

# Urban Health Extension Services Utilization in Jimma Town, Oromia Regional State, South West Ethiopia

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## Abstract

Ethiopia has been deploying specially trained new cadres of community based health workers in urban areas of the country known as urban health extension professionals since 2009. At present, relatively little work has focused on understanding to what extent this new program is accepted and used by the community. Both qualitative and quantitative surveys were performed from March 10, 2018 to March 25, 2018 to explore the utilization of urban health extension services in Jimma Town, Oromia regional state, South West Ethiopia using a cross sectional study design. Qualitative data were collected using a total of 4 focus group discussions and 26 in-depth interviews. Quantitative data were collected from 418 randomly selected households using pre-tested, structured, interviewer-administered questionnaires. Data entry and analysis were done using SPSS version 20. Qualitative data were analyzed thematically of the 418 interviewed households, 72.8% of them had at least one service related contact with urban health extension professionals in the previous 6 months. The mean frequency of service related contact with Urban Health Extension Professionals was found to be 2.24 ( $\pm 1$ ) contacts per 6 months. The total number of households graduated as a model family in the study area was 3974 (14.3%). Though participants felt that urban health extension professionals faced community resistance at program implementation, its acceptability greatly improved in this study. Despite this, individual competencies of urban health extension professionals, availability of supply and logistic system, and the level of support from kebele officials were reported to influence the program acceptability and utilization. The introduction of urban health extension professionals positively changed the attitude of the majority of the households involved and improved the acceptability of the program. All stakeholders, governmental and nongovernmental organizations, should have supportive systems to increase the acceptability and utilization of urban health extension services.

**Keywords:** Model household, urban health extension, urban health extension service utilization.

## 1. Introduction

Ethiopia is the country with the largest population in Africa. The increase in urban population density of Ethiopian cities is a direct result of the expansion of the cities, followed by the movement of people from rural areas to cities. This urged the Ethiopian government to introduce innovative community based programs in order to promote health, prevent diseases and increase access to the treatment of communicable diseases in the urban area. The urban health extension program is organized as a component of other urban health services and aims to create a healthy community, a healthy living environment and a healthy work place. They plan to accomplish this, using female nurse professional trained on health extension program to achieve the principles of Primary Health Care (PHC) [1]. PHC is the key to achieve an acceptable level of health throughout the world with full community involvement. Therefore many national health systems, based on PHC, undertook a major reform in health services in order to achieve their aims [2, 3]. Likewise, the Ethiopian government has introduced an innovative health service delivery system through the implementation of the Health Service Extension Programmed (HEP) [4, 5].

HEP is packages of basic and essential promote preventive and curative services for selected diseases. It is designed based on the principles of PHC to improve the health status of families and households, with their full participation and using local technologies. HEP increases the coverage of PHC services, mainly by producing model households using model family training. This program involves front-line community health workers. They are called Health Extension Workers (HEWs) and they are providing care for the community focusing on four areas: disease prevention and control, family health, hygiene and environmental sanitation and health education across the country. The model family training comprises a total of 96 h of training on basic hygiene and environmental sanitation (30 h), family health care (42 h), and disease prevention and control (24 h). Households which attend at least 75% of the training and implement at least 75% of the HEP packages receive certificates of completion at a graduation ceremony and graduate as model households (families) [6–8].

Ethiopian Ministry of Health's has been aggressively producing and assigned variety of community health agents called volunteer Community Health Workers (CHWs). CHWs consist of frontline public health workers who are selected, trained and working for the communities living in the place where they came from. These include Trained Traditional Birth Attendants, Community Based Reproductive Health Agents and Community Health Agents.

The HEP is designed to improve access and fair distribution of health care services focusing on sustained preventive health actions and increased health awareness. Every health post will have at least two HEWs, who have undergone a 1 year training course [9, 10].

## **2. Materials and Method**

### **2.1. Study Area and Study Period**

A community based, descriptive, cross sectional study was carried out from March 10, 2018 to March 25, 2018 in Jimma town of the Oromia Regional state. This study employed both qualitative and quantitative methods. The town is located 350 km south west of Addis Ababa, the capital city of Ethiopia. According to 2007 census report of Ethiopia, the total population of the town was 100,114 people of which men constitute 47,938 (47.8%) and women constitute 52,176 (52.2%). It lays 11<sup>o</sup> N latitude and 47<sup>o</sup>E longitude at an altitude of 2400 m above sea level. The average maximum and minimum temperature of the area is 39.7 °C and 8.5 °C respectively, and average relative humidity is 61.3%. The rainfall is bimodal. It receives an annual rainfall of 1151.6 mm of which 84% is received during the long rainy season covering June to September and the remaining in the short rainy season extending from March to May.

In the town there are one hospital and four government health centers providing health services to the community. The town is divided into nine administrative kebeles and 6 ketenas. All the nine kebeles in the town started implementing the urban health extension program since 8/12/2009.

### **2.2. Study Design and Sample**

The sample size for quantitative data was determined to achieve a 95% confidence interval. We assumed 50% of the proportion of graduated model households would be involved with a 5% of margin of error and a 10% non-response rate. The calculated sample size for the household survey was 423. In addition to four focus group discussions, the compilation of participants included 36 Urban Health Extension Professionals discussants divided in four groups, 2 representatives of kebele health committees and additional community members. Twenty-six in-depth interviews were performed with 9 key informants to collect our qualitative data. The interviewees included Urban Health Extension Professionals, 3 supervisors, 3 health center heads, 9 kebele leaders and 1 head of the town health office.

### **2.3. Data Collection**

For the quantitative aspect, a face-to-face interview of household members was conducted using a structured interviewer administered questionnaire. The inquiry had questions on basic socio-demographic characteristics, household socioeconomic status and other important study variables (Additional file 1). All nine kebeles in Jimma town were included in the household survey. To create a representative sample, each kebele was given the appropriate number of interviews based on the numerical proportion of household in that particular kebele. A systematic random sampling technique was employed to select study participants. A list of all the households in each kebele was obtained from the kebele administration office and one respondent was included from every selected household. Index case was selected and interviewed using lottery method when more than one eligible respondent present in a house. The principle investigators and ten investigators were involved in data collection. Data on qualitative information were collected using Focus Group Discussion (FGD) and in-depth interview guides (Additional file 1). Four focus sessions of nine participants each were carried out with Urban Health Extension Professionals, kebele health committee members and community members over the study period. The investigators moderated the group discussion and took detailed notes. The FGD in each group took about one and half to 2 h. In addition to focus group sessions, 26 in-depth interviews were conducted with Urban Health Extension Professionals, health extension program supervisors, kebele administrators, health centre heads and the head of town health office. The main investigator conducted the interviews and wrote detailed notes. Each in-depth interview lasted approximately one to one and half hours. Participants were identified and interviewed purposefully. To be included in the study, the participant had to live in the area for at least 6 months and that participant had to be either the female head of the household or spouse of the head of the household.

### **2.4. Data Processing and Analysis**

Each questionnaire was checked for completeness, and then data were entered into the database, then cleaned and explored for missing values or any other inconsistencies. Analysis was conducted using SPSS version 20. Descriptive statistics including frequency and descriptive summaries were used to describe the study variables. For the qualitative data, the data was transcribed and then translated into English. Similar responses were grouped and summarized based on thematic area or key variables. Finally, results of the qualitative study were presented in narratives triangulated with the quantitative results.

### **2.5. Ethical Consideration**

The proposal of this study was approved by Ethical Review Committee of Mettu University, College of Health Sciences. Verbal consent was obtained from each study participants before interview. Moreover, no personal identifiers were used on data collection questionnaire and the data obtained from the study participants were kept confidentially

### 3. Results and Discussions

#### 3.1. Socio Demographic Data

Four hundred eighteen households were interviewed giving a response rate of 98.81%. The mean age of the respondents was 39.6 years. One hundred thirty eight (3.0%) of respondents attended primary school education, while 99 (23.7%) could read and write without formal education. Regarding the ethnic origin, the majority 188 (45%) was Oromo by ethnicity, followed by Amhara 144 (27.3%). Marital status, 344 (82.3%) of the interviewees were married, 43 (10.3%) were single. By religion, more than half, 242 (57.9%) were Orthodox Christian followers and 93 (22.2%) were followers of Islamic religion. By occupational status 171 (40.9%) were housewife's and 136 (32.5%) were employed.

#### 3.2 Utilization of urban health extension services

Three hundred and eight (72.8%) households reported they had service related contact with Urban Health Extension Professionals at least once in the previous 6 months prior to the study period. The mean frequency of service related contact with Urban Health Extension Professionals was found to be 2.24 ( $\pm 1$ ) contacts per 6 months. Among those who reported a contact, the majority, 279 (90.6%), reported that they were visited by the Urban Health Extension Professionals at their home.

Data on the use of other health services has also been collected in household surveys to compare how often UHES is used relative to the other existing health services. Two hundred ninety one (69.61%) households had visited other health facilities at least once in the previous 6 months prior to study period. By categorizing the contents of service related contacts in core UHES areas (disease prevention and control, family health, personal hygiene and environmental sanitation, and first aid and emergency services) the following results were obtained. Model family graduation requests will be presented separately.

Of all the households in the study area, Urban Health Extension Professionals reported that 3974 (14.3%) households had been trained and certified as model households. In comparison, the household survey data indicates that only 99 (23.7%) of the respondent households reported that they had been invited by Urban Health Extension Professionals to participate in model family training. From the 99 households who were asked to participate in model family training, 48 (48.5%) of them were willing to participate in the training and forty (83.3%) of these finished and graduated from their training. On the other hand, four households discontinued the training and four are actively still in training. Fifty one (51.5%) households were not willing to train as a model family. The reasons given by the household respondents included shortage of time 40 (78.4) and lack of interest to train 6 (11.8%).

Urban Health Extension Professionals participants complained most that the urban people work through the week and have no time for participation. Urban Health Extension Professionals tried to solve this problem by giving trainings on weekends, after work hours. All service related contacts included some element of health education. Discussions were conducted with Urban Health Extension Professionals to explore the reasons why some topics are covered in some households, but not in others. The discussions indicate that the Urban Health Extension Professionals select the topics based on their perceived assessment of the household's need.

In all of the kebeles, Urban Health Extension Professionals reported they were delivering health education related to disease prevention (both communicable and non-communicable). However, for HIV/AIDS they provided services in addition to disease prevention including HIV/AIDS counseling and testing.

From 308 households who had contacted Urban Health Extension Professionals in the previous 6 months, 205 (66.55%) reported receiving health education and/or advice related to disease prevention and control. Urban Health Extension Professionals indicate that the knowledge and behavioral practices of households towards prevention of both communicable and non-communicable disease was improved. Community members participated in the FGD reported they learned very important information about disease prevention. A female community discussant explained, "We learned from Urban Health Extension Professionals how much we are affecting our health and our children by simply affecting our environment".

Regarding the lessons in family health, in all of the kebeles, Urban Health Extension Professionals reported they are providing family planning services (provision of oral contraceptives or injectables) regularly. Regarding the other services on family health sessions, Urban Health Extension Professionals reported teaching the promotion and the utilization of maternal and child health services. Moreover, teachings about healthy behaviors like proper feeding habits (such as breast feeding, and supplements for babies), nutrition for pregnant women and adolescent reproductive health counseling were also reported. From 308 households who had contacted Urban Health Extension Professionals, 252 (81.81%) reported they received health education on at least one of the packages included in family health. One hundred twenty six (40.90%) interviewees reported they received at least one service found in the family health package. The sessions teaching about personal hygiene and environmental sanitation were planned to provide adequate information in seven areas. These include proper and safe excreta disposal, proper and safe solid and liquid waste management, water supply safety measures, food hygiene and safety measure, healthy home environment and personal hygiene.

From 308 households, 293 (95.12%) reported they received health education on at least one of the packages

included in personal hygiene and environmental sanitation. Two hundred eighty eight (93.50%) received support in construction of sanitation facilities. A total of 275 households reported using different kinds of liquid waste disposal mechanism. From this group, 177 (64.4%) reported receiving advice and/or support from Urban Health Extension Professionals. A total of 103 households reported availability of hand washing facility near to their latrine. From this group, 52 (50.5%) reported they received advice and/or support from Urban Health Extension Professionals.

Qualitative data also supported this finding. Participants across the group felt the program helped households use hand washing facility near to their latrines; separate liquid waste disposal pits; use clean cooking practices, keep drinking water free from contamination and manage clean environment. The other key service areas were first aid, emergency and referral. According to the implementation guideline, first aid and emergency services include attending precipitators deliveries, fever management in under 5 year old children, managing minor wounds, bleeding and allergy management. None of Urban Health Extension Professionals in the study area started providing first aid and emergency services due to lack of supplies. The only activity in this package the Urban Health Extension Professionals reported was referral.

From 308 households, 47 (15.25%) reported they received help from Urban Health Extension Professionals to care for a sick person at home. Two hundred ninety one households visited the health facility for a different reason. From this group, none of them mentioned a prior Urban Health Extension Professionals contact for referral. Based on these group discussions and interviews, the major factor affecting the ability for these households to adopt and utilize healthy practices is the acceptance of the Urban Health Extension Professional. Community acceptance was also reported to be the most difficult to achieve. There was also resistance of some community members to accept home visits from Urban Health Extension Professionals, and to train as a model family. These were important factors in the ability of these households to adopt healthy practices. Urban Health Extension Professionals discussants mentioned that in beginning there were many people who were hesitant to accept their services. The following quotes are cited as examples: A participant said, "When we go to houses of rich people, they tell us that they have personal doctors and they don't need us. When we go to the poor, they will tell us they are busy with their livelihood earnings". Another participant said, "When I go to some of the houses, I have to growth kebele security officers otherwise no one is willing to talk to me".

Urban health extension professionals said that community resistance sometimes rose from lack of awareness about the service. They explained that the usual community perception of health extension services was derived from the practice of giving services to rural community. Urban Health Extension Professionals explained, "Most of urban people live in unsanitary conditions that are worse than rural communities, but they still tell us that they are not rural people, therefore, don't need health extension service".

Similarly, community members participated in FGD said that, "If the community basically understand the Urban Health Extension Professionals purpose, I don't think there is any reason to resist their service". Most of the Urban Health Extension Professionals mentioned supply problems creating resistance for some community members. The Urban Health Extension Professionals reported that lack of some supplies found within the guidelines (first aid and emergency supplies) created a problem in the delivery services. For example, Urban Health Extension Professionals indicated that some households especially, the poor, ask Insecticide-Treated Net (ITN), treatment for their children and anti-pain for minor illness. However, these activities and requests are clearly outside the objectives and purpose of the educators.. Urban Health Extension Professionals also indicated that the inability to provide a wider range of services adversely affected their credibility and community interest.

Both the community discussants and Urban Health Extension Professionals believe that the Urban Health Extension Professionals service would be more acceptable if Urban Health Extension Professionals could treat some illnesses. However, the supervisors and health center managers did not agree with this perspective. They believe Urban Health Extension Professionals should work more on raising community awareness on the importance of preventive and primitive services rather than play a curative role in the health care delivery.

The other factors mentioned were economic and educational status of the household members. Urban Health Extension Professionals participants claimed that the degree of behavioral change and adoption of healthy practices in the community were often dependent on other societal factors. Urban Health Extension Professionals explained that economic status of households, such as lack of materials to construct sanitation facilities, provided a significant barrier to adoption of healthy household practices.

From the in-depth interviews with health center managers and supervisors, an additional factor in the acceptance of the Urban Health Extension Professionals was identified. emerged The subjective attributes of the particular Urban Health Extension Professionals, such as interest in their work and ability to communicate well, were identified as factors affected the acceptability of Urban Health Extension Professionals and furthermore, the utilization of their services. Urban Health Extension Professionals with good communication and interaction skills were reported to have built stronger ties with their community members.

Similarly, kebele administrative heads and health committee discussants identified if the Urban Health Extension Professionals had good communication skills, there was a higher demand for their services. During their

interviews, Urban Health Extension Professionals reported that institutional support from kebele officials could serve as the bridge for enhancing relationships between them and their community members. This was especially important for community members who are refusing their service. An FGD discussant from Urban Health Extension Professionals reported, “Kebele council support is very important and without it we may not have been able to enter some houses”. She added “Council members influence reluctant families to apply for some packages”.

The important role of kebele support in mobilizing the community and managing reluctant households was acknowledged by the program supervisors and health center managers. All the participants across the groups reported that they are witnessing progress acceptance by the people. The increasing community members’ participation in meetings called by Urban Health Extension Professionals, and the decrease in number of resistant households were mentioned as a positive indicator of progress. Urban Health Extension Professionals discussant said, “At first, most people saw the government cadres and thought we were working for political ends, but now they have at least realized that we are working for the sake of the people’s health

#### 4. Conclusions

The introduction of Urban Health Extension Professionals contributed to the household level extension of health care system and the growing primary health service coverage to the urban population. There was relatively higher rate of contact by Urban Health Extension Professionals than previously existing health service. The rate of contact and the type of service provided by these Urban Health Extension Professionals was acceptable according to the Ethiopian implementation guideline. Though utilization of services is high, contact was initiated by HEWs, not households. Therefore, in the future the government should work in increasing house hold initiated service utilization than HEWs initiated service utilization. This study also showed that the communication skills of Urban Health Extension Professionals, kebele (neighborhood) council support and logistics were found to be essential factors affecting the acceptance and utilization of these services. The implementing partners should provide appropriate logistic supplies and training to Urban Health Extension Professionals to increase utilization and acceptability by the community.

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