

Implementation, Experience, and Challenges of Urban Health Extension Program in Addis Ababa: A Case study from Ethiopia

Abraham Tamirat Gizaw

Department of Health, Behavior and Society, Institute of Health, Jimma University, P.O.Box 378, Ethiopia

Getahun Zebre

Jimma University

Kasahun Girma Tareke (✉ kasahungirmadera@gmail.com)

Jimma University, Institute of Health

Yohannes Kebede Lemu

Jimma University

Research article

Keywords: Urban Health Extension, implementation, challenges, qualitative case study, Ethiopia

Posted Date: April 21st, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-18382/v1>

License:  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Background: Ethiopia started implementing the Urban Health Extension Program in urban areas since 2009 to provide health care services to the community members of the urban health extension professionals. But, limited evidence is there to the extent of this program implementation, acceptance, and utilization. Therefore, this study was aimed at exploring the implementation, experience, and challenges of the urban health extension program.

Methods: A qualitative case study was conducted in Addis Ababa from November 15 – December 29, 2017. The study participants were recruited purposively that includes health extension professionals, health post supervisors, health development army leaders, Addis Ababa city health extension program administrators, and women of the community. A total of 4 focus group discussions and 31 in-depth and key informant interviews were conducted. The data were transcribed verbatim, translated into the English language, and analyzed by an inductive thematic analysis approach using Atlas ti7.1 software package.

Result: This study found that there were 15 health service packages of the urban health extension program provided to the communities by the Urban Health Extension Professionals in Addis Ababa. The strategies used for the program implementation were a provision of training for UHEPs, conducting home to home visit, creation of model households, strengthening of health developmental army, conducting of regular supervision or monitoring, referral and feedback, and community mobilization. Lack of coordination between the health extension program and other sectors, poor supply management system, having no clearly defined career and education path and lack of motivation and incentives were some of the challenges posed in the program implementation.

Conclusions: Although the urban health extension program has made a significant contribution to the health of the community through increasing access to public health services in urban settings, its implementation is affected by many challenges. Therefore, all stakeholders, governmental and non-governmental organizations should have support the system to increase the acceptability and utilization of the urban health extension services.

Introduction

Ethiopia has implemented successive Health Sector Development Plans since 1997 and has made huge strides in improving access to health services and improvements in health outcomes. The country's health indicators have been remarkably improved from one of the worst in Sub-Saharan Africa to amongst the stand out performers in just two decades ^[1]. A central feature of the sector is the priority given to the Health Extension Program, which delivers cost-effective basic services that enhance equity and provide care to millions of women, men, and children ^[2]. This Program is one of the strategies adopted to achieve universal coverage of primary health care among rural population by 2009. It was launched by the Federal Ministry of Health in 2003 in the four big agrarian regions and then expanded to pastoral communities in 2006 and urban areas in 2009 ^[3].

The Urban Health Extension Program (UHEP) has an essential health service package grouped into four core preventive health services: Hygiene and environmental sanitation, disease prevention and control, family health services and accident prevention and first aid. The program targets the wellbeing of urban populations through selected high-impact interventions, including improving sanitation and waste management services and practices ^[3] and it is deeply rooted in communities, providing primary level preventive activities to household members for encouraging families to be responsible for their health ^[4]. It is implemented by trained nurses called 'Urban Health Extension Professionals' who are placed at urban health posts to bridge households, communities and health facilities at the periphery. In that one urban health extension professionals are assigned to serve 500 households, and they are expected to spend 75% of their time undertaking home to home or outreach activities at the kebele/District level ^[5].

Despite this fact, little is known about the implementation status of the program packages. Additionally, limited studies are there that explored the perspectives of the community about the program. So, due to this evidence gaps, it is worth it if a study will be conducted on the program's implementation status to obtain input for better implementation. Therefore, since it is an appropriate time for conducting such studies, this study employed a qualitative case study to investigate the implementation status, explore the experiences and challenges of the Urban Health Extension Program at Addis Ababa.

Methods

Study Design, Setting and Period

This is a qualitative case study conducted at Addis Ababa, the capital city of Ethiopia from November 15 – December 29, 2017, G.C. The city is divided into 10 sub-cities and 116 districts. It has a population of 3,384,569 according to the 2007 population census, with an annual growth rate of 3.8%. Currently, health service providers in Addis Ababa are Federal Government Agencies, Addis Ababa Health Bureau, Non-Governmental Organizations (NGOs), factories and private entrepreneurs. A total of 14 Government Hospitals and 13 are private hospitals that exist in the city. There are 105 Health Centers out of these 96 health centers that are functional in which around 1,288 Urban Health Extension Workers work in them ^[6].

Study participant and participant recruitment

A purposive sampling technique was used to recruited study participants from five sub-cities. The sub-cities were selected purposively considering population number and number of districts. The districts were selected based on the maximum variation sampling technique with their previous year program performance evaluation; one of the top performer and least performer were selected from each selected sub-cities. The recruited participants were Urban Health Extension Professionals, Urban Health Extension Supervisors, Health Development Army leaders, Addis Ababa city Health Extension Program administrators, and other community members.

Data collection instrument and procedures

The data were collected through in-depth interviews, key informant interview and focused group discussions, totally, with a sixty-one diversified group of participants. A total of 10 in-depth interviews with Women's living in the community, 10 in-depth interviews with Urban Health Extension professionals, 5 in-depth interviews with Health Development Army leaders, 5 key informant interviews with Urban Health Extension supervisors, 1 Key informant Interview with Addis Ababa city Urban Health Extension Program administrator, and 4 focus group discussions consisting of 7-9 participants were conducted. The interviews and FGDs were conducted using a semi-structured guide prepared to address the implementation status of UHEP about the four themes and fifteen packages; the strategies used for the implementation, experiences, and challenges of the urban health extension program. The guides were developed in English in relation to the research questions while taking into account local knowledge and cultural sensitivities and then translated into Amharic language and back-translated for consistency. The sequence of the topics generally moved from the more general to the specific questions.

Two interviewers who have a background in health science and previous experience of conducting the qualitative study were collected the data. Data were collected at the participants' natural setting. This means that interviews conducted with women and Health Development Army leaders at their respective home; interview conducted with the Urban Health Extension professionals, their supervisors and Addis Ababa city Urban Health Extension Program administrator at their respective office, and the focus group discussions within the community. The interviews and focused group discussions were started after the purpose of the study and contents of the guide were briefly described to participants and also after consent was taken. The principal investigator was the modulator throughout the interview and focused group discussions and another one was a research assistant who takes notes and recordings voices of participants while they respond to the guiding questions. The interviews lasted from 50:15-60:00 minute and the focused group discussions lasted from 1:43-2:15.

Trustworthiness

To ensure the trustworthiness of the finding of this study different techniques were used. First, an in-depth interview and FGD guide were developed concerning the research questions and validated at other districts within the study setting. Second, the principal investigator was practiced on how posing questions, listen, record and probing based on participants' responses at that time. Third, the principal investigator spent enough time at the study setting communicating with key informants like the HEPs and Supervisors and observed some contexts that are reported on this study findings. Forth, adequate and appropriate time was taken during the interview [approximately for an hour] and the FGDs [more than one and a half hours] to discuss major thematic areas. Fifth, daily debriefing sessions with a research assistant were held to discuss key findings, identify saturation and refine lines of inquiry. Sixth, data were triangulated by collecting through in-depth interviews, key informant interview and focused group discussions and by collecting the perspective of different stakeholders. Seventh, by thickly describing the context of the study setting, audiotaping and independent preparation of the transcripts, by coding and analysis of the data using an explicit codebook manual, by explicit consideration and discussion of discrepant interpretations resolved by negotiated consensus, and the creation of an analysis audit trail to

document analytical decisions. Eight, sharing the transcripts and the findings with key informants for member checking. Ninth, by details describing the research process, methodology, interpretations to ensure dependability and transferability.

Data analysis

All interviews and FGDs were digitally recorded, transcribed and translated into English. A sample of transcripts was randomly checked against the recordings and continued by coding the data using ATLAS.ti V.7.5.7. The output of the coding was used to write the result of the study.

Ethical consideration

Written ethical approval to conduct the study was obtained from the Ethics and Research Committee of Jimma University, Ethiopia. Permission and approval letter was also obtained from the Addis Ababa Health Bureau Public Health Research and Emergency management core process. Consent was obtained from the study participants by explaining the aim of the study, participant's rights, benefits, potential risks, and confidentiality.

Results

Socio-demographic characteristics of the study participants

The total number of 62 individuals participated in the study. The majority of participants were married females with age ranging from 31-40 years. Also, the majority of them have working experience of four years and above. The socio-demographic characteristics of the participants were described as follows in table 1.

Table 1: Socio-demographic characteristic of participants who take part in the study, Addis Ababa, 2017

R. No	Participants characteristics		Number
1	Sex	Male	
		Female	
2	Age	18-30	11
		31-40	42
		41 and above	8
3	Marital status	Single	20
		Married	38
		Divorced	2
		Widowed	1
4	Educational status	Primary	9
		Secondary School	16
		Senior Secondary School	13
		College Certificate/Diploma	10
		University Student	13
5	Work Experience	6 months - 2 years	4
		2 - 3 years	3
		3 - 4 years	3
		4 years and above	11

The findings of this study were organized under three major themes: The Urban Health Extension Packages being on implementation and program fidelity, Strategies used to facilitate the implementation of the Urban Health Extension Program, and the challenges for the successful implementation of UHEP. All these themes were described as follows.

The Urban Health Extension Packages on implementation and program fidelity

Across the interviews and group discussions, participants mentioned that Urban Health Extension Program was launched by the Federal Ministry of Health in Addis Ababa around July 2008 and its implementation was started practically in September 2009. They indicated a total of 15 essential health care packages under four major program areas provided for the community members under this Program.

Table 2: Health Service Packages provided through Urban Health Extension Program in Addis Ababa, 2018

Major program areas	Essential services provided under each major areas
Hygiene and environmental sanitation	(1) Solid and liquid waste disposal (2) Personal hygiene and healthy home environment (3) Food and water safety (4) Latrine construction and utilization
Disease prevention and control	(1) Malaria (2) TB and leprosy (3) HIV and AIDS (4) Non-communicable disease (5) Mental illness
Family health services	(1) Maternal and child health, (2) family planning, (3) immunization, (4) Youth and adolescent health, and (5) Nutrition.
Injury prevention and control, first aid, and referral services	

“We provide all the fifteen packages of the health extension program focusing on our household need. For example, if household needs focused training in family health services, we provide intense training on that.” (HEPs, INI)

Health Extension Professionals also indicated that the community member’s knowledge and behavior towards the prevention of both communicable and non-communicable diseases are improved. Participants from the community members also, in turn, mentioned that they have obtained important information on disease prevention.

“The health extension professionals teach us how to keep our hygiene and our children’s health”. (WIC, INI)

Regarding family health, in all of the Districts, it was mentioned that Urban Health Extension Professionals provide regular family planning services and promote maternal and child health care services utilization.

“All pregnant women in our community have a follow-up at health centers. After delivery, our children get vaccination on time. The health extension professional teaches us regularly about family planning and the importance of vaccination.” (WIC, INI)

It was also mentioned that the program helps households to have handwashing facility in nearby the latrines, to prepare separate liquid waste disposal pits, to have clean cooking practices, to keep drinking water free from contamination, and to keep environmental cleanness. On the other hand, they mentioned that at some districts there was no first aid and emergency package training provided to community members due to lack of equipment, knowledge or skill.

“We didn’t provide first aid and emergency training regularly due to lack of materials and equipment.” (HEPs, INI)]

Strategies used to facilitate the implementation of Urban Health Extension Program

Training

Study participants mentioned that the Urban Health Extension Professionals are nurses, additionally, who took three-month training on health extension packages. But, there were health extension professionals who did not take this basic training instead conduct their activities referring to the manuals, and integrating with and consulting of those trained Health Extension professionals. Apart from these basic three-month basic training, they also mentioned that short term training was provided for them from different stakeholders.

Home Visitation

Home visitation is also mentioned by Health extension professionals as one strategy to implement the UHEP. It was mentioned one UHE professional is assigned to 500 or more households and each HEP expected to reach at least 15 – 20 households every day to visit all households weekly. But, they indicated that this plan would be affected by other competing programs and expectations from the District Health Office.

“We may plan to accomplish certain activities, but, from the district health office, we would be told to do other things.” (HEPs, INI)

Creating model households

A model household in the context of this study refers to the family that implemented all the health extension packages after taking training from HEPs with their support and close supervision. Therefore, the study participants mentioned that transferring health knowledge and skill is being done to household

members to create 'model households' and build their capacity to use them as a strategy to improve the accessibility and quality of the health extension program utilization.

"Most of our district community members are graduated as a model family and we use them as a strategy for delivering health extension packages to the community members." (SUP, KII)

Strengthening the Health Development Army

Study participants mentioned strengthening the Health Developmental Armies is used as a strategy for improving the implementation of the UHEP. This is because if they are strong enough and become functional, they play a great role in facilitating the service utilization, developing health care service utilization behavior, mobilizing the communities for health activities to influence their communities, monitoring the implementation, being role models for others; identify problems, gather and analyze the data, propose solutions, and share best experiences among the network members as well as with others.

"We have a coffee ceremony every two weeks and discuss our community issues, propose solutions and revise selected packages together with the health extension professional. We also have a saving account that will help us to solve our neighborhood problem." (HDA-L, INI)

It was also mentioned that HDA support HEPs in the identification and referral of pregnant women, conducting postnatal care follow-up, mobilization of communities for immunization campaigns and health education in the community. Despite positive contributions by the HDA, the structure was inactive in some districts.

"We teach the women in our community. We, the leaders of the Health Developmental Army, give our advice to convince pregnant mothers to have a follow-up, organizing sanitation campaign, arranging the coffee ceremony and discuss of the leaflets the HEPs provide" (HDA-L, INI)

Monitoring and supervision

Health workers who participated in this study mentioned that HEP sits at either the HC or at the District Health Office; up to 16 HEPs placed in each HC catchment. One supervisor is assigned to conduct regular supervision for 8–12 HEPs. There are around 200 supervisors found in the city. HEPs compile daily work and report weekly to the supervisors. The supervisors report monthly HEPs work to disease prevention and control core processor focal person. However, HEPs mentioned no clear cut is there on who directly monitors or follows them due to the overloading of tasks from different sectors.

"Sometimes it is not clear who is our immediate supervisor. Different sectors give us extra work without considering our main responsibility. For example, the District Health office, the health center, Women and child affairs, District small enterprises and the sub-city health officials involved in assigning an additional task for us. Even though, working with different sectors is useful; there is no clear framework on how to work." (SUP, KII)

Besides, HEPs indicated that supervision meetings were not conducted regularly even if it was mentioned as they are satisfied with the supervision obtained from supervisors or the district health office. They also mentioned that their supervisors have a fault-finding attitude who lacks supportive and problem-solving approaches.

Referral & Feedback

Health extension professionals mentioned that cases are referred to the health center after filling the referral form when the condition needs further medical attention.

"We refer community members who need further check-up and treatment to the health center. We have a referral form to do that." (HEPs, INI)

They also mentioned that even though the referral is done, the feedback given to the HEPs varies from facility to facility and there is improper handling of referral forms in the health centers.

"Most of the time, we receive feedback from the health center. But, sometimes the referral forms and/or feedback papers might be lost either in the health center or by the referred patient." (SUP, KII)

In some cases, the HEPs collect feedback from the boxes at the health center; in other cases, the client returns the slip, and yet in other sites, the supervisor is charged with managing the collection of the referral feedback.

Community mobilization

Across the interviews, all HEP and supervisors mentioned that they agreed upon the necessity of community participation, and they conduct community mobilization in their day to day activity to empower the community for facilitating service utilization.

"There is a coffee ceremony program and sanitation campaigns. Also, the women's development army leaders conduct community mobilization to facilitate utilization of vaccination, family planning methods, and the like." (WIC, INI)

Challenges for successful implementation of UHEP

Health Extension Professionals and supervisors related challenges

Health extension professionals and supervisors were mentioned that HEP is the focal point of health programming, and so increasingly, different partners are executing their programs through HEP; creating heavier workloads for HEPs that affect the implementation of HEPs.

"The workload is too difficult, and no one understands that... When you ask your right, you are not granted, even if you fulfill your duties. For instance, we work in emergencies, be it immunization or epidemics like

Acute Watery Diarrhea, but the right of the health extension is not respected like other health professionals.” (HEPs, INI)

It was mentioned that there is observed HEPs burn out due to an unclear career path, including lack of continuing education, and both financial and non-financial incentive mechanisms that posed a major challenge for the Program. The selection process of official training provided for upgrading was not clear, or the promotion after attending the training or upgrading is not guaranteed which resulted in disappointment among HEPs.

“Our salary and benefits are far from attractive in addition to the problem of education/training opportunities. For example, a diploma holder should have the opportunity to advance their qualification to degree level.” (HEPs, INI)

“The HEPs who are also nurses by profession is getting the same salary as those who are working in the health center, and compared to HEPs workload, HEPs need to be paid more.” (SUP, KII)

In addition to the dissatisfaction in their salary, it was mentioned that there is a lack of basic needs for work like; umbrella, gown, towel, scissors, office and the likes make their job very difficult together with lack of practicable career structure and training scheme.

Nevertheless, HEPs has experienced additional challenges. They mentioned that model households did not graduate as per the plan. Also, the use of voluntary HDA leaders appears hard to sustain without some material compensation for extra services rendered to communities.

“It is expected for a model family to be graduated within four months. But, this is not happening currently because the training depends on their schedule, not on our action plan.” (HEPs, INI)

“There is no support we receive from the District or the health center. I am doing this voluntarily because I would like to see my community changed. It will be great if we receive recognition either from the District or the Health center but this is not happening right now.” (HDAL, INI)

Mobility, a feature of an urban lifestyle, has been challenged HEPs to identify and to provide health services to certain target population on a consistent and continual manner. This is because they mentioned that the target populations’ move from place to place across towns or in the same town. The mobility affects the continuity of services being provided to the clients and this will continue to be a major challenge.

“The working behavior of our community members makes the home visitation and training very hard. Therefore our work depends upon their working schedule” (HEPs, INI)

Supply chain management related challenges

The health extension professionals mentioned that no logistics system is there that supports requesting, tracking, and refilling of supplies and consumables. Due to this problem, there were challenges they have

faced for predicting the supply and to refill the orders of medical and non-medical supplies and equipment due to the shortage of budget.

“We have requested several times even the basic ones like an umbrella, Gown, tissue paper, soap but they respond shortage of budget as a problem to refill these issues. For example, for Vitamin-A supplementation, we need a towel and a scissor, but we bought for ourselves from our pocket” (HEPs, INI)

Multisectoral collaboration related challenges

Study participants mentioned that there is a need to collaborate with different sectors to accomplish their activities. Even if this is in need, there is a poor multi-sectorial collaboration resulting in diminished work results of health extension professionals.

“There are needs from the community that we alone couldn't solve. For example, some households do not have latrines, some of them had a solid waste collection or a sewerage line problem. Therefore unless we work with other governmental and non-governmental sectors it is difficult for us to solve these problems.” (HEPs, INI)

Community-related challenges

It was also mentioned that the community members have an economic problem to be practical as per the support they obtained from health extension professionals. They raised that most of the community problems need action that involves different private and public stakeholders since these problems are not only solved with local community members' economies.

“The HEPs educate us to have latrines, constructing sewerage lines and environmental hygiene. But, there is no space and money for latrine construction. We barely fulfill our daily basic needs. We need support from the government and private companies.” (WIC, INI)

Deployment: Recruitment and Training related challenges

The HEPs have an identity as clinical nurses because of their initial three-year training. They are drawn from the ranks of clinical nurse graduates of private colleges who did not have employment after graduation, unlike nurses trained in public colleges. The pre-service training of three months was to foster their public health skills and prepare them to work at the household level on health prevention and promotion. Therefore, these professionals do not believe the training neither makes them public health practitioners nor fully competent to be UHE-Ps. Also, they mentioned that there is a shortage of trained or qualified personnel with the appropriate skills to manage, support, and coach the HEPs and continued turnover of staff at various levels also presented as the challenges of UHEP implementation.

Household allocation related challenges

The health extension professionals and supervisors mentioned that the Federal Government assigned one UHEP per 500 households, and used this as a recruiting target. But, they are a problem with these

issues because some Districts assigned one UHEP for more than 600 households. Due to this problem, it was mentioned that HEPs can not complete their supervision provided for households timely challenging the successful implementation of UHEP.

“Generally one HEPs is assigned to 500 households but this is not true in our District; each HEP is assigned for more than 600 households. That means we expect each HEPs to visit 15-20 households per day. It takes around two months for each HEP to home to home visit for all 600 households” (SUP, KII)

Logistical Support and Motivation related challenges

The health extension professional mentioned that reaching 500 households, or more in sub-cities seems to be considered small enough to facilitate easy access. However, it was indicated that the catchment areas are too big to manage productively which, in turn, resulted in a negative impact on the implementation of UHEP. During interviews, many HEPs said they spend an average of 10 Ethiopian Birr, which are not reimbursed, for traveling to and from the furthest points within their catchment area. Otherwise, they walk for more than 40 minutes between clients, on average to complete a daily action plan. Many women said they had worn out their shoes in trying to keep up with all their households. Not including the weather condition.

“We travel long distances to complete our catchment area. During day time, the sun is unbearable and don’t even mention about the rainy season. As you know the transportation problem in Addis Ababa is increasing from day to day. I pay more than 10 birrs per day while visiting clients from my pocket. They provide us monthly 343 birrs for transportation and phone bills as a benefit which is not enough” (HEPs, INI)

Service Delivery: Practices and Packages related challenges

Emphasis to date has been on health education and referrals but demand by clients has influenced the HEPs and they mentioned that, currently, they provide simple curative and “biomedical” preventive interventions, such as implants. HEPs also mentioned that they provide immunizations, and counseling and testing services through outreach in the community, schools, and youth centers. Although the program mandated that all three venues were of equal importance, to date, the HEPs has directed the majority of their services just to the household.

One consistent issue that was raised is that either through their interest or perhaps because of client demand, the HEPs are not implementing the full set of 15 packages as originally envisioned. It appears that there is no clear guidance provided to UHE-Ps on which package of services they should provide at the household and outreach levels; this contributes to an inconsistency of services and lack of uniformity in the type of services HEPs provide.

“We are not providing all the 15 packages of the program to each household because most of them do not need all the packages. Therefore, we provide them based on their need and problem” (HEPs, INI)

Discussion

This study found that there were 15 health service packages implemented under the Urban Health Extension Program in Addis Ababa. The strategies used for the program implementation were the provision of training for HEPs, conducting home to home visit, creation of model households, strengthening of health developmental army, conducting of regular supervision or monitoring, referral and feedback, and community mobilization. Challenges related to HEPs and supervisors, supply chain management, logistical and motivation, multi-sectoral collaboration, deployment of HEPs, community, service delivery [practice and package], and many households per UHEP were explored that affect the successful implementation of UHEP.

From this study, it was found that the Urban Health Extension Program (UHEP) is implemented focusing on four core program areas containing 15 essential health service package in which all the health service packages designed on this program are on the implementation [7]. The findings of this study also similar with the findings of a study conducted in Bishoftu that indicated that the community members got services like health education on disease prevention and control towards communicable and non-communicable diseases; personal hygiene and environmental sanitation; family health services, and first aid, emergency, and referral services from HEPs [8].

Different strategies were also found from this study that is used for the implementation of the Urban Health Extension Program. Provision of continuous training including on job and refreshment training was mentioned as a strategy. This is true that providing continuing education for all categories of workers in the health sector was indicated as one strategic direction for Human Resource Development (HRD). Moreover, initiating and strengthening continuing education including in-service training is an essential objective of the HRD component of the fourth Health Sector Development Plan [8]. Even if this is the case, there are also some professional who did not get this training as it is reported on this paper or it was mentioned as the basic three months training is did not make this professional well equipped in terms of knowledge or skill they have gained which might happen due to lack of carrier structure, incentives or motivations given after the training. Besides, it was reported that most of HEPs and Supervisors demotivated by the lack of career or upgrading structure within the workplace. These findings contradict the principle that states competent health extension workers based on the technical and vocational training policy of Ethiopia will be given a chance to pursue a degree, masters and Ph.D. programs in public health. Accordingly, health extension workers who served for a minimum of two years and passed the competency assessment at their level will be trained for one year to upgrade to the next level. This program is already started in health science colleges since 2013 [8]. Therefore, this calls for action to put this rule and regulation into practice to make this professional equipped with knowledge and skill, additionally, to motivate them through the developed carrier structure for better program implementation.

Creating a model household was also found as a strategy for the implementation of the UHEP. Model family is defined as 'a family that implements a minimum of 75% of the 16 packages after taking at least

75% of the 96 hours model family training'. The 2013 revised health extension implementation guideline of the ministry modified the model family training hours to sixty and the definition of "model households" to 'a family that implemented all health extension packages concerning its family with the support and close supervision of health extension workers' [9]. The findings obtained in this study indicated that there are graduated model households and used to transfer knowledge or skill and act as a role model for improving the program implementation within the community. This is because the model families are expected to lead the group of households by example and influence them with positive attitudes and skills for healthy behaviors [7] and spread health education within their communities. Similarly, a study conducted at different areas indicated that creation of model households facilitated health service package utilization by themselves and among the community members than those households which didn't graduate as a model family [10, 11.] Therefore, it is important to monitor or supervise model households and also trying to graduate other households continuously for the successful implementation of the program.

Home visitation, strengthening of health developmental armies, community mobilization, referral and feedback, and monitoring or supervision were also mentioned as strategies for the implementation of the program. It was indicated that the HEPs conduct home to home visits of households for providing services, health education, or monitoring the implementation status of model households and health developmental army. This is true that on average, one HEP is assigned to 500 households and expected to provide door-to-door health education and related services and refer clients to health centers as necessary. They also cover schools and youth centers. Also, the urban health program needs strong community support through the health development army to promote health and create demand for health services. They conduct these activities by creating networks of up to five households, identify locally salient bottlenecks that hinder uptake of services, and scale up best practices [7]. Therefore, since these strategies are conducted as it is expected, this call to continue by strengthening them for the successful implementation of the program.

It is reported that workload on the health extension professionals and other factors leads to delayed model family graduation. Health systems are social institutions with chains of relationships between different actors. Optimal performance depends on the strength and nature of relationships between all actors [12]. The study explored the relationships between HEPs, supervisors, HDA and their communities. The influence of relationships on HEPs performance could influence trust, communication and dialogue and expectations. Concerning the dissatisfaction of health extension professionals, a study was indicated there is a 10% attrition rate of urban health extension workers. All urban health extension workers have taken competency assessment on clinical nursing which deals with hospital-based care, their interest is to work in the clinical area rather than on the preventive activities. This could be one reason for the high attrition in Urban Health Extension Program [4].

The study identified that having less benefit from those who are working in the health center and have similar educational background leads the HEPs and Supervisors to leave their spot and seeking other positions. About 80.4% of HEPs and 81.0% of their supervisors acknowledged the lack of necessary

materials and supplies and equipment to do a good job. Similarly, the qualitative respondents were hesitant to say that HEPs and supervisors have adequate logistics and incentives. As also described above, logistics support is provided by the health centers but doesn't always satisfy the demand [13]. Almost all respondents agreed upon the lack of standard chain of logistic supply making their work very difficult.

More than half of the HEPs and their supervisors were not comfortable with their working environment. On the contrary, some respondents consider the environment conducive to working [13]. Generally, there is no competency assessment designed based on the role of health extension Professionals; this affects the career development of urban health extension workers. This study also reported that poor supply chain management, logistical and motivation, service load, the community were explored that affect the successful implementation of UHEP. Similarly, there is evidence that supports the challenges indicated on the findings of this study in general that showed the implementation of urban health extension program was challenged by inconvenient working environment [some HEPs lacks the necessary equipment or adequate space to do their jobs effectively], limited motivation and commitment of some HEPs related to work, personal, or health system problems; weak link between HEPs and health centers in some primary health care units negatively affects provision of necessary support to HEPs, inconsistent pre-service training and lack of regular and standard training materials for on the job training /refresher training, lack of coordination among different sectors, limited promotional opportunities for HEPs to upgrade their position within the health system and complex urban context make it difficult for HEPs to effect desired change [4, 7]. Therefore, this needs special attention to solve these challenges for the successful implementation of the urban health extension program.

Conclusion

In conclusion, UHEP has made a significant contribution to the Addis Ababa community health through increasing access to public health services in urban settings, strengthening referral between the community and the health facilities, supportive supervision, and creating demand for health services. Nevertheless, the program needs better job descriptions, clear career ladders, standardized approaches to community outreach, and hands-on technical support to keep the current workforce engaged that implies that it might increase the retention rate of HEPs and make the working environment conducive to them that increase job satisfaction.

Abbreviations

FGD- Focused Group Discussion

HC- Health Center

HDA- Health Developmental Army

HEP- Health Extension Professionals

HRD- Human Resource Development

IDI- In-depth Interview

KII- Key Informant Interview

NGO- Non-governmental Organizations

Ph.D.- Philosophical degree

UHEP- Urban Health Extension Program

WHO- World Health Organization

Declarations

Competing interests

The authors declared that they have no competing interests.

Authors' contributions

Conceptualization: ATG, GZ, KGT, YKL

Data curation: ATG, GZ, KGT, YKL

Formal analysis: ATG, GZ, KGT, YKL

Methodology: ATG, GZ, KGT, YKL

Project administration: ATG, GZ, KGT, YKL \

Validation: ATG, GZ, KGT, YKL

Visualization: ATG, GZ, KGT, YKL

Writing – original draft: GZ

Writing – review & editing: ATG, GZ, KGT, YKL

Acknowledgments

We acknowledge study participants for their voluntary participation and research assistants.

Availability of data and materials

All study data were reported in tables and figures

Fund

No fund was allocated for this study

Consent for publication

Not applicable.

References

1. FMOH; Health Sector Transformation Plan (HSTP); Oct 2015; 10-20
2. Wikipedia; Health in Ethiopia; https://en.wikipedia.org/wiki/Health_in_Ethiopia; Accessed 17/08/17; 2pm
3. World bank; Ethiopian health extension workers; 2016; 21-22
4. USAID/Ethiopia Urban Health Extension Program (USAID/UHEP); END-OF-PROGRAM REPORT (September 30, 2009 – March 31, 2013); 7, 12-14.
5. Global health workforce alliance (GHWA); Technical brief: The cost-effectiveness of close-to-community health programmes: 2015; 12-13
6. [Addis Ababa - Wikipedia](https://en.wikipedia.org/wiki/Addis_Ababa); https://en.wikipedia.org/wiki/Addis_Ababa
7. Ethiopian Urban Health Extension Program
8. FMOH; Federal Ministry of Health; Human Resource Development Directorate, road map of health extension service level IV career development training program status and future plan; 2014.
9. FMOH; Federal Ministry of Health: health development army implementation guide line; 2013.
10. Gebreegziabher EA, Astawesegn FH, Anjulo AA, Kerie MW. Urban health extension services utilization in Bishoftu town, Oromia regional state, Central Ethiopia. BMC health services research. 2017 Dec;17(1):195
11. Tafesse N, Gesessew A, Kidane E. Urban health extension program model housing and household visits improved the utilization of health Services in Urban Ethiopia: a community-based cross-sectional study. BMC health services research. 2019 Dec 1;19(1):31
12. Gilson L. Trust and the development of health care as a social institution. Soc Sci Med. 2003; 56: 1453–68.
13. Addis continental institute of public health; Analysis of the Core Functions, Issues, and Challenges of Human Resource Management for Urban Health Extension Professionals; Oct 2014; 12-14