

**UNIVERSITY OF THE WESTERN CAPE**  
**Faculty of Community and Health Sciences**

**Assessment of the effect of place of selection on performance of health posts and turnover of Health Extension Workers in Jimma Zone, Ethiopia**

Thesis submitted to the School of Public Health, University of Western Cape in partial fulfillment of the requirements for the Degree of Master of Public Health

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## ACRONYMS

DOTS- Directly Observed Therapies

EFY- Ethiopian Fiscal Year

FMOH- Federal Minister of Health

HEWs- Health Extension Workers

HEP- Health Extension Program

HP- Health Post

HSDP- Health Sector Development Program

ITN- Insecticide Treated Net

MCH- Maternal and Child Health

MNCH- Maternal Neonatal and Child Health

ORHB- Oromia Regional Health Bureau

PHC- Primary Health Care

PHCU- Primary Health Care Unit

PHW- Primary Health Care worker

PST- Pre Service Training

RHB- Regional Health Bureau

SNNPR- South Nation and Nationality People Region

TVETIs- Technical and Vocational Education and Training Institutes

WHB- Woreda Health Bureau

ZHB- Zonal Health Bureau



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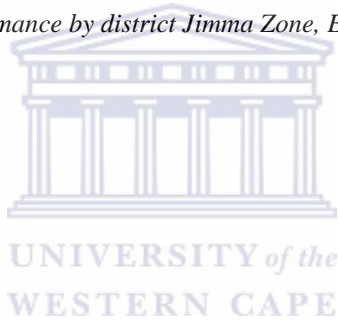
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## ABSTRACT

The Health Extension Program (HEP) was initiated under the Health Sector Development Program (HSDP II) in 2002/03. The central philosophy of these initiatives was based on the belief that if the right knowledge and skill is transferred, each household can take responsibility for producing and maintaining its own health. The HEP is delivered through Health Extension Workers (HEWs), who are local women and have completed grade 10. Recruitment of these workers is conducted by kebele (village) and woreda (district) councils. Following this they are provided with a one year training prior to being employed by the district health office. The HEP guideline states that all HEWs should be assigned to a health post within their own community. The rationale for this requirement is that health policy makers and managers believe that the deployment of non-local HEWs results in poor performance and turnover. However, there is no evidence to support this assumption. This study was conducted to better understand the effect of place of selection on the performance of health posts and turnover of Health Extension Workers in Jimma Zone, Ethiopia.

A cross sectional analytical study design was utilized to assess the effect of place of selection on the performance of health posts and turnover of HEWs in a randomly selected sample of six districts of Jimma Zone. A systematic record review on the activity reports for the Ethiopian Fiscal Year (EFY) 2003 was conducted on all selected health posts in Jimma Zone (239 randomly selected health posts from all functional rural and urban health posts in Jimma Zone) obtained from the district health office. Descriptive statistics was computed to describe the socio demographic characteristics and the level of performance. Chi-square test was performed to test the relationship amongst the variables.

The finding from this study showed that HEWs who are assigned outside of their communities performed as well or even better than those recruited from the same communities. The differences between the relationship of staff turnover and retention couldn't be estimated due to limited availability of information related to this factor. Overall, despite the widely held opinion among policy makers that recruiting HEWs from the same community enhances their performance; there is little empirical evidence to support this argument based on the findings from this study. Thus, it is essential to explore additional factors and criteria in the selection and

recruitment process beyond residence-based measures in the expectation to enhance the performance of the HEWs.



## CHAPTER ONE: INTRODUCTION

### 1.1 Background Information

Ethiopia is a developing country with a total population of 73.9 million out of which 83.9% is living in rural area. This makes Ethiopia one of the least urbanized countries in the world (CSA, 2010<sup>1</sup>). About 16.5% of the population is less than 5 years of age and 23.9% are women in the reproductive age (15-49 years) while the percentage of pregnant mothers is 4% (CSA, 2010).

Administratively, the country follows a federal government structure, composed of nine Regional States: Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations and Nationalities and Peoples Region (SNNPR), Gambella and Harari and two City Administrations: Addis Ababa and Dire Dawa. The National, Regional State, and City Administrations are further sub-divided into approximately 817 Woredas (Districts), which are the basic decentralized administrative units representing 125,000 - 150,000 people governed by an administrative council composed of elected members. The 817 Woredas are further divided into about 16,253 Kebeles (villages), the smallest administrative unit in the Ethiopian governance system (FMOH, 2010).

### 1.2 Health Profile and Health Delivery System

The health system of the country is guided by a comprehensive 20-year policy, the implementation of which is divided into four phases of 5 years each called the Health Sector Development Plan (HSDP). HSDP IV is now in its first phase of implementation (FMOH, 2010). Health care provision in Ethiopia is predominately public and it is through this decentralized structure that the provisions and administrations of the national health initiatives are implemented. The health care delivery system is organized into three tier system:

Tier I: Primary Health Care Unit (PHCU) comprising of five satellite health posts, one Health Centre, and a Primary Hospital to serve 5 000, 25 000 and 100 000 population, respectively.

Tier II: General Hospital for the service of around 1 million people.

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<sup>1</sup> All the years in this thesis are in European Calendar unless it is stated as E.C (Ethiopian Calendar) in which case it is Ethiopian Calendar. The Ethiopian calendar is 8 years behind the European Calendar i.e. currently it is 2005 in EC



Tier III: Specialized Hospital designed to cater to tertiary and referral high level health care for around 5 million population (FMOH, 2010).

In the last decade, there has been considerable expansion in the Primary Health Care Units (PHCUs) through the rehabilitation and upgrading of existing facilities and the construction of new health facilities. This has significantly increased the potential health service coverage to over 90% of the population (FMOH, 2010). In line with this, evidence shows that there has been an encouraging progress in the prevention and control of major communicable diseases including better outcomes in child health. For instance, figures from the latest Ethiopia Health and Demographic Survey (EDHS) showed that Infant Mortality Rate (IMR) and Under Five Mortality Rate (U5MR) in Ethiopia dropped to 59 per 1,000 and 88 per 1,000, respectively (CSA, 2011). These figures are still high, because it means that one in every seventeen Ethiopian children die before the age of one year, while one in every eleven doesn't survive to celebrate their fifth year birthday. Similarly, the latest Ethiopian EDHS indicates a total fertility rate of 4.8 children per woman, with regional variations of as low as 1.5 births per women in Addis Ababa (the capital City) to as high as 5.6 births per women in Oromiya Regional State (CSA, 2011). In general, the level of fertility is significantly lower in urban (TFR 2.6) compared to rural areas (TFR 5.5), and there is some improvement from the previous EDHS report (CSA, 2005).

However, despite the success cited above, one of the areas where there is little improvement is the maternal health outcome. The burden of Maternal Mortality Ratio (MMR) is persistently high. Despite the fact that global maternal mortality has been declining at a rate of 1.3% per year since 1990, the fact remains that more than 50% of all maternal deaths occur in only six countries (India, Nigeria, Pakistan, Afghanistan, **Ethiopia**, and the Democratic Republic of the Congo) (Hogan et al., 2010). In Ethiopia, based on the latest EDHS the MMR is 676 deaths per 100,000 live births; meaning seven maternal deaths for every 1,000 live births (CSA, 2011). The MMR has shown no improvement from the previous 2005 EDHS report (CSA, 2005) which was 673 per 100,000 maternal deaths suggesting that there is still a long way to go to achieving MDG target 5.

One of the major initiatives that have been undertaken by the government to improve the Maternal, Neonatal and Child Health (MNCH) outcomes was the inclusion of MNCH services as one of the five major components of the Essential Health Service Package (EHSP) (FMOH, 2005). The delivery of this service starts at the Primary Health Care level where community and

family level services are provided through the Health Extension Program (HEP). The service consists of essential services package which focus on preventive health measures targeting households and particularly women/mothers and children at the Kebele (community) level (FMOH, 2005).

The major MNCH activities that Health Extension Workers (HEWs) are involved in the following: Antenatal Care (ANC) service, Family Planning, Delivery, Post Natal Care, Child Growth Monitoring and treatment of common childhood health problems such as malaria and pneumonia (HEEC, 2007).

### **1.3 Health Extension Program**

#### **1.3.1 Philosophy and objective**

The health care system of Ethiopia is guided by the sector-wide approach of HSDP. The government has formulated and subsequently implemented a series of Health Sector Development Programs (HSDP I, II and III) from 1997-2010 and is currently in the second year implementation of HSDP IV. Despite significant progresses in the improvement of health conditions through the implementation of the HSDP, one of the results of the evaluation of HSDP I showed that basic health services had not reached those in need, owing to lack of primary health care (PHC) services at the community level. To address this gap, the HEP was introduced in the following and second Health Sector Development Program (HSDP II) in 2002/03 (JCCC, 2003).

The major aim of HEP is to improve access and equity in the delivery of essential health interventions at the village and household levels through enhancing health awareness, knowledge, and skills among community members and improve the utilization of peripheral health services in close proximity to service users. This approach was adopted to bridge the gap in the physical distance between the communities and health facilities through HEWs (HEEC, 2007). As part of this, an essential package of basic and essential promotive, preventive and selective high impact curative health services has been defined, primarily targeting households. The packages have been built upon the following major principles of the PHC:

- Focus on the improvement of the health status of families
- Their full participation, using local technologies and the community's skill and wisdom (HEEC, 2007).

It has been also noted that the program is designed on the noble philosophy that states “...if the right knowledge and skill is transferred to households they can take the responsibility for producing and maintaining their own health” (HEEC, 2007: 3). This is in line with the economic perspectives of the human capital approach which states that individuals can invest and produce health by making the right choices (Wonderling, Gruen & Black, 2005). This in part supports the philosophy of HEP, which has a built in believe that the transferring of the right knowledge and skill to households, groups and individuals will potentially contribute towards producing and maintaining health. However, giving the responsibility for producing and maintaining good health to the households might not be feasible as there is a range of factors beyond the control of the households that affect the health outcome.

### **1.3.2 HEP components and Packages**

The HEP is organized and delivered in health intervention packages constituting four major components: disease prevention and control (which includes curative malaria services for MCH as explained in the introduction), hygiene and environmental sanitation, family health service, health education and communication (MOH, 2005). A total of 16 packages are included under the four components. Objectives, expected activities, performance measures and educational materials for each of the packages have been developed and distributed to lower level health delivery facilities including health posts (MOH, 2005). The four components and the packages under each of these components are summarized as follows

Component No 1: The first component is disease prevention and control and this component addresses the most prevalent communicable diseases, which are responsible for major morbidity and mortality including TB, HIV/AIDS and other STI as well as malaria. The expected role and responsibility of HEWs in the prevention and control of these diseases is well defined. In the implementation of TB program, their role extends from health education/promotion to the provision of DOTs for cases that have referred from higher health facilities. Similarly, for malaria prevention and control, in addition to health education/promotion they are expected to conduct Rapid Diagnostic Test (RDT) and, based on the result, to treat uncomplicated malaria cases. With regard to HIV/AIDS their role is related to Behavioral Change Communication (BCC) activities and home based care for HIV/AIDS patients (MOH, 2005).

Component No 2: The second and major component of the HEP is family health services targeting households particularly women/mothers and children at the Kebele level. The major services provided under this component include ANC service, family planning, delivery, and post natal care, growth monitoring as well as treatment of common child hood problems such as malaria and pneumonia. They are also expected to provide vaccination for all programs included under the national Expanded Program for Immunization (EPI) (MOH, 2005).

Component No 3: The third one which is hygiene and environmental Sanitation focuses on enhancing hygiene and sanitation at the household and community levels. This component covers a wide range of environmental health activities and the role of HEWs is limited to increasing the required knowledge and skill to ensure personal hygiene and healthy home environment.

Component No 4: The last component of the HEP is the health Education and communication as a cross cutting approach for all the previous components (MOH, 2005).

**Table 1: Components and packages of the HEP**

	Components	Package
<b>1</b>	<b>Disease Prevention and Control</b>	
		1.1 TB and HIV/AIDS and other STI prevention and control
		1.2 Malaria prevention and control
		1.3 First Aid and emergency measures
<b>2</b>	<b>Family Health Service</b>	
		2.1 Maternal and child health
		2.2 Family planning
		2.3 Immunization
		2.4 Adolescent reproductive health
		2.5 Nutrition
<b>3</b>	<b>Hygiene and Environmental</b>	

	<b>Sanitation.</b>	
		3.1 Excreta disposal
		3.2 Solid and liquid waste disposal
		3.3 Water supply and safety measures
		3.4 Food hygiene and safety measures
		3.5 Healthy home environment
		3.6 Control of insects and rodents
		3.7 Personal hygiene
4	<b>Health Education and Communication</b>	
		4.1 Health Education and Communication Package

### 1.3.3 Implementation Arrangement

The HEP implementation arrangement requires that each rural Kebele should have one health post staffed by two female Health Extension Workers (HEWs) (FMOH, 2004). The implementation guideline also requires that the candidate for the position must be women aged 18-30 years; with at least completion of 10th grade. The candidate must also be selected from the communities (kebele) in which they reside in order to ensure acceptance by community members. The HEWs training program is a one-year course conducted at Technical and Vocational Education and Training Institutes (TVETIs). The training consists of coursework and field work to gain practical experience (FMOH, 2004). To date more than 32,000 HEWs have been trained and deployed, which is above the target set for the training (FMOH, 2010).

The time of the HEWs is divided between facility based and outreach activities. HEWs are required to spend 75% of their time conducting outreach activities by going from house to house (HEEC, 2007). During these visits, HEWs are expected to teach by example and one of the major strategies in support of this approach is the use of model families who serve as early adopters of this program. HEWs are expected to identify and train model families based on pre-determined criteria, and the model families help diffuse health messages leading to the adoption of the desired practices and behaviors by the community (HEEC, 2007).

However, despite the success in the remarkable progress in training and the deployment of HEWs, there are some challenges and gaps in its implementation (FMOH, 2008). The HSDP III midterm review (2008) reported that major gaps in the performance of HEWs particularly regarding to the MNCH component. In addition, the evaluation has also reported a high turnover of HEWs.

#### **1.4 Statement of the problem**

The Health Extension Program guideline states that all HEWs should be assigned to a health post within their own community (FMOH, 2004). Health policy makers and managers in Ethiopia assume that HEWs who are not serving the communities they come from, are more likely to leave or be absent from work. However, the 2008 mid-term evaluation of the *Health Sector Development* Program revealed that 53.1% of the existing HEWs are not serving in kebeles from where they were recruited (HEEC, 2008). In other words, the majority of kebeles were served by HEWs who were not locally selected, but came from other kebeles or from urban areas. While there is an assumption that this situation may partly explain the poor performance of the HEP in some areas, there is no sufficient or empirical evidence to date to come to this conclusion. The author of this study has no knowledge on the availability of specific studies so far that have been able to investigate whether the place of selection of HEWs in any way impacts on the performance and retention HEWs.

#### **1.5 Rationale of the Study**

Given the generally held view that there is some important association between the place of recruitment of a HEWs and their performance and therefore their retention, the design of this study focuses on the exploration and testing of this relationship to obtain vital information to help guide evidence-based decision making for further development and effective management of the HEP in the country.

This study was conducted to address this important but unexplored area in the implementation of the HEP using a mid-level health cadre of HEWs. The area of interest for this study is to find out whether there is a relationship between the place of recruitment of HEWs and their performance and retention. While this study was conducted in only one zone of the country, the findings will hopefully provide important information to guide further investigation. It is also

hoped that this will provide input for evidence-based decisions for the further development and management of the program.

## **1.6 Description of Setting**

This study was conducted in Jimma Zone, one of the 17 zones in the Oromia Regional State. According to the latest House and Population Survey (CSA, 2005), the population of the Zone is estimated to be 2.6 million of which 11% are urban and 89% are rural dwellers. In Jimma Zone, an estimated 60 to 80% of the health problems are due to infectious, communicable diseases and nutritional problems (Bekele et al., 2008). Health care delivery takes place through 2 hospitals, 54 health centers and 519 health posts. There are 35 private and NGO clinics. Within the 17 rural districts of the Jimma Zone, there are a total of 510 rural villages or kebeles (Kerie, 2011). The average number of rural kebeles in a district is 30 ranging from 14 in Gumayi District to as many as 53 in Dedo District. Most (93.7%) rural kebeles have two HEWs (Kerie, 2011).

## **1.7 Aim**

- To assess the association between Health Extension Workers' place of selection and their performance and retention in Jimma Zone, Ethiopia.

## **1.8 Objectives**

- To identify the proportion of health posts with HEWs who are locally or not locally selected.
- To describe the performance of health posts.
- To compare turnover of HEWs and performance of health posts between HEWs selected from local communities and those selected from other areas.



Community Health Workers (CHWs) can make a valuable contribution to community development, and more specifically can improve access to and coverage of basic health services to communities. The use of CHW has also been one of the strategies to address the shortage of health workers, particularly in low income countries (Lehman and Sanders, 2007). However, the review by Lehman and Sanders (2007) showed that although there are some trends, global generalizations about the performances of community health workers are difficult as the topic area and program profiles, structures, focus areas and implementation arrangement are extensive and diverse. The salient features in terms of the implementation arrangement are summarized as follows:

- Profile: generalizations about the profile of community health workers internationally are difficult, e.g., CHWs can be men or women, young or old, literate or illiterate.
- Scope: there is a wide variation in scope, ranging from large-scale national programs to small-scale community-based initiatives.
- Responsibility: the roles and activities of CHWs are enormously varied within and across countries and across programs. While in some cases CHWs perform a wide range of different tasks that can be preventive, curative and/or developmental, in other cases CHWs are appointed for very specific interventions.

This literature review focused on the main issues that are expected to affect the implementation of the CHWs program with focus on the selection process, training, working condition and attrition.

### **2.1 Selection criteria**

All authors suggest that to be able to make an effective contribution, CHWs must be carefully selected, appropriately trained and very importantly, adequately and continuously supported. A review of relevant literature on the subject matter showed that the criteria for selection and place of assignment for CHWs vary from country to country (WHO, 2010). The major parameters featured in the selection process include maturity (age), gender, educational



level, previous experience of service in the community, acceptability to the community, and a sense of responsibility and dedication (Crispin et al., 2012; Ofosu-Amaah, 1983; WHO, 2010).

## **2.2 Age**

With regard to age, a review of national experience in the use of CHWs in Botswana, Ghana, Iran, Jamaica, and Philippines showed that mature middle age CHWs perform more satisfactorily than young CHWS and the studies have justified this by noting that wisdom increases with age (Ofosu-Amaah, 1983). The review also noted that “...*Generally young CHW have been found to have less standing in the community and less commitment and therefore don't command respect*” (Ofosu-Amaah, 1983: 14). Recent review on the effects of selected socio-demographic characteristics of CHWs on performance reported that there are significant relationships between the age of the CHWs and good record keeping (Crispin et al., 2012). The recent global review on the age of HEWs showed slight variation with regard to the minimum age requirement to be recruited as CHWs: ranging from 18 -20 years of age (WHO, 2010).

## **2.3 Gender**

Existing experience also showed marked variation about the gender of the CHW, as the preference vary with some training only male, others female and in some cases mixed, based on the cultural difference and bias related to gender. For instance, Gonzalez (1975, as cited by Ofosu-Amaah, 1983) reported that in Venezuela males were used when the assignment area was expected to be remote, considering the expected long distance to be covered by the CHWs. In Afghanistan, however, females are preferred as women were unwilling to be examined by male CHWs when it came to pregnancy and delivery related activities Flahault (1976, as cited by Ofosu-Amaah, 1983). Similarly, in Pakistan and Bangladesh females are preferred for the same reason. However, in terms of the relationship between gender of CHW and performance, a study by Crispin et al. (2012) reported that male CHWs were more likely to keep better records than females while females were more likely to counsel and enable their clients.

## **2.4 Educational Preparation**

In terms of educational preparation, most CHWs program requires a minimum level of literacy to ensure proper recording and understanding of training and educational materials. However, there is also an experience of recruiting illiterate but mature, and responsible villagers into a program (Brown et al., 2006). Previous reviews of the national experience in the use of

CHWs showed a marked variation from recruiting those who are illiterate where initial bridge training is provided to correct the illiteracy to high school graduation standards in the case of Ethiopia (HEEC, 2007; Ofosu-Amaah, 1983). A more recent review of developing countries experience in the implementation of community health programs reported similar findings (WHO, 2010). However, this study, noted that setting secondary education criteria as a minimum criteria for becoming CHWs does not sound practical as finding potential candidates meeting this requirement in disadvantaged regions is challenging. The Ethiopian experience is similar in some of the remote disadvantaged regions of the country, such as Afar, where HEWs were either recruited from outside of the community or candidates with only primary education were selected (FMOH, 2010). As we shall see, this was not a problem in the studied region. To circumvent the challenge of finding high school graduates from disadvantaged community, the WHO (2010) study recommended lowering the requirement for CHWs to primary education level, but incorporating adult education comprising of basic arithmetic, reading and writing into the training curriculum of the CHWs to ensure proper documentation, referrals and records keeping of the supplies.

## **2.5 Recruitment Process**

Another important element of programs is the process of selection of trainees. It is evident that there is need to ensure that recruits respect the values of the community, adapt to the community and have a commitment to serve for long period in the community. However, there is no one obvious mechanism to ascertain that the recruits can meet these criteria. In many cases, involvement of the community and giving the responsibility for the selection to the local council is seen as a mechanism to ensure acceptance by the community and the anticipated long-term commitment from the candidate (Ofosu-Amaah, 1983; WHO, 1989; WHO, 2010). There are also studies which emphasize the importance of choosing CHWs from the communities they will serve and the involvement of communities in the selection of their CHWs (Lehman and Sanders, 2011; WHO, 1989; Yahya, 1990). Similarly there are studies, which show poor selection criteria to be a major contributing factor to the failure of CHWs in many countries (Sauerborn, Nougara & Diesfeld, 1989).

The more recent review of global experience on CHWs also emphasized the need for the recruitment of HEWs from the local communities (WHO, 2010). The WHO study went one step

further by recommending that the CHWs should be directly chosen by the involvement of households that they will work with rather than giving this power to health or other officials at a community level.

However, reviews of country experiences showed that despite the involvement of the local council and community, there is a tendency of bias in the selection of CHWs in anticipation of kinship or political favoritism, including leaning towards personal gains rather than the quality attributes of the candidate. As one author described it very informatively “...where local council are responsible for the selection there is a tendency to select the daughters or sons of influential people in the community” (Ofosu-Amaah, 1983:16). Other studies reported similar problems in the recruitment process. For example, in Bangalore, India, the practice of selecting CHWs from local communities is widely accepted and implemented; however, it was found that local bureaucrats and leaders, rather than the community, played a significant role in the selection process (SOCHARA, 2005). Gilson et al. (1989) also found CHWs are mostly selected by health personnel rather than by the communities.

Along similar lines, there it is an argument that recruiting candidates from the same communities they live in has the potential to enhance the long-term commitment to serve the community they belong and hence decrease the dropout rate of CHWs (HEEC, 2007). Ofosu-Amaah (1983), from his review of the country experiences with CHWs, has reported that there has been high turnover of CHWs. However, the report rather attributed drop outs had mainly been due to issues related to remuneration, working condition, poor selection, including lack of interest to serve at the community level. Similarly, studies from India and Bangladesh mentioned that low remuneration, work overload, finding other jobs with better salaries, as well as promotions to higher positions in the health system have been the major factors for the CHWs drop out (Ahmed, 2007).

## **2.6 Review of HEP implementation in Ethiopia**

The HEP implementation guidelines of Ethiopia provide several selection criteria for HEWs. The guideline clearly requires that HEWs should be women and be recruited from the same communities; be above 18 and below 30 years old; should complete education level of grade 10; mentally and physically fit, and they should be selected by kebele and district councils in collaboration with the communities (FMOH, 2004). According to the guideline, selection

should be done by a committee comprised of woreda health office, capacity building office, education office and a member nominated by local community. In addition to the recruitment, the woreda health office is also involved in assisting HEWs through training, supervision, and supply logistics. The roles of the regional and federal governments with regard to HEP are mainly related to the training of HEWs and making all logistics and supplies available at the required levels (JSI, 2008).

However, the above criteria in relation to educational preparation and gender are reconsidered in recruitment of the pastoralist. Due to problem of finding female candidates who have completed 10th grade the recruitment guidelines were reconsidered in the pastoralist area. As a result the educational requirement is reduced to 6th – 8th grade; training duration reduced to six months and gender criterion is also flexible to allow men to be recruited where it is difficult to find women due to educational or cultural situation of the community (WHO, 2010).

Despite the limited empirical evidence that links recruitment from the same community to the long-term commitment and improved performance, the HEP implementation guideline emphasizes the need to recruit from the local community through the active involvement of the community (FMOH, 2004).

The findings from limited studies that the researcher has been able to assess regarding the implementation of HEP in Ethiopia show that the above selection criteria and requirements were not strictly followed in many cases. One of the earlier studies, which have highlighted the existence of such gap, was a cross sectional study that was conducted in four woredas of two regional states (HEEC, 2008). The assessment used both quantitative and qualitative measures, including semi-structured key informant interviews and focus group discussions (FGDs). The result of this study showed that 53.1% of the HEWs were providing services in kebeles (communities) which were different from where were recruited (HEEC, 2008). The District Health Offices (DHOs) explained this anomaly by claiming that when HEWs recruitment was conducted, there were too few candidates who had completed 10<sup>th</sup> grade within all kebeles to fit the guidelines. Thus, some were recruited from different communities (HEEC, 2008). Similarly the study done by reviewing the available data and literature on HEP and HEWs shows that over 50% of HEWs came from urban areas (Koblinsky et al., 2010).

Another cross sectional study was conducted by the Center for National Health Development in Ethiopia (CNDHE), the Earth Institute at Columbia University, with the aim of assessing the first year's HEWs training program from various angles, including the recruitment process and outcome. The study findings from HEEC (2008) and CNDHE (2005) suggested that selecting recruits outside of their communities has created major gaps in the implementation process of the HEP in Ethiopia. However, the later study indicated that most trainees appeared to have been genuinely and positively disposed towards their assignments, despite the fact that they were not recruited locally. The finding from this similar study has also noted other important factors in the recruitment process, which have potential implications on the performance of the HEWs. The first was the limited involvement of local authorities in the recruitment process, since this responsibility has been given to the TVETs. The announcement and recruitment by TVETs which are located in urban areas is obviously against the guideline since these institutions have no system to ensure that local candidates are selected. The second major gap was that this program has attracted trainees with much lower grades compared to other TVETs level training program. This happened because the recruitment process for the first intake started late and student with better grades were already enrolled to other programs (a problem which did not occur during later intakes). The third issue was lack of financial support in the form of stipend payment during the training period. This negatively affected the teaching and learning processes, especially those who were enrolled outside of their communities (HEEC, 2008).

There is one interesting study that examined the working condition of the HEWs in Ethiopia, including the selection process, covering six regions (Amhara, Benishangul and Gumuz, Harari, Oromia, SNNPR and Tigray) 23 zones, 27 woredas, 50 HP and 60 HEWs. Interestingly, this study reported that “...*Selection from the Kebele in which they will be working after graduation, which was assumed to guarantee a reasonably long service to the community at the kebele level, was flawed*” (Tekelehaimanot et al., 2007: 253). The study argued that some HEWs indicated a preference for placement outside their kebele of origin and explained this preference as an inclination towards public employee status rather than being a community worker. The study also argued that youthfulness of the HEWs is an additional factor that tended to negatively affect the anticipated long-term commitment of HEWs recruited, regardless of the recruitment site, because in most cases younger age groups are highly mobile and prefer to transfer to urban areas.

A cross sectional study by Bekele et al. (2008) in SNNPR, one of the regional states in Ethiopia, reported that the turnover of HEWs in some areas was due to flawed recruitment of candidates, absence of clear understanding among HEWs about their career structures and unattractive salary. However, the study has not further elaborated what was meant by flawed recruitment of the candidates: whether it meant recruiting outside of the community or something else related to the recruitment process. In addition, the level of the drop out and the relative importance of the various factors mentioned ‘flawed recruitment’, program understanding, career structure in explaining the drop out, was not analyzed in detail as it has been stated as a general statement.

Another study also supports the generally held assumption that HEWs assigned outside of their Kebele are less motivated to perform and are hence associated with high drop-out rate (HEEC, 2008). This assessment was conducted in two regional states in Ethiopia and covered 4 woredas. The study reviewed some of the major factors that would probably influence the retention and turnover of HEWs, including the location of the recruitment of HEWs versus the location of posting, length of service as HEWs and education of HEWs. The study showed that on an average, in 53.1% of the cases, the recruitment site of the HEWs is different from their current posting. The study also examined the opinion of the HEWs with regard to their interest in extending their work assignment. The finding from this study in this regard showed that those HEWs who were assigned in their home villages/kebele expressed more interest in extending their work assignment by one to two years, compared to those who were not assigned to their home villages/kebele (86.5% versus 68.3%). Based on this finding the study suggested that assigning HEWs to different communities might lead to a higher rate of staff turnover.

A study by Bradley et al (2012) looked at factors that explain variation in performance across PHCUs, which includes both health posts and health centers. The study uses achievement with regard to Ethiopia Millennium Rural Initiative (EMRI) targets as a performance measure and classifies the PHCUs as high performers and low performers. The findings of this study highlighted important elements that affect performance at PHCUs level, including managerial capacity at district level and their relationship with the woreda health office with respect to community engagement, as an important factor that affect performance. However, the study did not discuss the relationship between the socio-demographic characteristics of the health workers, including recruitment site and the performance at PHCUs level

Overall, the literature review showed that there are only few studies that have objectively assessed and verified the generally held assumption that HEWs who have been assigned outside their Kebele are less motivated to perform and hence associated with higher drop-out rates. The findings from the available limited studies are inconclusive, and some suggested that it is not just the recruitment site but also other factors in the recruitment process such as the involvement of relevant stakeholders, the timing of recruitment as well as the interest of the recruits to serve at the community level that are critical determining variables in influencing the motivation and long term commitment of HEWs to serve in the community.



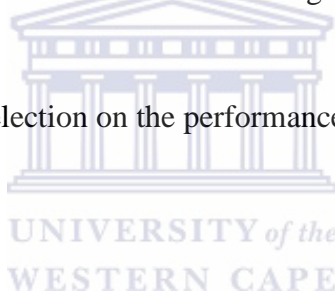


## CHAPTER THREE: METHODOLOGY

### 3.1 Study design

An analytical cross sectional study design was used to assess the performance of HEWs and the effect of place of selection on the performance of health posts in six randomly selected districts of Jimma Zone, Oromia Regional State. This study design was chosen to appropriately answer the study questions and meet the objectives of the study. The focus of the study is to assess the following:

- Proportion of health posts with locally selected HEWs,
- Proportion of adequately (that have achieved the minimum level) performing health posts,
- Proportion of locally selected HEWs within sub-groups (adequately and inadequately performing health posts)
- The effect of the place of selection on the performance of health posts.



### 3.2 Definition of terms

- ❖ Non-local HEWs: HEWs recruited from neighboring kebele or urban areas.
- ❖ Local HEWs: HEWs recruited from the kebele they are serving
- ❖ Health posts with local HEWs: health posts in which both HEWs are recruited from the kebele they are serving
- ❖ Health posts with non local HEWs: health posts with both HEWs are recruited from outside the kebele.
- ❖ Target: All target of the indicator are calculated from their eligible population by using a national target plan (HSDP III) and the yearly Woreda plan.
- ❖ Adequate Performance: health post that scored more than 50% in the aggregated indicator
- ❖ Inadequate Performance: health post that scored less than or equal 50% in the aggregated indicator

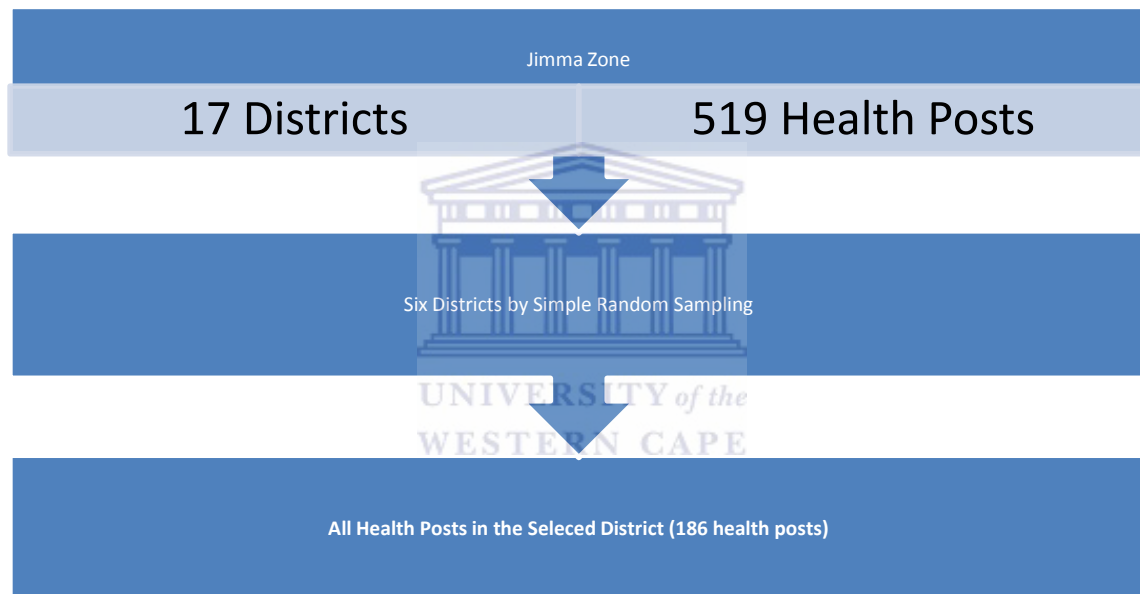


### 3.3 Study population

The study population for this study was all functional rural and urban health posts found in Jimma zone.

### 3.4 Sample Size and Sampling Procedure

The sampling technique used for the selection of districts and health posts was multi-stage sampling. There are 17 districts in Jimma Zone, which share a similar socio-demographic profile. In the first stage six districts (35%) were selected by simple random sampling. In the next step, all health posts in the selected districts were included in the sample.



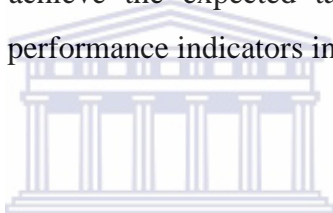
### 3.5 Data Collection

Data on the place of selection of HEWs, educational preparation, year of service and HEWs turnover and the performance of health posts were obtained from the routine activity reports of the district offices. Record review of the 2011 activity reports of all selected health posts in Jimma Zone was conducted at the district health office. Data was gathered through the review of the relevant records at district health offices and the Jimma Zonal health Department by data collectors, in collaboration with the district health office manager or district health extension supervisor. Data collectors were trained on the appropriate collection of the required data elements using a structured data extraction form. This data collection method was

supplemented by obtaining relevant information by conducting focused discussions with field managers and supervisors with the aim of gaining an insight from their field experiences.

### 3.6 Data analysis

The collected data was entered and analyzed using SPSS, version 16. Descriptive statistics was used to describe the socio-demographic profile, recruitment area and performance of the health posts. Presence of any relationship between the place of selection of the HEWs and the performance of the health post was tested. Performance indicators were developed by aggregating the already defined key indicators for each of the HEP packages. Based on the criteria for monitoring the HEP, performance was considered to be adequate if the health post scored more than 50% in the aggregated indicator, while it was classified as inadequate if the aggregate measure was less than or equal to 50%. In other words, to classify the performance as adequate the health post should achieve the expected target for at least 12 performance indicators. Detail description of the performance indicators in relation to the HEP is shown in the result section.



s.no	Activities	Scoring system	
		Health post target Achieved	Health Post target not achieved
1	Latrine construction	0	1
2	Solid waste disposal pit construction	0	1
3	Family planning( contraceptive)	0	1
4	Family planning(depo)	0	1
5	TT2+ immunization for pregnant	0	1
6	TT2+ immunization for non pregnant	0	1
7	infants vaccinated for Penta-3	0	1

8	infants fully immunized		1
9	ITN distribution	0	1
10	ITN utilization	0	1
11	Treatment of diarrhea for <5	0	1
12	TB patient referral	0	1
13	TB patient follow up	0	1
14	Malaria treatment	0	1
15	Health education by session	0	1
16	Health education by participant	0	1
17	Community conversation	0	1
18	Deliveries attended by HEWs	0	1
19	Pregnant women who attended ANC during the current pregnancy(1 <sup>st</sup> visit)	0	1
20	Pregnant women who attended ANC during the current pregnancy (repeat)	0	1
21	Women who received care at least once during postpartum	0	1

22	Model Households graduated	0	1
	<b>Total Score</b>	<b>0</b>	<b>22</b>

Maximum score =22

Adequate Performance –Those health posts which score >11 (more than 50% of total score)

Inadequate performance –Those health posts which score  $\leq$ 11

In terms of statistical test, Chi-square test statistic was performed to assess if the relationship between place of selection and performance was significant and P-value less than 0.05 was considered statistically significant. Since the location of the health post (urban versus rural) can also be an additional confounding factor, the relationship between performance and place of selection was also conducted by disaggregating the health post into rural and urban

### 3.7 Data Quality

A pre-test was performed before the study period in a district, which was not included in the actual study. The pretest was conducted on records from 20 health posts and the data form was assessed for its completeness and clarity. Supervisors and data collectors were trained on pertinent data collection principles and procedures before their participation as supervisor or data collectors in the study. Supervision was conducted by supervisors and the researcher. The questionnaire was checked every day by the supervisors. After the data collection double data entry was used to see whether there are any inconsistencies within the data. Data was cleaned and coded using SPSS.

### 3.8 Limitations

Due to resource limitation and time constraints for data collection, the study was based on the review of secondary data from one Zone. In addition one of the major aims of the study was to assess the turnover of the HEWs. However, due to the absence of any monitoring mechanism or records with this regard, it was not possible to assess the turnover of HEWs. The study would have benefited if it had been complemented with primary data through interviews and focus group discussions, but this was not possible due to the limited scope of this study.

### **3.9 Ethical consideration**

An application for ethics approval was submitted to the University of Western Cape (UWC) Ethics Committee. Since only existing records were used for the study participation information and consent sheet were not required. However, permission to review the data was obtained from the Jimma Zone Health Office.



## CHAPTER FOUR: RESULTS

### 4.1 Characteristics of Health Posts and HEWs studied

#### 4.1.1 Geographic Distribution

All total of 186 health posts, which are widely distributed across six Woredas in Jimma Zone were included in the study (see Table 1). Among the 186 health posts included in the study, 42 (23%) are located in the urban areas while the remaining are rural health posts.

Table 2: *Distribution of Health posts included in the study, Jimma Zone, Oromiya Region Ethiopia 2012*

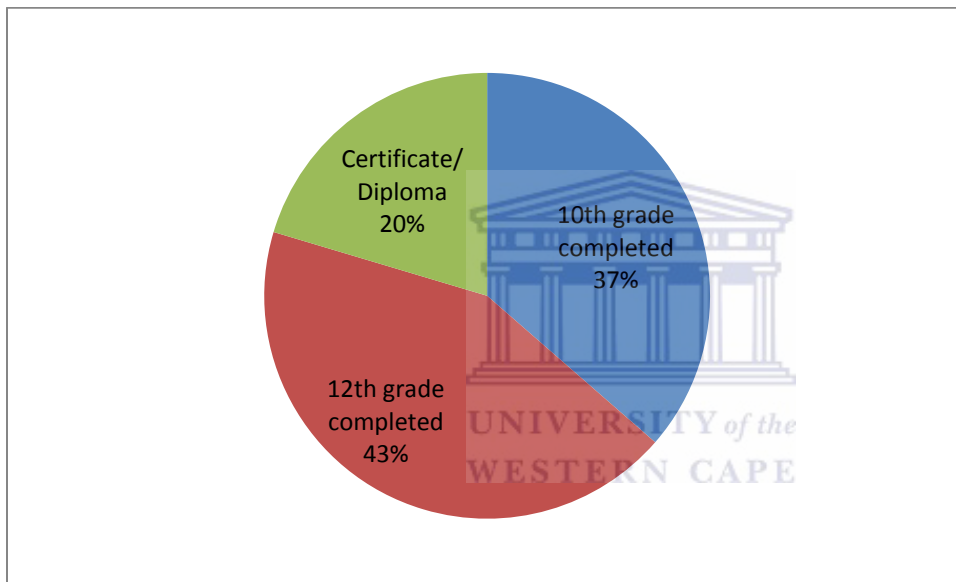
Sr. No	Woreda	Number of HPs	Percentage
1	Chora boter	32	17%
2	Limu seka	31	16.7%
3	limukossa	40	21.5%
4	Mana	22	12%
5	Nunu benja	27	14.5%
6	Sokoro	34	18.3%
	<b>Total</b>	<b>186</b>	<b>100%</b>

#### 4.1.2 Staffing

In all of the sampled health posts, the staffing adhered to the National HEP Implementation guideline, which requires the availability of two HEWs per health post; giving a total of 372 HEWs.

### 4.1.3 Educational Preparation

The HEP implementation guideline for recruits of HEWs requires a minimum 10<sup>th</sup> grade graduates to enroll in the training. This study shows that all the recruits met the minimum criteria, while in some cases they even exceeded the minimum requirement, since significant number of HEWs had some education beyond 10th grade – in all likelihood a reflection of the fact that Jimma region is quite central and therefore an attractive place to work. The characteristics of educational preparation before joining the HEP shows that of the 368 HEWs for which the educational level at recruitment is available, 20% were certificate or diploma holders, 43% 12<sup>th</sup> grade graduates and 37% were 10<sup>th</sup> grade graduates.



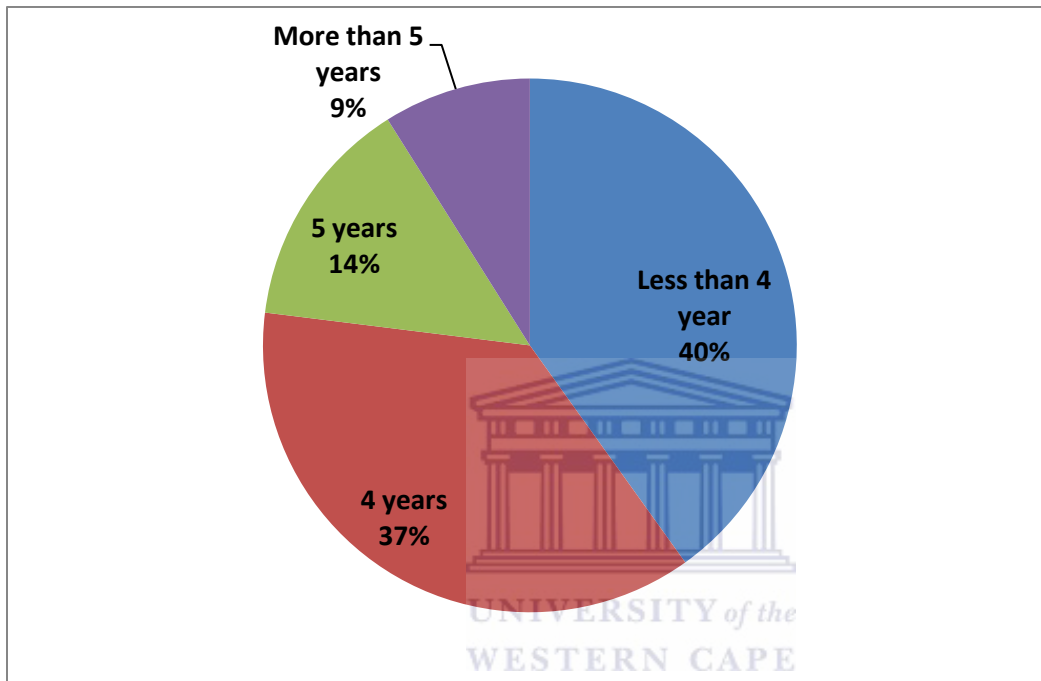
**Figure 1: Percentage distribution of educational preparation (years of schooling) of HEWs, Jimma Zone Ethiopia 2012 (n= 368)**

### 4.1.4 Age Distribution

Age information is available for a total of 368 HEWs. The analysis showed that the average age of HEWs is 30, ranging from 18-40 years old. The HEP implementation guideline states that the minimum age for recruitment is 18 years and the result suggests that some of the HEWs joined the training at a younger age (since the training is one year in duration).

#### 4.1.5 Years of Service

Assessment of the years of service showed that most of the HEWs are fairly experienced. The analysis showed that service year information is available for 369 HEWs and out of these nearly 60% have more than four years of work experience.



**Figure 2: Percentage distribution of total service years of HEWs, Jimma Zone Ethiopia 2012 (n= 369)**

However, further analysis of the service year with regard to how long the HEWs have served at their current post showed a lower result. The finding showed that, although most HEWs had substantially more than 2 years of service, only 17% had more than 2 years of work experience at their current post. This is an unexpected finding because there is no transfer mechanism for HEWs who are expected to serve in their original recruitment areas without time limits. However, due to limited scope of this study, the researcher did not attempt to conduct further analysis on this finding.



**Table 3: Distribution of service years of HEWs at the current Health Post, Jimma Zone Ethiopia 2012 (n= 369)**

<b>Service Year</b>	<b>Frequency</b>	<b>Percent</b>
Less 1 year	123	33%
1 year	113	31%
2 years	71	19%
More than 2 years	62	17%
<b>Total</b>	<b>369</b>	<b>100%</b>

#### ***4.1.6 Place of Selection of HEWs***

The HEWs implementation guideline requires that HEWs need to be recruited from the local community to enhance the performance and also improve the retention of the HEWs. This study was assessed the extent to which this guideline has been followed by looking at the place of residence of the HEWs before the recruitment. The finding from this study showed that 44% of HEWs were recruited from the same community they are currently serving while the remainders 56% of the HEWs were selected from other communities.

The result of the separate analysis on the years of service at their current post for those coming from the same community and those recruited outside of the community showed that those recruited from the same community have longer years of service. Out of the total 123 HEWs who have less than one year of service at the current post, 59% were recruited from other communities while 41% were recruited from the same community. Similarly, out of the 62 HEWs who have more than 2 years of service, 56% came from the same community while the rest were from other communities. However, the statistical test using chi square showed that there is no significant relationship between the recruitment site and years of service at the current post.

**Table 4: Distribution of the relationship between recruitment site of HEWs and years of service, Jimma Zone Ethiopia 2012 (n=369)**

	Local HEWs		Non local HEWs		Total
	Frequency	Percentage	Frequency	Percentage	
Less 1 year	51	41%	72	59%	123
1 year	49	43%	64	57%	113
2 years	26	37%	45	63%	71
More than 2 years	35	56%	27	44%	62

#### **4.2 Performance of Health Post and Recruitment Site of HEWs**

The performance at health post level was assessed using 22 performance indicators, which are developed in line with the major components and packages of the HEP. At the beginning of each year, along with the district health office and other relevant bodies, performance targets are established for each of these indicators separately for each health post. The district health office assesses and evaluates the performance of the health post by comparing the achievement related to each performance indicator against the yearly planned target. This study used the same principle to assess the performance by using the 50% cut-off point to classify the performance as adequate or inadequate. Description of the performance indicators and the related achievement along the major HEP components are presented below.

##### **4.2.1 Recruitment Site of HEWs**

This study has assessed the relationship between the performance of the health post and the place of selection of the HEWs. To draw a meaningful comparison between performance and place of selection of the HEWs, those health posts with a mixed pattern in the place of selection of the HEWs were excluded from this study. Thus, the performance analysis was conducted on 163 health posts by excluding 23 of them where the place of selection of the HEWs within the health post was mixed. Among those 163 health posts where the place of selection of the two HEWs is the same, 43% of Health posts have HEWs from the same community while in the other 67% health posts the HEWs were recruited from other community. Further disaggregation

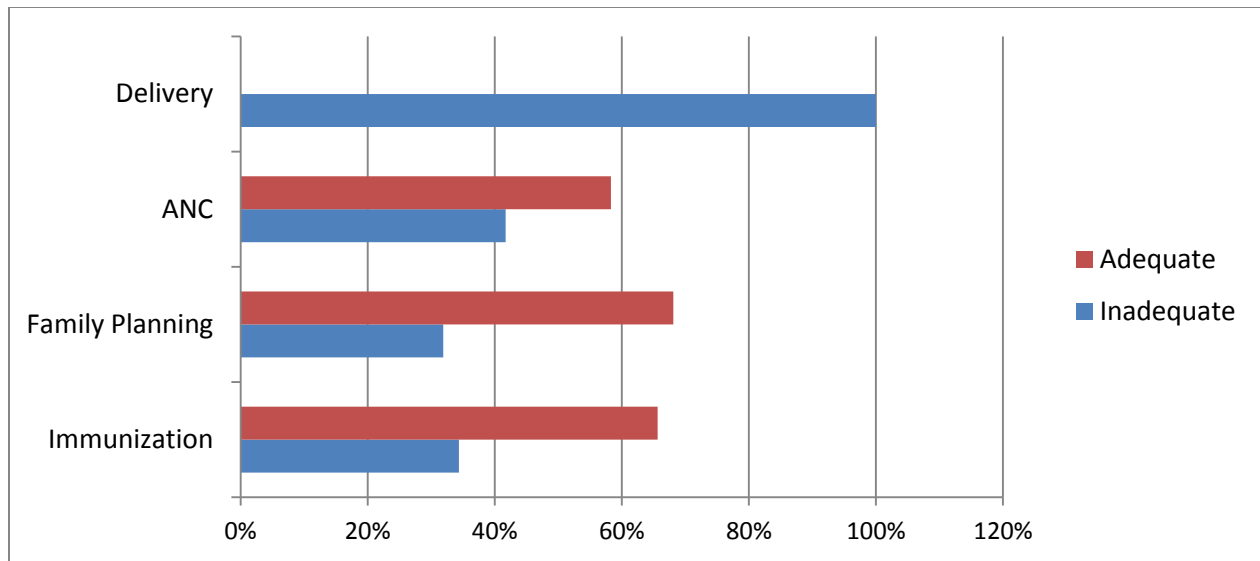
of the recruitment site by district showed that recruitment from the local community ranges from the lowest 26% in Limukosso district to the highest 74% in Nune benja district.

**Table 5: Distribution of the recruitment site of HEWs by District, Jimma Zone Ethiopia 2012 (n=169)**

District	Local	Non Local	Total
Chora boter	14 (45%)	17 (55%)	31
Limu seka	11 (37%)	19 (63%)	30
Limukosso	8 (26%)	23 (74%)	31
Manna	9 (43%)	12 (57%)	21
Nune benja	17 (74%)	6 (26%)	23
Sokoro	11 (41%)	16 (59%)	27
Total	70 (43%)	93 (57%)	163(100%)

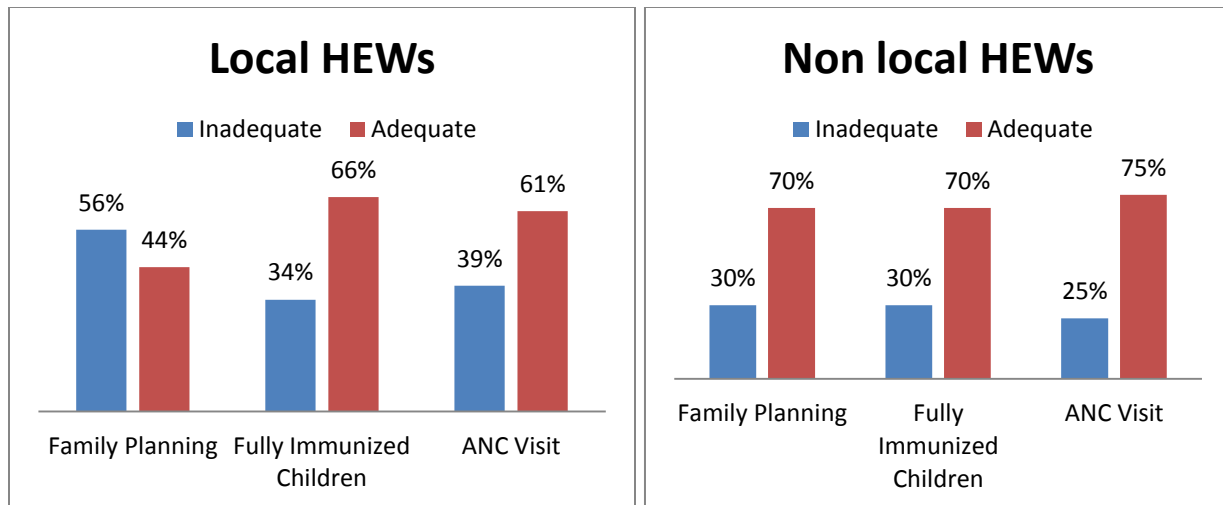
#### **4.2.2 MCH Component**

The majority of the performance indicators are related to the MCH component. These include family planning services, ANC, delivery by HEWs, postpartum visits and immunizations (both pentavalent and fully vaccinated). The achievement in terms of the number of children or mothers who received the service in relation to each of these performance measures were compared against the planned target. The performance with regard to selected MCH performance indicator, regardless of the recruitment site of the HEWs, is shown in the following figures.



**Figure 3: Percentage distribution of the performance related to MCH component, Jimma Zone, Ethiopia 2012 (n=163)**

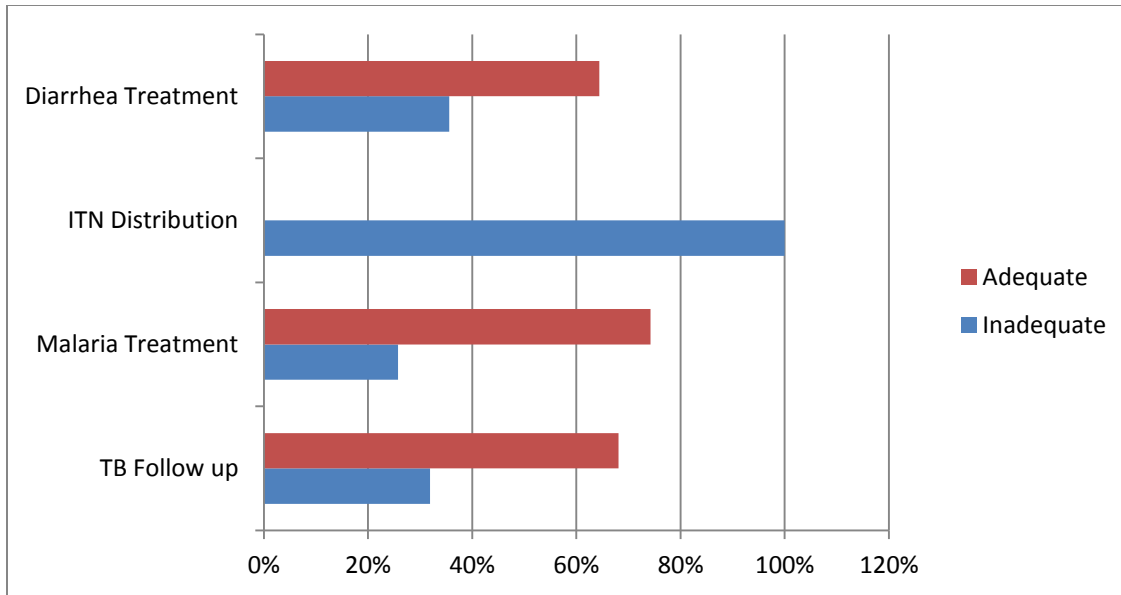
Further analysis on the performances by disaggregation into the recruitment site showed that in almost all of the performance indicators, those coming outside of the community have achieved better compared to those coming from the same community. For instance, performance related to immunization for those health posts where the HEWs are recruited from the same community and outside of the community is 66% and 70%, respectively. Similarly, the registered performance is higher for HEWs coming outside of the community for family planning service and ANC (see figure 3). However, interestingly, the performance related to delivery is inadequate in all of the health posts regardless of the recruitment site.



**Figure 4: Comparison of the relationship between the performance for MCH component and recruitment site, Jimma Zone, Ethiopia 2012 (Total n=163, same 70, other 93)**

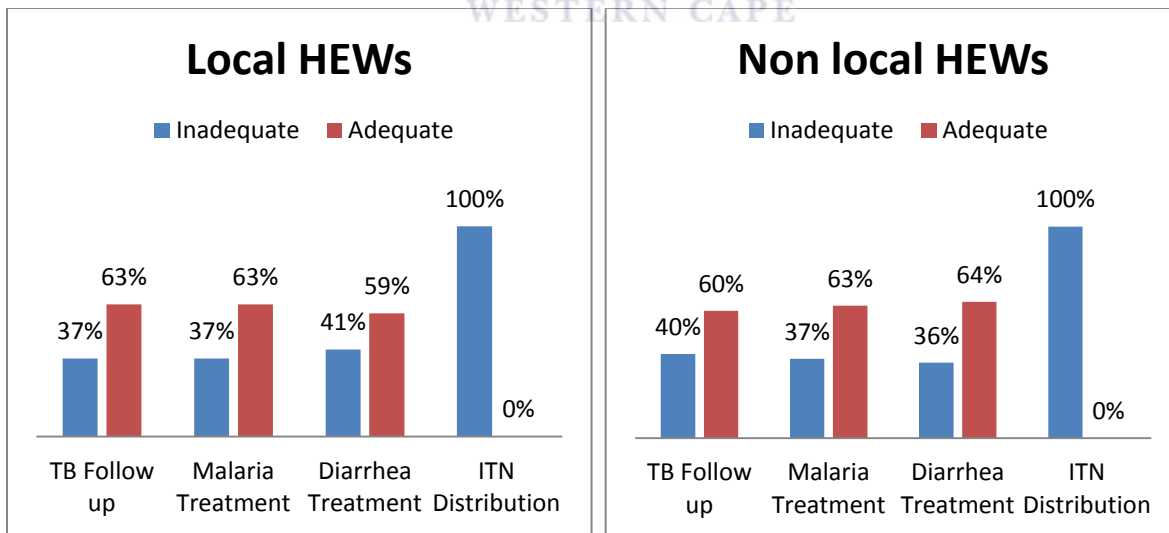
#### **4.2.3 Disease Prevention and Control**

The performance measures for the disease prevention and control components are mainly related to the activities of HEWs in relation to malaria, TB and diarrhea prevention and control programs. The activities include Insecticide Treated Net (ITN) distribution and utilization, TB follow up, malaria treatment, and treatment of malaria for children less than 5 years of age. The performance related to this component ranges from 0% for ITN distribution (the number of ITN distributed is less than the planned target in all the health posts included in the study) to 74% for malaria treatment.



**Figure 5: Percentage distribution of the performance related to Disease Prevention and Control component, Jimma Zone, Ethiopia 2012 (n=163)**

As shown in the following figure, further analysis of the performance in relation to the recruitment site of the HEWs showed that HEWs coming from outside of the community have performed comparably or even better than those coming from the same community.

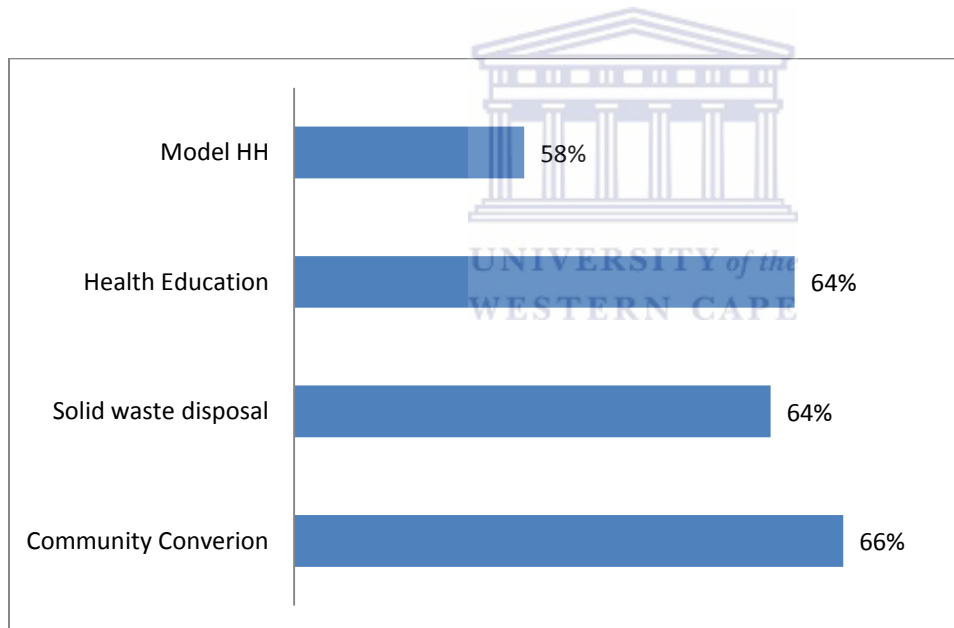


**Figure 6: Distribution of the relationship between the performance for Disease Prevention and Control component and recruitment site, Jimma Zone, Ethiopia 2012 (n=163)**

#### 4.2.4 Sanitation and Health Education and Communication

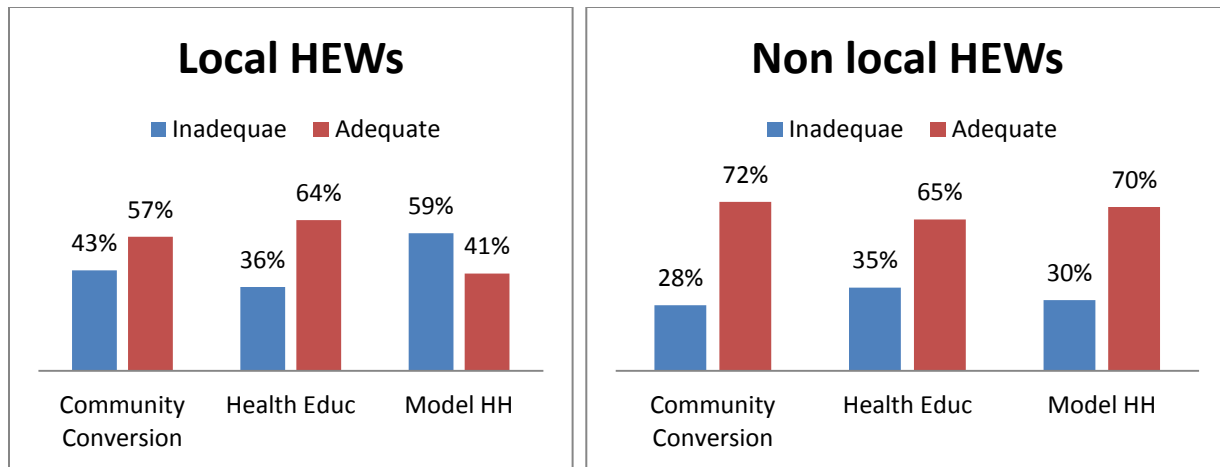
Major activities under this component are provision of relevant knowledge and skill to the community in order to enhance the knowledge, attitude and practice in relation to activities that promote and maintain health. The performance includes health education session provided, number of community conversations conducted (increase community awareness in health through the involvement of communities and provision of continued health education to bring about positive changes in knowledge, attitude and behavior (Mekbib, 2007), latrine and solid waste disposal site construction and the number of model households that have successfully graduated.

The performance of the assessed health posts with regard to these components is shown in figure 7.



**Figure 7: Percentage distribution of the performance related to Sanitation, Health Education and Communication component, Jimma Zone, Ethiopia 2012 (n=163)**

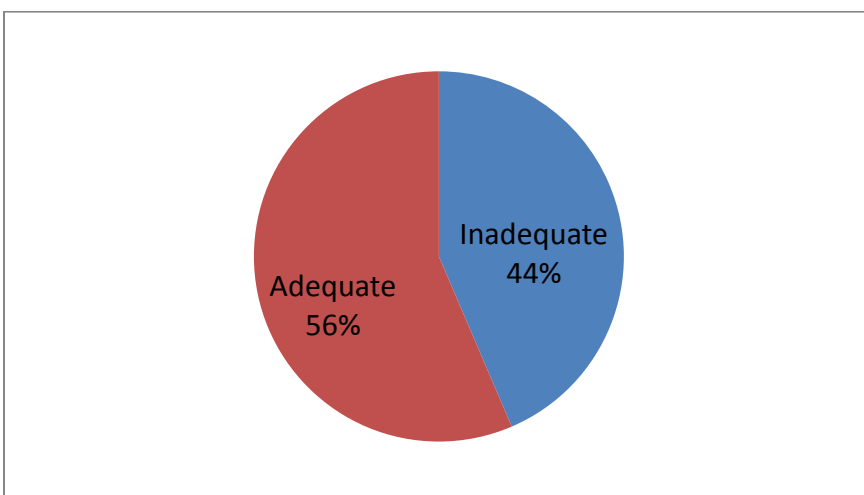
Although the overall performance on sanitation was low, further analysis of the performance against the recruitment site showed that in almost all performance indicators HEWs recruited outside of the community have achieved higher performance rates as compared to those coming from the community.



**Figure 8:** *Distribution of the comparison of the performance of HEWs recruited from the same community and outside of the community for Health Education and Communication , Jimma Zone, Ethiopia 2012 (n=163)*

#### 4.2.5 Average (Aggregate performance)

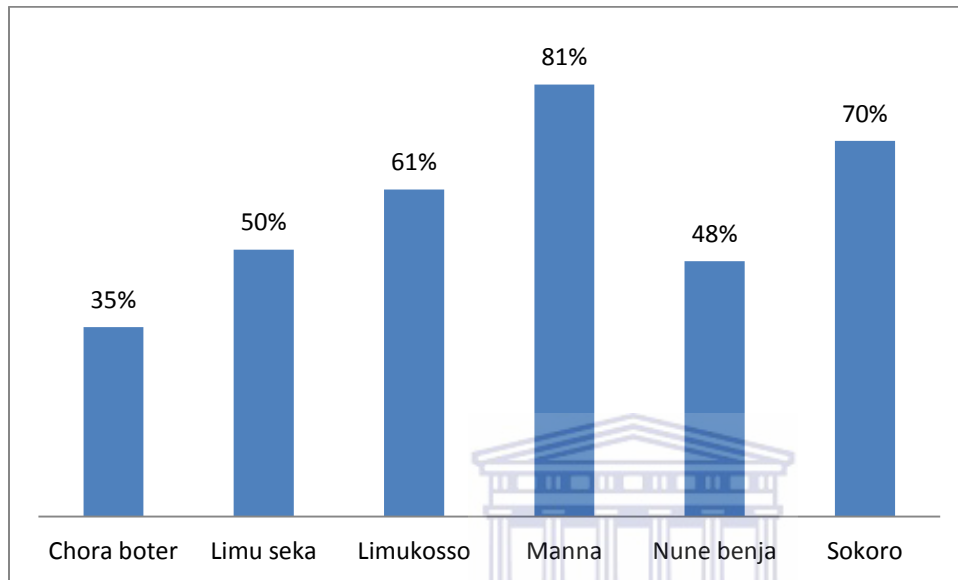
The required level of effort and the importance in relation to achieving the health sector objective varies among the various performance indicators. However, in assessing the HEP, the district gives the same weight for each performance indicator and this study has adopted the same principle with all its limitations (FMOH, 2004). Based on this, among the total of 163 health posts included in the study, the performance level was found to be inadequate in 71 (44%) of the health posts



**Figure 9:** *Percentage Distribution of the average performance of health posts with regard to 22 performance indicators, Jimma Zone Ethiopia 2012 (n-163)*



Distribution of the performance indicator by district showed that the average performance level ranged from the lowest 35% at Chora boter to the highest performance level of 81% at Mana. The distribution of the average performance by district is shown in figure 10.



**Figure 10: Distribution of average performance by district Jimma Zone, Ethiopia 2012 (n=163)**

#### **4.3 Relationship between place of selection of HEWs and performance of Health Posts**

Using the above aggregate performance, relationship between the average performance and the recruitment site was analyzed. The result of the analysis showed that out of the 70 health posts staffed by local HEWs, the performance was found to be adequate in only 38.5% of health posts. On the other hand, out of the 93 health posts staffed by non local HEWs, the performance was found to be adequate in 70% of the health posts and this differences was found to be significant  $X^2 (1)= 11.8, p<0.01$  (see table 6)

**Table 6: Distribution of the relationship between performance and recruitment site of HEWs, Jimma Zone Ethiopia 2012**

Parameter	Inadequate	Adequate	p-Value
HPs with Local HEWs	43 (61.4%)	27 (38.5%)	0.01
HPs with non-local HEWs	28 (30.1%)	65 (69.9%)	0.01
<b>Total</b>	<b>71</b>	<b>92</b>	

A further disaggregation of the performance by district also showed that health posts staffed by HEWs from outside community persistently perform comparably or even better than those staffed by HEWs from the same community in all the six districts. For instance, in Limuseka for the non-local the performance was found to be adequate in 57.9% of cases while for the local the performance was reported to be adequate in 36.3%. The detail is shown in Table 7.

**Table 7: Comparison of the performance of health posts between those staffed by local and non local HEWs disaggregated by district (n=163)**

District	Recruitment Site	Performance	
		Inadequate	Adequate
Chora boter	Local	9 (64.3%)	5(35.7%)
	Non-local	11 (64.7%)	6 (35.3%)
Limu seka	Local	7(63.6%)	4 (36.3%)
	Non-local	8 (42.1%)	11 (57.9%)
Limukosso	Local	4 (50%)	4 (50%)
	Non-local	8 (34.7%)	15 (65.2%)
Manna	Local	4 (44.4%)	5 (55.5%)
	Non-local	0	12 (100%)
Nunebenja	Local	12 (70.6%)	5 (29.4%)
	Non-local	0	6 (100%)
Sokoro	Local	7 (63.6%)	4 (36.4%)
	Non-local	1 (6.3%)	15 (93.7%)

Lastly but not least assessment was also conducted to see if there was any relationship between the performances and the geographical locations of health posts (rural and urban areas). The analysis showed that there is no relationship between the performances and the geographical location of the health posts.



## CHAPTER FIVE: DISCUSSION

There is a generally held assumption that there is a link between the place of recruitment of HEW and their performance and retention. Based on this assumption the HEP implementation guideline recommends local recruitment of HEWs to enhance the performance and retention of HEWs. However, there is limited evidence to support this argument. This study was conducted with the objective of assessing this important aspect of the HEP i.e. whether there is a relationship between the place of recruitment of HEWs and their performance and retention. Understanding this link is essential for policy and decision makers at various levels of health care. This will allow evidence-based revision of relevant HEP policies and implementation guidelines.

Most CHWs implementation guidelines and studies highlight the need for recruiting CHWs from communities they serve because it is believed that this will ensure low turnover and absenteeism as well as enhance performance of CHWs (Lehman and Sanders 2007; WHO 1989; Yahya, 1990). Similarly, the Ethiopian HEWs implementation guideline requires that two HEWs should be assigned per health post and these HEWs need to be recruited from the same community where they are expected to serve (FMOH, 2004). The logic behind recruiting HEWs from the same community is to enhance the acceptance of the HEWs by the community. This arrangement is also expected to minimize the need for having an arrangement for accommodation and transportation of the HEWs as they are already in their community.

However, findings from this study showed that this criterion was not necessarily and strictly adhered to. The descriptive result of the place of selection of the HEWs showed that only 42% of the HEWs were from the community of their current assignment, while the rest were from elsewhere or from neighboring Kebeles, including from urban areas. Previous studies in Ethiopia, which examined the recruitment process, reported similar findings. Nearly 53% of the HEWs were serving in kebeles different from where they were recruited (Kitaw et al., 2007). The major explanation given for not adhering to the recommendation is that when HEWs recruitment was conducted, there was a lack of candidates from the community that met the minimum criteria of having completed 10th grade, which made it necessary to recruit from neighboring communities as well as urban areas (HEEC, 2008). However, there are also studies which reported that flawed recruitment processes (conducting the recruitment process at training

institution instead of kebele level) were an additional factor for not adhering to the principle of recruiting CHWs from the same community (Kitaw et al., 2007).

On the other hand, findings from this study showed that the number and qualification of health workers in all health posts has followed the recommendation of HEP implementation guideline, which are two female HEWs. This finding highlights significant progress in the implementation of the program in terms of availing the required number and mixed skill of health workers at health post level since previous studies have reported variation in the staffing number, mix and level at health post level. For instance, the HEEC (2008) study reported that in many health posts, only one HEW was assigned and in some health posts in addition to HEWs junior public health nurses and Primary Health care worker (PHW) were also assigned.

The HEP implementation guideline states that the minimum age for recruitment is 18 years and our result suggests that some of the HEWs joined the training at a younger age (since the training is one year in duration). There are no previous studies in Ethiopia, which have assessed the impact of age on the performance of HEWs. However, a study in Kenya by Crispin et al. (2012) has examined the effect of socioeconomic factors including age, on selected performance measures such as record keeping, client satisfaction and counseling. This study reported that there are strong relationships between age and good record keeping, as well as overall performance of home visits. According to this study, the older age group has performed well on record keeping, use of job aids and overall performance of home visits. On the other hand, the study reported that all age groups had sub-optimal performance in regard to client satisfaction. Similarly, a review of national experience on CHWs work reported that the acceptance of CHWs by the community increases with age (Ofosu-Amaah, 1983).

Another area where the recruitment process strictly followed the HEP implementation guideline requirement is ensuring that the candidates have the minimum educational preparation before joining the program. This study has showed that all HEWs have met the minimum requirement of 10<sup>th</sup> grade completion, with some even having educational preparation above and beyond the minimum requirement level. Previous studies which done in major (non disadvantage) region of the country also reported similar findings in this regard. However, the report from FMOH (2010) stated that some of the disadvantaged regions such as Afar were forced to select candidates with only primary education. In Ethiopia, expected minimum educational preparation (years of schooling) before joining the program is 10<sup>th</sup> grade compared

to other community level health workers training programs elsewhere in other developing countries. A study has not been available for the researcher that has established the link between the years of schooling before joining the program and the performance of community health workers.

This study also examined the association between the place of the recruitment and the performance of the HEWs. The result of the assessment showed a wide variation of practices among districts in relation to the local recruitment that ranged from 26% to 71%. The same is true with regard to the performance of the health posts ranging from 35% to 81%. However, in contrast to the widely held belief that local HEWs perform better than non-local HEWs, the finding from this study showed that non local HEWs consistently performed comparably well and in some circumstances even better than local HEWs in all HEP components. There are no previous similar studies, which have linked the performance and the recruitment area of HEWs. However, there are some studies that have indirectly assessed this issue through gathering HEWs' and HEWs' supervisors' opinion on the issue of the expected implication of non-local recruitment on performance and turnover of HEWs. One of these studies was conducted by HEEC (2008) and reported that there is some dissatisfaction among HEWs who are assigned outside of their communities. These dissatisfactions include being homesick, socially insecure, and difficulty adapting to the new working and living environment outside their communities. The same study also reported that those coming from outside of the community tended to have lower attendance rates, poorer performance and higher staff turnover.

Another related and yet widely unexplored area in this study was assessing whether the recruitment site of HEWs had any effect on the attrition rate of HEWs. Understanding this relationship was one of the objectives of this study. However, this assessment was not possible due to limited availability of Human Resource Information System (HRIS) at the district level. Similarly, the literature review showed that the scarcity of data in this regard have made it difficult to engage in this type of study. Very few studies have tried analyzing the attrition rate of HEWs and the factors related to it. For instance, a study in one of the regional states of Ethiopia, SNNPR, based on interviews of key informants, reported that the high turnover of HEWs in some areas is related to flawed recruitment of candidates and the absence of clear understanding among HEWs about their career structures and under wage (Bekele et al., 2008). Similarly, another cross sectional study by HEEC (2008) that assessed stated preference to stay in their

current assignment area showed that HEWs who were assigned to their home villages/kebele have a higher level of interest in extending their work assignment by one to two years compared to those who were not assigned to their home villages/kebele (86.5% versus 68.3%). Further follow up studies on the same group that reported this preference would be of great interest to explore the reported and actual preferences further.

Overall, this study showed that the requirement that HEWs should be recruited from the same community is often not followed. This being the case, the results of the analysis from this study show that there is no evidence to support the widely held belief that local recruitment of HEWs enhances their performance. On the contrary, the findings from this study show that non-local HEWs perform equal or even better in almost all components of the HEP. Due to the limited scope of this study, the researcher could not explain the factors behind the comparably good performance of non-local HEWs. It may be plausible to assume that two factors might have played a role in these findings. The first is that HEWs recruited from the local community take their jobs for granted and consider it as their entitlement regardless of their performance. Another possible explanation is that to be recruited as a candidate to serve in another community, the non-local ones need to be more competitive compared to the local ones. However, as these are just speculations, further empirical study will be required to qualify or disregard this assumption.

In addition, despite the absence of transfer mechanism, a number of HEWs had transferred from other areas. As the study demonstrates they have had some experience working in other health posts before joining their current post. However, further investigation will be required into how and why these HEWs have moved to their current post.

## CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

This study was conducted with the objective of gaining a better understanding on the relationship between the area of recruitment of HEWs and their performance. Additionally, the study is designed to explore stated guidelines of the recruitment of HEW's in order to have a better understanding about what works well and what needs to be strengthened to improve HEWs performances for the effective implementation of the HEP throughout the country.

Review of the experiences of many countries including that of Ethiopia showed that the existing selection criteria for the recruitment of community workers encourages the selection of health workers from the communities in which they are expected to provide care and through active involvement of community members and representatives. The major justification for this is that if they are recruited from local community, it will be easier for the health workers to establish trust, necessary relationships needed and a sense of community responsibility. These factors are expected to ultimately lead to better performance and retention of the health workers. Similarly, available literature and studies on experience elsewhere highlighted the theoretical advantages of recruiting CHWs from the same community. However, beyond theoretical explanations and frameworks as to how local recruitment enhances performance and lowers absenteeism, there is little empirical evidence to support this argument in Ethiopia. There is no doubt about the logical soundness of the proposed theoretical frameworks that recruiting from the same community will ensure establishing trust, better relationship, easy adaptation and sense of ownership which may culminate to better staff retention and performance. However, based on the findings of this study the conclusion is that recruitment from the same community does not necessarily translate into better retention and performance while recruitment from other community does not mean high turnover and poor performance. Thus, it is essential to explore additional features in the recruitment and selection process beyond the original permanent residence.

Finally, the performance gauge used is the aggregate measure of all the performance indicators at health post level to assess the HEP. From the program perspective, this approach might work well because it covers the all components. However, the study approach has a limited scope and also makes an assumption that the various components have equal weight. Thus, it is essential to further explore the full range of factors that affect the performance of



HEWs including the recruitment site by taking a wider perspective while addressing the major limitations of this study. As part of this, it is also important to develop a composite indicator to measure the performance of the HEP by giving appropriate weight for the various HEP indicators. This should be done by taking into account the relative importance and level of effort required to achieve the targets related to these indicators. The researcher suggests that a further qualitative study be conducted which explores how HEWs coming from other communities are coping in their new working and living environment.



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## ANNEXES:

### Annex I: Data collection tool

#### I identification

Questioner number \_\_\_\_\_ code of data collector \_\_\_\_\_

Date \_\_\_\_\_ District \_\_\_\_\_

Kebele \_\_\_\_\_ Type of health post a) urban b) rural

#### II. Background Information

For each question below fill in all blank spaces and circle the appropriate answers.

##### 1. Religion

HEW1 a) Muslim b) orthodox c) protestant d) other

HEW2 a) Muslim b) orthodox c) protestant d) other

##### 2. Ethnicity

HEW1 a) Oromo b) Amhara c) Tigrae d) others

HEW2 a) Oromo b) Amhara c) Tigrae d) others

##### 3. Birth date

HEW 1 \_\_\_\_/ \_\_\_\_/ \_\_\_\_

Day Month Year

HEW 2 \_\_\_\_/ \_\_\_\_/ \_\_\_\_

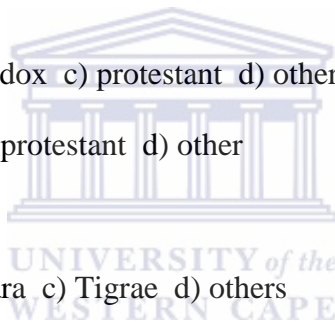
Day Month Year

##### 5. Marital status

HEW1 a) single b) Married C) Divorced d) Widowed

HEW2 a) single b) Married C)Divorced d) Widowed

##### 6. How long they serve as HEWs



HEW1 a) less than 4 year b) 4year c) 5 year d) more than 5 years

HEW2 a) less than 4 year b)1 year c) 5 year d) more than 5 years

7. How long they serve at this health post

HEW1 a) less than 1 year b)1 year c) 2 year d) more than 2 years

HEW2 a) less than 1 year b)1 year c) 2 year d) more than 2 years

8. They recruited from the \_\_\_\_\_ kebele they serve

HEW1 a) Same b) neighboring/other

HEW1 a) Same b) neighboring /other

9. Educational level when they recruited

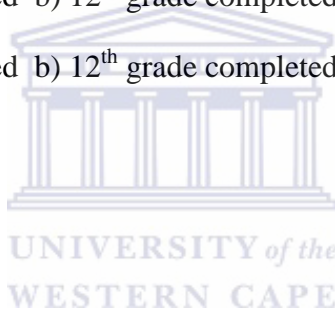
HEW1 a) 10<sup>th</sup> grade completed b) 12<sup>th</sup> grade completed c) certificate /diploma

HEW2 a) 10<sup>th</sup> grade completed b) 12<sup>th</sup> grade completed c) certificate/ diploma

10. Are they currently at work?

HEW1 a) yes b) no

HEW2 a) yes b) no



### III. Performance Information

No.	Activities	Target (%)	Achievement (%)
1	Latrine construction		
2	Solid waste disposal pit construction		
3	Family planning( contraceptive)		



4	Family planning(depo)		
5	TT2+ immunization for pregnant		
6	TT2+ immunization for non pregnant		
7	infants vaccinated for Penta-3		
8	infants fully immunized		
9	ITN distribution		
10	ITN utilization		
11	Treatment of diarrhea for <5		
12	TB patient referral		
13	TB patient follow up		
14	Malaria treatment		
15	Health education by session		
16	Health education by participant		
17	Community conversation		
18	deliveries attended by HEWs		
19	pregnant women who attended ANC during the current pregnancy(1 <sup>st</sup> visit)		
20	of pregnant women who attended ANC during the current pregnancy (repeat)		
21	women who received care at		

	least once during postpartum		
22	model Households graduated		





ቁጥር P.B.2-ET-19456  
ቀን 11/9/2012

To Dr Amir Aman Hagos

Re: Clearance to use secondary data

It is remembered that you have requested our health office for the use of secondary data to assess the effect of place of recruitment on the performance of HEWs; as part of the MPH degree requirement with the University of Western Cape located in South Africa.

After reviewing your protocol, we are glad to inform you that you have been given a clearance to use the secondary data for the aforementioned purpose.

Kindest Regards

Kaniz Haji Bedru  
Head, Jimma Zone Health Department

