under 5 years) which is 129 deaths per 1000 live birth. (District baseline/needs assessment for Mityana District 2009) Also according to the health District report 2009/2010 it's been reported that there has been a rise in maternal mortality from 19/100,000 in 2006/2007 to 43/100,000 in 2009/10

According to Ministry of Health report on Health Sector Strategic and Investment Plan, it has been reported that Community Health Workers have not achieved the objectives that they were set to achieve and the level of attrition is high due to lack of motivation incentives.

(HSSIP 2010/11-2014/15)

Therefore this study intended to investigate the factors influencing performance of Community Health Workers in Health care delivery in Mityana District.

1.5 Main objective

The purpose of the study was to investigate factors influencing performance of Community Health Workers in health care delivery in Mityana District.

1.5.1 Specific objectives

- To establish the extent to which availability of supplies influence performance of CHWs in Mityana District.
- To identify social -demographic factors influencing performance of CHWs.
- To determine the extent to which motivation/incentive factors influence performance of CHWs in health service delivery.
- To examine the extent to which support supervision that influences performance of CHWs

1.6 Research questions

- To what extent does availability of supplies influence performance of CHWs in Mityana District?
- Do social -demographic factors influencing performance of CHWs in health care delivery?
- To what extent do motivation/incentive factors influence performance of CHWs in health service delivery?
- To what extent does support supervision influence performance of CHWs in health care delivery?

1.7 Hypotheses

In addition to the above research questions, the study tested the following hypotheses;

- i. There is no relationship between unavailability of supplies and performance of CHWs in Mityana District.
- ii. There is no relationship between social-demographic factors and performance of CHWs
- iii. There is no relationship between lack of incentives factors and performance of CHWs in Mityana District.
- iv. There is no relationship between irregular support supervision factors and performance of CHWs in Mityana District

1.8 Significance of the Study

The study will provide relevant literature on the challenges affecting performance of community health workers in health care delivery in Mityana District. It will also provide solutions to the existing problems that affect CHWs performance in the study area So that the policy makers and the local leaders can come up with possible measures to improve the health care delivery .The findings will also create awareness among community members about the general health matters(health education) and promote good health seeking behavior .The information obtained will also be a source of reference for future research investigation by academicians and government policy makers which will lead to improved health care delivery.

1.9 Conceptual Framework

The conception framework is based on four factors that influence the performance of CHWs.

The first factor (objective I) is supplies. Are they available, adequate and sustainable?

Second factor (objective II) is social demographic factors which include age, sex, education, marital status, occupation and income.

Third factor (objective III) is motivation/incentive factors i.e. free medical care, transport refund, certificate of appreciation, social recognition, monetary incentives, Self satisfaction for being a useful resource in the village.

Fourth factor (objective IV) is support supervision factors e.g. technical skills of health workers and trainings of community health workers.

Figure : Conceptual frame work

SOCIO- DEMOGRAPHIC FACTORS

- Age
- Sex
- Education
- Marital status
- Occupation
- Income

PERFORMANCE OF CHW

- Health sensitization
- Promote sanitation and personal hygiene
- Distribute household items to the needy house hold
- Immunization(mobilisation)
- Domestic violence prevention
- Distribution of mosquito nets
- HIV/AIDS education
- TB/Malaria control
- Family planning
- Nutritional education
- Referral and follow up
- Home visits

SUPPORT SUPERVISION

- Technical skills of health workers
- Trainings of CHWs

MOTIVATION/INCENTIVE FACTORS

- Free medical care
- Transport refund
- Certification of appreciation
- Social recognition
- Monetary incentives
- Self satisfaction for being a useful resource in the village

SUPPLIES

- Availability of supplies
- Adequacy of supplies
- Sustainability (continuous supply)
-

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review which includes what other scholars have written about the factors influencing performance of Community Health Workers in Health Care Delivery and it's in line with the objectives.

2.2 Community Health Workers in the World

U.S.A

The Federal Government supported Community Health Workers programs to expand access to health care in communities. Through health education, outreaches CHWs have facilitated health care delivery and linking the mentally ill and those living with HIV. However, Community Health Workers have faced barriers such as not knowing their scope of practice, limited training, and lack of a secure source of funding. (Witmer et al 1965)

NEPAL

The government of Nepal introduced a community health volunteer program and this has evolved in the last 25 years to become female community health volunteer program with 48,550 volunteers trained in 75 districts. Female community health volunteer were responsible for health education, community mobilization, and referring patients these were easily accessible by mothers and they gave good advice. The initial training of female community health volunteers

was for 15 days followed by refresher trainings on 2 days every six months, however training was not regular. To motivate the volunteers who had attended many training sessions were given bicycles, radios and other items. Volunteers were also given incentives such as certificates, community recognition and awards. Supervision was not known to take place in many areas and in others it was irregular and informal except for national programmes such as vitamin A supplements and polio immunization days. Refresher courses were the major form of supervision (Witmer et. Al, 1995).

INDIA

The Indian government introduced the Community Health Workers scheme in 1979 the name was changed to community health volunteers in 1980 and village health guides in 1981. In April 2002, the government withdrew support for the programme and it was supposed to be run by states. However, no states run the program (Witmer et. Al, 1995). The main aim of the village health guides was to provide basic curative, preventive and promotive health care at people's door steps. The program selected men as Village Health Guides (VHG) in 1980s since they were the targets of the family planning program. Later, focus shifted to maternal and child health care which led to recruitment of women and phasing out of men. The Village Health Guides would receive Rs 200(equivalent to 10700) monthly during the 3 months training. As incentives village health guides received an honorarium of Rs 50(equivalent to 2700 Uganda Shillings) per month and basic medicines worth Rs 50(equivalent 2700 Uganda shillings) per month and basic medicines worth Rs

MEXICO

Haines et al, (2007), commented that a study done in Mexico showed that the use of community workers was less costly, yet more effective than using outreach teams of health staff. All studies showed that with support and training, community health workers can improve child Health. He noted that most government programs assumed that community Health workers were willing to serve voluntarily. However most program especially Non Governmental organizations paid their volunteers so as to motivate them. The non financial incentives to improve performance of community health workers included T/Shirts/Badges and flexible working hours.

2.3 Community health workers in Africa

SOUTH AFRICA

Irwin et al, (2007) stated that in South Africa volunteers received financial rewards and non-government organizations had to find ways of financially rewarding volunteers as well. The organizations with volunteers who worked on purely voluntary terms had recorded a high attrition rate than the few volunteers that remained become overloaded with work. In order to ensure country wide equity, the Ministry of Health committed to paying between R500 to R1000 (equivalent to 178,386.45 to 356,778.20 Uganda Shillings at a rate of R1 equivalent to 356.78 Uganda Shillings) per month to community health workers depending on their qualification. In the study fewer projects were still encouraging pure voluntarism. About 65% of the projects received professional supervisions; some used monthly meetings as a means of supervision. Kironde et al,(2001), in a study done in Northern Cape province, showed that volunteers in the Tuberculosis program did not get any monetary incentives; but there motivating factor was the

hope that they would eventually be remunerated. The Attrition rate was 22% within one year of joining and 75% of the drop outs gave loss of interest as their reason for leaving.

TANZANIA

Mushi et al. (2010) conducted a study in Mtwara district in Tanzania about the effectiveness of community based safe motherhood promoters in improving the utilization of obstetric care, the safe motherhood promoters were tasked to promote the attendance of women in antenatal through follow up of pregnant women, training them as to the danger signs and birth preparedness plans; Delivery under the care of skilled birth attendants increased from 34.1% in 2004 to 51.4% in 2006. Antenatal visits increased from 18.7% to 37.7%. After two years of the study from 2004-2006, 44 (88%) of the safe motherhood promoters were still active. The number of deliveries by traditional birth attendants decreased from 35.7% to 29.9% and those from relatives from 30.2% to 17.3%.

A few of the safe motherhood promoters expressed that their training was too short for them to be competent. The study also indicated that safe motherhood promoters were not paid and had limiting educational background. However, they actively performed their roles with only six drop outs of the 50 trained safe motherhood promoters (Mushi et al., 2010)

2.4 Community Health Workers in Uganda.

Webster, (2009), states that in Western Uganda, child health volunteers were offered training on integrated management of childhood illnesses with Health Child Uganda, he indicated that health Child Uganda had retention of 85% of child volunteers even without pay, and there was a 25% decrease in child deaths.

Sui et al., (2009), stated that the volunteers have the potential to perform but their preparation for health education does not meet the high demand of the task they are to perform. In this study carried out in the Western Uganda, it was indicated that volunteers were an important entry to the community by health facilities in health education or volunteers were trained for a short period of time and the trainers had no skills in health education or voluntary management. Most volunteers had hope of being employed by agencies and expected allowances. Health Education was performed in isolation of the services meant to be provided to the communities for example HIV testing and use of contraceptives in general.

2.5 Influence of socio demographics on performance of CHWs

Most countries have largely relied on females as CHWs. Although both men and women are employed at grass-roots level, there is a collective impression (particularly amongst policy makers) that female workers are able to deliver health care more effectively than male workers at community level. While this may be true of Maternal and Child Health (MCH) related services, the role of male workers in the control of epidemics (in the past), such as cholera, small-pox and plague, at the community level has been substantial across countries.

In most countries, CHWs have had education up to primary level, with 8 to 10 years of schooling. CHWs with higher educational qualifications have opportunities for alternative employment and therefore migrate from one job to another (Brown et al., 2006). On the other hand, it has also been highlighted that those with higher education learn and enhance their skill in the diagnosis of common illnesses (Ande et al., 2004) and thereby deliver better health care to the community.

Most studies highlight the need to recruit CHWs from the communities they serve, but they also point out the difficulties in implementing this approach. CHWs who are from the communities they serve presumably will not only be more accessible but also able to gain the confidence of community members but their age says more on the work they are supposed to do for the community (Ruebush et al., 1994). Experience has shown that CHWs recruited from local communities have had greater impact on utilization, creating health awareness and health outcomes (Abbatt, 2005). The review also shows that in most countries CHWs have had education up to primary level education, with 8 to 10 years of schooling.

Studies have shown that CHWs with higher educational qualifications have opportunities for alternative employment and therefore migrate from one job to another (Brown, Malca, Zumaran, & Miranda, 2006). On the other hand it has also been highlighted that those with higher education could learn and enhance their skill in the diagnosis of common illness (Ade, Oladepo, & Brieger, 2004) and thereby deliver better health care to the community.

In Bangladesh, Syed Moshfiqur Rahman et al (2010) conducted in-depth interviews with four former CHWs, and some CHWs explained that their family members were anxious, especially when they returned home late. Others said that their families were worried because they were young and vulnerable to danger. Many CHWs were ever reluctant to discuss the complete responsibilities of their work with their families, noting, for example:

"They wondered what kind of job it was that required women to stay out for so long. If my brother was here in the country, then I wouldn't be able to work as a CHW." (Syed M Rahman et al .2010)

2.6 Influence of Availability of Supplies on performance of CHWs.

The conditions in which CHWs operate are in some cases hostile. Research by Sein,(2006) indicated that CHWs worked in all geographical settings, including rural, urban and metropolitan areas, border regions. Although CHW roles varied depending on local and cultural setting, they were most often found working in underprivileged marginalized communities where people had limited resources, lacked access to quality health care, lacked the means to pay for health care, never spoke English fluently, or had cultural beliefs, values and behaviors different from those of the dominant western health care system.

USAID (2003), indicated that in reality, in many African countries the systems were not providing preventing and curative health care in ways that could make the greatest impact on the major causes of illness and death. Health care tends to be multi-tiered, with fewest resources and poorest quality of health care available at village health posts, dispensaries and health centers precisely where majority of Africa's core live.

However, there are some governments of developing countries which have supported CHWs, for example, in Bangladesh, the government provided a few essential services and encouraged NGOs to work with communities through a large array of approaches to provide responsive health care and development initiatives. Hence, there is not one standard model of community health care program forced by government but rather a proliferation of efforts by nongovernmental organizations, most with a firm base in the community (Wyon et al, 2002).

2.7 Influence of Motivation/incentives on performance of CHWs.

According to Lewin et al., (2005), CHW motivation impacts retention and attrition of the health worker in communities. Motivation is driven by many elements including intrinsic factors such

as work-related goals, as well as his/her sense of altruism, self-efficacy, and organizational commitment. Once a CHW has goals set, he or she can perform better than those without set goals to achieve in helping their communities. Extrinsic factors include peer approval, the incentives provided, and the expectation of future paid employment. These are similar to be factors found to affect motivation and retention of formally trained health community workers in low income countries (Willis-Shattuck, 2008). According to Fort &Voltero et al, (2003), lack of recognition of the CHWs by the employers or community is another factor affecting their performance. In addition, lack of adequate training has been reported to be another factor affecting the performance of CHWs. Research in Mali by Kelly et al, (2003) reported short term improvements in community health worker performance as measured by compliance with fewer care and standards and compliance with structural quality standards when surveyed health worker were trained in self assessment of the quality of care they were providing.

In most cases, CHWs are not paid a salary like other medical workers and this affects their performance (USAID, 2003). This money issue has become a big problem affecting performance because they have to survive by doing other jobs so as to make ends meet. However, there were some success stories of programmes paying CHW's.

According to USAID (2003), even non-monetary incentives are critical to the success of any CHW program. CHWs need to feel that they are a part of the health system through supportive supervision and appropriate training. Relatively small things, such as an identification badge and certificate can provide a sense of pride in their work and increased status in their communities. Appropriate job aides such as counseling cards and regular replenishment of supplies can help ensure that CHWs feel competent to do their jobs.

Lack of community interest is another problem that CHWs may face. Sometimes, inspite of obvious health care needs and a clear role for CHWs, a community would prefer to dedicate its limited resources to a different kind of project such as irrigation. This preference may result in lack of cooperation and funding critical to the success of the project.

In a study conducted by Syed MoshfiqurRahman et al (2010) on factors affecting recruitment and retention of Community health workers in a newborn health care intervention in Bangladesh, the results indicated that motivation for becoming a CHW appeared to stem primarily from the desire for self-development, to improve community health, and for utilization of free time. The most common factors cited for continuing as a CHW were financial incentive, feeling needed by the community, and the value of the CHW position in securing future career advancement. Factors contributing to attrition included heavy workload, night visits, working outside of one's home area, familial opposition and dissatisfaction with pay.

By their very nature, CHW are vulnerable unless they are driven, owned by and firmly embedded in communities themselves. Therefore, the willingness of each CHW has a bearing on how he or she performs. Where this is not the case, they exist on a precise boundary of the formal health system, exposed to extravagant policy swings without a chance to lobby and advocate their cause, and thus are often fragile and unsustainable. Evidence suggests that CHW programmes thrive in mobilized communities but struggle where they are given the responsibility to mobilize communities.

2.8 Influence of Support supervision on performance of CHWs.

The induction of and continuing training programmes for CHWs have received considerable attention, as they are often selected without any prior experience or professional training in

community health (Abbatt, 2005). In Nicaragua in the 1980s, CHWs were as young as 15 years old and had a short training period of no longer than 2 weeks, focused on curative services. Despite these exceptions, CHWs in countries such as India receive about 3 months of training, while in other countries such as Brazil they receive 6 to 8 months of training at the beginning of their career (Campos et al., 2004). Career prospects for CHWs and their aspirations do influence their performance. For example, some studies from the United States such as (Ballester, 2005) showed a significant drop out of CHWs due to lack of career prospects.

There are some governments of developing countries which have supported CHWs, for example, in Bangladesh, the government has provided a few essential services and encouraged NGOs to work with communities through a large array of approaches to provide responsive health care and development initiatives. Hence, there is no standard model of community health care program forced by government but rather a proliferation of efforts by nongovernmental organizations, most with a firm base in the community (Wyon et al, 2002). Some CHWs don't have adequate knowledge of use of medical equipments, for example, Harvey et al. (2008), conducted a study to examine whether CHWs could effectively and safely deliver Reproductive and Development Toxicology Subcommittee (RDTS). The first group of CHWs was only given the manufacturer's instructions and performed 57% of the test steps accurately. The group that received pictorial instructions performed 80% of the steps correctly, and the group that received both pictorial instructions and a three-hour training session scored the highest with 90% of the steps performed correctly. While those who had received the manufacturer's instructions read 54% of tests correctly, those with training and pictorial representations read 93% of tests correctly. This study concluded that allowing untrained CHWs to administer and read tests

based only on written instructions could prove dangerous to the communities they served. However, with adequate training and clear instructions, Harvey et al. (2008) concluded that the “Use of malaria rapid diagnostic tests by community health workers was potentially an effective alternative for malaria case management in areas with limited functional microscopy and limited health care personnel or facilities.”

According to Abbatt (2005), some potential problems included Conflicts with other health providers. Competition and "turf battles" can arise between CHWs and doctors, nurses and traditional healers in the region. Avoiding this situation depends upon a clear understanding of the social dynamics, health resources and needs of the individual area being served. Again, a thorough understanding of the social dynamics is critical. Trying to enlist the help of the individuals who felt threatened by CHW training or supervision sometimes diffused the situation.

Another problem is that they were associated with unpopular themes. Sometimes the CHW becomes associated with a given healthcare theme which was promoted by the government or relief organization but which was socially unpopular. An example might be family planning in China where resentment of government-imposed family planning is not uncommon. Under such circumstances the CHWs are be seen as not being on the side of the community.

Another challenge faced by CHWs is understaffing, for example, Lesley-Anne Long, (2011), indicated that the challenges of providing quality and equitable health care in Africa, especially to vast rural populations, included chronically and critically understaffed workforce; it is estimated that sub-Saharan Africa requires between 1 and 1.5 million more healthcare workers, particularly to reduce under-5 mortality by two-thirds by 2015. The need for sustainable, sound training programmes that could be implemented and delivered at scale and at low cost is urgent.

It is also worthwhile to note that communities are rarely composed of completely like-minded individuals with a common purpose and a full spirit of cooperation. More likely different elements will have different agendas, and understanding these subtleties is vital for effective planning (Abbat, 2005).

A key feature of many health training programmes is that they are located away from the health workers' community. Such training tends to be dislocated from the context in which CHWs work, and provides little support to them once they're back in their communities. Furthermore, CHWs being away from their health posts as a result of attending training programmes in other locations severely disrupts the delivery of critical services in most important factors contributing to low performance of Community Health Workers in a District in Zambia (Stekelen Burg et al 2002). Sixty percent of community health workers in the rural communities of Armenia reported they didn't have the tools to do the job well.

Lack of clear role as liaisons between the community and the health care system affects the work done by CHWs. When they receive support from the system, particularly from reliable and viable health centers it leads to improved performance. This has been the case in Lesotho, where over 4,000 trained Village Health Workers are supported by local development councils. In Zimbabwe over 6,000 CHWs received stipend as general development workers from Ministry of Community and Cooperation Development. In Zaire, CHWs were citizens selected by their respective communities to provide health services to the community members (Reynders, 1992).

Community health workers operate in isolation rather than as an extension of the health system which affects their performance. CHWs throughout Africa have been by-passed as households go to consult the first level of formal health care which renders their existence irrelevant to the community they are serving. Their presence may even delay necessary access to professional

health care rather than deterring unnecessary consultations. There are also high attrition rates, characterized by dwindling donor support for vertical CHW programs which affected their daily operations (Parker, 1991).

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter describes the procedures that were followed in conducting the study. It demonstrates details regarding research design, population of the study area, sample and sampling techniques, a description of data collection instruments that were used, as well as the techniques be used to analyze data. It also indicates the challenges that were encountered in the study.

3.2 Research design

This was a descriptive cross sectional study involving both quantitative and qualitative methods. Interviews were held with Community Health Workers to capture in information on what factors affect their performance. Close ended questions were used.

3.3 Study Population (sample frame)

The study population included all Community Health Workers trained by government and non-government organizations in Mityana District. There are 200 CHWs in the District. A list of all the CHWs was provided by officials from Mityana District Health Department and CHWs were randomly selected from Mityana North Sub District.

3.4 Sampling procedure

The following sampling procedures were used by the researcher to select the sample size while in the field.

The quantitative sampling frame was from a group of trained Community Health Workers from Mityana North Sub District. Participation was stratified by sex and similar social-economic background. According to records from Mityana District health office, there are 200 CHWs in the District.

3.5 Sample size

A sample size is the number of units that were chosen from which data was gathered of the population of study. The researcher used Krejcie and Morgan (1970) Table of sample size determination. The table below shows, in the third and fourth column 10th row indicated that for a population of 200 the sample size should be 127.

NOTE: Though a sample of 127 respondents was probable for the study, however, only 121 respondents participated in the study largely because 6 respondents never completed the questionnaires and these were disqualified as they would falsify the entire results.

Table : TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: “N” is population size (Community health workers)

“S” is sample size. (Desired Sample)

Krejcie, Robert V. Morgan, Daryle W., “Determining Sample Size for Research Activities”, Educational and Psychological Measurement, 1970.

3.6 Study variables and their indicators

Below is a table showing the independent variables that were studied and their indicators

Table : shows Independent variables and their indicators

Study variable	Indicators
----------------	------------

Motivation /incentives	<ul style="list-style-type: none"> • Free medical care • Transport refund • Certification of appreciation • Social recognition • Monetary incentives
Support supervision	<ul style="list-style-type: none"> • Technical skills of health workers • Trainings of CHWs
Supplies	<ul style="list-style-type: none"> • Availability of supplies • Adequacy of supplies • Sustainability
SOCIO- DEMOGRAPHIC FACTORS	<ul style="list-style-type: none"> • Age • Sex • Education • Marital status • Occupation • Income

3.7 Data collection tools

The following are data collection tools used to carry out the study:

3.7.1 Questionnaires

A questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic. When properly constructed and responsibly administered, questionnaires become a vital instrument by which statements can be made about specific groups or people or entire populations. They are a valuable method of collecting a wide range of information from a large number of individuals, often referred to as participants (CHWs). Adequate questionnaire construction is critical to the success of a survey. Inappropriate questions, incorrect ordering of questions, incorrect scaling, or bad questionnaire format can make the survey valueless, as it may not accurately reflect the views and opinions of the participants.

Pre-tested, standard questionnaires with both open and close ended questions were administered to the Community Health Workers in Mityana District by the researcher and research Assistants. The questionnaire was designed in accordance with the objectives of the study.

3.8 Data Management

All quantitative data from the field was filed, edited, coded, classified and analyzed. Records were organized and gaps filled and a concise version written out.

3.8.1 Data Analysis

All quantitative data were field edited, coded and entered in a computer using Statistical Package for Social Scientists (SPSS version 10.0). Data was cleaned before analysis. Data from questionnaires was presented in form of frequency tables.

3.9 Quality Control Measures

In order to ensure validity and reliability of the instruments of data collection such questionnaire, the researcher conducted and held pretest. This showed how easy the CHWs understood the questions and if necessary adjustments were made to suit the study.

3.10 Ethical Considerations

Permission to carry out research in the area was sought from Mityana District Headquarters after submitting a letter from International Health Sciences University .The CHWs were briefed about the importance of the study like strengthening the CHWs system. As regards confidentiality the respondents were assured that all information provided was purely for academic purposes. The research assistants were briefed about the importance of confidentiality and so identities were not taken on the questionnaire.

CHAPTER FOUR

4.0 Results

4.1 Introduction

This chapter presents the data analysis and findings that was in line with the objectives of the study. The results indicate the responses from both the Community Health Workers (CHWs). These results were generated from 121 community health workers.

4.2 Demographic of respondents (CHWs: $\Sigma=121$)

Mean age 36.95 years, Median age: 36 years Standard deviation: 7.76

Table : shows socio- Demographic characteristics of the CHWS

Variable	N (%)	Perf		p-value
		formed	Never performed	
Gender				
Male	45 (37.2)	33 (38.4)	12 (34.3)	0.673
Female	76 (62.8)	53 (61.6)	23 (65.7)	
Age				
≤36 years	63 (52.1)	45 (52.3)	18 (51.4)	0.929
≥37 years	58 (47.9)	41 (47.7)	17 (48.6)	

Variable	N (%)	performed	Never performed	p-value
Education				
None	6 (4.9)	6 (6.9)	0 (0.0)	0.056
Primary	44 (36.4)	35 (40.7)	9 (25.7)	
Secondary	40 (33.1)	23 (26.7)	17 (48.6)	
Post-secondary	31(25.6)	22(25.6)	9(25.7)	
Marital status				
Single	23 (19.0)	16 (18.6)	7 (20.0)	0.478
Married	87 (71.9)	60 (69.8)	27 (77.1)	
Widow(ed)	8 (6.6)	7 (8.1)	1 (2.9)	
Divorced/separated	3 (2.5)	3 (2.5)	0 (0.0)	
Occupations				
Employed	46 (38.0)	32 (37.2)	14 (40.0)	0.774
unemployed	75 (62.0)	54 (62.8)	21 (60.0)	
Expenditure per day				
<2500	60 (49.6)	54 (62.8)	6 (17.1)	<0.001*
≥2500	61 (50.4)	32 (37.2)	29 (82.9)	

Duration at work				
	64 (52.9)	48 (55.8)	16 (45.7)	0.313
≤3 years	57 (47.1)	38 (44.2)	19 (54.3)	
≥4 years				

Source: Primary data (2012)

Table 3 shows that the majority, 76/121 (62.8%) of the community health workers (CHWs) were females. The proportion of females that performed their duties was 61.6% (53/86 compared to 65.7% (23/35) of females who never performed. There was no statistical significant difference in regard to performance between males and females community health workers (P=0.673)

It continues to reflect that most of the CHWs were less than 36 year 63/121 (52.1%) and the proportion of those who performed their duties was 52.3% 45/86 compared to 51.4% 18/35 of respondents who never performed due to age. There was no statistical significance as regards age and performance (P=0.929)

Education levels indicates that the majority 44/121 (36.4%) have only gone primary school level. 40/121 (33.1%) have gone to secondary school level and 31/121 (25.6%) have attended post secondary.

The table further shows that 87/121 (71.9%) were married respondents, 23/121 (19.0%) were single, 8/121 (6.6%) were widowed, 3/121 (25%) were divorced. There was no statistical significance as regards marital status and performance (P=0.478).

Most of the respondents were unemployed 75/121 (62.0%) and only 46/121 (38.0%) were employed. The proportions of those respondents who were able to perform their duties is 62.8% (54/86) as compared to 40% 14/35.

Level of income shows that 61/121 (50.4%) of the respondents spent more than 2500 UGX shillings a day and 66/121 (49.6%) spent less than 2500 UGX shillings a day. This shows that the income level is generally low those who spent more performed better than those whose expenditure is low therefore there was statistical significant relationship between level of income and performance ($P \leq 0.001$)

Further the table shows the majority of respondents 64/121 (52.9%) have worked as CHWs for less than three years and 57/121 (47.1%) have worked for more than 4years.

4.3 Performance of CHWs in Mityana District

Table below shows the services offered (roles of the CHWs) and if they carry out their duties.

Table : Performance of CHWs as pointed out by CHWs themselves

Variable	N	Percent
Health sensitization		
Yes	121	100
No	0	0.0
Promotion of sanitation & hygiene		
Yes	103	85.1
No	18	14.9
Distribution of household item to needy people		
Yes	28	23.1
No	93	76.9
Immunization mobilization		
Yes	110	90.9
No	11	9.1
Domestic violence prevention		
Yes	48	39.7
No	73	60.3

Distribution of mosquito nets		
Yes	79	65.3
No	42	34.7
HIV/AIDS education		
Yes	116	95.9
No	5	4.1
Variable	N	Percent
TB/malarial control		
Yes	109	90.1
No	12	9.9
Family planning education		
Yes	111	91.7
No	10	8.3
Nutrition education		
Yes	97	80.2
No	24	18.8
Referral of the sick to health facility		
Yes	116	95.9
No	5	4.1
Home visits		
Yes	112	92.6
No	9	7.4
Distribution of de-worming tablets		
Yes	103	85.1
No	18	14.9

Table 4 reveals that the majority offered health sensitization 121/12 (100%) only 103/121 85.1% carry out promotion of sanitation and Hygiene, only 28/121 (23.1%) distribute household items to the needy people, 110/12 (90.9%) indicated child immunization, 48/121 (39.7%) offered

domestic violence prevention, 79/121 (65.3%) participated in distribution of mosquito nets, 116/121 (95.9%) offer HIV/AIDS education, 109/121 (90.1%) offer malaria control, 111/121 (91.7%) carry out family planning education, 97/121 (80.2%) do nutrition education, 116/121 (95.9%) refer the sick to health facilities, 112/122 (92.6%) carry out home visits, 103/121 (85.1%) are involved in distribution of de-worming tablets.

4.3 .1 Percentage of CHWs As Regards Level of Performance

Figure : Shows the level of performance of CHWs

Fig 1 reflects that there is a general low performance of the respondents (71.10%) as compared to the (28.90%) who perform their duties as expected.71.10% are the respondents that scored under 50% and 28.90 are the respondents that scored above 50% hence high performance.

4.4 Bivariate Analysis of Influence of Availability of Supplies on Performance of CHWs.

Table : Influence of supplies on performance.

Variable	N (%)	Perf ormance	OR (95%CI)	p-value	
		Performed	Never performed		

Availability of supplies					
Yes	18 (14.9)	14 (16.3)	4 (11.4)	1.51(0.45-	0.499
No	103 (85.1)	72 (83.7)	31 (88.6)	4.94) 1	
Received enough supplies					
Yes	9 (7.4)	7 (8.1)	2 (5.7)	1.49(0.29-	0.646
No	112 (92.6)	79 (91.9)	33 (94.3)	7.41) 1	
Continuous supply					
Yes	33 (27.3)	25 (29.1)	8 (22.9)	1.38 (0.55-	0.488
No	88 (72.7)	61 (70.9)	27 (77.1)	3.45) 1	
Supplies evenly distributed					
Yes	70 (57.9)	62 (72.1)	8 (22.9)	8.72 (3.5-	<0.001*
No	51 (42.1)	24 (27.9)	27 (77.1)	21.9) 1	

Table 4 reflects majority of CHWs 103/121 (85.1%) didn't have supplies available to perform their duties. The proportion of those who they had supplies available and performed their duty 16.3% (14/86) and were 1.51 times more likely to perform better than those who said they had no available supplies. This reflects that there is no statistical significant relationship between availability of supplies and performance.

Further 112/121 (92.6%) CHWs said they didn't have enough supplies to perform their duties however there was no statistical significance in relationship to performance. 88/121 (72.7%) of the CHWs said there is no continuous supply of resources. The proportion of CHWs that never performed their duties due to lack of continuous supply of resource was 77.1% (27/35) compared to the 70.9% (61/86) that performed their duties regardless of shortage in supplies.

There was 70/121 (57.9%) CHWs who said supplies were evenly distributed. The proportion of those that were able to perform their duties was 72.1% (62/86) as compared to those who never performed 22.9% (8/35). Analysis shows that those who had been with even distribution of supplies, CHWs would have performed 8.72 times better and the P value ($\leq 0.001^*$) shows significant statistical relationship between even distribution of supplies and performance.

4.5 Bivariate Analysis of Influence of Incentives on Performance of CHWs.

Table : Influence of incentives on performance.

Variable	N (%)	Performance		p-value	
		Performed	Never performed		
Free medical care					
Yes	68 (56.2)	41 (47.7)	27 (77.1)	1	0.004*
No	53 (43.8)	45 (52.3)	8 (22.9)	0.27(0.11-0.66)	
Received transport refund					
Yes	38 (31.4)	20 (23.3)	18 (51.4)	1	0.003 *
No	83 (68.6)	66 (76.7)	17 (48.6)	0.29(0.12-	

No				0.66)	
Variable	N(%)	Performed	Never performed	OR(95%CI)	P-value
Received certificate					
Yes	15 (12.4)	9 (10.5)	6 (17.1)	1	0.317
No	106 (87.6)	77 (89.5)	29 (82.9)	0.56(0.18-1.72)	
Got social recognition					
Yes	78 (64.5)	49 (57.0)	29 (82.9)	1	0.009*
No	43 (35.5)	37 (43.0)	6 (17.1)	0.27(0.10-0.73)	
Received monetary incentive					
Yes	73 (60.3)	61 (70.9)	12 (34.3)	4 (2.0-10.8)	<0.001*
No	48 (39.7)	25 (29.1)	23 (65.7)	1	
Self-satisfied					
Yes	103 (85.1)	73 (84.9)	30 (85.7)	1	0.907
No	18 (14.9)	13 (15.1)	5 (14.3)	0.94(0.30-2.86)	

Community involvement					
Yes	56 (46.3)	47 (54.7)	9 (25.7)	3.4 (1.46-	0.005*
No	65 (53.7)	39 (45.4)	26 (74.3)	8.29)	
Career development					
Yes	63 (52.1)	37 (43.0)	26 (74.3)	1	0.003*
No	58 (47.9)	49 (57.0)	9 (25.7)	0.26(0.11-0.62)	

The table above reflects Majority of CHWs 68/212 (56.8%) said they received medical help and 53/121 (43.8%) said they never received any free medical care. The proportion of those that didn't perform ($P \leq 0.004$).

83/121 (68.6%) said they didn't receive transport refund, 38/121 (31.4) said they received transport refund the proportion of those who never performed 76.7% (66/86) compared to those who performed 23.3% (20/86). This shows that there was significant relationship between transport incentives and performance $P=0.003$.

106/121 (87.6%) said they received no certificates where as 15/121 (2.4) said they received certificates. The proportion of those who said that incentives influence their performance was 89.5% (77/86) as compared to 10.5% (9/86) however there was no statistical significance noted $P=0.317$.

Majority agree that they got social recognition 78/121 (64.5%) although 43/121 (35.5%). The proportion of those that performed 57.0% (49/86) compared to those that never performed is 82.9% (29/35). This didn't reflect any statistical significance in the relationship.

73/121 (60.5%) said they received same monetary incentives although 48/121 (39.7%) didn't receive any monetary incentives the proportion of those that never performed and said didn't receive incentives was 65.7% (23/35) compared to 34.3 (12/23). This means that those that said YES and never performed could have performed 4 times better had they been motivated with some money incentives. This shows that there is a statistical relationship between lack of monetary incentives and performance ($P \leq 0.001$)

Majority of CHWs 103/121 (84.1%) agreed to have self satisfaction as a CHW compared to the 18/121 (14.9%)

65/121 (53.5%) said there was no community involvement and 56/121 (46.3%) said yes to community involvement-however the proportion of CHWs who said no and never performed was 74.3 (26/35) compared to those who said yes and never performed 25.7% (9/35). This shows that had there been good community involvement, CHWs would have performed 3.4 times better. This reflects a statistical significance in the relationship ($P=0.005$).

63/121 (52.1) of the respondents said they receive career development where as 58/121 (47.9) said there is no career development the proportion of those who said no and performed 57.0% (49/86) compared to those who said yes and performed is 43.0% (37/86)

4.6 Bivariate analysis of influence of supervision support on performance of CHWs.

Table : Bivariate analysis of influence of support supervision on performance of CHWs.

Influence of support supervision

Variable	N (%)	Per		p-value	
		formed	OR (95%CI)		
		Performed	Never performed		
Health worker demonstrated technical skill					
Yes	119 (98.4)	84 (97.7)	35 (100)	1.2	
No	2 (1.7)	2 (2.3)	0 (0.0)	1	
Health worker encourages					
Yes	81 (66.9)	49 (57.0)	32 (91.4)	1	
No	40 (33.1)	37 (43.0)	3 (8.6)	0.12(0.04-0.44)	0.001*

Health worker helps to organize and plan	69 (57.0) 52 (43.0)	40 (46.5) 46 (53.5)	29 (82.9) 6 (17.1)	1 0.18(0.07-0.48)	0.001*
Yes No					
Health staff helps to solve problems	94 (77.7) 27 (22.3)	63 (73.3) 23 (26.7)	31 (88.6) 4 (11.4)	1 0.35(0.11-1.11)	0.075
Yes No					
Health staff provides supplies	51 (42.1) 70 (57.9)	36 (41.9) 50 (58.1)	15 (42.9) 20 (57.1)	1 0.96(0.43-2.13)	0.920
Yes No					
Variable	N (%)	performed	Never performed	OR(95%CI)	P-value
Supervision is regular					
Yes	53 (43.8)	26 (30.2)	27 (77.1)	1	
No	68 (56.2)	60 (69.7)	8 (22.9)	0.13(0.05-0.32)	<0.001*

Received support from NGOs	96 (79.3)	67 (77.9)	29 (82.9)	1	0.543
Yes	25 (20.7)	19 (22.1)	6 (17.1)	0.73(0.26-	
No				2.02)	
Received training	115 (95.0)	81 (94.2)	34 (97.1)	1	0.506
Yes	6 (5.0)	5 (5.8)	1 (2.9)	0.48(0.05-	
No				4.23)	
Training is consistent					
Yes	91 (75.2)	64 (74.4)	27 (77.1)	1	0.753
No	30 (24.8)	22 (25.6)	8 (22.9)	0.86(0.34-	
				2.18)	
Training adequate	68 (56.2)	42 (48.8)	26 (74.3)	1	0.012
Yes	53 (43.8)	44 (51.2)	9 (25.7)	0.33(0.14-	
No				0.79)	

Majority of the CHWs 119/121 (98.4%) agreed that health workers demonstrated technical skills and only 21/121 (1.7%) said No. The proportion of those who performed (97.7%) 84/86 compared to 100% (35/35/ who never performed. This didn't have influence on performance.

81/121 (66.9%) agreed that health workers encourage them to carry out their duties and 40/121 (33.1%) don't the proportion of those that never performed which was 575 (49/86). This shows there is a statistical significance relationship of the above factors and influence (P=0.001)

69/121 (57.0) said that health staff helped to organize and plan their day's work the proportion of those who said Yes and performed was 46.5% (40/86) compared to those who didn't perform 82.9% (29/35). Table reflects a statistical significance relationship (P=0.001).

70/121 (57.9%) didn't receive materials related to their work from health workers although 51/121 (42.1%) agreed. The proportion of those who performed compared to those who didn't was 58.1% (50/86) and 57.1% (20/35).

As regards regular supervision 68/121 (56.2%) said No where as 53/121 (43.8%) agreed to receive regular supervision the proportion of those that were able to perform their duties regardless was 69.7% (60/86) as compared to 97.1% (27/35). This reflects an influence on performance (P= \leq 0.001)

As regards support from other NGOs majority agreed to have support 96/121 (79.3%) where as only 25/121 (20.7%) didn't receive support from NGOS. The proportion of those who performed to those who didn't is 77.9% (67/86) and 82.9% (29/35) however this didn't have statistical significance.

As regards receiving training 115/121 (95.0%) agreed to have received training and the proportion of those who performed to those that didn't was 94.2% (81/86) and 97.1% (34/35) respectively.

As regards to receiving consistent training 91/121 (75.2%) said yes however, the proportion of those who performed 74.4% (64/86) compared to 77.1% (27/35) didn't show as statistical significance.

68/121 (56.2%) agreed that they received adequate training where as 53/121 (43.8%) said no. the proportion of those who performed was 51.2% (44/86) compared to 74.3% (26/35). However this didn't reflect any influence on performance.

4.7: Multivariate analysis of factors influencing the performance of CHWs.

Table : Multivariate factors influencing the performance of CHWs.

Variable	N (%)	OR (95%CI)	P-value
Supplies evenly distributed			
Yes	70 (57.9)	5.93 (2.16-16-29)	0.001
No	51 (42.1)	1	
Health worker encourages			
Yes	81 (66.9)	1	
No	40 (33.1)	0.20 (0.05-0.79)	0.023
Supervision is regular			
Yes	53 (43.8)	1	
No	68 (56.2)	0.29 (0.10-0.83)	0.021

This table shows there was a positive relationship between availability of supplies, motivation and support supervision.

Lack of even distribution of supplies 70/121 (57.9%) said distribution of supplies was even and 51/121 (42.1%) said No however the table shows that had there been even distribution of supplies, performance would have been 5.93 times better (P=0.001)

81/121 (66.9%) agreed that they have received encouragement from health workers(motivation) although 40/121 (33.1%) did not agree with this (P=0.023)

Lastly, regular support supervision is another factor that influences performance 68/121 (56.2%) said they didn't receive support although 53/121 (43.8) agreed to receive support (P=0.021)

CHAPTER FIVE

5.0 Discussion

5.1 Introduction

This chapter discusses the findings and their implication and a comparison with other research.

5.2 Demographic data

5.2.1. Sex of community health workers

Findings in chapter 4 table one reflect that the majority of CHW 76/121(63.6%) of the community health workers are females and 45/121 (37.2%). This shows that women comprise a large proportion of the of the health profession. This influences performance in such a way that some

roles are best suited for men for example working late after day light, use of bicycles as a means of transport were provided and attending to the male clients has a risk to the female CHWs. Therefore the policy makers should come up with reliable roles that favour women considering that have other duties such as caring for their families first.

"They wonder what kind of job it is that requires women to stay out so long. If my brother was here in the country, then I wouldn't be able to work as a CHW." (Syed M Rahman et al . 2010)

5.2.2. Age of community health workers

Results in table 1 reveal that the majority of Community Health Workers 63/121 (52.1%) was less than the age of 36 and 58/121(47.9%) are more than 37 years of age. The global journal of health science (2012) shows that there are strong relationships between age and performance. It showed that community health workers aged 40 to 50 years kept best records and also used job aids most appropriately followed by the age group 30 to 40 both parameters. It was further established that the age group 40 to 50 had the best overall performance of home visits. Those aged 30 to 40 years performed very well in record keeping, use of job aids and client enablement but surprisingly their clients were not satisfied. This demonstrates that age had an effect on performance.

5.2.3 Education of community health workers

Results in table 1 showed that majority 44/121(36.4) have only primary education 40/121(33.1) and 31/121(25.6) Kallander et al,(2006) points out that performance is associated to factors eg education .The Ministry of Heath guidelines in Uganda states that Community Health Workers

have to be literate. This is to ensure a quality health system. , It has also been highlighted that those with higher education could learn and enhance their skill in the diagnosis of common illnesses (Ande et al., 2004) and thereby deliver better health care to the community. Therefore those CHWs with higher education are likely to perform better than those with lower education.

5.3 Level of performance of community health workers

5.3.1 Activities of community health workers

Results from table 2 showed the activities of CHWs which included health sensitization 121/121 (100%) , 103/121(85.1%) carrying out promotion of sanitation and Hygiene, 28/121 (23.1%) distributing household items to the needy people, 110/121 (90.9%) child immunization, 48/121 (39.7%), offering domestic violence prevention, 79/121 (65.3%), participating in distribution of mosquito nets, 116/121 (95.9%), offering HIV/AIDS education, 109/121 (90.1%) offering malaria control, 111/121 (91.7%), carrying out family planning education, 97/121 (80.2%) doing nutrition education, 116/121 (95.9%), referring the sick to health facilities, 112/122 (92.6%) carrying out home visits while 103/121 (85.1%) are involved in distribution of de-worming tablets

M.O.H points out that CHWs carry out the following interventions on community level; nutrition assessment, counseling at the community level, referral of individuals, follow up of patients and sending them to health centers.

However figure 1 showed a general low level of performance which is mainly because of factors affecting performance such as irregular support supervision, lack of available supplies and no encouragement for health workers.

5.4 Bivariate analysis of influence of availability of supplies on performance of CHW

Results from table 2 reflect that there is a significant relationship between availability of supplies on the performance of community health workers. 92.6% of the CHW said there wasn't enough supply to meet the demands of the community 72.7% said the supplies were not continuous and this affected their performance. It should be noted in Uganda today the need for health services is high but due to lack of supplies to match up many people tend not to get services hence limiting performance of CHWs.

USAID (2003) has a different view and indicates that the reality in many African countries is that systems are not providing preventing and curative health care in ways that can make the greatest impact on the major causes of illness and death. Health care tends to be multi-tiered, with fewest resources and poorest quality of health care available at village health posts, dispensaries and health centers precisely where majority of Africa's core lives.

Due to lack of availability of supplies there are consequences such as demoralization, boredom, attrition, lack of confidence from the community members, increases the chances of re-occurrence of some diseases in these communities unlike in areas where they have supplies. Availability of supplies is of paramount importance in determining the effectiveness of services (Caldwell and Caldwell, 2002)

5.5 Bivariate Analysis Of Influence Of Incentives On Performance Of CHW

The findings show that there is a significant relationship between motivation/incentives received by CHWs and performance in health care delivery. Lewin et al (1992) motivation impacts retention and attrition of CHWs in the community.

According to USAID (2003), even non-monetary incentives are critical to the success of any CHW program. Relatively small things, such as an identification badge and certificate can provide a sense of pride in their work and increased status in their communities. Appropriate job aides such as counseling cards and regular replenishment of supplies can help ensure that CHWs feel competent to do their jobs.

Results reflect on Table 4 that Majority of CHWs 68/212 (56.8%) said they received medical help and 53/121 (43.8%) said they never received any free medical care. This shows from the table that those who didn't receive medical care would have performed 1 time better had they been motivated with free medical care.

83/121 (68.6%) said they didn't receive transport refund, the proportion of those who never performed 76.7% (66/86) compared to those who performed 23.3% (20/86). This shows that there was significant relationship between transport incentives and performance $P=0.003$. the p value shows lack of transport incentive influences performance because for cases where for example there is bad weather like rain and a CHWs doesn't have transport to go say to a health sector to get supplies he or she is likely not to go so if it rained 10 days consecutive that means some community member may not have health services extended to them so incentives are paramount for health care delivery. W.H.O (2004) emphasizes that all workers require adequate facilities and conditions to do their jobs properly.

106/121 (87.6%) said they received no certificates where as 15/121 (2.4) said they received certificates. The proportion of those who said that incentives influenced their performance was 89.5% (77/86) .It should be noted for all those who do a great job need recognition and appreciation same is with CHWs receiving of certificates of merit and training motivated them to

work .those who said didn't receive certificates wondered if they were appreciated as CHWs or they were just wasting their time.

Majority agreed that they got social recognition 78/121 (64.5%) although 43/121 (35.5%). The proportion of those that performed 57.0% (49/86) compared to those that never performed is 82.9% (29/35). Those who did not pointed out that lack of social recognition reduces the level of confidence of the community members, lack of cooperation hence hindrance in performance of the CHWS

73/121 (60.5%) CHWs said they received same monetary incentives although 48/121 (39.7%) didn't receive any monetary incentives the proportion of those that never performed and said didn't receive incentives was 65.7% (23/35) compared to 12/23 (34.3%). This means that those that said YES and never performed could have performed 4 times better had they been motivated with some money incentives. This shows that there is a statistical relationship between lack of monetary incentives and performance ($P \leq 0.001$). In most cases CHWs are not paid a salary like other medical workers and this affects their performance (USAID 2003). This money issue has become a big problem affecting performance because they have to survive by doing other job so as to make ends meet. Most of the CHWs are at grass level they are usually low income earns table 1 reflects that in Mityana district 60/121(49.6%) spend less that 2500 ug shs this reflects the level of income therefore it's important to motivate these CHWs with monetary incentives so as to improve on the performance level and hence better service delivery.Incentives determine the overall performance of community workers (Ballester, 2005).

65/121 (53.5%) said there was no community involvement. The proportion of CHWs who said no and never performed was 74.3 (26/35) compared to those who said yes and never performed 25.7% (9/35). This shows that had there been good community involvement, CHWs would have performed 3.4 times better. This reflects a statistical significance in the relationship (P=0.005).

The above point is important and influences performance in a way that if the CHWs call the community say for Ebola sensitization and they don't come this de motivates the CHWs leading to low performance hence poor health system.

63/121 (52.1) of the respondents said they receive career development where as 58/121 (47.9) said there is no career development the proportion of those who said no and performed 57.0% compared to those who said yes and performed is 43.0% meaning if CHWs are given carrier development this will hike their performance much more that it is.

5.6 Bivariate analysis of influence of supervision support on performance of CHW.

CHWs need to feel that they are a part of the health system through supportive supervision and appropriate training. W.H.O 2006 points out that good supervision and management should include adequate technical support and feedback, recognition of achievements, clear roles of duties which are critical to the performance of the health system and quality of care.

The quality of local supervision and management is often identified as a constraint to improving performance and productivity of individual Community Health Workers and teams (Thomas & Martinez 2003). USAID (2003) noted that improved supervision was one element in improved performance of the Community Health Workers in any community setting.

Results show that 81/121 (66.9%) CHWs agreed that health workers encourage them to carry out their duties and 40/121 (33.1%) don't carry out their duties. The proportion of those that never performed which was 49/86(57.5%). This shows there is a statistical significance relationship of the above factors and influence (P=0.001) some of the CHWs didn't know who their supervisors were because they never come to encourage them while carrying on their duties and this impacts negatively on performance because the CHWs might even be going wrong without any one more familiar to help.

Results still reflect 69/121 (57.0) CHWs said that health staff helped to organize and plan their day's work the proportion of those who said Yes and performed was 46.5% (40/86) compared to those who didn't perform 82.9% (29/35). Table reflects a statistical significance relationship (P=0.001).

70/121 (57.9%) didn't receive materials related to their work from health workers although 51/121 (42.1%) agreed. The proportion of those who performed compared to those who didn't was 58.1% (50/86) and 57.1% (20/35). In line with this factor influencing performance of CHWS Gilson et al(1989) emphasizes support supervision work hand in hand with other forms of support such as logistics

As regards regular supervision 68/121 (56.2%) said nowhere as 53/121 (43.8%) agreed to receive regular supervision the proportion of those that were able to perform their duties regardless was 69 .7% (60/86) as compared to 97.1% (27/35). This reflects an influence on performance (P= \leq 0.001).

Lack of government policies, poor interpersonal relation with the government health staff, community and professionals, lack of supervision and continued support, will add to poor

performance (Campos et al., 2004; Gilson, Walt, Heggenhougen, Owuor-Omondi, Perera, Ross et al., 1989)

Lack of defined roles and responsibilities of health workers in relation with CHWs (Assembly, 2006; Zuvekas et al., 1998)

W.H.O in its 22 recommendations issued in its task shifting guidelines proposed that “countries should define the roles and the associated competency levels required both for existing cadre CHWs that are extending their scope of practice and those cadres that are newly created under the task shifting approach”. These standards should be the basis for establishing recruitment, training and evaluation criteria (W.H.O)

As regards receiving training, 115/121 (95.0%) CHWs agreed to have received training and the proportion of those who performed to those that didn't was 94.2% (81/86) and 97.1% (34/35) respectively. As regards to receiving consistent training 91/121 (75.2%) CHWs said Yes however, the proportion of those who performed 74.4% (64/86) compared to 77.1% (27/35) 68/121 (56.2%) CHWs agreed that they received adequate training where as 53/121 (43.8%) said no. the proportion of those who performed was 51.2% (44/86) compared to 74.3% (26/35). The above reflects that training was very vital or have an impact on performance CHWs who are trained perform better than those who are not.

Some CHWs have no adequate knowledge of use of medical supplies, for example, Harvey et al. (2008), conducted a study to examine whether CHWs could effectively and safely deliver Reproductive and Development Toxicology Subcommittee (RDTS). The first group of CHWs was only given the manufacturer's instructions and performed 57% of the test steps accurately. The group that received pictorial instructions performed 80% of the steps correctly, and the group that received both pictorial instructions and a three-hour training session scored the

highest with 90% of the steps performed correctly. While those who had received the manufacturer's instructions read 54% of tests correctly, those with training and pictorial representations read 93% of tests correctly. This study concluded that allowing untrained CHWs to administer and read tests based only on written instructions could prove dangerous to the communities they served. However, with adequate training and clear instructions, Harvey et al. (2008) concluded that the "Use of malaria rapid diagnostic tests by community health workers is potentially an effective alternative for malaria case management in areas with limited functional microscopy and limited health care personnel or facilities."

5.7 Multivariate analyses of factors influencing the performance of CHWS

Results revealed that there was a positive relationship between availability of supplies, support supervision and motivation/incentives on performance in health care delivery. Results show that performance of CHWs is not dependant on factor however it's a combination of many factors that can influence the performance

Lack of even distribution of supplies 70/121 (57.9%) said distribution of supplies was even and 51/121 (42.1%) said No. However the table shows that had there been even distribution of supplies, performance would have been 5.93 times better ($P=0.001$). 81/121 (66.9%) CHWs agreed that they have received encouragement from health workers although 40/121 (33.1%) did not agree with this ($P=0.023$). regular support supervision is another factor that influences performance 68/121 (56.2%) said they didn't receive support although 53/121 (43.8) agreed to receive support ($P=0.021$)

Irregular and un reliable supply of drugs was identified as one of the most important factors contributing to low performance of Community Health Workers in a District in Zambia (Stekelen

Burg et al 2002). Sixty percent of community health workers in the rural communities of Armenia reported they didn't have the tools to do the job well.

Lack of clear role as liaisons between the community and the health care system affects the work done by CHWs. When they receive support from the system, particularly from reliable and viable health centers it leads to improved performance. This has been the case in Lesotho, where over 4,000 trained Village Health Workers are supported by local development councils. In Zimbabwe over 6,000 CHWs receive stipend as general development workers from Ministry of Community and Cooperation Development. In Zaire, CHWs are citizens selected by their respective communities to provide health services to the community members (Reynders, 1992).

CHAPTER SIX

6.0 Conclusion & Recommendations

6.1 Introduction

This chapter focuses on the conclusion and the researcher's opinions and recommendations emerging from the preceding chapters to promote better health care delivery in Mityana district particularly Mityana north health subdistrict.

6.2 Conclusions

6.2.1 Strength of CHWs

Community Health Workers (CHWs) are very important in our communities and contributed a lot to closing the gap between communities and health services. It's evident that they have positively undertaken tasks that have led to increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy and improved general health and hygiene. Their services still remain limited to certain level (lower level) as they cannot offer more than health education and first aid. Some other strength are summarized below

- CHWs are highly respected and valued in the communities by involving themselves in the community activities.
- CHWs are effective in providing modern contraceptives in rural areas.
- Promote equitable access to care.
- Cost effective way of reaching underserved and inaccessible population.
- CHWs are part of the community experience the same problems and can promote community organizations to confront the basic cause of ill health.
- Provide culturally appropriate health education and information by teaching concepts of health promotion and disease prevention.
- Highly accessible and highly trusted as CHW resides in the same village.

6.3 Factors influencing the performance of CHWS

The findings of the study shows the following demographic characteristics among the CHWs, the majority 76/121 (62.8%) are females and 45 (37.2%) are males. It continues to show that most community health workers are less than 36.

Major factors affecting performance pointed out by CHWs included lack of incentives to do their work, lack of adequate training in health matters, sex, lack of facilitation such as transport and lack of recognition. On the other hand as pointed out by community member's age and sex, women are seen to be more committed to their work as compared to the men and the elderly are also more reliable than the youth who hope to get paying jobs any time and relocate to stay in towns. Below is a summary of the factors influencing performance in Mityana District.

- Inadequate training, service bias and poor motivation.
- Politicization of conflict issues between different providers would hamper the role of CHWs to meet objectives.
- Non-financial incentives not accounted for as a motivating factor for performance by CHWs.
- Lack of government policies, poor interpersonal relation with the government health staff, community and professionals, will add to poor performance.
- Lack of defined roles and responsibilities of health workers in relation with CHWs
- Working continuously as CHW without expecting any change in designation.
- Lack of monetary incentive as "salary" would increase dropout rate.
- Non- standardization / certification of CHW education.
- Lack of recognized as legitimate providers

- Absenteeism, weak organizational and managerial issue; have resulted in lower performance of CHW.
- Low community participation, villagers not involved in identification of problems and lesser duration of training lowered the performance.
- Lack of adequate funding of some projects lowers performance as some supplies stop as the funds stop resulting to no sustainability
- Poor supervision and support (by MOH, supervisors, local community)

6.4 Recommendations

Based on the study findings the researcher suggests the issues below in order to have sustainable good performance of CHWs

To the Authorities (Government and District officials)

There is need for facilitation of Community Health Workers with transport and other material support to further their efforts of reaching out to the entire District of Mityana.

There is need for frequent updates on information education and Communication (IEC) by the Ministry of Health to the CHWs on current health and health related problems in the community so that they are able to address those issues.

Refresher courses in different health issues should be considered so as to broaden the work of CHW's alongside supervision. But key attention should be put on where the training are conducted they shouldn't be far from the community because this would disrupt the delivery of critical services in their communities while away.

Government should support CHW's by providing uniforms, badges and certificates to CHW's for recognition purposes.

There is a need to have consistent supplies in addition to ensuring they are evenly distributed according to the particular needs of a given community

Sensitization materials should also be provided in the different native languages in the area. Preferably the pictorial ones would suit best especially for the illiterate.

Provision of some special services are needed and as such, a special care for the vulnerable and disabled, related infections and dental care.

To the health workers

Supervision and support is needed throughout by the In charges of Health Units so as to improve on the performance of community health workers. Supervision is rarely planned for especially deep in the villages where health facilities are over stretched and not so equipped and with few health workers.

There is need for the health workers in charge of CHWs to regularly check on their work to verify if they are carrying out their activities correctly and also to motivate them and give them hands on assistance.

There is need for the health workers to organize sensitization workshops to update them on the health issues in their community.

To the Community members

Community participation and co-operation is needed as members of the community should be actively involved in the community health workers' programme for example giving necessary information and identification of the health priorities needed.

The community should support the CHW for the services they provide in the community by giving incentives such as food stuffs and recognition and appreciation for their roles in improving the health status in the community.

The community members should respond to the call of the CHWs especially when they are being mobilized to receive preventive and promotive health services such as immunization services, family planning, nutrition education and health education on health problems.

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APPENDICIES

APPENDIX I: Questions for community health workers

SECTION A: SOCIO-DEMOGRAPHIC DATA (Please tick the most appropriate answer)

1. Gender:

Male Female

2. **Age**..... years

3. Level of education

- 1.
2. No formal education
3. Primary
4. Secondary
5. Post secondary

4. Marital status

1. Single
2. Married
3. Widow(ed)
4. Divorced/separate

5. Occupation

1. Employed
2. Unemployed

6. Income

7. How much do you spend in a day?

1. Less than 2500

2. More than 2500

8. For how long have you stayed at this job? _____ years

**SECTION B: PERFORMANCE FACTORS INFLUENCING PERFORMANCE OF CHWs
IN HEALTH CARE DELIVERY IN MITYANA DISTRICT**

From the list below what services do you offer? **(Please answer YES or NO)**

	YES	NO
Health sensitization		
Promotion of sanitation and personal hygiene		
Distribution of household items to needy people		
Immunisation Mobilization		
Domestic violence prevention		
Distribution of mosquito nets		
HIV/AIDS education		
TB/malaria control		
Family planning education		
Nutrition education		
Referring the sick to health facilities		
Home visits		
Distributing of de worming tablets		

TOTAL

**SECTION C: MOTIVATION/INCENTIVE FACTORS INFLUENCING PERFORMANCE
OF CHWs IN HEALTH CARE DELIVERY IN MITYANA DISTRICT.**

(Please answer YES or NO)

	YES	NO
As a CHW do you receive any kind of incentives?		
Do you receive Free medical care?		
Do you receive Transport/transport refund?		
Do you receive Certification of appreciation?		
Do you get Social recognition?		
Do you receive Monetary incentives?		

Are you Self satisfied for being a resourceful person on the village?		
Do you have enough work?		
Is there good community involvement?		
Is there any Career development at this job?		
Do you have enough time to carry on your work?		
Do you receive radios?		

SECTION D: SUPPLIES FACTORS INFLUENCING PERFORMANCE OF CHWs IN HEALTH CARE DELIVERY IN MITYANA DISTRICT

	YES	NO
Do you have supplies whenever you need them?		
Do you receive enough supplies for the community?		
Is there a continuous supply of supplies?		
Are the supplies evenly distributed among the population?		

SECTION E: SUPPORT SUPERVISION FACTORS INFLUENCING PERFORMANCE OF CHWs IN HEALTH CARE DELIVERY IN MITYANA DISTRICT

(Please answer YES or NO)

	YES	NO
Do the health staff demonstrate any technical skills related to health care delivery when they supervise?		
Do the health staff encourage/motivate you to do the activities?		
Do the health staff help you to organize and plan your work?		
Do the health staff help you solve the problems related to your work?		
Do the health staff help provide you the material needed to extend health services?		
Do the health staff supervise you regularly since you joined?		
Do you receive any support from other related nongovernmental organizations?		
Do you receive trainings related to the services you offer?		
Are the trainings consistent?		
Are the trainings adequate?		

Thank you for your cooperation

APPENDIX II: Informed Consent Form

Good Morning /Afternoon,

My name is Nshimye Angela from International Health Sciences University, Kampala (IHSU) carrying out a study on factors affecting performance of community health workers in Mityana district. You have been chosen to participate in this study as one of the resource persons. Your participation in this study is completely voluntary. Feel free to ask any questions before and after the interview.

There is no risk of participating in this study. The information you will give shall be considered as your contribution. Any information obtained during this study will remain confidential. The information provided by you and other participants will be used only for the purpose of this study and will possibly, design a program to improve the health care delivery in the district.

Nshimye Angela

International Health Sciences University (IHSU)

Lead Researcher

Mob: 0772647733

APPENDIX III: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: “N” is population size

“S” is sample size.

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APPENDIX IV: Map of Uganda showing the district of study

Note:Mityana District is located between latitude 0.30° above Equator and longitude 32° East of the Greenwich.

APPENDIX V: Map of Uganda showing the study area

APPENDIX VI: The Health Units in Mityana District

1.MITYANA SOUTH HEALTH	2.MITYANA NORTH	3.BUSUJU MWERA
SUB DISTRICT	HEALTH SUB DISTRICT	HEALTH SUB DISTRICT
Sekanyonyi HC IV	Kyantungo HC IV	Mwera HC IV
St Luke Kiyinda HC III	Bulela HC II	Malagala HC III
Uganda Moslem Council HC III	Kikandwa HC III	Mayiye HCIII
St Francis HC III	Namutamba RC HC II	Manyi HC III
Lulagala HC III	Misebe HC II	Mpongo HC II
Kabule HC III	Kalangalo HC II	Banda HC II
Namungo HC II	Nalugi HC II	Lusalila HC II
Busunju HC II	Buyambi HC II	Kitongo HC II
Nakaseta HC II	Kyamusisi HC II	Nakaziba HC II
Magala HC II	Namigavu HC II	Bekiina HC II
Kabuwambo HC II	Kajoji HC II	Kalama HC II
Tanda HC II	Bukalamuli HC II	Kanyanya HC II
Mama Nora HC II	Namutamba HC III	St Jacenta HC II
St judeNaama HC II	Mityana Tea Estate HC II	Yokana HC II
Naama HC II	Kakonde HC II	Kanbala HC II
Katiko HC II	Kyoganyi HC II	St Theresa Dominic HC II
St Padre Pio HC III	Kitelede HC II	Cardinal Nsubuga HC II
Kasikombe HC II	Rode clinic HC II	
	MbonaKibale HC II	