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**ASSESSMENT OF FACTORS AFFECTING IMPLEMENTATION OF
HEALTH EXTENSION PROGRAM IN SELECTED SUBCITIES OF
ADDIS ABABA, ETHIOPIA**

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A THESIS TO BE SUBMITTED TO SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE, SCHOOL OF ALLIED HEALTH SCIENCES, DEPARTMENT OF NURSING AND MIDWIFERY FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS OF DEGREE OF MASTERS IN ADULT HEALTH NURSING.

June, 2014

ADDIS ABABA, ETHIOPIA

Approved by the Examining Board

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Acknowledgement

I would like, first and foremost, to thank the Almighty Lord, Jesus, for his being with me through every event in my life.

Secondly, I would like to extend my sincere and heartfelt gratitude to my advisor, Ato Zeleke Aregaw for his support, constructive comments and suggestions on the preparation of this thesis.

My special thanks will also goes to Dr Tekebash Areaya, who invested her knowledge and time in mentoring and providing constructive cooperation and friendly approach on the preparation of this thesis.

Special thanks are also extended to my husband Dr Geremew Terefe for his day to day follow-up, guidance and providing valuable advice and materials during the preparation of this document. I am sincerely indebted to my daughter Redeat Geremew for her love and patience during the preparation of this thesis.

Also I would like to forward my gratefulness to all others who assisted me, for their absolute support and guidance during the process of research work and thesis writing.

Finally, I would like to thank the Addis Ababa University Librarians for their kindest cooperation in providing me the necessary materials.

Tsedale Tilahun

June 2014

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List of abbreviations

AARHB	Addis Ababa Regional Health Bureau
ANC	Antenatal care
ASHA	Accredited social health activist
CHW	Community health worker
DPT	Diphtheria, pertusis, tetanus vaccine
FMOH	Federal minister of health
HC	Health center
HEP	Health extension program
HEW	Health extension workers
HSDP	Health service development project
HP	Health post
IRB	Institutional review board
ITNs	Insecticide treated nets
L10k	Lat 10 kilometers
MDG	Millennium development goals
NGOs	Nongovernmental organizations
PHC	Primary health care

PEPFAR	President’s Emergency Plan for AIDS Relief
PNC	Post natal care
RMNCH	Reproductive Maternity Neonatal and Child Health
SIAS	Sistema Integral de Atención en Salud [integrated health care system]
STI	Sexually transmitted infections
UHEP	Urban health extension program
USAID	United states agency in

Abstract

Back ground

The Urban Health extension program (UHEP) is introduced in 2010 as a new initiative community based health care delivery systems. The main objective of the program was to address essential health services to the people at grass root level. Urban Health Extension Program (UHEP) is expected to benefit approximately 2.6 million Ethiopians living in 19 cities and towns in the Amhara, Oromia, SNNPR and Tigray regions, and was considered as the most important institutional framework for achieving the Millennium Development Goals. In Ethiopia urban health extension program UHEP is under studied, the present matched cross sectional study was conducted to evaluate factors affecting program implementation.

Objective: - The overall objective is to assess factors affecting implementation of health extension program in selected sub cities, Addis Ababa, Ethiopia.

Method and Materials: These HEWs based cross - sectional study was conducted from March 11/2014 to April 10/2014 in five sub-cities of Addis Ababa. A total of 235 HEWs were included in the study by using self administered questionnaire.

Result In the study area the main responsibility of the health extension workers is awareness creation and social mobilization. 228 (97%) of HEWs are capable of doing their work independently, while 7 (3%) of them need coaching support. Results indicate that antenatal care, delivery service and curative treatment for mothers, children, and adults are not provided in the study area. One hundred seven (45%) of the study participants implement postnatal care service and 128(54.5) didn't. Out of the total respondents 220(93.6%) gave counseling service on

essential nutrition action, family planning, treatment of anemia and others. Polio vaccination service was delivered by 101(43%) during polio campaign alone. One hundred seventy five (74.4%) of the HEWs give health education on essential nutrition action and 46(19.6%) demonstrated vitamin A and iron complementation. Growth monitoring (only MUAC) is performed by 157(66.8%) during home visit. Thirty seven percent (87) of the study participants give only condom distribution service and created awareness on methods and types of contraceptives; while 148(63%) of UHEWs gave only the education service. Adolescent and reproductive health services were given by 64(27.7%) of the HEWs focusing mainly on sexuality, HIV/AIDS counseling and condom provision.

Discussion In this study, it was found that the success of HEP in achieving its set goals and objectives could be affected by a number of complex factors. Among which the capacity of HEWs take the lion share in proper implementation of the HEP. To this end, more than 50% of the HEWs should implement the packages independently was taken as a bench mark. This was evidenced by the positive response of 228(97%) of the HEWs in selected sub-cities of Addis Ababa that they commit independently. However the remaining 7(3%) did not materialize the package independently and need technical backstopping or training. This proportion really should not be undermined and neglected.

Conclusion The overall implementation of HEP was found to be encouraging. The majority, 228(97%) of the HEWs implement the packages independently where as 7(3%) were not implementing it independently. Health extension workers are doing better on HIV/AIDS related services, hygiene and environmental sanitation and health education service. But, family health service and disease prevention and control services needs more effort. Specifically, they have

limited contribution with respect to health promotion and preventive measures of major packages such as family planning, TB, leprosy, and rabies management.

Recommendation The 3% of health extension workers not implementing the full packages independently in Addis Ababa selected sub-cities should not be undermined. Therefore the Addis Ababa region health bureau in collaboration with stakeholders should conduct need assessment and respond accordingly to prevent non-functionality of the program and dropout rate of the health extension workers.

Key words: Health extension program, job satisfaction, future aspiration, community involvement, refreshment training, referral linkage, Health institution support, selection, distance.

CHAPTER ONE

Introduction

1.1. Background

Ethiopia is one of the sub-Saharan countries most affected by high disease burden reflected by the high rates of maternal and child mortality. Poor nutritional status, infections, and high fertility rates, accompanied by low levels of access to essential health services, contribute to the high mortality rates seen in the country. Shortages and imbalances of human resources for health, geographical distance from health facilities, and socioeconomic factors aggravated by the poor health-seeking behaviors of the population were among the major obstacles in attaining wider access to health services. As a response to these challenges, the Federal Ministry of Health (FMOH) sought a primary care strategy that could immediately be scaled up to address the major challenges in the health system, meet the health needs of the people and achieve the World Health Organization Millennium Development Goals (MDGs) within a context of limited country resources (1).

The Health Extension Program (HEP), which is a strategy for the scaling up of an institutionalized package of basic and essential promotive, preventive and limited curative health services, was introduced in 2004 as one of the primary components of the second 5-year health service development project (HSDP) plan. The HEP package comprises evidence based interventions selected to address the major maternal, neonatal and child health problems as well as the major infectious and communicable diseases that constitute approximately 60 to 80% of the health problems in the country. The HEP is delivered at health facility and community levels. The health facility care is delivered from the most basic health facility (health post), and is supported by health centers through referral linkage (1).

The Health Extension Program was designed to improve access to health services in urban areas throughout the country by training and deploying one nurse for every 500 households. The program provides services to household, neighborhood, school and youth centers. Urban Health Extension Program (UHEP) is expected to benefit approximately 2.6 million Ethiopians living in 19 cities and towns in the Amhara, Oromia, SNNPR and Tigray Regions (2). Therefore, HEP is considered as the most important institutional framework for achieving the Millennium Development Goals (3).

The Health Extension Program is designed to improve the health status of families, with their full participation, using local technologies and the community's skill and wisdom (FMOH, 2007). To meet the HEP goal the FMOH defined six major objectives that include:

1. Improving access and equity to preventive essential health interventions at the village and household levels in line with the decentralization process to ensure health care coverage to the rural areas,
2. Ensuring ownership and participation by increasing health awareness, knowledge, and skills among community members,
3. Promoting gender equality in accessing health services,
4. Improving the utilization of peripheral health services by bridging the gap between the communities and health facilities through HEWs,
5. Reducing maternal and child mortality and
6. Promoting healthy life style (3).

To meet the above objectives in all, 40 training institutions were established and over 30,000 Health Extension Workers (HEWs) have been trained and deployed to approximately 15,000

villages. Out of this 5,400 urban health extension workers have been trained for the successful implementation of the program (1).

In the case of Addis Ababa, the city has been facing various problems which include insufficient and sub-standard infrastructure provisions, insufficient public facilities, acute shortage and deteriorations of houses, poor sanitation, and unemployment. All these in fact are manifested in deprived poverty of the metropolis. To challenge these problems, an enormous effort has so far been exercised by the city government, even though they are not adequate (3). The main purpose of implementing UHEP in Addis Ababa is by organizing families, households, schools and youth centers to promote the health of the community and preventing diseases through the extension program.

The extension program selected disease prevention and control, family health, hygiene and environmental sanitation, and health education and communication as major focus areas of health care services improvement. To implement the focus areas and improve essential health services 16 packages were developed. The hygiene and environmental sanitation program comprised seven packages; disease prevention and control four packages; the family health services contained five packages and the health education and communication one package. The implementation modalities of the outreach health extension program centered around rapid vocational training of health extension workers, two per kebele, and construction and equipping of health posts through accelerated expansion of PHC facilities (1).

1.2.Statement of the problem

The 1993 Health Policy focuses mainly on providing quality promotive, preventive and selected curative health care services in an accessible and equitable manner to reach all segments of the population, with special attention to mothers and children. Evaluation of

HSDP-II also revealed constraints in the availability of trained, high-level professionals and failure of essential services to reach the people at the grass roots level that showed there is huge gap between need and health care services available. In response to the country's health problem, in 2003 the Ethiopian Federal Ministry of Health (EFMOH) launched a new health care plan known as the "Accelerated Expansion of Primary Health Coverage, which is considered as an effective mechanism and the most important institutional framework for achieving the MDGs. Moreover, the government has focused on “providing quality promotive, preventive, and selected curative health services in an accessible and equitable manner to reach all segments of population, with special attention to mothers and children (FMOH, 2005/6-2009/10). To this end HEWs were recruited, trained and assigned in each woreda as an imminent solution for the failure of essential health service to reach at the grass-root level. Focusing on preventive health care services, they are responsible to devote 75% of their working time for the outreach activities. In this regard, it was believed that they will, substantially, contribute to reduce the high burden of communicable diseases that account for 80% of the health problem in the country (4).

Despite the presence of unreserved Government effort to improve health services delivery system and quality, the current level of service provision is not efficient. Thus, the present work aims to assess factors affecting implementation of health extension program in Addis Ababa selected sub-cities and indicate ways for the successful scale up of health extension program.

1.3. Significance of the study

Implementation of Health extension program could be highly influenced by different factors. The quality implementation of health extension program is affected by personal attributes, community involvement and health system support. These problems are manageable if HEWs

can properly implement the packages. Investigating factors that affecting implementation of UHEP may suggest solutions for the problem of implementation at the community level. This study identified how the factors affecting implementation of UHEP performed by HEWs. The results of the study will be used as base line information to design appropriate intervention strategies for the factors that can affect the implementation of UHEP.

CHAPTER TWO

Review of the literature

2.1. Overview of health extension program

According to Jennifer's study report, nowhere are global public health challenges more acute than in sub-Saharan Africa. With just 13% of the world's population, this region carries 24% of the global burden of the disease. The continent's immense disease burden and frail health systems are embedded in a broader context of poverty, underdevelopment, conflict, and weak or ill-managed government institutions (4).

Africa's health issues are part of a broad array of developmental challenges, challenges important in their own right but also critically intertwined with health and well-being. Failure to address any one of these challenges will put health investments at risk. These complex, interrelated challenges will ultimately demand sustained, patient, and, integrated responses (5).

The global policy of providing primary level care was initiated with the declaration of Alma-Ata in 1978. The countries signatory to Alma-Ata declaration considered the establishment of community health extension workers (CHW) program as synonym with Primary Health Care (PHC) approach. Thus, in many developing countries PHC approach was seen as a mass production activity for training CHWs in 1980s. During these processes the voluntary health workers or CHWs were identified as the third workforce of "Human resource for Health. Following this approach CHWs introduced to provide PHC in 1980s are still providing care in the remote and inaccessible parts of the world (6).

2.2 Origin of community health workers

The history of community health work can be traced back to the early 17th century. During a shortage of doctors in Russia, laypeople known as *feldshers* received training in the field to

provide basic medical care to military personnel. Also known as “barber-surgeons,” the *feldshers* provided low-cost health care to a marginalized population. The formalization of these healers became the foundation of the training of “barefoot doctors” in China. The barefoot doctors were laypersons, many of whom could not afford shoes, and were educated in setting broken bones, delivering babies, treating wounds, and meeting other basic medical needs. Their mission was to take primary health care to remote rural areas that were without doctors (7).

Promoters became a powerful force in Latin America in the 1950s, when labor rights and liberation theology, a Catholic dissident movement that sought to empower the poor against their oppressors were on the rise. In the 1960s, community health workers began to emerge in the United States as part of the Great Society domestic programs. The mission of the Great Society efforts was to end poverty, promote equality, improve education, rejuvenate cities, and protect the environment (7).

In 1968, the Indian Health Service founded its community health representative program to work with tribal managers in the federally recognized American Indian and Alaska Native communities. Since then, the Indian Health Service has maintained the only categorical community health work programs in predominantly American Indian communities in the United States (7).

According to USAID (2010) report urgent need also exists in the African context to develop models of community health programs that link to the broader public health sector and incorporate performance measures and quality improvement methodology for maximum impact and sustainability (7).

2.3 Community health workers

As stated in the dictionary of Wikipedia, important attributes of community health workers are to be a member of and chosen by the community they serve. This means they are easily accepted by their fellows and have natural cultural awareness. This is crucial because many communities are disengaged from the formal health system. In Sub-Saharan Africa 53% of the poorest households do not seek care outside the home. Barriers include clinic fees, distance, community beliefs and the perception of the skills and attitudes of medical clinic workers. Community health workers are unable to emigrate because they do not have internationally recognized qualifications. Finally, the variation in incentives between areas of the country tends to be low. All these factors combined with strong community ties, tend to result in retention at the community level (8).

In an ethnographic research made on functionality of health workers in Guatemala, revealed that the facilitadores (CHWs) seems to be able to bring new voices and perspectives to community issues through the opportunities that their work with the SIAS brings. Their experience as CHWs has provided a means of contributing to the development of the community. In regards to the way the CHWs and the health team work, found that having clearly outlined responsibilities and communication channels contribute to improving the quality of the work carried out at the community level. Having committed community health workers that feel connected to the people they serve is a cornerstone of the CHW model (9).

By working directly with families, CHWs are able to develop unique relationships with both the community and the health system, something that makes them the center of coordination for community-level work. As a result of their work as CHWs, individuals gain knowledge, experience and skills that allow them to feel personal satisfaction and empowerment from

their positions and daily activities. Because of their capacity to provide care for populations that are geographically or culturally isolated, health systems have recognized the importance of community health worker programs for many years (9).

Superimposing CHW programs on weak health systems or placing undue burden on them often leads to failure. Community health worker programs usually suffer from inconsistent sources of funding resulting in high attrition rates from staff and community volunteers. On a personal level, many CHWs find that there are few opportunities for advancement because of a lack of educational programs and institutional recognition of the position and work the CHWs do. In many programs, this has led to many CHWs either quitting or staying in their position because they feel obligated (9).

A study made in South Africa to determine and describe the role and functions of the community health nurse indicated that the community health nurse in the urban, local authority health services of the Republic makes a very important contribution to the delivery of services within the provision of the health act, No.63 of 1977. The analysis of the computed data and personal observations showed that the community health nurse in the large cities must carry out a certain percentage of administrative, educational, preventive, promotive, curative and rehabilitative activities in the services (10).

Large proportion of Kenyans continues to carry one of the highest preventable burdens of ill health in the world. Much of this burden can be lifted and prevented with existing knowledge and resources. Despite having well focused national health policies and a reform agenda whose overriding strategies were focused on improving health care delivery services and systems through efficient and effective health management systems and reform, there has not been a breakthrough in improving the situation of households entrapped in the vicious cycle of poverty and ill health. Poverty compounds powerlessness and increases ill health, as ill-

health increases poverty. Both have become progressively worse since the 1990s, with appalling disparity within and between provinces. The situation is further complicated by the emergence of new and resurgence of old communicable diseases. The community systems are faced with the challenge of coping with the growing demand for care, in the face of deepening poverty and dwindling resources. The result has been deteriorating trends in health status throughout the country with unacceptable disparities between and within provinces (11).

2.4 Health Extension program in Ethiopia

In Ethiopia the Health Extension Program (HEP) was introduced under HSDP-II in 2002/03 with a fundamental philosophy that if the right health knowledge and skill is transferred, households can take responsibility for producing and maintaining their own health. Substantial investments in human resources, health infrastructure, pharmaceutical supplies and operational costs have been made for the successful implementation of the program. Under HSDP III it was planned to cover all rural kebeles with the HEP with the aim of achieving universal PHC coverage by 2008 through vigorous and incremental implementation of the program nationwide. By the end of HSDP III, a total of 33,819 HEWs were trained and deployed surpassing HSDP III target and reaching 102.4% from the required 33,033 HEWs (FMOH, 2010). This achievement was made because of the strong government support and commitment at all levels, from Federal to kebele administration, and from the start. Because of this it has delivered significant improvements in the health status of the people. Outcomes of HSEP until the year 2010 include:-

1. Thirty four thousand three hundred eighty two female HEWs have been trained and deployed,
2. Fourteen thousand one hundred ninety two Health Posts have been constructed,
3. More than thirty five million insecticide-treated bed nets (ITNs) have been distributed to families in rural areas,

4. Under five years old mortality has decreased from 160 per 1,000 live births in 2000, to 109 per 1,000 live births in 2010,
5. Infant mortality in the first year of life has decreased from 77 deaths per 1000 live births in 2005 to 67 deaths per 1,000 live births in 2009,
6. The Maternal Mortality Ratio has decreased from 673 to 470 per 100,000 live births,
7. Malaria epidemics and malaria-related deaths decreased,
8. Antenatal coverage has increased from 30% in 2002 to 71% in 2010,
9. DPT3 (a measure of health service utilization as well as childhood immunization) coverage increased from 38% in 2000 to 86% in 2010,
10. A total of 9,979,706 Model Households have been trained and graduated by 2010,
11. Latrine coverage increased from 60% in 2009 to 74% in 2010,
12. Contraceptive usage rate increased from 56% in 2009 to 62% in 2010, and
13. HIV/AIDS-related deaths have been decreasing (12).

2.4 Successes and challenges during implementation of HEP

The Language and Framing of Social Determinants of Health and Community Health Workers is a Challenge. Through conversations and working sessions with CHWs, CHW advocates, and CHW stakeholders throughout Buffalo and New York State, it became clear that although there was a working definition of “social determinants of health” and “Community Health Worker,” there was a gap between the language and understanding by the vast majority of people we spoke with. This finding is supported by other research that states that while issues of health equity are well established in academic circles, the concept is not easily translated in a way that makes sense on the ground. Additionally, in Buffalo, very few organizations were utilizing Community Health Workers, or even had an understanding of what a CHW was. We found that there were many individuals working in community and

faith-based organizations and in health care settings that did indeed fit the definition of a CHW, but that only about 15% were identifying as such. There were also organizations that were purporting to use CHWs who did not fit the definition. For example, organizations using telephonic outreach and identifying this as CHW work arguably did not reach the communities isolated by poverty, cultural bias, and fear of the larger systems that keep these populations away from needed care. Even CHWs themselves who identified as such and were leaders in their movement often could not respond to “what is a CHW?” in a way that was clear, consistent, and memorable. Lastly, CHWs are most often viewed as health care workers and much of the research speaks to their impact on health care and chronic disease management versus population and community health (13).

A study done by Yale global health leadership institute showed that the successes of the HEP, especially in the rural agrarian communities, a number of objectives are unfulfilled with some outputs still well below the desired levels. There is also a large variation across regions (and, likely, within regions), due to geographic, cultural, and political differences. Although a majority of the regions’ HEWs are providing 80-100% of the service packages, there are some regions (e.g., Afar and Gambela) where there is a wide range of variation in services being offered, and this lack of services may influence health outcomes in these areas. Fully vaccinated children remain very low (24% in 2011) especially in pastoral regions where health coverage has proven to be a challenge (CSA and ICF International, 2012). For hygiene and sanitation, a majority of households, 90%, do not treat their drinking water as well as only 27.2% people are hand washing at least 3 out of the 5 critical times in a day (CNHDE, 2011a; CSA and ICF International 2012). Additionally, exclusive breastfeeding is extremely low in DireDawa, around 10% for both under 4 and 6 months old (CNHDE, 2011a). According to CSA and ICF International (2012), 29% of children are underweight while 9% of children are

severely. Underweight; where the highest underweight rates are among the pastoral regions, Afar and Somali (40.2% and 33.5%, respectively) (14).

Despite substantial focus on family health services, there has been little improvement in Ethiopia's maternal mortality rate. Ethiopia struggles to reach its targets for institutional deliveries, mainly in rural areas (2.3% in 2005 to 4.1% in 2011) and post-natal care ups (0.2% in 2005 to 5% in 2010) (CSA and ORC Macro, 2006; CSA and ICF International, 2012; CNHDE, 2011a). These are two important indicators for maternal health. It appears that the HEP alone may not be sufficient to achieve the maternal health MDG (5). As of 2011, the maternal mortality rate was 676 per 100,000 live births (CSA and ICF International, 2012). Despite Ethiopia's achievements, inequitable access to health facilities due to lack of critical infrastructure (access to safe water, electricity, proper waste disposal, passable road networks, etc.) and low quality of care within the health facilities are major contributors to the high maternal mortality rate (14).

A cross sectional study done at SNNPR, Wolayta zone, on factors affecting implementation of HEP revealed that one of the factor that favor HEWs to look for some other alternatives like continuing higher education in health related disciplines and as they gain experience they often find new doorways open to them. Even if HEWs were selected from their kebeles expecting that all would reside either in the village or in the post, but the study revealed that majority of them were residing in the town (15).

The Wolayita zone study also documented that the service delivered by HEWs like ANC, PNC, environmental sanitation, family planning services, advice on pit latrine construction, providing vaccination at outreach level, HIV/AIDS and other STI diseases, malaria prevention and control activities are showing encouraging results. On top of this HEWs reported that 94% of them provided ANC services, out of which 84(94.8%) of them mentioned as they

were attended delivery services at health posts level or at household level. But this could not be supported by mothers who gave birth. The low attendance of laboring mothers might be due to such factors as poor facility in the health posts, weak efficiency of HEWs, limitation in skill and experience in delivery. This has been witnessed by HEWs themselves as they had limitation in knowledge and skill in managing labor and other delivery related disorders. Regarding post natal advice 63(65.6%), 56(58%) and 42(43.8%) gave advice about family planning, vaccination of the child and personal hygiene of the mother and her baby respectively. A small number of health extension workers advised about exposure of baby to sunlight, Vitamin A supplementation for mothers and consultation health personnel when child is sick. And a small number of HEWs (17.7%) had started providing vaccination services at health posts, and among HEWs who do not start vaccination service 77% stated the absence of refrigerator at health post, and 5% stated the available refrigerator was not functioning. Small number 8% of HEWs neither a pit latrine nor waste disposal pit is present in health posts compound. Among others the study showed that the resistances from the community not to separate human and animal residence, difficulty in treating malaria patient and in implementing activities that need direct community participation for example, difficulty to convince male to construct pit latrine are some of the problems that were mentioned by HEWs. As the study made in Wolayita zone showed, 72% of HEWs reported that they participated in one or two refresher training prior to investigation and 28% of them were not participated in none of refresher courses and both of the refreshed and non refreshed reported that they want to be refreshed on how to manage normal labor how to give vaccination specially on how to plan the targets and about monitoring charts and on HIV/AIDS and other STIs control and prevention more specifically on VCT and community conversation, they also need refresher on how to treat malaria and small numbers of them need to be refreshed on how to care for abortion (15).

According to the reports of Sefihun Bezabih (2007), 76% of HEWs were supervised and 24% of them not supervised; 38% of them reported as they have shortage of stationary and 44% of them had no health extension package books or pamphlets to refer; 20% of them had no job description that guide them what to do when and how. And nearly half 50% of HEWs walk two hours to reach health center and 36.5% of them walk 3-4 hours to contact district health office. The maximum walk hour was 9 hours and the mean walking hours were 1.85 hours. Issue related to monitoring & evaluation of HEWs only 5.2 of HEWs complained that their salary were not paid on time, 36(37.5%) reported that they have problem of stationary. Nearly 42(44%) had no health extension package books or other materials to refer ,and 19(20%) of them report as they had no job description that guide them what to do. and 37.5% of HEWs reported their monthly activities to both health center and district health office and 47(49%) to the health center only. Nearly half of HEWs complained that they did not have feedback for their report. The majorities 86.5% refer their patients to the nearest health center, but only 27% have got feedback for their referral (15).

Access to sanitation overall, 66.4% of the people had access to improved toilet facilities. However, consistent utilization and hygienic utilization (but without hand washing facility) was observed in only 36.2% and 13.3% households, respectively. Model-family showed a significant impact on access to sanitation. Access to sanitation was significantly higher among model-family households (90%) than households who had not yet participated in model-family training (67%). Access to toilet facility in Amhara, Oromia, and SNNP regions a significant improvement over the last five years from 40.5% and 58.2% in 2005 and 2007, respectively, to 68% in 2010. Personal hygiene practices Hand washing practice, at least at three of the five critical times in a day, was reported by only 27.2% of households. The most frequently practiced critical hand washing times were before eating (76.6%) and before food preparation (61.6%). The least frequently practiced critical hand washing times were after

defecation (16.5%) and after attending a defecating child (7.9%). Housing and housekeeping practice about half (52%) of the households surveyed had ventilating windows, while 54% and 44% of the households had separate place for animals and separate kitchen, respectively (16).

The Miz-Hasab Research Center, in collaboration with the Last 10 Kilometers (L10K) project of John Snow International (JSI), conducted the appraisal with a field work to identify evidences that help strengthen the bridge between families, communities, governments, development partners and the HEP to achieve sustainable rural maternal and child health improvements in Ethiopia. The study revealed that the structure of one nucleus health center for every five health post is far from being realized. The issue of accessibility of patients either referred by HEWs from health posts or going by themselves to health centers and hospitals has been reported to be difficult due to transportation, access to drugs, logistics for the patient and those accompanying patients, and readiness on the side of the referral facility to treat such patients (17).

The HEWs were expected to assisting women during delivery; however, they lack the practical skills to help mothers during delivery. Health workers and organizations involved in primary health care especially in RMNCH report that pneumonia is one of the major killers for children under five. HEWs are not expected and do not have the skill to treat pneumonia and do not have the knowledge and ability to administer antibiotics. What is happening in RMNCH in HEP is promotion of family planning commodities, preventing practices that expose to reproductive health illnesses such as STI, HIV/AIDS and other harmful practices such as female genital mutilation, early marriage; give services in antenatal care such as advising women expected to face difficulties during delivery to be close to hospital or health

center during the last week of expected date of birth, which seems very difficult for resource poor peasants (17).

According to the report of Miz-Hasab Research Center (2008), HEWs advice mothers on how to take care for themselves and their newly born babies such as use of hygienic practices, feeding both breast and supplementary food, and take vaccination. They also advise mothers to report to the health post when a baby is febrile, refuses to suck and shows syndromes of discomfort. However, they cannot assist in treating sick babies, apart from advising mothers to take the patient to a nearby health center or hospital. There is no assistance from the health post to transport the sick baby to the referral health facility in such cases families report that they get discouraged and end up with going to traditional healers. As recommended in the Miz-Hasab Research Center study report of 2008, the gap in assisting delivery at health post is a matter of training HEWs to develop the skill. In some whereas CHWs with experience in assisting in birth like the traditional birth attendants are managing safe, clean home delivery. This gap can be resolved by giving training to both HEWs and CHWs as is currently being done in Tigray and Amhara. The issue of treating pneumonia remains controversial, for it requires HEWs to learn how to administer antibiotics including needle injection. The argument for making pneumonia treatment close to the people is that the illness does not give time for the patient. If baby patient does not get the treatment quickly, it dies. And considering the problems of linkages with health centers and hospitals which are mostly affected by distance, lack of means of transporting patients, logistics and shortage of drugs, it would be desirable if some critical but curable diseases could be managed at health post (17).

A cross sectional preliminary descriptive census survey which is conducted on determinants of functionality of health extension workers in east Gojam zone revealed that 87.7% of HEWs

perform prevention and control of communicable diseases regularly except malaria. The majority of the HEWs had not performed tuberculosis and leprosy continuation treatment with defaulters tracing and prevention of rabies in any occasions. Moreover curative service for selected diseases (intestinal parasitosis, diarrheal diseases, pneumonia of children, eye infections, malaria and anemia during pregnancy) was not given at any occasion by more than one third (33,3%) of the HEWs. In relation to this, the study gave a possible explanation that HEWs either did not feel competent enough to do so even if they supplied with the necessary drugs or the one year duty training might not have equipped HEWs with basic knowledge of the major communicable diseases. Also the majority, 90.5% of the HEWs had disclosed that the one year professional training was inadequate at all or partially adequate. Of which 58% had marked that training was deficient in its theoretical and practical sessions. This study disclosed as nearly one fourth (23.1%) of the health extension workers did not perform care for people living with HIV/AIDS in any occasions. It might perhaps be due to either this group of workers did not pay attention to this particular activity or might not trace the case in their kebele, particularly to run home based- care service. Moreover, they might not have enough knowledge about the activity (18).

According to the findings of Getachew Hailu, 2009, promotion of pit latrine construction was carried out by 94.5%, promotion of construction of solid and liquid waste disposal facilities was performed by 93.1%, and promotion of personal hygiene was by 88.8% and building healthy house models 90.8% of HEWs. Also health education was the most frequently/ regularly done activity among HEP packages, almost all (94.4%) of HEWs were giving health education on different topics, regularly. The study made in Gojam revealed that most of HEWs dissatisfied, by their job, because of lack of community support. Similarly, their profession did not satisfy the majority of the HEWs. Moreover, almost all had claimed that their profession because of lack of upgrading chance dissatisfies them. This study also

disclosed that one year training was inadequate at all and/or partially adequate. Similarly, the study showed that reference materials of both the Amharic and English versions consisting the sixteen packages, prepared by the FMOH had already reached to more than three fourth of HEWs. However, no more reading and reference materials had reached the health post. A finding from the preliminary cross-sectional survey had indicated that majorities (52%) of HEWs need to upgrade to nursing and 15.1% to environmental health. This is consistent with the findings of the study on working conditions of HEWs, which disclosed that only 16% expect to stay more than three years (18).

Literature showed that in recognition of Ethiopia's demographic differences, the FMOH has developed three distinct models of the HEP (urban, agrarian and pastoral) to better suit the needs of these communities. While these different HEP models reflect the diverse environmental, social, and cultural contexts, all three of them face challenges in meeting the perceived needs and demands of the populations they serve. This is especially the case for the more recently developed pastoral and urban models. The agrarian model is the gold standard for the HEP and has achieved much success in meeting many of the health prevention needs of the communities. However, community members are increasingly demanding curative services which HPs and HCs are often not well suited to provide. The agrarian model will eventually need to be adapted to reflect changing community demands (18).

In order to address the differences between the agrarian and urban context, the urban HEP has been tailored to address the needs of urban communities. However this adaptation of the HEP has not fully met people's demands. For example, UHEPs focus on preventative rather than curative, and their main visiting hours are during the day when most urban dwellers are not at home. Additionally, certain prevention methods might not be adequately tailored for urban environments given issues with space and land ownership for example building latrines and

seepage pits for food waste. Despite many modifications to the HEP model, the urban HEP is still primarily based on the agrarian context and not necessarily on urban need. (18).

A literature showed the attribution of results to specific programs is always difficult because of the multiplicity of factors and actors in the social environment, but tangible improvements in key health indicators have been observed since HEP's implementation began, supporting our conclusion that HEP is an effective approach to promoting good health in rural communities. It is now present in all rural agrarian areas and is being expanded to include pastoralist and urban areas. The progress that seen in the key health indicators in Ethiopia from 2005-2010 are PHC coverage 90%, Expanded program of Immunization 81.6%, contraceptive acceptance rate 56.2%, Antenatal coverage 67.7% and HIV prevalence 2.1%. Also Hayelomes investigation revealed that FMOH statistics on health and health-related indicators show that antenatal coverage increased from 67.7% in 2008–2009 to 71.4% in 2009–2010 and postnatal coverage from 34.3% to 36.2% in the same period. HEP has improved sanitation and increased access to safe and clean drinking water from 35.9% in 2004–2005 to 66.2% in 2009–2010 nationally, when access to safe excreta disposal reached 60%. And this research observed that households visited had pit latrines; separated animal sheds; improved kitchens, bedrooms and living rooms; and cleanly managed drinking water and household goods (19).

In India, the accredited social health activist (ASHA) guidelines issued in 2006 outlined three key roles of ASHA; a healthcare facilitator to facilitate access to care, a community level care provider for a limited range of services, and a health activist. Research findings show that states studied and adapted the guidelines to suit their interpretation of the roles of ASHA and this affected the nature of support and training provided to ASHAs. Utilization of services provided by ASHAs shows that programmatic emphasis on care for the pregnant women have

resulted in 75% of pregnant women across the states receiving services from ASHA, with some divergences. About 75% of the sampled service users received counseling on breastfeeding, but this was 60% for other aspects notably warmth and postpartum care. Service coverage for children with any episode of illness was on an average 70% across states with lowest figures being reported from Bihar and Jharkhand (India). Evaluation shows that vast majority of ASHAs are functional, irrespective of context, although there is a wide variation in the tasks that they do. However, despite ASHAs being 'functional', effectiveness varies depending on systems response or skill sets. Educational qualification did not make a difference to health outcomes, but duration and content of training did (20).

In the study findings of Alula Sebhatu, (2008) the following were described as major challenges encountered during the implementation of the health extension program.

- Lack of attention to the details of working conditions and to human resources management (underdeveloped environment),
- Absence of institutional arrangements for management of health service extension program at all levels,
- Absence of regular supervision, not monitoring the quality of training and soliciting cooperation of other social sectors, and
- Unavailability of contraceptives, infrastructure and vaccines in sustainable manner.
- In some areas, health posts are not fully equipped with needed equipment and supplies (21).

2.6 Urban health Extension program in Ethiopia

Ethiopia experiences a heavy burden of communicable diseases that contributed to high morbidity and mortality largely attributable to potentially preventable infectious diseases and nutritional deficiencies. Ensuring Universal Primary Health Coverage in Ethiopia has become

a primary agenda to improve the health status of the general population for sustainable economic development and poverty reduction.

The Federal Ministry of Health (FMOH) has put in place major policy initiatives in the institutionalization of the village health service through the implementation of health extension program as institutional framework. This program is part of the wider movement from the more traditional forms of top- down to a participatory health development practice whereby community empowerment is promoted. Community members take greater responsibility for their own health through decision making on health issues, identifying problems and set priorities; actively participate in management and control of resources (22). Also HEWs communicate health messages by involving the community from the planning stage all the way through evaluation. HEWs utilize Women and Youth Associations, Schools and Traditional Associations such as idir, mehaber, ekub, to coordinate and organize events where the community participates by providing money, raw materials and labor (3).

The health extension program is spearheaded in giving momentum to the efforts directed towards the achievement of the MDGs, especially, goal 4- reduction of under five child mortality, goal 5- reduction of maternal mortality and goal 6- combating HIV/AIDS, malaria, tuberculosis and other communicable diseases (22).

Cognizant of the fact that the rural health extension program is placed on hard rock foundation, since its inception fruitful results have begun to be registered. Female Health Extension Professionals from various woredas of the country have proven rendering excellent performances in HEP implementation. The best practices captured from the rural Health Extension Program, document reviewing of other countries health service delivery system in urban centers, the FMOH has taken a policy initiative to put on record the implementation of Urban Health Extension Program across the nation. The entire modality of Urban Health

Extension Program focused on preventive, promotive, and rehabilitative services targeting households, youth centers and the schools. The Health Extension Professionals use the Health Extension Program packages and the Urban Health Extension implementation guideline. One of the major selection criteria for UHEWs is having a diploma in nursing from an accredited nursing school with zero years of work experience. They should be female with age not exceeding 35 years, resident in the kebele or in the adjacent kebele (priority is given to the one living in the same kebele where they would be affiliated); willing and committed to the program, ability to produce affidavit of supporting letter from the kebele and produce medical certificate from a governmental health institution, and pass the entrance examination (22).

Procedure for selecting Urban Health Extension professionals follow announcement through the public notice board, the city newsletter and mass media. Registration of applicants takes place in their respective kebeles, in case there are no adequate applicants within the kebele, applicants can come from neighboring kebeles with an agreement signed to work for the kebele where they register. In recruiting Urban Health Extension professionals responsibility vested on heads of the urban health office chair person and the kebele administration; member representatives from the kebele education office, women and youth associations and the health desk. A secretary is selected and temporarily assigned to take notes and compile the minute but has no voice. Grade point average (GPA) is used to differentiate if the applicants fetch equal points in interview and are in excess numbers (22).

2.7 Expected Competencies of Urban Health Extension Professionals

2.7.1 Major Areas of Competencies

Health education and other supportive documents: are very important tools for assessing the need for health education, planning, implementation, evaluation and coordinating effective

health education program. They help in conducting advocacy at different levels, provide counseling services, facilitate community mobilization, organize, utilize and manage demographic and health data and documentation of the kebele, recognize and implement the major health policies, strategies and HSDP components, Recognize and introduce common public health laws (22).

Personal hygiene and environmental sanitation extension program promotes best practices of personal hygiene, water handling and treatment methods, hygienic preparation and consumption of food at urban level. It also educates some the causes and potential health effects associated with poor personal hygiene and sanitation problems. Through the program households are educated to construct, utilize and maintain latrines properly and promote healthy housing conditions. It also educates on the proper management of solid and liquid wastes, plan, implement and monitor personal hygiene and environmental health interventions at household, youth centers and schools (22).

Family Health

The family health program provides education on antenatal and postnatal care and delivery; sensitize the community on prevention of harmful traditional practices that affects pregnant mothers, children and adolescents. It also provides education on prevention of mother-to-child transmission of HIV. The program promotes all family planning services and provides Implanon and immunization services; provide education on sexual and reproductive health to adolescents; coach on the health of newborn and under five children, breast and complementary feeding, and feeding of the sick children, pregnant and lactating mothers. Foster the importance of balanced nutrition to the family, identify and refer severely malnourished children and provide follow up care. Similarly provide Vitamin A and de worming services (22).

Prevention and Control of Communicable and Non communicable Diseases

This sub program focuses mainly on promoting healthy living styles (balanced diet, regular exercise and avoidance of smoking, drugs and substances). Educate on the proper use of malaria prevention and control methods (LLINs, IRS, environmental management, early treatment seeking). Encourage and teach on healthy sexual life style (abstinence, faithfulness, condom usage). Promote HCT benefits and provide information on HIV testing and counseling services for individuals, couple, pregnant women, children and their family. Perform the first and the second HIV test using the National HIV test algorithm at house hold level; handle properly test kits and sharp instruments used for testing and provide post-test counseling with negative or positive results on partner testing for both and future risk reduction plan for all negative clients. All positive clients and sero-discordant and sero-concordant couples are educated on safer sexual practice, positive living, disclosure and need for chronic care, support and treatment. The service is provided for guardian, mature-minor adolescents (13 to 15) and adolescents (15 to 17) years of age and parents. Facilitate referral and linkage services for positive clients, keep record and report test results properly, support adherence to ART and trace defaulters. The program teach on the importance of healthy housing condition in the prevention of TB and leprosy, promote early TB detection and health seeking behavior, identify defaulters and encourage them to continue their treatment. Refer identified patients for better management, receive feedback and make follow up for further action, Educate families to promote care and support to mentally ill people, educate on prevention of emergency accidents and if possible provide first aid services (22).

2.8 Provider related factors

The political leadership at the regional and the federal levels see HEP as a major government program. The government is encouraging partners in health to work at the village level with the motto “All roads lead to the health extension program”. Similarly development partners

appreciate the HEP and are enthusiastic about it and would like to be involved. In the same instance community participation is improving. Nevertheless, the participation of local government leadership, including woreda administration, happens intermittently such as during vaccination campaigns only (18).

The Ethiopia Urban Health Extension Program (USAID/UHEP) is funded through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). UHEP aims to strengthen the ability of urban health extension workers to identify the most at-risk populations in their communities and provide public health services to improve their overall health situation, including through HIV prevention, care, and support services (23).

The HEP is a core component of the broader health system, while the strategies for the interventions focus on the household and community and the success calls for coordinated action at all levels. Health Centers in particular have a crucial role to play in providing referral care, technical and practical support to the HEP. The Woreda Health Offices similarly have an important role to play in support of the Health Centers and the Health Posts. The government has shown high commitment in prioritizing the HEP by ensuring it receives the necessary financial and political support (4).

2.9 Summary of the review

The UN Millennium Development Goals consolidated the call for PHC to be major strategy in improving health and social welfare, with a focus on strengthening health systems, improving resource allocation and developing sustainable health frameworks responsive to diverse and evolving needs. Although specific models for delivering PHC are continuing to emerge, there is a realization that its principles: universal, access and coverage, its role as the site of first

contact, community participation, integration of, services and programs are relevant to all populations and communities (2).

Cost and access to medical care remain problems of worldwide scope and particularly it is estimated one million more health care workers are needed in Africa to meet the health-related Millennium Development Goals. Health systems remain extremely weak, especially in rural areas. The World Health Assembly in 2006 called for, “A health workforce who is matched in number, knowledge and skill sets to the needs of the population and which contributes to the achievement of health outcomes by utilizing a range of innovative methods. Community health workers are thought to be part of the answer. They can be trained to do specialized tasks such as providing sexually transmitted disease counseling, directly observed therapy for tuberculosis control, or act as trained birth attendants. Others work on specific programs performing limited medical evaluations and treatment. Others have a far broader primary care function. With training, monitoring, supervision and support such workers have been shown to be able to achieve outcomes far better than baseline (24).

2.10. Conceptual model

This study focused on HEP and the services offered to the population by HEWs. Conceptualized the unmet needs of HEWs, like socio-demographic characteristics, personal attributes, community involvement and health service support that may have an impact on implementation.

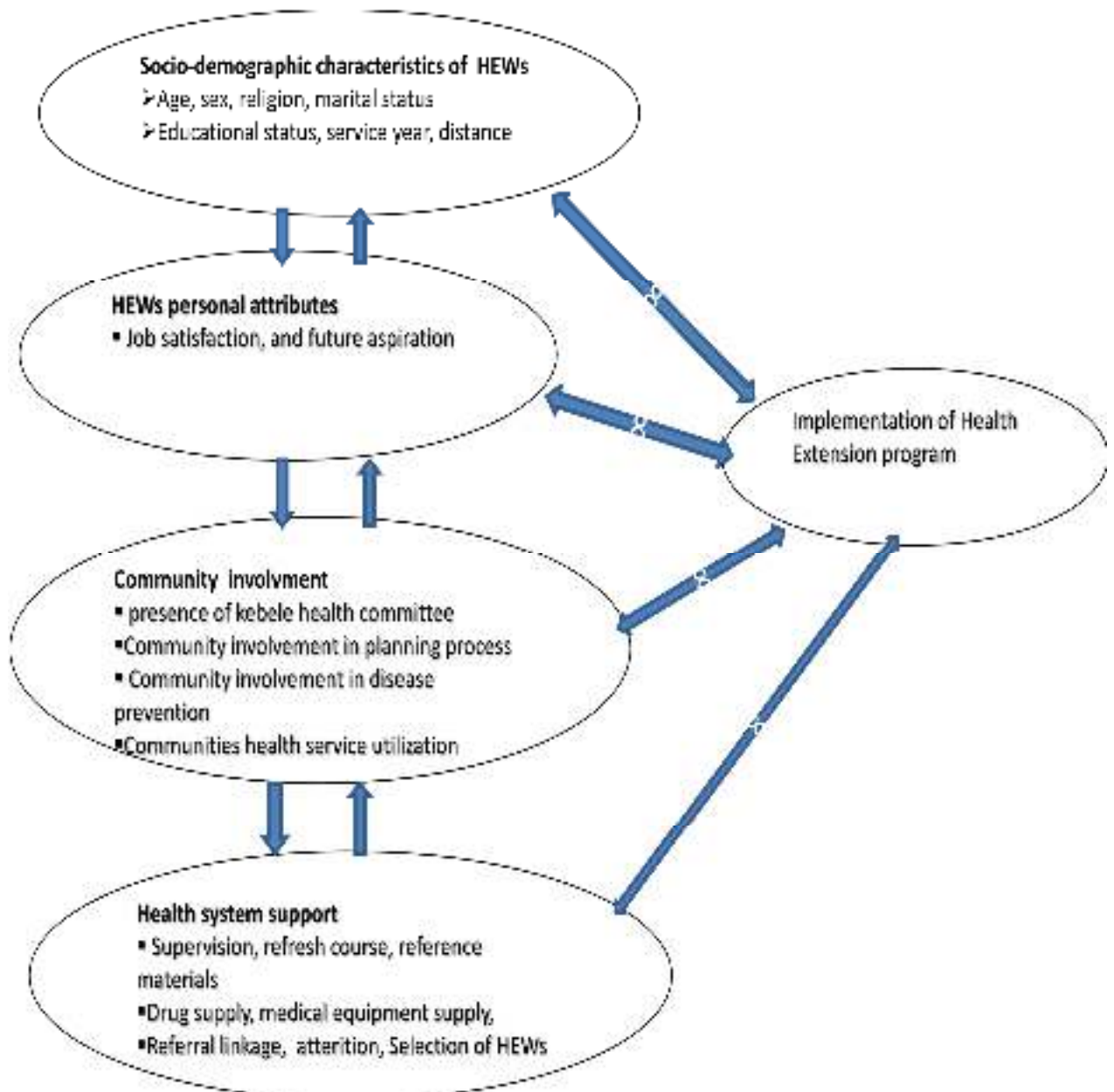


Figure 1: Conceptual model for implementation of health extension program.

Chapter Three

Objectives of the Study

3.1. General objective

The general objective of this study is to assess factors affecting implementation of health extension program in Addis Ababa selected sub cities, Ethiopia.

3.2. Specific objectives

The specific objectives of this study are:-

1. To identify factors affecting the implementation of HEP in Addis Ababa selected sub cities,
2. To assess level of competence of urban health extension workers,
3. To investigate functionality of HEWs While implementing the packages independently,
4. To find the association between Implementation of health extension program and socio-demographic characteristics of HEWs, HEWs personal attributes community involvement and health system support.

Chapter Four

Methods and Materials

4.1. Study area and setting

Addis Ababa is the capital city of Ethiopia and the seat for the African Union. The city has a population size of over 3 million (3,038,096) with annual growth rate of 2.1(CSA, 2007). The city has classified into two administrative layers such as the sub-city top layer, followed by woredas and kebel based on current classification. Currently Addis Ababa has ten sub cities and 116 woredas. Each sub-city is expected to serve for a total population of 300,000 and each woreda for 30,000people (25).

Even though the city has thirteen public hospitals and 40 health centers the study was conducted in randomly selected sub cities of Addis Ababa which have been providing health extension program from January 2014 to May 2014.

4.2. Study Design

A quantitative cross-sectional study design was conducted by using self administered questionnaire to assess factors affecting the implementation of HEP.

4.3. Study population and sampling

4.3.1. Source population

The primary population source of the study was all health extension workers in selected sub cities who have been working during the study period.

4.3. 2. Study population

Fifty percent (50%) of health extension workers who are assigned in selected sub cities of Addis Ababa.

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion criteria

All voluntary health extension workers who are working in the study area in the study period were included.

4.4.2. Exclusion criteria

Other health professionals, health extension workers in maternity leave and or sick leave and those not willing to participate in the study were excluded.

4.5. Sampling and sampling technique

4.5.1. Sampling unit

Sub cities which provide health extension program were randomly selected as sampling unit.

4.5.2. Sample size determination

In order to get some general implications for the processes underway in UHEP, 50% of the HEWs in the selected sub-cities were considered as optimum sample size. To select the sub-cities that would be included in the study, simple random sampling technique was employed. The total number of sub-cities in Addis Ababa is only 10. Therefore, 50% of the total sub-cities, which is the maximum possible sample size was taken. To select five sub-cities out of ten a “Lottery method”, which is commonly used for a small population is employed.

To determine the sample size that is representative of the health extension workers assigned in the randomly selected five sub-cities of Addis Ababa, a hyper geometric sampling technique was employed. The formula used to determine the sample size is:

$$S = \frac{X^2NP(1-P)}{d^2(N-1) + X^2P(1-P)}, \text{ where}$$

S= required sample size,

X^2 = the table value of chi-square for 1 degree of freedom at 95% confidence level, $(1.96)^2$ which is 3.841.

N = the population size (480), all health extension workers assigned in the randomly selected five sub-cities of Addis Ababa,

P = the population proportion assumed to be 0.50 since this would provide the maximum sample size, and

d = the degree of accuracy expressed as a proportion (0.05).

$$S = \frac{X^2 N P (1 - P)}{d^2 (N - 1) + X^2 P (1 - P)}$$

$$S = \frac{3.841 \times 480 \times 0.5(1-0.5)}{0.0025 \times 480 + 3.841 \times 0.5(1-0.5)}$$

$$S = 461/1.2 + 0.96$$

$$S = 461/2.16$$

$$S = 214$$

If 10% of 214 are taken as non-responding health extension workers, then the total sample size would be, $214 + 21 = 235$

4.5.3 Sampling procedure

To generalize the findings of sample population to the reference population a probability sampling method was selected. The total number of HEWs in ten sub-cities of Addis Ababa is 1181. Out of which 50% (5) of the sub-cities (Arada, Addis-ketema, Gulele, Lideta and Kirkos) were randomly selected. Fifty percent (50%) of the health extension workers who are assigned in these selected sub cities were considered during the study (Table 1).

Table 1: Number of health extension workers in ten sub-cities of Addis Ababa

No	Sub-city	No of HEWs	No	Sub-city	No of HEWs
1	Arada	80	6	Bole	134
2	Addis ketema	93	7	Yeka	162
3	Lideta	90	8	Kolfe Keranio	179
4	Gulele	138	9	Akaki kality	87
5	Kirkos	78	10	Nefasilk lafto	140
Sub total		479	Sub total		602
Grand total		1181			

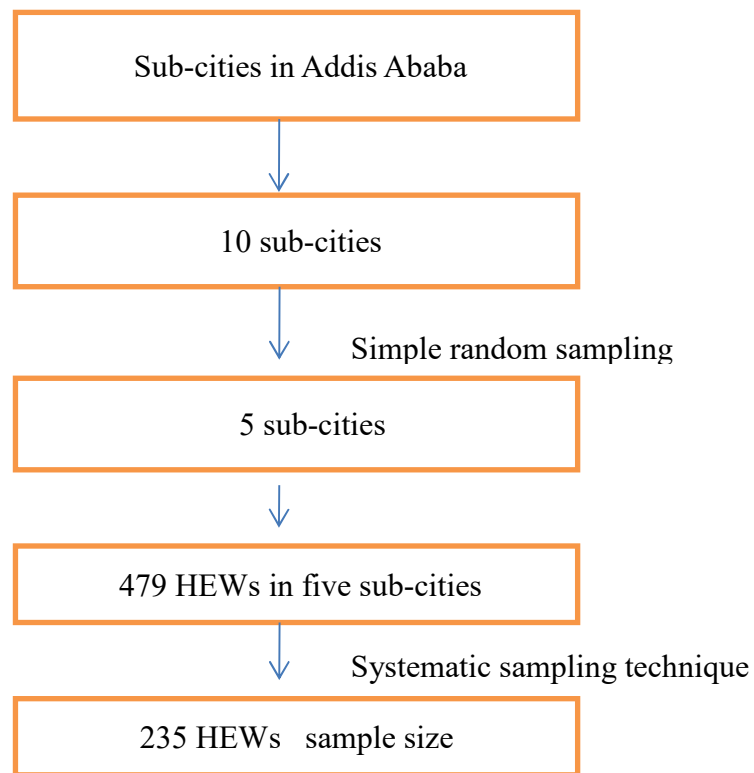


Figure 2: Schematic presentation of sampling frame

4.6. Variables

4.6.1. Dependent variables: Implementation of Health extension program

4.6.2. Independent variables:

HEWs personal attributes (job satisfaction and future aspiration)

Community involvement (presence of kebele health committee, Community involvement in planning process, Community involvement in disease prevention, Communities health service utilization)

Health system support (Supervision, refresh course, reference materials, drug supply, medical equipment supply, referral linkage, attrition, selection of HEWs).

4.7. Operational definition

During reviewing many literatures have been studied and most of the researches (more than 70%) done on health extension program were targeting rural areas of Ethiopia. Therefore, this study is designed to generate more useful information than being used as a mere reference. The hypothesis is to get better service and good job satisfaction as Addis Ababa is a big city, where health facilities are well organized, transportation and communication materials are available, schools, colleges and universities exist for upgrading.

Health extension program: referred to the functionality of HEWs implementing more than 50% of the package independently (15, 18).

Distance: referred to accessibility of transportation and other communication materials for HEWs.

- Good: if the participants response rate is >90%

- Average: if the participants response rate is 70-90%
- Poor: if the response rate is 60-70%

Job satisfaction: is how content HEWs are with their job.

- Good: if the participants response rate is >80%
- Average: if the participants response rate is 60-80% and
- Poor: if the participants response rate is <60%

Future aspiration: is referred to the vision of HEWs for their own life for the coming years in relation to upgrading, changing working environment and profession etc.

- Good: if the participants response rate is >95%
- Average: if the response rate is 70-95%
- Fair: if the participants response rate is 60-70% and
- Poor: if the response rate is <60%.

Community involvement: is defined as participation of communities in >80% of the activities of health extension program (18).

Supervision: refers to the supportive monitoring and evaluation of the implementation of HEP at least quarterly by wereda, sub-city and regional health bureau (18).

Refreshment training: empowerment of HEWs at least once per year to gain experience dealing with the tasks and challenges that they will meet during implementation of the packages (18).

Supplies: means availability of drugs, medical equipments and reference materials >90% to facilitate the working situation of HEWs (18).

Referral linkage: refers to the net working of HEWs with other health service giving organizations.

Selection: denotes to the recruitment of HEWs women, aged 18 years or older, at least diploma holder in nursing and selected from their wereda and by the appropriate selection committee (22).

4.8. Methods of data collection

4.8.1. Data collection instrument and technique

Structured and self administered questionnaire was adapted, modified and prepared in English and Amharic to meet the purpose of this study (18). The part of the questionnaire that was modified included demographic information (particularly educational status) and community support. Wereda health office and health center were inserted in place of health post. The questionnaires contained open as well as closed ended questions that cover socio background information, assessment of functionality of health extension program, assessment of items reflecting health institutions, community support and questions related to working conditions of HEWs.

4.8.2. Study period

Data was collected from April 11, 2014 to May 10, 2014

4.9. Data quality assurance

To keep the quality of the data a standard questionnaire was adapted and developed and 10% of it was tested for accuracy and consistency on HEWs outside of the study area. In data collection five data collectors and one supervisor were participated. Data gatherers were selected based on their educational status (BSc in nursing), work experience and affiliation to the respective health institutions. The selected data collectors were familiarized with the questionnaire by obtaining half day training on the aim of the study and the content of the instrument.

Before the start of distributing the questionnaire to HEWs in the respective offices consent was obtained through questioning if they are willing to participate or not. Only those responded yes were approached and adequate information was given on how to fill the questionnaire. The principal investigator trained and supervised the enumerators throughout the data collection period. During data collection process each questionnaire was checked daily by the supervisor and principal investigator for its completeness.

4.10. Pre test

The questionnaire was pre tested for the relevance of dependent and independent variables to avoid any confusion during actual data collection period. The principal investigator was checked 23 (10%) HEWs response one week prior to the actual data collection period in kolfe keranio sub-city, Addis Ababa. This was helpful for the investigator to screen out vague questions and modify some of the question item as soon as possible.

4.11. Data entry and analysis

The collected data was checked, coded, and entered to a computer and analyzed using SPSS software version 20. Frequency distribution tables were used to describe most of the findings and graphs are plotted for some accordingly; and other descriptive summaries were calculated. A logistic regression test was used to control confounding variables and identify major determinants for UHEP. The output of the analysis is given using chi-square and odds ratio with their respective confidence intervals.

4.12. Ethical considerations

Ethical clearance and permission was obtained from the Institutional Review Board (IRB) of the School of Allied Health Sciences, Department of Nursing and Midwifery, Addis Ababa University before the data collection process started. Respondents were informed about the purpose of the study and the importance of their participation in the survey. Participants were informed as they can skip question or questions that they did not want to answer fully or partly and also to stop at any time if they want to do so. After assuring the confidentiality of the information given by each respondent and obtaining informed consent from the study subject data collection was started with strict privacy.

4.13. Dissemination of the study results

This study upon completion would serve as resource of material for researchers, managers, policy makers, etc. To reach these targets, the finalized copy of this study will be given to school of nursing and midwifery, Addis Ababa University. Besides, it will be given to AARHB, FMOH and NGOS working around HEP in the city. This will be accomplished through presenting the findings at the appropriate meetings, seminars, workshops and publishing in scientific journals.

Chapter Five

Results

Out of 235 sampled respondents in the selected sub cities during the study period all were agreed to participate and the response rate was 100%. The majorities of respondents were from Gulele sub city 66(28.1%) followed by Lideta and Addis ketema 45(19.1%) each, Arada 40(17%), and Kirkos 39(16.6%)(Figure 3).

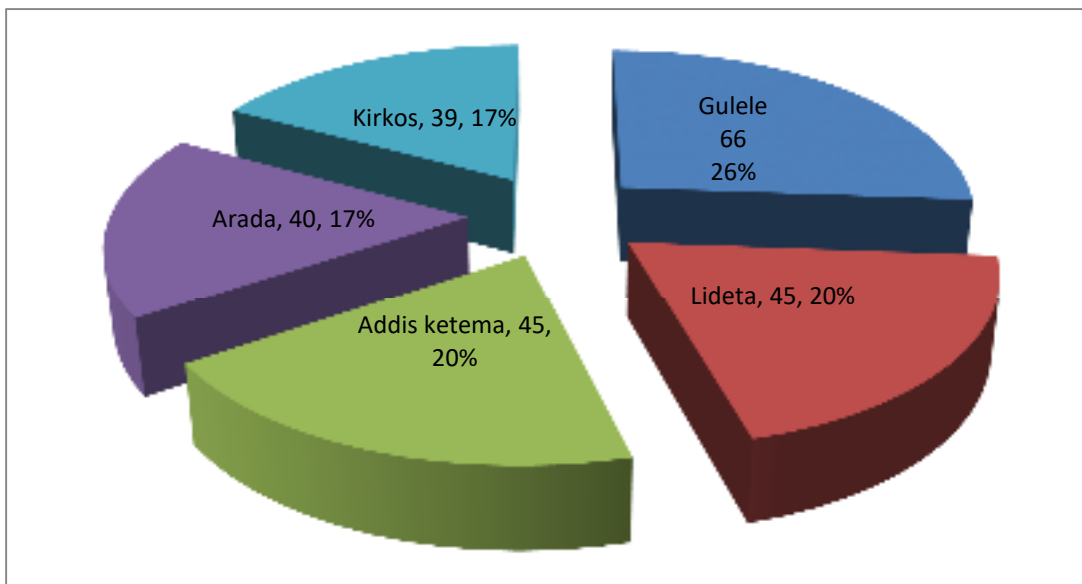


Figure 3: Distribution of respondents in the selected sub-cities of Addis Ababa, April 11- May, 2014

5.1 Socio Demographic Information

5.1.1 Socio-demographic characteristics of health extension workers

According to the study result 100% of participants were female. Health extension workers age varied from 20 to 37, minimum being 20 and maximum 37. The average age of respondents is 26.31 with a range of 17 years and standard deviation of 3.125. According to age category (20-25, 26-30, 31-35 and >36); 110(46.8%) respondents are between 20 and 25 years of age, 98(41.7%) are between 26 and 30, while 27 (11.5%) have greater than 30 years of age. Single comprised 136(57.9%) while 99(42.1%) are married. Religious denomination indicate that

most of the study participants are Orthodox Christians 174 (74%), 21(8.9%) are Muslim, 36(15.3%) are protestant and others about 4(1.7%). Results reveal that educational level of the majority of HEWs 226 (96.2%) have diploma in nursing while only 9 (3.8%) of them have BSc degree in nursing. Service year varied from 1-5 and 71 (30.2%) served for less than 2 years,160(68.1%) for 2-5 years, and ONLY 4(1.7%) > 5 years(Table 2).

Table -2- Socio demographic characteristics of HEWs in selected sub cities of Addis Ababa, Ethiopia, 2014

Characteristics		Frequency(n)	Percentage
Sex	Female	235	100
	Male	0	0
Age	20-25	110	46.8
	26-30	98	41.7
	31-35	26	11.1
	>36	1	0.4
Religion	Orthodox Christian	174	74
	Muslim	21	8.9
	Protestant	36	15.3
	Others	4	1.7
Marital status	Single	136	57.9
	Married	99	42.1
Level of Education	Diploma in nursing	226	96.2
	BSc in nursing	9	3.8
Service year	<2 years	71	30.2
	2-5 years	160	68.1
	>5 years	4	1.7

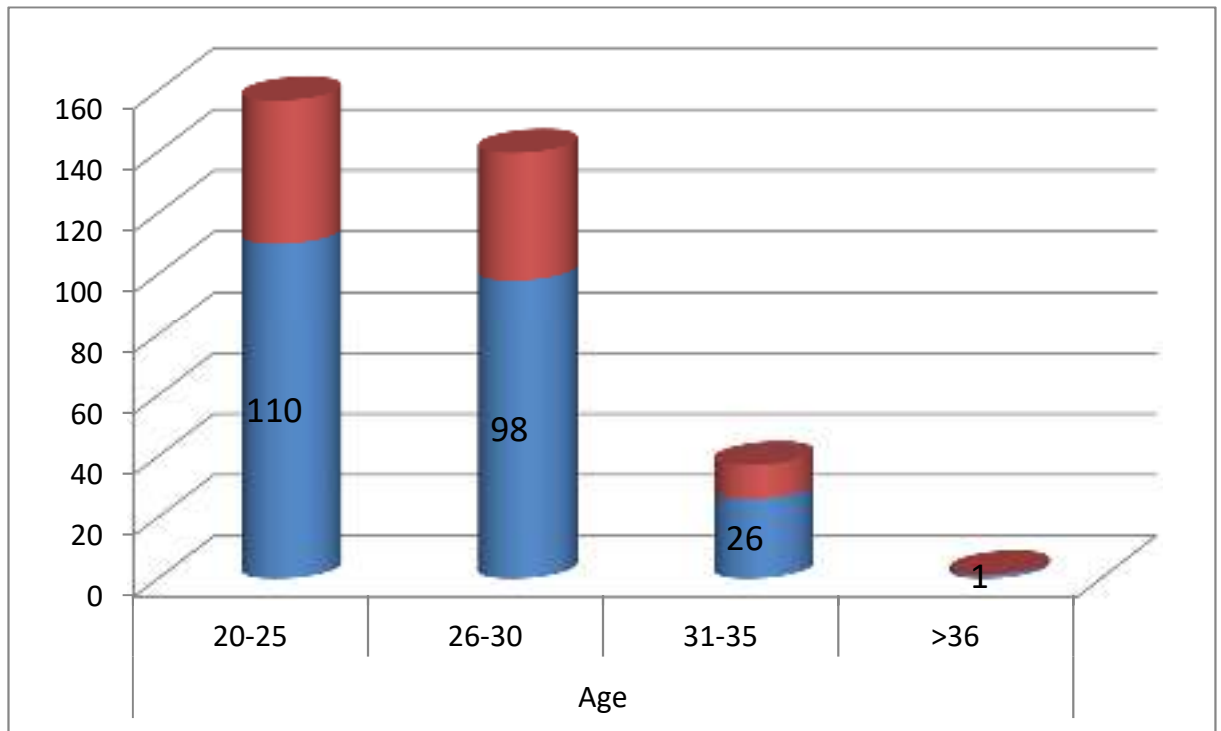


Figure - 4- Age distribution of Study participants in selected sub cities of Addis Ababa, Ethiopia, 2014

5.2. Assessment of functionality of health extension workers in the implementation of the packages independently.

5.2.1. Family health

In the study area the main responsibility of the health extension workers is awareness creation and social mobilization. 228 (97%) of HEWs are capable of doing their work independently, while 7 (3%) of them need coaching support. Results indicate that antenatal care, delivery service and curative treatment for mothers, children, and adults are not provided in the study area. One hundred seven (45%) of the study participants implement postnatal care service and 128(54.5) didn't. Out of the total respondents 220(93.6%) gave counseling service on essential nutrition action, family planning, treatment of anemia and others. Polio vaccination service was delivered by 101(43%) during polio campaign alone. One hundred seventy five

(74.4%) of the HEWs give health education on essential nutrition action and 46(19.6%) demonstrated vitamin A and iron complementation. Growth monitoring (only MUAC) is performed by 157(66.8%) during home visit. Thirty seven percent (87%) of the study participants give only condom distribution service and created awareness on methods and types of contraceptives; while 148(63%) of UHEWs gave only the education service. Adolescent and reproductive health services were given by 64(27.7%) of the HEWs focusing mainly on sexuality, HIV/AIDS counseling and condom provision (Table 3).

Table -3- Type of family health services provided in the study area by UHEWs in selected sub cities of Addis Ababa, Ethiopia, 2014

Characteristics	Response (Yes/No)	Frequency(n)	Percentage
Are you working your job independently?	Yes	194	82.6
	No	41	17.4
Antenatal care	Yes	0	0
	No	235	100
Curative treatment for mothers & children	Yes	0	0
	No	235	100
Delivery service	Yes	0	0
	No	235	0
Post natal service	Yes	107	45.5
	No	128	54.5
Essential nutrition action	Yes	175	74.5
	No	60	25.5
Demonstration of Vitamin A & iron complementation	Yes	46	19.6
	No	189	80.4
Growth monitoring	Yes	157	66.8
	No	78	33.2
Family planning service	Yes	87	37
	No	148	63
Adolescent & reproductive health service	Yes	64	27.2
	No	171	72.8

In the response on the frequency of service provided within the month 99 (42%) of the HEWs provided postnatal care service 1-4 times, while 9(3.8%) 5-8 times and the remaining 127(54%) have never done. More than 132(56%) of the HEWs have not provided service while 30% provided within the last 30 days. Four each health extension workers provided the service within 31-60 and 61-90 days time, respectively (Table 4).

In case of essential nutrition action the frequency of service provision varied from 1-100 times. Seventy two percent (169) HEWs provided essential nutrition service from 1 to 30 times, while less than 2% gave 31-60 times, only 2(1%) provided more than 60 times and the remaining 60(25.5%) HEWs never provided the service (Table 4). One hundred fifty two (64.7%) health extension workers have provided service on essential nutrient action within 1-60 days period and 6(2.5%) provided the service within > 60days while 16(6.8%) have never done in the previous month. And 61(26%) HEWs do not give service on essential nutrition actions (Table 4).

The frequency of growth monitoring service provision response revealed that 121(51.5%) measured from 1-20 times, 1 (0.4%) provided 21-40 times, while 2(0.9%) gave for more than 40 times and 111(47.2%) of the HEWs do not give growth monitoring service. One hundred thirteen health extension workers have provided service on growth monitoring within 1-30 days period, while 9(3.3%) within 31-60days ,4(1.5%) provided 61-90days and 6(2.2%) > 90days, 14(5.9%) have never done in the previous month. Eighty nine extension workers do not give service on growth monitoring at all (Table 4).

The study made to determine the frequency of service provision (how often) of family planning service in the study area, indicated that 145 (61.7%) do not provided family planning service. 40(17%) health extension workers do give the service but didn't within the last 90 days, 17.45% provided within 20 days, 4(1.7%) gave the service within 21-40 days and 5 (2.13%) in more than 40 days. The study made to determine how often the service was delivered in the last one month period showed that 45(19.1%) of the HEWs gave the service using one method for less than 40 times. Four health extension workers gave the service 40-80 times, while two gave 81-120 times. Among HEWs 34(14%) reported yes, but the service was not delivered in the last one month period. More than one to eighty time family planning services were provided by only three health extension workers. Results show that 145(62%) of the HEWs never provided family planning service in the study area (Table 4).

The study done on adolescent and reproductive health service indicated that 31(13.2%) HEWs provided the service within 1-30 days, while 6(2.6%) between 31-60 days and one worker before two months. One hundred seventy one (73%) have never provided the service (Table 4).

Table -4- Frequency and percentage of family health services provided by HEWs by category and days in selected sub cities of Addis Ababa, Ethiopia, 2014.

Service	Category	Frequency	%	Days ago of last service	frequency	%
Postnatal care	1-4 times	99	42.1	1-60	73	31.1
	5-8 times	9	3.8	>61	8	3.4
	No service given	127	54	None in the month	132	56.2
	-	-	-	No service at all	22	9.4
	Total	235	100	Total	235	100
Essential nutrition action	1-30 times	169	71.9	1-60	152	64.7
	31-60	4	1.7	>61	6	2.5
	>61	2	1.1	None in the month	16	6.8
	No service	60	25.5	No service at all	61	26
	Total	235	100	-	235	100
Growth monitoring	1-20 times	121	51.5	1-60	113	41.1
	21-40 times	1	0.4	>61	19	7.0
	>41	2	0.9	None in the month	14	5.9
	No service	111	47.2	No service at all	89	37.8
	Total	235	100	Total	235	100
Family Planning	1-50 times	49	20.9	1-40	45	19.1
	51-100 times	1	0.4	41-80	4	1.7
	101-150 times	3	1.2	>81	3	1.3
	None in the month before	34	14.5	None within a month	38	16.2
	No service at all	148	63.0	No service at all	145	61.7
	Total	235	100	Total	235	100
Adolescent and reproductive health	1-10 times	31	13.2	1-60	37	15.8
	11-20 times	1	0.4	>60	1	0.4
	>20 times	32	13.6	None in the last three months	26	11
	No service	171	72.8	No service at all	171	72.8
	Total	235	100	Total	235	100

5.2.2 Disease prevention and control

As the study indicate there is no TB continuation treatment given by health extension workers in the study area. However, 184(78.3%) of the HEWs follow defaulters, while 51(22%) do not. Out of the 184 health extension workers following defaulters, 170(72.3) follow for reaction and complication while the remaining 14 do not follow due to unclear reasons (Table 5). There is no leprosy related service provided by health extension workers during the study period. Out of 235 respondents 204(86.8%) gave HIV/AIDS and STI related services either through home based care 11(4.7%), providing information on VCT 60(25.5%), promoting male involvement in PMTCT 47(20%), promoting ABC 14(6%) or distribution of condom 32(13.2%) (Table5)

Table- 5- Disease prevention and control service provided by UHEWs in selected sub cities of Addis Ababa, Ethiopia, 2014

Characteristics	Response Yes/No	Frequency(n)	percentage
TB continuation treatment	Yes	0	0
	No	235	100
TB defaulter tracing	Yes	184	78.3
	No	51	21.7
Anti TB reactions and complications follow-up	Yes	170	72.3
	No	65	27.7
Leprosy continuation treatment	Yes	0	0
	No	235	100
Leprosy defaulter tracing	Yes	0	0
	No	235	93.6
Leprosy reactions and complications follow-up	Yes	0	0
	No	235	100
HIV/AIDS related service	Yes	204	86.8
	No	31	13.2
Kinds of HIV/AIDS related services	Home based care	11	4.7
	Information on VCT	60	25.5
	Male involvement in PMTCT	47	20
	Promotion of ABC	14	6
	Distribution of condom	32	13.6
	Others	11	4.7
	All	61	26
	No service	31	13.2
Occurrence of epidemics	Yes	25	10.6
	No	210	89.4
Reporting of epidemics	Yes	25	10.6
	No	210	89.4

5.2.3 Hygiene and environmental sanitation

Hygiene and environmental sanitation service was provided by 206(87.7%) health extension workers. Twenty nine (12.3%) health extension workers have never provided the service (Table 6). Out of the 206 respondents providing the service 15(6.4%) provided the service

between 1-20 times, 109(46.6%) between 21-40 times, while 51(21.8%) between 41-60 times, and 30(12.9%) for more than 40 times (Table 7). Similarly, the hygiene and environmental sanitation service was provided within 1-20 days by 151 (72.3%) health extension workers, whereas 16 (11.5%) within 21-40 days. Only two (3.4%) respondents provided the service before 41 days period (Table 7). Among the service provided, promoting latrine and pit construction, personal hygiene and clean home are some. Majority 171 (73%) of the health extension workers in the study area provide all kinds of services. Twelve percent (29) didn't give service on hygiene and sanitation measures (Table 6).

Results of the questionnaire survey show that out of the 235 health extension workers participated in the study more than 190(80%) do not give any preventive and informing service related to rabies control. Only 45(19%) HEWs provided the service (Table 6). Out of the forty five health extension workers responded yes, only 15 provided the service in the last one month period. The remaining 30 (12.8%) didn't (Table 7). The length of service provision period varied from 1-365 days. Among the 19% provided the service 8% gave in 1-60 days while 8% provided within 61-120 days. Exceptionally, one health extension worker provided the service before a year (Table 7).

The investigation made to know the occurrence of any disease epidemic in the study woredas, indicated that 25(10%) has confirmed occurrence while 210(87.5%) responded "No" (Table 6). Similarly, 21(8.9%) made the report 1-4 times, while 4(1.6%) didn't report in the last one month time (Table 7).

Most of 228 (97%) the respondents provided home visit, but 7(3%) didn't (Table 6). Out of the 228 HEWs who responded 'Yes' 155(66%) provide home visit 1-20 times, 46(21%) performed 21-40 times. Only six of them (2%) provide home visit service 41-60 times. Eight percent (21) of the HEWs didn't give the service during and one month before the study

period, and 7(3%) do not implement the service at all (Table 7). Results of the questionnaire survey show that out of the 235 health extension workers participated in the study 196 (83.4%) do home visit within 1-30 days, 30(12.7%) within 31-60 days and 2(0.8%) provided the service before 61days (Table 7).

Table- 6- Hygiene and environmental sanitation provided by UHEWs in selected sub cities of Addis Ababa, Ethiopia, 2014

Characteristics	Response (Yes/No)	Frequency(n)	Percentage
Hygiene and environmental sanitation service	Yes	206	87.7
	No	29	12.3
Type of hygiene and environmental sanitation services provided	Latrine construction	2	0.9
	Garbage pit construction	2	0.9
	Personal hygiene	8	3.4
	Clean home	9	3.8
Rabies prevention and control	All	186	79.1
	Yes	45	19.1
	No	190	80.9
Occurrence of epidemics	Yes	25	10.6
	No	210	89.4
Report of epidemics	Yes	25	10.6
	No	210	89.4
Home visit	Yes	228	97
	No	7	3.0
Registration of illness	Yes	125	53.2
	No	110	46.8
Referral linkage	Yes	199	84.7
	No	36	15.3
Reporting	Yes	209	88.9
	No	26	11.1

Table -7- Frequency distribution and percentage of hygiene and environmental sanitation services provided by UHEWs in selected sub cities of Addis Ababa, Ethiopia, 2014.

Services	Category	Frequency (n)	%	Days of last service	Frequency (n)	%
Hygiene and environmental sanitation	No service	29	12.3	No service	29	12.3
	1-20 times	15	6.4	1-20	151	72.3
	21-40 times	109	46.6	21-40	16	11.5
	41-60 times	51	21.8	41-60	2	3.4
	None in the month	30	12.9	None	37	15.7
Rabies prevention and control	No service	190	80.5	No service	190	80.5
	Yes	45	19.5	1-10 times	15	6.4
	-	-	-	None in the month	30	12.8
Reporting of epidemics	No report	210	89.5	1-60	20	8.3
	1-4 times	21	8.9	61-120	3	1.3
	None	4	1.6	>121	1	0.4
	Total	235	100	No service	211	90
	-	-	-	Total	235	100

5.2.4 Health education service

Health education service was provided by 219(93.2%) health extension workers, Out of the 219 respondents 189(80.4%) provided the service between 1-15 times, 30(2.6%) between 16-30 times, while 16(6.4%) health extension workers have never provided the service. Similarly, the health education service was provided within 1-20 days by 151 (72.3%) health extension workers, whereas 16 (11.5%) within 21-40 days. Only two (3.4%) respondents reported more than 41-60 days period. Thirty seven respondents 37 (15.7%) didn't provide the service in the last one month period. The remaining 29 (12.3) didn't gave the service at all (Table 8).

5.2.5 School health service

Results of the questionnaire survey show that out of the 235 health extension workers participated in the study 134(57%) gave school health service and 101(43%) didn't. The school health service was provided 1-5 times by 100(42%) HEWs; only 3(1.3%) of HEWs gave the service within the previous month; whereas 31(13.1%) respondents were not able to provided the service in the last month and 43% (101) didn't implement school health service at al. Among the 134(57%) who provided the service 103(43.8%) gave in 1-30 days; while 27(11.4%) provided within 31-60 days and 4(1.7%) provided the service before (>61) days (Table 8).

Table – 8- Frequency and percent health education service provided in selected sub cities of Addis Ababa, Ethiopia, 2014

Service	Category	Frequency	%	Days ago of last service	Frequency	%
Health education	1-15 times	189	80.4	No service	29	12.3
	16-30 times	30	12.8	1-20	151	72.3
	No service	16	6.8	21-40	16	11.5
	-	-	-	41-60	2	3.4
	-	-	-	None	37	15.7
	Total	235	100	Total	235	100
School health service	1-5 times	100	42.6	1-30 days	103	43.8
	6-10 times	3	1.3	31-60 days	27	11.4
	None for a time being	31	13.1	>61 days	4	1.7
	No service	101	43	No service	101	43

5.2.7 Registration of disease, referral linkage and reporting

Out of sampled respondents 125(53.2%) register disease and had registration book. Forty six percent (110) have not registered disease at all. The study also showed that 75(31%) of respondents registered diseases 1-20 times, (1)0.4% respondent registered 21-40 times and (1)0.4% registered > 41 times. Results of the questionnaire survey show that 98(41.7%) of respondents registered diseases within 1-30 days, 23(9.8%) within 31-60 days and 4(1.7%) >61 days, the remaining 110(46.8%) have not performed disease registration. Nearly eighty five percent (199) referred patients to health centers and 36(15.3%) didn't (Table 9).

Out of 199(84.7%) HEWs 113(48%) referred patients 1-10 times, 2.1% (5) 11-20 times and the remaining 2(0.8%) referred patients more than 21 times per month. 80(34%) of HEWs none of them perform referral service during the study month and 35(15.3%) not done in any occasion. Most of study participants 121(51.4%) referred patients with in 1-40 days, 69(29.4%) of respondents perform patient referral within 41-80 days and 10(4.25%) were referred within 80- 120 days. 35(14.8%) of study participants didn't not perform at all (Table 9).

In this study 209(88.9%) sent report and 26(11.1 %) didn't sent report at all. Out of 209 respondents who said 'Yes' 158(67.2%) sent report 1-5 times, one HEW sent report 6-10 times and the remaining 50(21.3%) of them didn't sent report within a month before the study period, and 26(11%) do not send at all. Regarding the day ago of last service 160(68%) of respondents sent report within 1-30days, 48(20.4%) sent report within 31-60 days, one respondent sent before two months (>61) days and 26(11%) of them didn't sent report at any occasion (Table 9).

Table -9- Registration of disease, referral linkage and reporting activities performed by HEWs in selected sub cities of Addis Ababa, Ethiopia, 2014.

Service	Category	Frequency	%	Days ago of last service	Frequency	%
Registration of diseases	1-20 times	75	31	1-30 days	98	41.7
	21-40 times	1	0.4	31-60 days	23	9.8
	>41 times	1	0.4	> 61 days	4	1.7
	none	48	20.4	No service	110	46.8
	No service	110	46.8			
	Total	235	100	Total	235	100
Referral linkage	1-10 times	113	48	1-40 days	121	51.5
	11-20 times	5	2.1	41-80 days	69	29.3
	>21 times	2	0.8	81-120 days	10	4.2
	None	35	15.3	No service	35	14.89
	No service	80	34	-	-	-
	Total	235	100	Total	235	100

5.3 Assessment of items reflecting health institution support

5.3.1 Assessment of selection pattern

Regarding selection of HEWs 176(74.9%) of respondents were selected by wereda health bureau, 3(1.2%) by selection committee, and 56(23.8%) of them were selected through vacancy announcement. Thirty nine percent (92) of the respondents were recruited from current service area, 68(28.9%) from other wereda within the sub-city and 75(31.9%) of them from different areas. On the other hand this study showed that recruitment duration ranged from 2002 to 2006 Ethiopian calendar. Most 130(55.3%) of the HEWs were recruited in 2002, 20(8.5%) in 2003, 31(13.2) in 2004, 17(7.2) in 2005 and 37(15.7) in 2006 E.C.

5.3.2 Assessment of supplies

Regarding supplies out of 235 respondents 160(68.1%) HEWs get drug supplies, while 75(31.9) of them did not get. From 160 of respondents 115(48.9%) hold drugs like anti-helminthes, 46(19.6%) of HEWs had got only vitamin A.

Regarding medical equipments 114(48.5%) HEWs have got medical equipments like sphygmomanometer with stethoscope, 10 (4.25%) have dressing materials and the remaining 111 (47.2%) HEWs responded that had no equipment to provide the services.

One hundred fifty two (64.7%) of the total respondents had enough reference materials at their working place, 83(35.3%) HEWs had no any reference materials. Out of the total study participants 131(55.7) of HEWs had enough registration book, 104(44.3%) of them had no registration book for their day to day activity noting (Table 10).

Table -10- Availability of drugs and supplies, medical equipment, reference materials and logbooks in selected sub cities of Addis Ababa, Ethiopia, 2014.

Character	Response	Frequency(n)	Percentage
Drug supplies	Yes	160	68.1
	No	75	31.9
Drugs availability	Contraceptives	-	-
	ORS	-	-
	Vaccines	-	-
	Anti-helminthes	115	48.9
	Others	46	19.6
	No service	74	31.5
Availability of medical equipments	Yes	124	52.8
	No	111	47.2
Type of medical equipments	Injection materials	-	-
	Dressing materials	10	4.25
	Delivery kits	-	-
	Others (sphygmomanometer, stethoscope)	114	48.5
	None	111	47.2
Reference materials	Yes	152	64.7
	No	83	35.3
Registration book	Yes	131	55.7
	No	104	44.3

5.4 Assessment of facilities and support given by health institutions to HEWs

5.4.1 Distance, supervision, refresher course, lining house provision

Regarding Distance (transportation and communication facilities) all respondents had supported by health institutions. All of study participants had transportation and telephone allowance.

Among the 235 respondents included in the study 168(71.5%) HEWs have been supervised by the supervision team, but 67(28.5%) HEWs hadn't been supervised. From those 168 respondents who have supervised 63(26.8%) had monthly supervision, fifty two (22.1%) had supervised every three months, twenty eight (11.9%) had supervised every six months and the remaining 25(10.6%) HEWs supervised with unknown interval (Table 11). This clearly indicates lack of permanent schedule of supervision for all HEWs in all woredas.

Results of the questionnaire survey indicated that 132(52.2%) HEWs had got refresher courses, but 103(43.8%) didn't. No living house is provided to the HEWs as support and motivation.

Table -11- Assessment of facilities and support given by health institutions.

Character	response	Frequency(n)	Percentage	remark
Transportation facilities	Yes	235	100	
	No	0	0	
Communication facilities	Yes	235	235	
	No	0	0	
Supervision pattern	Yes	168	71.5	
	No	67	28.5	
Supervision schedule	Every month	63	26.8	
	Every 3 months	52	22.1	
	Every 6 months	28	11.9	
	Others	25	10.6	
	No supervision	67	28.5	
Availability of refresher course	Yes	132	52.2	
	No	103	43.8	
Living house provision	Yes	0	0	
	No	235	100	

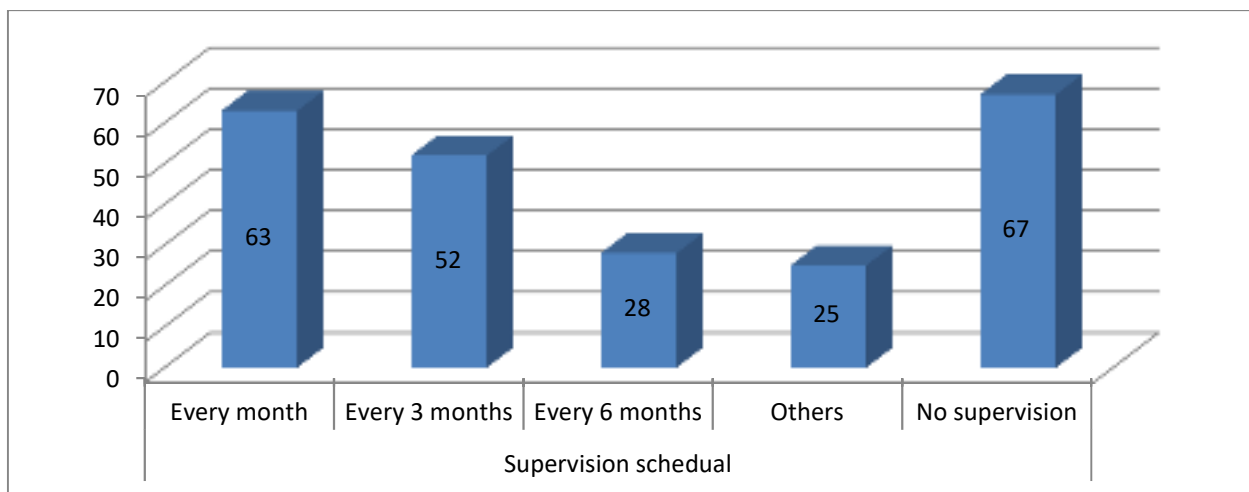


Figure- 5- Supervision schedule of UHEWs by health institutions

5.5 Assessment of community support and involvement in health service activities

Presence of community support and involvement in health service activities was assessed through the questionnaire survey and result revealed that out of 235 respondents 206(87.7%) answered ‘Yes’ and confirmed the availability of health committee in their wereda. Out of these only 96(40.9%) HEWs responded about the involvement of health committee in planning of wereda health activities (Table 12).

One hundred frothy five respondents (61.7%) had positive response about the participation of community involvement in training on the package, while 90(38.3%) showed that the community did not participate because of time constraints 79(33.6%), lack of land/house ownership most are rentee 2(0.9%), and other reasons 9(3.8%) (Table-12).

Majority of the respondents, 198(84.3%) showed the participation of communities in disease prevention. Regarding participation in disease prevention 51(21.7%) cooperate during immunization, 58(24.7%) during home visit and 17(7.2%) act as model family (Table 12).

Table-12- Assessment of community support and involvement in health service activities

Character	Response	Frequency(n)	Percentage
Availability of health committee	Yes	206	87.7
	No	29	12.3
Committee involvement in planning of health activities	Yes	96	40.9
	No	139	59.1
Community participation in training concerned on packages	Yes	145	61.7
	No	90	38.3
Reason not to participate on training	Time constraints	79	33.6
	Land ownership	2	0.9
	Others	154	63.5
Community participation in disease prevention	Yes	198	84.3
	No	37	15.7
Sessions of community participation	Cooperate during immunization	51	21.7
	Cooperate during home visit	58	24.7
	Act as model family	17	7.2
	Others	72	3.6
Availability of model families	Yes	208	88.5
	No	27	11.5

The HEWs in the study woreda have varied number of model families, ranging from 10 to 650. Eighty six percent (203) of the HEWs have model families while 2 do not have at all. The remaining 13% (30) hadn't responded either Yes or No. The majority of HEWs (109) have 1-200 families, 46(19.6%) have 201-400 families and 50 (21.2%) have more than 400 families (Table 13).

Table-13- Number of model families by category

Response category	No. of HEWs	%	Number of model family by category		
			No of MF	Frequency	%
Yes	203	86.4	1-200	109	46.2
No	2	0.8	201-400	46	19.6
Not responded	30	12.8	401-600	49	20.8
Total	235	100	>600	1	0.4
			No response	30	12.8
			-	235	100

5.6 Assessment of personal attributes of UHEWs

5.6.1 Assessment of job satisfaction and aspiration

Results of this study showed that 194(82.6%) of HEWs are capable of doing their work independently, while 41(17.4%) of them need coaching support.

Out of 235 respondents 126(53.6%) were responded as dissatisfied by what they are doing. Among which 72(30.6%) were dissatisfied due to lack of community support, 22(9.4%) due to lack of health service support and 15(6.4%) due to shortage of supplies. Below half 106(45.1%) HEWs responded that they are satisfied by their profession and 129(54.9%) of them dissatisfied. The reasons for professional dissatisfaction include lack of upgrading 31(13.2%); refresher course 21(8.9%), 4(1.7%) lack of incentive, and 50(21%) insufficient salary (Table 14).

This study also revealed aspiration of HEWs, out of 235 study participants 135(57.4%) wants to upgrade to BSc in nursing, 10(4.3%) to environmental health technician, 10(4.3%) of them to pharmacy technician, 2(0.9%) to administrative position and the remaining 17(7.2%) to social studies and others. Only 2(0.9%) HEWs aspire to stay 4-5 years as HEW, 2(7.2%) HEWs want to stay for < 4 years. Others 216(91%) study participants didn't respond that they aspire to stay as HEW or not (Table 14). This clearly indicates that there is a hidden dissatisfaction factor that needs further investigation.

Table-14- Job satisfaction and future aspiration of HEWs in the study area

Characteristics	Response	Frequency	%
Satisfaction by current duty	Yes	109	46.4
	No	126	53.6
Reason not to satisfied	Lack of community support	72	35.7
	Lack of health service support	22	9.4
	Shortage of supplies	15	6.4
	No response	126	53.6
Satisfaction by profession	Yes	129	54.9
	No	106	45.1
Reasons for dissatisfaction	Lack of upgrading chance	31	13.2
	Lack of refresher course	21	8.9
	Luck of incentives	4	1.7
	Insufficient salary	50	21.3
	No response	129	54.9
Future aspiration	Stay as HEW	10	4.3
	Upgrading	155	66
	Moving to private/NGO	27	11.5
	Stopping employed work	43	18.3
	No response	129	54.9
Aspire as HEW	< 4 years	17	7.2
	4-5 years	2	0.9
	>5 years	0	0
	No response	216	91.9
Aspire to upgrade	BSc in nursing	135	57.4
	Environmental health technician	10	4.3
	Pharmacy technician	10	4.3
	Administrative position	2	0.9
	others	17	7.2
	No response	61	25.9

5.7 Assessment of training adequacy

In the training adequacy study, 103(43.8%) participants disclosed that the three months training was inadequate at all, 75(31.9%) HEWs responded that it was partially adequate and 57(24.3%) said it was adequate. Forty three percent (102) of the study participant's revealed that the training was deficient both in theoretical and practical aspects, 69(29%) of respondents said only the practical is deficient, 7(3%) responded that theoretical part is deficient and 57(24.3%) HEWs didn't want to voice.

5.8 Factors associations with Implementation of health extension packages independently

Selected socio-demographic variables were analyzed to determine their statistical association with implementation of health extension program. During data analysis there is no any statistically significance association with socio-demographic variables. (See table 15 below)

Table -15- Factor association between socio-demographic variables with implementation of health extension packages independently

Variables	Implementation of HEP		Crud odds ratio 95% CI	P value
	Yes (%)	No (%)		
Age group				
20-25	109(47.8)	1(14.3)	5.86(0.65-134.96)	0.23
26-30	93(40.8)	5(71.4)	1.00	
36+	26(11.4)	1(14.3)	1.40(0.15-33.04)	
Total	228	7		
Educational level				
Diploma in nursing	219(96.1)	7(100)	Undefined	-
BSc in nursing	9(3.9)	0		
Total	228	7		
Marital status				
Single	132(57.9)	4(57.1)	1.03(0.18-5.61)	0.59
Married	96(42.1)	3(42.9)	1.00	
Total	228	7		

There are significant associations between health extension workers who have drug supplies with implementation of health extension program in bivariate association. P value=0.023. Similarly there are significant associations between health centers who have reading and reference materials with implementation of health extension program with bivariate association. P value=0.042. No significant associations with other variable of supplies between independent working. (See table16 below)

Table-16 - Factor associations between Assessments of supplies with implementation of health extension packages independently

Variables	Implementation of HEP		Crud odds ratio 95% CI	P value
	Yes (%)	No (%)		
Drug supplies				
Yes	158(69.3)	2(28.6)	0.18(0.02-1.06)	0.023*
No	70(30.7)	5(71.4)	1.00	
Total	228	7		
Reading and reference material				
Yes	150(65.8)	2(28.6)	4.81(0.80-36.6)	0.042*
No	78(34.2)	5(71.4)	1.00	
Total	228	7		
Transportation facility				
Yes	148(64.9)	4(57.1)	1.39(0.24-7.56)	0.62
No	80(35.1)	3(42.9)		
Total	228	7		
Availability of medical equipment				
Yes	122(53.5)	2(28.6)	2.88(0.48-21.90)	0.193
No	106(46.5)	5(71.4)	1.00	
Total	228	7		
Registration books				
Yes	126(55.3)	5(71.4)	1.00	0.39
No	102(44.7)	2(28.6)	2.02(0.34-15.4)	
Total	228	7		

*p<0.05

There are also strongly significant associations between who have a health committee in the wereda with implementation of health extension program. P value= 0.013 with bivariate analysis (Table 17). No any statistical significant associations with other community support variables between implementation of health extension program.

Table -17- associations of community support and involvement in health service activities

Variables	Implementation of HEP		Crud odds ratio 95% CI	P value
	Yes (%)	No (%)		
Availability of Health committee				
Yes	202(88.6)	4(57.1)	0.17(0.03-1.03)	0.013*
No	26(11.4)	3(42.9)	1.00	
Total	228	7		

Chapter Six

Discussion

6.1 Implementation of HEP packages independently

In this study, it was found that the success of HEP in achieving its set goals and objectives could be affected by a number of complex factors. Among which the capacity of HEWs take the lion share in proper implementation of the HEP. To this end, more than 50% of the HEWs should implement the packages independently was taken as a bench mark. This was evidenced by the positive response of 228(97%) of the HEWs in selected sub-cities of Addis Ababa that they commit independently. A similar study done by Yale global health leadership institute showed that the successes of the HEP, especially in the rural agrarian communities, a number of objectives are unfulfilled with some outputs still well below the desired levels. There is also a large variation across regions (and, likely, within regions), due to geographic, cultural, and political differences. Although a majority of the regions' HEWs are providing 80-100% of the service packages, there are some regions (e.g., Afar and Gambela) where there is a wide range of variation in services being offered, and this lack of services may influence health outcomes in these areas (14). However the remaining 7(3%) did not materialize the package independently and need technical backstopping or training. This proportion really should not be undermined and neglected. If such proportion of HEWs is not implementing the packages independently in the five selected sub-cities, it would not be difficult to anticipate what will happen in the future, unless appropriate and corrective measure is taken soon. For HEP success all health extension workers should implement the package and be able to work with the community they serve.

6.2. Health extension packages

6.2.1 Family health

According to the findings of this cross sectional study, family health services, family planning, postnatal, immunization and nutrition and growth monitoring services had been given by HEWs. As revealed 107(45.5%) of study participants implemented postnatal care service and 220(93.6%) of them gave counseling service concerned either on HIV/AIDS, sexuality, essential nutrition action, family planning, treatment of anemia. And provided polio vaccine only during polio campaign, demonstration of vitamin A and iron complementation, growth monitoring, condom distribution, and create awareness on methods and types of contraceptives and health education. A similar study on factors affecting implementation of HEP supported this result and revealed that 82.3% of HEWs provide post natal care ,advised mothers to fed breast only till 6 months, and 63(65.6%), 56(43.8%) gave advice about family planning, vaccination of the child and personal hygiene of the mother and her baby respectively. A small number of HEWs (17.7%) had started providing vaccination services at health posts (15).

In this study, though it had not been carried out to the extent of other MCH activities. None of the HEWs provide antenatal care, delivery service and curative services because curriculum and facilitator's guide for urban health extension professionals. The training guideline shows that, the main job of HEWs is focused on awareness creation and social mobilization. The guideline focused on education on antenatal care, delivery and postnatal care, to sensitize the community on prevention of harmful traditional practices that affects pregnant mothers, children and adolescents, education on prevention of mother-to-child transmission of HIV (22). Therefore, it is easy to understand that the guideline limits the functionality of HEWs.

6.2.2 Disease prevention and control

In this study HEWs had not perform TB and leprosy continuation treatment. However, 78% of the health extension workers follow defaulters, while 22% do not. Out of the 184 health extension workers following defaulters, 170 follow for reaction and complication while the remaining 14 do not follow. As results show more than 80% the HEWs do not give any preventive and informing service in relation to rabies control. Under prevention and control of communicable diseases, 87.2% gave HIV/AIDS and STI related services by giving home based care, information on VCT, promoting male involvement in PMTCT, promoting ABC and distribution of condom. However this study disclosed as nearly 12.8% of HEWs did not perform in any occasions. The findings of this study was consistent with the general view that a cross sectional preliminary descriptive census survey conducted in east Gojam zone revealed that 87.7% of HEWs perform prevention and control of communicable diseases regularly except malaria. The majority of HEWs had not performed tuberculosis and leprosy continuation treatment with defaulters tracing and prevention of rabies in any occasion (18). According to the above study a possible explanation for those HEWs either did not feel competent enough to do so even if they were supplied with the necessary drugs or the one year duty training might not have equipped HEWs with basic knowledge of the major communicable diseases (18). It might perhaps be due to either HEWs did not pay attention to this particular activity or might not trace the case in their wereda or moreover, they might not have enough knowledge about the activity.

6.2.3 Hygiene and environmental sanitation

This was found to be the third most frequently done activity next to family health and disease prevention and control. The service was undertaken by 87.7% of the health extension workers. Majority 73% of the health extension workers in the study area provided all kinds of

services. However, twelve percent did not give service on hygiene and sanitation measures. The same study also found the access to sanitation that provided by HEWs, overall, 66.4% of the people had access to improved toilet facilities. However, consistent utilization and hygienic utilization (but without hand washing facility) was observed in only 36.2% and 13.3% households, respectively. Model-family showed a significant impact on access to sanitation. Access to sanitation was significantly higher among model-family households (90%) than households who had not yet participated in model-family training (67%) (16). In cities and larger towns' construction of pit latrine and solid and liquid waste disposal facilities might be constrained by limitation of open space and land ownership cases. However, much remains to improve the functionality of health extension program in urban areas. Since the study area has many opportunities for the improvements with the participation of community this result is not as encouraging as the HEWs could contribute to improve the health of the urban community more than 87%.

6.2.4 Health education and school health service

Health education service was provided by 93.2% health extension workers, while 6.4% of the health extension workers have never provided the service. This 6.4% of HEWs that have not provided health education should not be neglected as HEWs are required to spend 75% of their time conducting outreach activities by going from house to house (3). During these visits, HEWs are expected to teach on different health related topics. Results of the questionnaire survey show that 57% of the HEWs gave school health service and 43% do not. The reason for not giving the service should be sorted out in future similar studies and mechanism devised to make the health service accessible to almost all schools and students in the service vicinity.

6.2.5 Registration of disease, referral linkage and report

Out of sampled respondents 53.2% have registration book and thus register disease occurring in the area where as 44.3% do not have registration book and thus had not registered. In principle all disease occurring the service area must be registered and kept by all HEWs be it for further reference or decision making. Preparing a logbook is not as such difficult if thought carefully and taken seriously. Nevertheless, as the study results indicate there is a big gap that has to be tapped immediately either through government or development partners support.

Nearly eighty five percent of HEWs referred patients to health centers and 15.3% didn't. In this reality most of health HEWs refer patients to higher health institutions without registering them which is difficult to report real performance and to get feedback. Principally UHEWs are expected to follow the right way of referral linkage. This study surfaced that 88.9% of the HEWs send report while 11.1% do not send report to the concerned body. A previous studies at wolayta zone showed that 37.5% of HEWs reported their monthly activities to both health center and district health office and 47(49%) to the health center only. Nearly half of HEWs complained that they did not have feedback for their report. The majorities 86.5% refer their patients to the nearest health center, but only 27% have got feedback for their referral (15). However reporting and full pledged reports are instrumental for follow-up, monitoring and evaluation of the health extension workers and the success of the health extension program. Therefore, preparing and availing well formulated reporting formats in all health extension providing centers should be given due attention.

6.3 Facilities and support given by health institutions

6.3.1 Selection pattern

Regarding selection of HEWs 74.9% of respondents was selected by wereda health bearou, 23.8% (56) of them were selected through vacancy announcement and only 1.2% was selected by the committee. Thirty nine percent of the HEWs were recruited from current service area, 31.9% of them from different areas and 28.9% from other weredas within the sub-city. This study identified that most of UHEWs are selected with adherence to the criteria put in the selection guideline. The guideline describes that the candidate must have minimum of diploma in nursing, female, less than 35 years of age, preferably resident in the kebele or adjacent kebeles. A study done in New York found that there were many individuals working in community and faith-based organizations and in health care settings that did indeed fit the definition of a CHW, but that only about 15% were identifying as such. There were also organizations that were purporting to use CHWs who did not fit the definition (13). One of the selection criteria, being resident of the kebele is also appropriate and is supported by another study that revealed being a member of and chosen by the community they serve is important attribute of CHWs. This means they are easily accepted by their fellows and have natural cultural awareness (9). Hence, selecting HEWs adhering to the criteria helps to ensure acceptance by community members.

6.4 Items reflecting health institution support

6.4.1 Supplies

Most of UHEWs had drug supplies like anti-helminthes and sometimes vitamin A, medical equipments such as sphygmomanometer with stethoscope. This shows that the support of health facilities with necessary supplies and equipment is very poor. The bivariant analysis of this study identified that health institution support in the form of drugs, reference materials

supply are significantly associated with implementation of HEP. The odds of being supplied with drugs and reference materials among study participant's is P value 0.18 and crud odds ratio 4.81 with 95% CI (0.02-1.06) times less than those HEWs who do not have drug supply and reference materials, respectively. A cross sectional study in wolayta zone supports this result and showed concerning availability of logistics for their health post, had both syringe and needle, 97% of them mentioned that they had the recommended type of family planning drugs, and about 25% of HEWs stated that they had no drugs and kits recommended for their health posts. Nearly 40% of HEWs mentioned the absence of gloves and antiseptics. More than half 53% of HEWs reported that. Both adult and child weight scale were not available (15).

Supplying HEWs with necessary drugs like anti helminthes, vitamin A, contraceptives and medical equipments like dressing materials, first aid kit and providing reference materials may improve the functionality of HEWs and the sustainability of the program. This result is not only showed that they cannot do their job properly, but also that their standing in the communities is undermined. Failure to meet the expectations of these populations with regard to supplies will destroy the image or credibility of the program. This study showed a benchmarking result for other regions, as HEWs in the study area had transpiration and telephone allowances. This is an encouraging practice to motivate HEWs and minimize attrition rate.

In relation to supervisory visits 71.5% HEWs had supervised by supervision team. Out of this 26.8% supervised monthly, 22.1% quarterly, 11.9% biannually and the remaining 10.6% yearly. Hand to hand results of the questionnaire survey indicated that 52.2% HEWs had got refresher courses, but 43.8% did not. A study made in Wolayta zone showed that 76% of HEWs were supervised and 24% of them were not. Similarly, 72% of HEWs reported that they participated in one or two refresher courses. The refreshed and none refreshed reported

that they want to be further refreshed on managing normal labor, giving vaccination, monitoring charts, HIV/AIDS and other STIs control and prevention and community conversation(15). The possible reasons could be the fact that HEWs as a rule operate on the periphery, both organizationally and geographically. Therefore, they are not only the first to lose training opportunities and supervisory visits, but also transport and drug supplies (15). Even though this is less probable in urban areas there is a probability for likelihood as most of the kebeles are wide and UHEWs are traveling on foot from house to house. The implementation of nationwide HEP, which is considered as the most important institutional framework for achieving the Millennium Development Goals (MDGs), should be accompanied by corrective training, periodic monitoring and evaluation so as to timely correct short comings and demonstrate that the goals and objectives are achieved and to document and amend factors that affect the success of the program.

6.5 Community support and involvement in health service activities

Results of the assessment survey made on community support and involvement in health service activities revealed that out of 87.7% of the HEWs confirmed the availability of health committee in their wereda. However, out of those only 40.9% responded about the involvement of health committee in planning of wereda health activities. One hundred frothy five respondents had positive response about the participation of community involvement in training on the package, whereas 38.3% of the community did not participate either because of lack of time, land/house ownership and other factors. The majority of respondents (84.3%) showed the participation of communities in disease prevention, by cooperating during immunization, home visit, and acting as model family. As study of community involvement in the health extension program indicate decentralizing of responsibility to the community has a significant impact. There is strong and significant associations between sub-cities having a health committee with independent implementation of the packages of the extension program

($P=0.013$ and odds ratio 0.17 95% CI (0.03-1.03)). Due to time constraints and lack of ownership of house/land the majority of residents in the city do not involve in training on the packages. Lack of land ownership had impacted and limited the increment of model families in the cities. It could be one of the major factor for the difference in the success of the HEP between urban and the rural. A literature revealed that HEWs communicate health messages by involving the community from the planning stage all the way through evaluation. HEWs utilize Women and Youth Associations, Schools and Traditional Associations such as idir, mehaber, ekub, to coordinate and organize events where the community participates by providing money, raw materials and labor (3). Moreover the involvement of communities in different activities was encouraging. However through community mobilization and participatory communication HEWs can meet the MDG.

6.6 Personal attributes

6.6.1 Job satisfaction and future aspiration of HEWs

Job satisfaction was found to be an independent factor for HEWs to implement HEP independently. This study found that 53.6% (126) of the UHEWs were dissatisfied by what they were doing due to lack of community support, lack of health service support and shortage of supplies. Similarly presence of professional dissatisfaction was reported by 54.9% of the HEWs due to lack of upgrading, refresher course, incentives and insufficient salary. The study made in east Gojam supports this study and revealed that most of HEWs were dissatisfied, by their job, because of lack of community support and absence of upgrading opportunity (18). Dissatisfaction as a whole might negatively affect the performance of HEWs and raises dropout.

Future aspiration also was found to be an independent factor for UHEWs to implement HEP independently. A finding from a cross sectional study indicate that 57.4% of the HEWs wants

to upgrade to BSc degree in nursing, environmental health, pharmacy technician, administrative position, social studies and others. This clearly indicates that almost all HEWs aim changing their job through improving professional career. A cross sectional study done at SNNPR, Wolayta zone, on factors affecting implementation of HEP revealed that one of the factor that favor HEWs was looking for some other alternatives like continuing higher education in health related disciplines (15). According to Sefihun, 2007 as the HEWs gain experience and upgrade their profession; they often find new open doorways (15). Similar study made in east Gojam zone found that those who aspire to upgrade to as soon (80% of cases and 40% of controls) are perhaps more prone to be preoccupied and taken by deferent activities such as absentees their current job, searching for other job and upgrading opportunities by themselves (18). Generally it is better to have upgrading chance and career structure for HEWs to enhance their contribution in improving the health status of the urban community.

6.7 Training adequacy

Training adequacy was another independent factor that affects the implementation of HEP. This cross sectional study also disclosed the inadequacy of the three months training for successful implementation of the HEP. As shown in the result part 43.8% of the respondents stated that it was inadequate at all, 31.9% was partially adequate. The training was said to be deficient by both theoretical and practical aspects. Similar reports were made in the study of Getachew Hailu (2009) in east Gojam zone. The assessment made on the extent and determinants of functionality of health extension workers in east Gojam zone, Amhara regional state, Ethiopia disclosed that one year training was inadequate at all and/or partially adequate (18). However, to upgrade the performance of HEWs training is mandatory.

Chapter seven

Strength and limitation

7.1 Strength

1. To reduce the likely biases in cross sectional study maximum effort was made through careful study design and during pre test.
2. Questions that were expected to create bias of respondents were removed during pre test.
3. Possible confounders were controlled both in the study design and during statistical analysis through matching and bivariant logistic regression.
4. The reliability of HEP implementation measurement tool as a whole was tested with reliability analysis and found to be acceptable.

7.2 Limitation

1. Cross sectional study has the disadvantage of inability to establish causal relationship and failure to incorporate observation of some of the activities of rendered by HEWs.
2. The quantitative cross sectional questionnaire was prone to social desirability bias and none response rate; because of every one do not want to expose once inability.
3. Some variables like job satisfaction, professional satisfaction and training adequacy measured with a single item question and dependent on personal outlook might reduce the level of reliability.
4. Lack of triangulating questions in case of biases or false informing might have reduced the true prevalence of factors of the study and outcome of variables.
5. Lack of record keeping by HEWs might reduce the accuracy of the data provided.

Chapter Eight

Conclusion

Health extension workers can make a valuable contribution to community development and can improve access to and coverage of communities with basic health services. The overall implementation of HEP was found to be encouraging. The majority, 228(97%) of the HEWs implement the packages independently where as 7(3%) were not implementing it independently. Health extension workers are doing better on HIV/AIDS related services, hygiene and environmental sanitation and health education service. But, family health service and disease prevention and control services needs more effort. Specifically, they have limited contribution with respect to health promotion and preventive measures of major packages such as family planning, TB, leprosy, and rabies management.

Health institutions support was found to be independent factor of the HEP. This study had found that there are differences in frequency of supervision, and lack of logistics supplied; including drugs, medical equipments and housing. Thus, the strong need for support and training illustrates clearly that HEWs are not a simple and cheap solution to the lack of qualified and experienced professionals in the health extension program at the grass root level. Therefore, for successful implementation of the program there appears a need to employ many qualified professionals for training, supervision and supporting of HEWs.

This study had found that most of the HEWs have high need to upgrade their profession. The majority have responded that they are dissatisfied by their profession simply because of lack of upgrading opportunity. This critically high need for advancing their professional career might enhance dropout rates and aggravate attrition rate of HEWs in the absence of career structure that might compensate the wish, motivate, satisfy and keep them in their work place for long with improved performance.

Selection pattern was also found to be an independent determinant of the implementation of the HEP. Despite the fact that, having a standard selection criteria for candidate HEWs, most were selected adhered to the criteria set by the bureau. This is an encouraging performance of weredas has to be adhered as much as possible.

Chapter Nine

Recommendation

1. The 3% of health extension workers not implementing the full packages independently in Addis Ababa selected sub-cities should not be undermined. Therefore the Addis Ababa region health bureau in collaboration with stakeholders should conduct need assessment and respond accordingly to prevent non-functionality of the program and dropout rate of the health extension workers.
2. The health institution support was found to be independent factor affecting implementation of the health extension program. Therefore the Addis Ababa city administration health bureau in collaboration with its development partners and other stakeholders should fulfill the necessary logistics to the HEWs, provide support with frequent supervision and organize refresher training.
3. Lack of professional upgrading opportunities coupled with insufficient salary and low community support dissatisfied almost all of HEWs in the study area. Therefore, Federal Ministry of Health and Addis Ababa region health bureau should think of developing a new career structure that consider the current volatile market situation, might satisfy and motivate HEWs and maintain them truly functional.
4. Selection pattern was identified as independent factor affecting the implementation of HEP. Therefore sub-cities should adhere to the selection criteria as it is found encouraging.
5. More than 98% of the HEWs have less than 5 years of service indicating that the attrition rate is extremely high, even though it was not surfaced during the questionnaire survey. To enhance the stability and maintain well experienced HEWs in the area and give better service to the community a motivating and sustaining mechanism has to be devised and implemented.

6. The professional training in general was found to be inadequate to implement the packages fully. Thus, to capacitate the HEWs, Addis Ababa city administration health bureau should regularly give refresher course on all the packages in general and on control and prevention of major communicable diseases and family health in particular.
7. To understand the functionality of the health extension program on the ground and the major factors affecting its implementation, especially in urban areas, a thorough study should be conducted.

Reference

1. Teklehaimanot and Teklehaimanot Human resource development for a community-based health extension program: a case study from Ethiopia, *Human Resources for Health* 2013, 11:39 <http://www.human-resources-health.com/content/11/1/39>
2. Walta information center 2010. New urban health extension program located at <http://nazret.com/blog/index>, retrieved on November 2013.
3. Federal Ministry of Health (FMOH), 2007. Health extension program in Ethiopia profile, Addis Ababa, Ethiopia, June 2007).
4. Jennifer G.Cooke, 2009. Public health in Africa, a report of the CSIS Global health policy center, April 2009).
5. Prasad BM and VR Muraleedharan, 2007. Community Health Workers: a review of concepts, practice and policy concerns, August 2007.
6. Leda M. Pérez, and Jacqueline Martinez, 2008. Community Health Workers: Social Justice and Policy Advocates for Community Health and Well-Being, *MPH Am J Public Health*. 2008 January PMCID: PMC2156047).
7. USAID, 2010. Health care improvement project, Community Health Worker Programs: A Review of Recent Literature, USAID, Jan 2010.
8. <http://en.wikipida.or/wiki/comunityhealth>
9. Ana Lorena Ruano, Alison Hernández, Kjerstin Dahlblom, Anna Karin Hurtig, and Miguel San Sebastián, 2012. It's the sense of responsibility that keeps you going': stories and experiences of participation from rural community health workers in Guatemala, <http://www.archpublichealth.com/pubmed/related/70/1/18,2012>
10. South Africa academy of physicians, *journal of interdisciplinary health sciences*, volume 18 number 1, 2013.

11. Kenyan Ministry of health, 2006. Taking the Kenya essential package for health to the community, a strategy for the delivery of level one service, MoH Afia house, Nairobi, Kenya, April 2006.
12. Federal Ministry of Health (FMOH), 2010, Health Sector Development Programs IV 2010/11 – 2014/15 FINAL DRAFT, Health extension program, p18, Oct, 2010.
13. Kathleen Grimm, MD and Jessica Bauer Walker, BA Illustrations by Ajmal Millar, Challenges & Opportunities of Community Health Workers in Buffalo, NY, January 2011
14. Yale global health leadership institute, 2012. Harvard school of public health, Ethiopia's Health Extension Program, Ethiopia HEPCAPS1 Series Paper #1, September 2012
15. Sefihun Bezabih, 2007. Assessment of factors that affect the implementation of health extension program in wolayta zone, SNNPR, July 2007, Ethiopia.
16. Desta Teklehaimanot, Awash Teklehaimanot, Hailay 2005-2010 Health Extension Program Evaluation: Rural Ethiopia Household Health Survey, Center for National Health Development in Ethiopia, Columbia University, Part – I.
17. Miz-Hasab Research Center, 2008. Rapid appraisal of health extension program, country report, The L10k Project of JSI, Miz-Hasab Research Center Addis Ababa, Ethiopia, 2008.
18. Getachew Hailu, 2009. Assessment of the extent and determinants of functionality of health extension workers in east Gojam zone, Amhara regional state, Ethiopia 2009.
19. Hailom Banteyerga , July 2011. Ethiopia's Health Extension Program: Improving Health through Community Involvement MEDICCRewiewVolume 13, No 3

20. Sundararaman et al BMC proceedings, 2012, 6 (suppl 5): 030National Health Systems ResourceCentre,NewDelhi,India,BMCProceedings2012.<http://www.biomedcentral.com/1753-6561/6/s5/030>
21. Federal Ministry of Health (FMOH), 2005/6-2009/10). The implementation of Ethiopia's Health Extension Program: An overview Prepared by Alula Sebhatu,September 2008, Addis Ababa, Ethiopia.
22. Federal Ministry of Health, (2009) Carriculum and facilitator's guide for urban health extension professionals training.
23. Ethiopia Urban Health Extension Program (USAID/UHEP: 2009-2013):www.uhep.jsi.com
24. Report on the evaluation of the WHO Multi-country Family Health Nurse Pilot Study by Deborah Hennessy and Liz Gladin (WHO, 2006).
25. Central Statistical Agency and ORC Macro. Ethiopian Demographic and Health Survey 2005. Addis Ababa, Ethiopia and Calverton, Maryland, USA; 2006.
26. Addis Ababa administration health beureou officials responsible for health extension program.

Annexes

Annex one

1.1: Information sheet

ADDIS ABABA UNIVERSITY COLLEGE OF ALLIED HEALTH SCIENCE
DEPARTMENT OF NURSING AND MIDWIFERY

Here, I the undersigned, a graduate student at Addis Ababa University College of Allied Health Sciences Department of Nursing and Midwifery Graduate Studies Program, currently will be undertaking research on a topic entitled assessment of factors affecting implementation of health extension program at selected health centers of Addis Ababa, Ethiopia.

For this study, you will be selected as a participant and before getting your consent or permission of your participation, you need to know all necessary information related to the study. Thus, this information will be detailed as;

Objective: To assess factors affecting implementation of health extension program at selected sub-cities of Addis Ababa.

Significance of the study: There is no research done on this topic in the study area. So it is believed that it can be a reference for those who are interested to perform a research on the same topic. Finding from the study is important to advance our understanding of current HEP and provide the Ministry of Health, health care providers and their international partners with the descriptive information necessary to assess HEP and help in achieving MDG.

Participants to be included: All HEWs, who are assigned in selected sub-cities of Addis Ababa and who consented to participate in the study.

Confidentiality: All information you give will be kept confidential and won't be accessible to any third party. Your name won't be registered on the question sheet so that you will not be identified.

Risks and benefits of the study risks: The study will be carried out simply by asking you the already prepared and structured questions. The procedure doesn't bear any physical or psychological trauma. Furthermore, you will not be forced to respond to the information you do not know.

Benefits: For your participation in the study no payment will be granted or has no any special privilege to you. But, participating in the study and giving your information to questions asked will have great benefits to the society. The results will be used to appeal to those in charge of the administration of health care at the local, state and federal levels to pay increased attention to the in-service training of HEWs and also by participating you will contribute to improvements in the quality of service in the future.

Consent: Your participation in the study will be totally based on your willingness. You have the right not to participate from the beginning, or stop any time after starting participation. You will not be forced to respond to the information you do not know.

Name of principal investigator (PI): Tsedale Tilahun Ayele

Date: _____ Signature _____

Address of PI:

Mobile: +251911642270, E-Mail: redigere@yahoo.com

1.2. Consent

My name is Tsedale Tilahun Ayele. I am MSc student in Addis Ababa University, College of Allied health sciences, Department of Nursing and Midwifery. I am conducting a study to assess factors affecting the implementation of HEP in Addis Abeba selected sub-cities.

If you decide to participate in the study, you will be asked some questions relating to the implementation of HEP. There may be benefits to the society by participating in this study. The results will be used to appeal to those in charge of the administration of health care at the local, state and federal levels to pay increased attention to the in-service training of HEWs. By participating you will contribute to improvements in the quality of service in the future.

Any information you provide will be kept confidential. Your name will not appear on the questionnaire. Any information you provide will not be used against you. Your responses will not bring any harm to you and will not affect your job.

You are free to choose whether or not you wish to participate.

Do you agree to participate in this study? Please mark on one of the two (yes or No)

Yes No

THANK YOU FOR YOUR COOPERATION

Annex two

2.1 Introduction of the questionnaire survey

Addis Ababa University College of Allied health science Department of Nursing and
Midwifery Structured questionnaire for the study

Good morning/ afternoon?

My name is _____. Currently I am a graduate student at Addis Ababa University, college of allied health science department of Nursing and Midwifery. I am conducting a research to assess factors affecting the implementation of health extension program in Addis Ababa selected sub-cities. The main purpose of the study is to collect information necessary to get evidence based information for policy makers to improve the program. To attain this purpose your honest and genuine participation is very important and highly appreciable. I, therefore, kindly request you to fill this questionnaire as accurately and carefully as possible. Please be assured that all the information gathered will be kept strictly confidential and you do not need to write your name on any of the questionnaire page. Only the researcher has the access of the information and uses it for the study purpose only.

You have a full right and decision to not respond all the questions or partly. Are you willing to participate? Yes _____ No _____ (Please, encircle or write your answer accordingly)

Thank you, have a nice day.

Data Collector

Name _____ Signature _____ Date _____

Supervisor

Name _____ Signature _____ Date _____

2.2 Questionnaire (checklist)

Identification coding

S. No	Question	Answer	Code	Skip
001	Date of data collection	----- dd/mm/yy		
002	Questionnaire number	-----		
003	Code of data collator	-----		
004	Name of Woreda	-----		
005	Code of the Woreda	-----		
006	Total population of the Woreda	-----		
007	No. of HEWs in the woreda	-----		

Demographic information

S. No	Question	Answer	Code	Skip
101	Sex	Male Female	1 2	
102	Age	-----		
103	What is your educational status	Diploma in nursing BSc in nursing Others	1 2 3	
104	What is your religion	Orthodox Christian Muslim Protestant Others(specify)	1 2 3 88	
105	What is your marital status	Single Married Divorced Widowed	1 2 3 4	
106	Is there any current disability	No Yes	1 2	
107	How long have you been working as HEW?	<2years 2-5years >5years	1 2 3	

Assessment of health extension workers while implementation of HEP packages

No	Question	Answer	Code	Skip
201	Do you give antenatal care services?	No Yes	1 2 →	202
202	How often?	-----		
203	Days ago of last			
204	Do you give curative treatments for pregnant women?	No Yes	1 2 →	205
205	For what illnesses do you give curative treatment?	Malaria Hook worm Anemia Both Others (specify)	1 2 3 4 88	
206	Do you give immunization service?	No Yes	1 2	
107	Do you give delivery service?	Yes	→	208

		No		
208	How often?	-----		
209	For whom do you give immunization service?	Children Mother Both Others (specify)	1 2 3 88	
210	Do you give delivery service?	No Yes	1 2 →	211
211	How often?	-----		
212	Days ago of last?	-----		
213	What kind of delivery service do you give?	Clean & safe homedelivery Institutional delivery Both Others (specify)	1 2 3 88	
214	Do you give post natal care services?	No Yes	1 → 2	215
215	How often?	-----		
216	Days ago of last?	-----		
217	Do you give counseling service for born mothers?	No Yes	1 → 2	218
218	On what topic do you give counseling service for born mothers?	Essential nutrition action Family planning Treatment of anemia All Others (specify)	1 2 3 4 88	
219	Do you give essential nutrition action services?	No Yes	1 → 2	220
220	How often?	-----		
221	Days ago of last?	-----		
222	Do you Demonstrate vitamin A & iron complementation?	No Yes	1 2	
223	Do you perform growth monitoring	No Yes	1 → 2	224
224	How often?	-----		
225	Days ago of last?	-----		
226	Do you give <5 curative services	No yes	1 2	
227	How ofetn?	-----		
228	Days ago of last?	-----		
229	Do you use integrated mothers and children curative services guideline?	No Yes	1 2	
226	Do you give family planning service?	No Yes	1 → 2	227
227	How often?	-----		
228	Days ago of last?	-----		
229	Do you give family planning service?	No Yes	1 → 2	230
230	How often?	-----		
231	Days ago of last?	-----		
232	What methods of family planning services you give?	Condom OCP	1 2	

		Dipo provera	3	
		Both	4	
		Others (specify)	88	
233	Do you give adolescent reproductive health services?	No	1 →	234
		Yes	2	
234	How often?	-----		
235	Days ago of last?	-----		
236	What kind of adolescent reproductive health services do you give?	Sexuality	1	
		Counseling	2	
		HIV/AIDs	3	
		Counseling	4	
		Condom provision	5	
		All	6	
		Others (specify)	88	
237	Do you keep the cold chain system of the vaccine	No	1 →	238
		Yes	2	
238	How often?	-----		
239	Days ago of last?	-----		
240	Do you conduct monitoring & evaluation of community resource persons?	No	1 →	241
		Yes	2	
241	How often?	-----		
242	Days ago of last?	-----		
243	Do you give TB Continuation treatment?	No	1 →	244
		Yes	2	
244	How often?	-----		
245	Days ago of last?	-----		
246	Do you trace defaulters?	No	1	
		Yes	2	
247	Do you follow reactions and complication of anti TB?	No	1	
		Yes	2	
248	Do you give leprosy Continuation treatment?	No	1 →	249
		Yes	2	
249	How often?	-----		
250	Days ago of last?	-----		
251	Do you trace defaulters?	No	1	
		Yes	2	
252	Do you follow reactions and complication of anti leprosy medications?	No	1	
		Yes	2	
253	Do you give HIV/AIDs and STI related services?	No	1 →	254
		Yes	2	
254	How often?	-----		
255	Days ago of last?	-----		
256	What kind or HIV/AIDs and STI related services do you give?	Home based care	1	
		Information on VCT	2	
		Promoting male involvement in PMTCT	3	
		Promotion of ABC	4	
		Distribution of condom	5	
		Others (specify)	88	
257	Do you give preventing and controlling service for rabies?	No	1 →	258
		Yes	2	

258	How often?	-----		
259	Days ago of last?	-----		
260	Did epidemic occur in the wereda?	No Yes	1 → 2	261
261	Do you report epidemics	No Yes	1 2	
262	How often?	-----		
263	Days/months ago of last?	-----		
264	Do you give Hygiene and Environmental sanitation services?	No Yes	1 → 2	265
265	How often?	-----		
266	Days ago of last?	-----		
267	What kind of sanitation services do you give?	Promoting latrine construction Promoting garbage pit construction Promoting personal hygiene Promoting clean home Others (specify)	1 2 3 4 88	
268	Do you give health education?	No Yes	1 → 2	269
269	How often?	-----		
270	Days ago of last?	-----		
271	Do you give health education for behavioral change?	No Yes	1 → 2	272
272	On what topics do you give health education for behavioral change?	On food hygiene and safety On control of venereal diseases On rodent control On health full housing Others (specify)	1 2 3 4 88	
273	Do you give curative services?	No Yes	1 → 2	274
274	How often?	-----		
275	Days ago of last?	-----		
	To what diseases do you give curative service?	Diarrhea diseases Intestinal parasitosis Eye & skin infection Pneumonia of children Anemia during pregnancy Others (specify)	1 2 3 4 5 88	
276	Do you give school health services?	No Yes	1 → 2	277
277	How often?	-----		
278	Days ago of last?	-----		
279	Do you conduct home visit?	No Yes	1 → 2	280
280	How often?	-----		
281	Days ago of last?	-----		
282	Do you register illnesses?	No Yes	1 → 2	283

283	How often?	-----		
284	Do you refer patients?	No Yes	1 → 2	285
285	How often?	-----		
286	Days ago of last?	-----		
287	Do you send report?	No Yes	1 → 2	288
288	How often?	-----		
289	Days ago of last?	-----		

Assessment of HEWs selection pattern

No	Question	Answer	Code	Skip
301	By who are you selected?	Selection committee Do not know Forgotten Others (specify)	1 2 3 88	
302	Where are you recruited from?	From current service area From other weredas in the sub-city Others (specify)	1 2 88	
303	When did you recruit?	2002 E.C 2003 E.C 2004 E.C 2005 E.C 2006 E.C	1 2 3 4 5	

Assessment of supplies

304	Do you get drugs?	No Yes	1 2 →	305
305	What kinds of drugs available in your health center	Contraceptives ORS Vaccins Anti helmentics Anti malarial drugs Others	1 2 3 4 5 88	
306	Are reading and reference materials available in	No Yes	1 2	
307	Are medical equipments available in your health center?	No Yes	1 → 2	308
308	What medical equipments are available in your health center?	Injection materials Dressing Delivery kits Others(specify)	1 2 3 88	
309	Do you have registration book?	No Yes	1 → 2	

Assessment of facilities and assistance given by health institution

310	Do you have transportation facilities?	No Yes	1 2	
311	Do you have communication facilities?	No Yes	1 2	

312	Have you been supervised by supervision team?	No Yes	1 → 2	313
313	How often are you supervised?	Every month Every 3 months Every 6 months Every year Other(specify)-----	1 2 3 4 88	
314	Have you been given a refresher course	No Yes	1 2	
315	Have you been given a lining house?	No Yes	1 2	

Assessment of community involvement in health service activities

No	Question	Answer	Code	Skip
401	Is there a health committee in your wereda?	No Yes	1 → 2	
402	Is the committee involved in planning of wereda health activities?	No Yes	1 2	
403	Who construct the health center?	Government Community Both Others (specify)	1 2 3 88	
404	Is the community participate in training concerned on packages	No Yes	→ 2	405
405	What is the reaseon	Time constriants Land ownership Others(specify)	1 2 88	
406	Do you have model families	No Yes	1 2 →	407
407	How many model families you have	-----		
408	Is the community participate in diseases prevention	No Yes	1 → 2	409
409	How the community participated in diseases prevention?	Cooperate during immunization Cooperate during home visit Act as a model family Others (specify)	1 2 3 88	

Assessment of service delivery approach to the community

410	Is the community utilizing the health center services?	No Yes	1 2 →	411
411	If yes what services are most preferably utilized?	MCH Environmental Diseases prevention & control Health education & communication	1 2 3 4	
413	Which service delivery approach is mostly required by the community?	Curative Preventive Both	1 2 3	

Working conditions, job satisfaction and future aspiration of HEWs

No	Questions	Answers	Code	Skip
501	Are you doing your work independently?	No Yes	1 2	
502	Are you satisfied by what you are doing?	No Yes	1 → 2	503
503	If no, why not?	Lack of community support Lack of health services support Lack of job satisfaction Shortage of supplies Other (specify)	1 2 3 4 88	
504	Are you satisfied by your profession?	No Yes	1 → 2	505
505	If no why not?	Lack of upgrading chance Lack of refresher course Lack of incentives Insufficient salary Others (specify)	1 2 3 4 88	
506	What is your future aspiration?	Stay as health extension worker Upgrading Moving to privet/NGO Stopping employed work Other(specify)-----	1 2 → 3 → 4 → 88 →	
507	If you aspire to stay as HEW for how many years?	<4 years 4-5 years >5 years	1 2 3	
508	If you aspire to upgrade to what profession?	BSc in Nursing Environmental health technician Pharmacy technician Administrative position Other(specify)-----	1 2 3 4 88	

Assessment of training adequacy

509	Was the training adequate for your work?	No Partially Yes	1 → 2 3	510
510	If not what do you think is lacking?	Theoretical training Practical training Both Others (specify)	1 2 3 88	

2.4 : Questionnaire Amharic version

የጤና ኤክስቴንሽን ሠራተኞች ስላላቸው የስራ ይዘታና በስራ ይዘታቸው ላይ ስላሉ ተጽእኖዎች የሚደረግ ጥናት የመጠየቅ መለያ (Identification)

ተ. ቁ	ጥያቄ	መልስ	የመልስ ክፍ	ወደ ተ. ቁ
001	የመረጃ መሰብሰቢያ ቀን	----- ቀን/ወር/ዓ.ም		
002	የመጠየቅ ቁጥር	-----		
003	የጠያቂው ክፍ	-----		
004	የወረዳው ስም	-----		
005	የወረዳው ክፍ	-----		
006	ጠቅላላ የወዳው ህዝብ ብዛት	-----		
007	የጤና ኤክስቴንሽን ሠራተኞች የመለያ ቁጥር	-----		

መሠረታዊ መረጃ

ተ. ቁ	ጥያቄ	መልስ	የመልስ ክፍ	ወደ ተ. ቁ
101	ጾታ	ወንድ ሴት	1 2	
102	እድሜዎ ስንት ነው?	-----		
103	የት/ትደረጃዎ ምን ድንገት ነው?	ዲፕሎማ በነርስነት የመጀመሪያ ደረጃ በነርስነት ሌላ (ይገለጽ)	1 2 88	
104	ሀይማኖትዎ ምን ድንገት ነው?	ኦርቶዶክስ ክርስቲያን እስልምና ኘሮቴስታንት ሌላ (ይገለጽ)-----	1 2 3 88	
105	የትዳር ሁኔታዎ እንዴት ነው?	ፈጽሞ ያላገባ ያገባ የተፋታ ባልየሞተባት	1 2 3 4	
106	በአሁኑ ወቅት የጤና ችግር አለብዎ?	የለብኝም አለብኝ	1 2	
107	ሠራተኛ መደብ ስም ለጤና ኤክስቴንሽን ሠራተኝነት ለምን ያህል ጊዜ አገልግለዋል?	ከ2 ዓመት በታች ከ2-5 ዓመት ከ5 ዓመት በላይ	1 2 3	

የጤና ኤክስቴንሽን ሠራተኞች የሠራይዘታ

ተ. ቁ	ጥያቄ	መልስ	የመልስ ክፍ	ወደ ተ. ቁ
201	የቅድመ ወሊድ ህክምና አልግሎት ይሰጣሉን?	አልሰጥም እሰጣለሁ	→ 2	204
202	ባለፈው ወር ስንት ጊዜ የቅድመ ወሊድ ህክምና አገልግሎት ሰጡ?	-----		

203	የመጨረሻውን የቅድመ ወሊድ ህክምና አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
204	ለነፍሱ ጤና ስሜት የፈውስ ህክምና አገልግሎት ይሰጣሉን?	አልሰጥም እስጣለሁ	1 2	→ 208
205	ባለፈው ወር ስንት ጊዜ ለነፍሱ ጤና ስሜት የፈውስ ህክምና አገልግሎት ሰጡ?	-----		
206	የመጨረሻውን የነፍሱ ጤና ስሜት የፈውስ ህክምና አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
207	ለምን ዓይነት የነፍሱ ጤና ስሜት የፈውስ ህክምና አገልግሎት ይሰጣሉ?	ለወባበሽታ ለመንጠቆት ል ለደም ማነስ ለሁሉም ሌላ (ይገለጽ)	1 2 3 4 88	
208	የክትባት አገልግሎት ይሰጣሉ?	አልሰጥም እስጣለሁ	1 2	→ 212
209	ባለፈው ወር ስንት ጊዜ የክትባት አገልግሎት ሰጡ?	-----		
210	የመጨረሻውን የክትባት አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
211	የክትባት አገልግሎት ተገቢ ለማን ይሰጣሉ?	ለህፃናት ለእናቶች ለሁለቱም ሌላ (ይገለጽ)	1 2 3 88	
212	የወሊድ አገልግሎት ይሰጣሉን?	አልሰጥም እስጣለሁ	1 2	→ 216
213	ባለፈው ወር ስንት ጊዜ የወሊድ አገልግሎት ሰጡ?	-----		
214	የመጨረሻውን የወሊድ አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
215	የትኛውን ዓይነት የወሊድ አገልግሎት ይሰጣሉ?	ንጽህና እና ጥንቃቄ ያለው የቤት ውስጥ ወሊድ የጤና ድርጅት ወሊድ ሁለቱንም ሌላ (ይገለጽ)	1 2 3 88	
216	ድህረ ወሊድ አገልግሎት ይሰጣሉ?	አልሰጥም እስጣለሁ	1 2	219
217	ባለፈው ወር ስንት ጊዜ ድህረ ወሊድ አገልግሎት ሰጡ?	-----		
218	የመጨረሻውን ድህረ ወሊድ አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
219	ለወለዱ እናቶች የምክር አገልግሎት ይሰጣሉን?	አልሰጥም እስጣለሁ	1 2	
220	ባለፈው ወር ስንት ጊዜ ለወለዱ እናቶች የምክር አገልግሎት ሰጡ?	-----		
221	የመጨረሻውን የምክር አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
222	በምን ርዕስ ላይ ለወለዱ እናቶች የምክር አገልግሎት ይሰጣሉ?	በተፈላጊ የአመጋገብ ስርዓት በቤተሰብ ምጣኔ በደም ማነስ ህክምና በሁሉም ላይ	1 2 3 4 88	→ 223

		ሌላ(ይገለጽ)		
223	ስለተፈላጊ የአመጋገብ ስርዓት የጤና አገልግሎት ይሰጣሉን?	አልሰጥም እሰጣለሁ	1 → 2	229
224	ባለው ወርስን ትገዛ ስለተፈላጊ የአመጋገብ ስርዓት የጤና አገልግሎት ሰጡ?	-----		
225	የመጨረሻውን የአመጋገብ ስርዓት የጤና አገልግሎት ከስን ትገዛ በፊት ሰጡ?	-----		
226	የሻይታሚን ኤንጅናብረትን የምግብ ይዘት ውህደት በሙከራ ያሳያሉን?	አላሳይም አሳያለሁ	1 2	229
227	ባለው ወር የሻይታሚን ኤንጅናብረትን የምግብ ይዘት ውህደት በሙከራ ስን ትገዛ አሳዩ?	-----		
228	የመጨረሻውን የሻይታሚን ኤንጅናብረትን የምግብ ይዘት ውህደት በሙከራ ከስን ትገዛ በፊት አሳዩ?	-----		
229	የህፃናት የእድገት ክትትል ያደርጋሉን?	አላደርግምም አደርጋለሁ	1 → 2	232
230	ባለው ወር ስን ትገዛ የህፃናት የእድገት ክትትል አደረጉ?	-----		
231	የመጨረሻውን የህፃናት የእድገት ክትትል ከስን ትገዛ በፊት አደረጉ?	-----		
232	ለህፃናት በሽታ የህክምና አገልግሎት ይሰጣሉን?	አልሰጥም እሰጣለሁ	1 → 2	236

233	ባለው ወር ስን ትገዛ ለህፃናት በሽታ የህክምና አገልግሎት ሰጡ?	-----		
234	የመጨረሻውን የህፃናት በሽታ የህክምና አገልግሎት ከስን ትገዛ በፊት ሰጡ?	-----		
235	የተቀናጀ የእናቶችና ህፃናትን በሽታ የህክምና መመሪያን ይጠቀማሉ?	አልጠቀምም እጠቀማለሁ	1 2	236
236	የቤተሰብ ጤና አገልግሎት ይሰጣሉን?	አልሰጥም እሰጣለሁ	1 → 2	240
237	ባለው ወር ስን ትገዛ የቤተሰብ ጤና አገልግሎት ሰጡ?	-----		
238	የመጨረሻውን የቤተሰብ ጤና አገልግሎት ከስን ትገዛ በፊት ሰጡ?	-----		
239	ምን ዓይነት የቤተሰብ ጤና አገልግሎት ዘዴ (ዎችን) ይሰጣሉ?	የኮንዶም የሚዋጥ የእርግዝና መከላከያ እንክብል በመርፌ መልክ የሚሰጥ ሌላ(ይገለጽ)	1 2 3 88	
240	ለወጣቶች የስነተዋልዶ ህክምና አገልግሎት ይሰጣሉ?	አልሰጥም እሰጣለሁ	1 → 2	244
241	ባለው ወር ስን ትገዛ ለወጣቶች የስነተዋልዶ ህክምና አገልግሎት ሰጡ?	-----		
242	የመጨረሻውን የስነተዋልዶ ህክምና አገልግሎት ከስን ትገዛ በፊት ሰጡ?	-----		

243	ምንዓይነት የሰነተ ዋል ደህንነት ለምን አገልግሎት ስይሰጣሉ?	የሰነተ ዋል ደህንነት ለምን አገልግሎት ስይሰጣሉ? የኤች.አይ.ቪ የምርመራ ምክር የገጂ ባህላዊ ልማዶች የመላከል ምክር የኮንዶም ኦክስጅን ሁሉም ሌላ (ይገለጽ)	1 2 3 4 5 88	
244	የክትባት መድሀኒቶችን ቀዝቃዛ ስንሰለት ይከታተላሉ?	አልከታተልም እከታተላለሁ	1 2	247
245	ባለፈው ወር ስንት ጊዜ የክትባት መድሀኒቶችን ቀዝቃዛ ስንሰለት ተከታተሉ?	-----		
246	የመጨረሻውን የክትባት መድሀኒቶችን ቀዝቃዛ ስንሰለት ከስን ትጊዜ በፊት ተከታተሉ?	-----		
247	ለህብ/ቡአር እያየሁት የህ/ብክፍሎችን ክትትልና ግምገማያ ደርጋሉን?	አላደርግም አደርጋለሁ	1 2	250
248	ባለፈው ወር ስንት ጊዜ ክትትልና ግምገማያ አደረጉ?	-----		
249	የመጨረሻውን ክትትልና ግምገማያ ከስን ትጊዜ በፊት አደረጉ?	-----		
250	የቲቪ ተከታይ የህክምና አገልግሎት ስይሰጣሉን? (continuation treatment)	አልሰጥም እሰጣለሁ	1 2	259
251	ባለፈው ወር ስንት ጊዜ ተከታይ የህክምና አገልግሎት ስንሰጡ?	-----		
252	የመጨረሻውን ተከታይ የህክምና አገልግሎት ከስን ጊዜ በፊት ሰጡ?	-----		
253	የቲቪ ህክምና መድሀኒት ጀምረው ያቀረጡትን ሰዎች ያፈላልጋሉ?	አላፈላልግም አፈላልጋለሁ	1 2	
255	የቲቪ ህክምና መድሀኒቶችን ተጓዳኝ ግሮች ይከታተላሉ?	አልከታተልም እከታተላለሁ	1 2	
256	የሥጋ ደዌ ተከታይ የህክምና አገልግሎት ስይሰጣሉ?	አልሰጥም እሰጣለሁ	1 2	264
257	ባለው ወር ስንት ጊዜ ተከታይ የህክምና አገልግሎት ስንሰጡ?	-----		
258	የመጨረሻውን ተከታይ የህክምና አገልግሎት ከስን ትጊዜ በፊት ሰጡ?	-----		
259	የሥጋ ደዌ ህክምና መድሀኒት ጀምረው ያቀረጡትን ሰዎች ያፈላልጋሉ?	አላፈላልግም አፈላልጋለሁ	1 2	264
260	የሥጋ ደዌ ህክምና መድሀኒቶችን ተጓዳኝ ግሮች ይከታተላሉ?	አልከታተልም እከታተላለሁ	1 2	
264	ለኤች.አይ.ቪ/ኤድስ ን ሌሎች አባላዘር በሽታዎች የድጋፍ አገልግሎት ይሰጣሉ?	አልሰጥም እሰጣለሁ	1 2	268
265	ባለፈው ወር ለኤች.አይ.ቪ/ኤድስ ን ሌሎች አባላዘር በሽታዎች ስንት ጊዜ የድጋፍ አገልግሎት ስንሰጡ?	-----		
266	የመጨረሻውን የድጋፍ አገልግሎት ከስን ትጊዜ በፊት ሰጡ?	-----		
267	ምንዓይነት የድጋፍ አገልግሎት ይሰጣሉ?	የቤት ውስጥ እንክብካቤ በፍቃድ ማንነት ላይ የተመረከደ	1 2	

		ምምርመራን የማበረታታት ከእናት ወይም ልጅ እንዳይተላለፍ ወንዶችን ተሳትፎ ማበረታታት የኤ.ቢ.ሲን መከላከያ ስልት ማበረታታት ከንዶምን ማሰራጨት ሌላ (ይገለጽ)	3 4 5 88	
268	የውሻበሽታን (Rabies) ስንት ጊዜ የመከላከልና ቁጥጥር አገልግሎት ሰጡ?	አልሰጥም እሰጣለሁ	1 2	272
269	ባለፈው ወር ለውሻበሽታ (Rabies) ስንት ጊዜ የመከላከልና ቁጥጥር አገልግሎት ሰጡ?	-----		
270	የመጨረሻውን የመከላከልና ቁጥጥር አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
271	በቀበሌው ውስጥ በወረረሽኝ መልክ በሽታ ተከስቶ ያውቃል?	አያውቅም ያውቃል	1 2	275
272	ወረረሽኝ ሲከሰት ለሚመለከተው ክፍል ሪፖርት ያደርጋሉ?	አላደርግም አደርጋለሁ	1 2	
273	ባለፈው ወር ስንት ጊዜ ሪፖርት አደረጉ?	-----		
274	የመጨረሻውን ሪፖርት ከስንት ጊዜ በፊት አደረጉ?	-----		
275	የግልና የአካባቢን ጽህፈት አገልግሎት ይሰጣሉ?	አልሰጥም እሰጣለሁ	1 2	279
276	ባለፈው ወር ስንት ጊዜ የግልና የአካባቢን ጽህፈት አገልግሎት ሰጡ?	-----		
277	የመጨረሻውን የግልና የአካባቢን ጽህፈት አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
278	ምንድን የግልና የአካባቢን ጽህፈት አገልግሎት ይሰጣሉ?	የመጻፍ ጽሑፍ ግንባታን የማበረታታት የደረቅ ቆሻሻ ማጠራቀሚያ ስራን ማበረታታት የግልን ጽህፈትን የማበረታታት የንጽህቤት አያያዝ ዘዴን ማበረታታት ሌላ (ይገለጽ)	1 2 3 4 88	
279	የጤና ትምህርት አገልግሎት ይሰጣሉ?	አልሰጥም እሰጣለሁ	1 2	282
281	የመጨረሻውን የጤና ትምህርት አገልግሎት ከስንት ጊዜ በፊት ሰጡ?	-----		
282	በህ/ቡዝን ድብረት ለውጥ ለመምጣት የሚያስችል የጤና ትምህርት ይሰጣሉ?	አልሰጥም እሰጣለሁ	1 2	286
283	ባለፈው ወር ስንት ጊዜ ሰጡ?	-----		
284	የመጨረሻውን ከስንት ጊዜ በፊት ሰጡ?	-----		
285	በምን ርዕስ ላይ የባህሪ ለውጥ ለማምጣት የጠናት/ቱን ይሰጣሉ?	በምግብ የንጽህና እና ጥንቃቄ አያያዝ በአባላዘር በሽታዎች እና ተላላፊ በሽታዎች ቁጥጥር	1 2 3	

		<p>በቆርጣሚነፍሳትቁጥጥር በጤናማቤትአያያዝ በአካባቢንጽህናቁጥጥር በእናቶችናህፃናትጤናአጠባበቅ ሌላ(ይገለጽ)</p>	<p>4 5 6 88</p>	
286	የፈውስህክምናአገልግሎትይሰጣሉ? (curative treatment)	<p>አልሰጥም እሰጣለሁ</p>	<p>1 2</p>	→290
287	ባለፈውወርስንትጊዜየፈውስህክምናአገልግሎትሰጡ?	-----		
288	የመጨረሻውንየፈውስህክምናአገልግሎትከስንትጊዜበፊትሰጡ?	-----		
289	ለምንዓይነትበሽታ(ዎች) የፈውስህክምናአገልግሎትይሰጣሉ?	<p>ለተቅማጥ ለወባበሽታ ለአንጀትትላትል ለአይንናለቆዳበሽታዎች ለህፃናትሳምባምችበሽታ ለደምማነስበሽታ ሌላ (ይገለጽ)</p>	<p>1 2 3 4 5 6 88</p>	
290	የት/ቤትቤትጤናአገልግሎትይሰጣሉ?	<p>አልሰጥም እሰጣለሁ</p>	<p>1 2</p>	→293
291	ባለፈውወርስንትጊዜየት/ቤትቤትጤናአገልግሎትሰጡ?	-----		
292	የመጨረሻውንየት/ቤትቤትጤናአገልግሎትከስንትጊዜበፊትሰጡ?	-----		
293	የቤትለቤትጉብኝትያደርጋሉ?	<p>አላደርግም አደርጋለሁ</p>	<p>1 2</p>	→296
294	ባለፈውወርስንትጊዜየቤትለቤትጉብኝትአደረጉ?	-----		
295	የመጨረሻውንየቤትለቤትጉብኝትከስንትጊዜበፊትአደረጉ?	-----		
296	የበሽታምዝገባንያደረጋሉ? (illness registration)	<p>አላደርግም አደርጋለሁ</p>	<p>1 2</p>	→299
297	ባለፈውወርስንትጊዜየበሽታምዝገባንአደረጉ?	-----		
298	የመጨረሻውንየበሽታምዝገባከስንትጊዜበፊትአደረጉ?	-----		
299	በሽታቸችንለተሻለህክምናአገልግሎትይልካሉ?	<p>አልክም እልካለሁ</p>	<p>1 2</p>	→102
2101	ባለፈውወርስንትጊዜበሽታቸችንለተሻለህክምናአገልግሎትላኩ?	-----		
2102	የመጨረሻውንበሽታቸችንለተሻለህክምናአገልግሎትከስንትጊዜበፊትላኩ?	-----		
2103	ሪፖርትለሚመለከተውአካልይልካሉ?	<p>አልክም እልካለሁ</p>	<p>1 2</p>	→103
2104	ባለፈውወርስንትጊዜሪፖርትላኩ?	-----		
2105	የመጨረሻውንሪፖርትከስንትጊዜበፊትላኩ?	-----		

የጤናኤክስቴንሽንሠራተኛዎአመራረጥሁኔታዳሠሣ

ተ.ቁ	ጥያቄ	መልስ	የመልስ ክድ	ወደተ. ቁ
		በምርጫኮሚቴው	1	

301	ለጤናኤክስቴንሽንሠራተኛየተመረጡትበማንነው?	በወርዳውጤና/ቤት አላውቀውም እረሳቸዋለሁ ሌላ(ይገለጽ)	2 3 4 88	
302	ከየትነውየተመጡት?	ከምሠራበትወረዳ ከምሰራበትክፍለከተማከአንዱ ወረዳ ሌላ(ይገለጽ)----- -----	1 2 88	
303	መቼነውየተመረጡት?	በ2002 ዓ.ም በ2003 ዓ.ም በ2004 ዓ.ም በ2005 ዓ.ም በ2006 ዓ.ም	1 2 3 4 5	

ለጤናኤክስቴንሽንሠራተኞችስራአስፈላጊየሆኑአቅርቦቶችዳሰሳ

304	የመድሀኒትአቅርቦትይደረግልዎታል?	አይደረግልኝም ይደረግልኛል	1 2	310
307	ምንዓይነትመድሀኒትአቅርቦትይደረግልዎታል?	የእርግዝናመከላከያ የሰውንመሟሽትመከላከያ የክትባት የፀረባክቴሪያ የፀረአንጀትትላትል የውባ ሌላ (ይገለጽ)	1 2 3 4 5 6 88	
310	የማጣቀሻመጽሀፎችናሌሎችየሚበቡጽሁፎችበጤናኤላውይገኛሉ?	አያገኙም ይገኛሉ	1 ፀ	311
311	የህክምናመሣሪያዎችበጤናኤላዎይገኛሉ?	አይገኙም ይገኛሉ	1 2	313
312	ምንድንየህክምናመሣሪያዎችበጤናኤላዎይገኛሉ?	የመርፌመስጫ የቁስልማሽጊያ የወሊድአልግሎትመስጫ ሌላ (ይገለጽ)	1 2 3 88	
313	የበሽታምዝገባንየሚያካሄድበትመዝገብአለዎት?	የለኝም አለኝ	1 2	

በጤናተቋማትየሚደረጉድጋፎችዳሰሳ

314	የትራንስፖርትአገልግሎትአለዎት?	የለኝም አለኝ	1 2	
315	የመገናኛአገልግሎትአለዎት?	የለኝም አለኝ	1 2	
316	በጉብኝት ቡድን ድጋፍ ሠጪ ጉብኝት ይደረግለዎታል?	አይደረግልኝም ይደረግልኛል	1 2	318
317	በየሰንት ጊዜው ድጋፍ ሰጪ ጉብኝት ይደረግለዎታል?	በየወሩ በየ3 ወሩ	1 2	

		የ6 ወሩ በየአመቱ ሌላ (ይገለጽ)	3 4 88	
318	የማጠናከሪያ ያስፈጠና ተሰጥታል?	አልተሰጠኝም ተሰጠኝል	1 2	
319	የመኖሪያ ቤት ተሰጥታል?	አልተሰጠኝም ተሰጠኝል	1 2	

በጤና አገልግሎት ተግባራት የህብ/ቡ ተሳትፎ ዳሰሳ

ተ.ቁ	ጥያቄ	መልስ	የመልስ ክድ	ወይተ. ቁ
401	በወርዳው ውስጥ የጤና ኮሚቴ አለ?	የለም አለ	1 2	403
402	የጤና ኮሚቴው የጤና ዕቅድ ሲወጣ ይሳተፋል?	አይሳተፍም ይሳተፋል	1 2	
403	ጤና ጣቢያውን ማን ገነባው	መንግስት ህብረተሰብ ሁለቱም ሌሎች/ካሉይገለፅ	1 2 3 88	
404	ህብረተሰቡ በስልጠናዎች ላይ ይሳተፋል ወይ?	አይሳተፍም ይሳተፋል	1 2	405
405	የማይሳተፉበት ምክንያት ምንድነው?	የሰዓት ያለመመቻቸት የመሬት ባለቤትነት መኖር (ሌላ) ካለ ይገለፅ	1 2 88	
406	ስንት ሞዴል ቤተሰቦች አሉዎት?	-----		
407	ህ/ቡ በበሽታ መከላከል ሥራዎች ላይ ይሳተፋል?	አይሳተፍም ይሳተፋል ይሳተፋል	1 2	406
408	እንዴት ነው ህ/ቡ በበሽታን በመከላከል ስራዎች የሚሳተፍ?	በክትባት ወቅት በመተባበር በቤት-ጉብኝት ወቅት በመተባበር ር እንደአርአያሆኖ በመስራት ሌላ (ይገለጽ)	1 2 3 88	

በጤና አገልግሎትን ለህ/ቡ የአሰጣጥ አቀራረብ ዳሰሳ

406	የጤና ጣቢያ አገልግሎትን ህ/ቡ ይጠቀማል?	አይጠቀምም ይጠቀማል	1 2	408
407	የትኛውን የጤና አገልግሎት ህ/ቡ ባይበልጥ ይጠቀማል?	የእናቶችና የህፃናትን የአካባቢን ጽህፈትን የበሽታ መከላከልና ቁጥጥርን የጤና ትምህርትን ሌላ (ይገለጽ)	1 2 3 4 88	
408	የትኛው የጤና አገልግሎት አሰጣጥ አቀራረብ በህ/ቡ ዘንድ በይበልጥ ይፈለጋል?	የፈውስህክምና የከመከላከልህክምና ሁለቱንም	1 2 3	

የጤና ኤክስቴንሽን ሠራተኞች ግላዊ የአሠራር ሁኔታ ዳሠሣ (የስራ እርካታ እና የወደፊት ፍላጎት)

ተ.ቀ	ጥያቄ	መልስ	የመልስ ኮድ	ወደተ. ቁ
501	ስራዎን እራስዎን ተለው ይሠራሉ?	አልሰራም አሰራለሁ	1 2	
502	በሚሠሩት ሥራ እርካታ ንያገኛሉ?	አላገኝም አገፀአለሁ	1 2	504
503	ለምንእርካታንአያገኙም?	የህ/ብድጋፍአለመኖር የጤናድርጅትድጋፍአለመኖር የስራፍላጎትአለመኖር የአቅርቦትአለመኖር ሌላ (ይገለጽ)	1 2 3 4 88	
504	በሙያዎይረካሉ?	አረካም እረካለሁ	1 2	506
505	ለምንበሙያዎእርካታአያገኙም?	የት/ትእድልአለመኖር የማጠናከሪያት/ትአለመኖር የማበረታቻክፍያአለመኖር የደመወዝብቁአለመሆን ሌላ(ይገለጽ)	1 2 3 4 88	
506	የወደፊቱፍላጎትዎምንድንነው?	የጤናኤክስቴንሽንሠራተኛሆኖ መቆየት ሙያየንማሻሻል ወደግል/መንግስታዊያልሆኑድ ረጅቶችመሄድ የቅጥርስራንማቆም ሌላ(ይገለጽ)	1 2 3 4 88	508 509 509 509
507	የጤናኤክስቴንሽንሠራተኛሆኖየመቆየትፍላጎትካለዎትለምን ያህልዓመት?	ከአራትዓመትያልበለጠ ከአራት - አምስትዓመት ከአምስትዓመትበላይ	1 2 3	
508	የሙያማሻሻያፍላጎትካለዎትወደምንሙያማሻሻልይፈልጋሉ?	የመጀመሪያድግሪበነርስነት ወደአካባቢጤናተቆጣጣሪነት ወደፍርማሲቴክኒሽያንነት ወደአስተዳደርሠራተኛነት ሌላ (ይገለጽ)	1 2 3 4 88	

የስልጠናዳሠሣ

509	የሙያስልጠናውለስራዎበቁነው?	አይደለም በከፊል አዎ	1 2 3	510 510
510	ምንይጎለጠፋብለውያስባሉ?	የንድፍሀሣብስልጠናው	1 2	

		የተግባር ስልጠናው ሁለቱም ሌላ (ይገለጽ)	3 88	
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