ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE

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Attitude and Participation Level of Households towards Health Extension Program (HEP) at Nefas Silk Lafto Sub-city, Addis Ababa, Ethiopia

By

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Acronyms

ANC	Anti –natal care
AOR	Adjusted odds ratio
COR	Crude odds ratio
CSA	Central Statistical Agency
EDHS	Ethiopian demographic and health survey
FMOH	Federal Ministry of Health
HDA	Health Development Army
HEP	Health Extension Program
HEW	Health Extension Worker
HH	Household
HP	Health posts
IUD	Intra-Uterine Device
L10K	Last ten kilo meter
mHealth	Mobile Health
SNNPR	South Nations Nationalities and Peoples Region
SPSS	Statistical Package for Social Sciences
UHEP	Urban Health Extension Program
VCHW	Volunteer Community Health Workers

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Abstract

Background:-Health extension program (HEP) is an innovative community based strategy to deliver preventive and promotive services. It brings community participation through creation of awareness, behavioral change, community organization and mobilization. It also improves the utilization of health services by bridging the gap between the community and health facilities.

Objectives:-Assessing attitude and participation level of households towards health extension program in Nefas Silk Lafto Sub-city, Addis Ababa, Ethiopia.

Method:- Community based cross-sectional study design was used to assess the attitude and participation level of households with the sample size 423, which was determined by single proportion formula (P) of 0.5 and 95% confidence interval. Households were included in the study using systematic sampling method. Health extension workers were randomly selected first and households under health extension workers were included into the study by calculating the interval between the households. Structured pre-tested questionnaire was used to collect data. Frequencies, proportions, odds ratio (95% CI), adjusted odds ratio(95% CI) and logistic regression were used for description of the study population, to determine dependent and independent variables association strength and relative effect of independent variables on dependent variables.

Result:- Participation level of households in health extension program was 42% (95% C.I= 0.37-0.47) and attitude of households on the change HEP implementation brought, satisfaction of HHs on HEP services, communication skill of HEW, believing HEW skillful and satisfaction of HHs on HEW service provision were associated with participation level of households in HEP [AOR(95%C.I):0.15(0.04-0.54),21.08(2.32-191.38),0.06(0.01-0.64),0.11(0.03-0.35)and 2.67(1.01-7.09) respectively.

Conclusion:- Majority of the respondents have poor attitude and low participation level in HEP. This is due to household's attitude towards change that the program has brought was very low and their satisfaction on the program was low. Households' attitude on the technical competence of HEW and communication skill of health extension worker was unfavorable and influence participation in the program.

1. Introduction

Globally there is stark difference in health status among nations, but compared to the past, statistics reveal remarkable progress in the state of world health. Even though tangible developments were seen in the areas of increased life expectancy, dropping rates of mortality and malnutrition particularly, at the end of the last century; the problem with these gains is that they have not been equally distributed [1]. Many low-income countries in Sub-Saharan Africa and others suffer from acute shortage of health services. While low-income countries have limited resources for training healthcare professionals, the migration of those who were trained to conventional international standards has made dependence on this professional is increasingly unstable [2].Due to the above and other reasons Ethiopian health status is poor compared to other low-income countries.

It is estimated that more than 75% of the health problem in the country is largely attributed to preventable communicable diseases and under-nutrition. The prevalence of these diseases is mainly due to poor socio-economic condition, low level of awareness about health and inadequate health service delivery across the country [3]. With regard to this, Ethiopian government designed an audacious plan to achieve universal access to primary health care by preparing health sector development program (HSDP) which has been classified HSDP-I,HSDP-II, HSDP-III,HSDP-Iv from 2002-2015. This plan aimed to address the service coverage problem of the health system through an accelerated expansion and strengthening of primary health care services [4]. Although it has many challenges still to be addressed; Ethiopia is fast registering impressive successes in extending affordable primary health-care services across the country. These achievements are largely attributable to the health extension program (HEP) which has been implemented since 2003, and through which the country aims at achieving universal access to primary health care [5]. It is the country's flagship program to ensure health service delivery and quality of care and is the main vehicle for prevention, health promotion, behavioral change communication (BCC) and basic curative services through effective implementation of essential packages through mobilization of communities.

The desired result of the program is a community practicing and producing good health, being protected from emergency health hazards, and having access to quality health care. It is central to Ethiopia's health performance in the strategy to deliver more and better health care to women

and children-especially in the most rural and remote communities. It brings community participation through creation of awareness, behavioral change, community organization and mobilization. It also improves the utilization of health services by bridging the gap between the community and health facilities through the deployment of Health Extension Workers (HEWs) [6]. HEWs are the first point of contact of the community with the health system, delivering integrated preventive, promotive and basic curative health services, with a special focus on maternal and child health. They are tenth grade complete in the rural area and clinical nurse diploma in urban area. They are given one year and 3 months pre-service training about basic health issues and health extension program packages respectively. They were given training on sixteen health packages (maternal and child health, family planning, immunization, adolescent reproductive health, nutrition, HIV/AIDS and other STIs prevention and control, TB prevention and control, malaria prevention and control, first aid and emergency measures, safe excreta disposal, solid and liquid waste disposal, water supply and safety measures, food hygiene and safety measures, healthy home environment, control of insect and rodents, personal hygiene, health education and communication [6,7].

HEP is designed to increase the coverage of primary health care services in Ethiopia, mainly by producing model households using model-family training. The model family training comprises a total of 96 hours of training, on basic hygiene and environmental sanitation (30 hours), family health care (42 hours), and disease prevention and control (24 hours).Households which attended at least 75% of the training and implemented at least 75% of the HEP packages are considered as model households/families and given certificates of completion [7].

The participation level of households in the implementation of urban health extension program is limited. This could be due to different reasons like living conditions of the community or their attitude to the implementation of the program. The study aimed to assess attitude and participation level of households in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia to improve participation level of households in the implementation of health extension program.

1.1.Statement of the problem

Although it still has some of the worst health indicators in the world, Ethiopia is fast registering impressive successes in extending affordable primary health-care services across the country. It is assumed that these achievements are largely attributable to the HEP. It has been implemented since 2003. It is assumed to drive Ethiopia's primary health care in which thousands of community workers are helping Ethiopia to deliver primary health-care services to people living in the country [5]. HEP has shown significant positive impacts on the health of communities, in disease prevention, family health, environmental hygiene and sanitation [8, 15].

The government of Ethiopia adapted the rural health extension program (HEP) for the urban setting since 2009. For urban setting the government preferred clinical nurses as urban health extension workers(UHEWs) with provision of additional three months pre-service training to work at the household level on health prevention and promotion activities [7]. Although the government of Ethiopia is trying to solve urban health problems through urban health extension program (UHEP), there are major issues like waste management practices that are poor and affect urban communities health in which only 14% urban population has access to an improved toilet facility in the country [9].

For the implementation of the program, the community is in charge of providing material and labor support for different health activities like participating in health promotion campaigns such as sanitation, health education campaign; and most importantly facilitating the work of HEWs [10]. Despite a broad consensus that communities should be actively involved in improving their own health, evidence for the effect of community participation on specific health outcomes is limited [11].

The availability of good quality services will not produce the desired health outcomes if individuals, families and communities cannot make healthy decisions and act on them [12].Community participation interventions may tackle low service utilization by encouraging communities themselves to identify problems, understand their root causes (e.g. barriers to timely referral to safer motherhood services) and mobilize necessary resources [12].

The government of Ethiopia designed urban health extension program to reduce communicable and non-communicable disease in urban area using diffusion model of training model households

in 6 consecutive years from its start in 2009. But the program counted more than 5 years and the implementation of training model households is not yet finished. This could be due lack of good advocacy works, lack of community participation which may be based on attitudes of communities regarding health extension program and other reasons.

Since the implementation of the HEP in Addis Ababa, there were no studies published on the attitude and participation level of households towards HEP. There were other studies which have been done in rural and some urban area in which the living style is not similar with Addis Ababa community shown HEP effectiveness in improving utilization of family planning and immunization services, study of the working conditions of HEW's, under five diarrhea among model households and non model households, utilization of environmental health services [13, 16, 17, 26] in the country. However, none of previous studies investigated attitude and participation level of households towards health extension program service implementation in urban area. Therefore, this study assumed exploring the attitudes and participation level of households towards HEP will bring improvements in service provision following the heart beat of communities, participation of households and utilization of services in households.

2. Literature review

2.1 The HEP Concept: Definition and Principle

HEP is a community-based health service delivery program whose educational approach is based on the diffusion model in which community behavior is changed step by step; training early adopters first and moving to the next group that is ready to change. It focuses on the basic and essential promotive, preventive, and selected high impact curative health services targeting households. It was designed to improve the health status of families by employing the concept and principles of Primary Health Care (PHC). HEP requires full participation from each individual, family, governmental and non-governmental organizations and associations. In addition, both PHC and HEP have targeted at using local technologies as well as community skill and wisdom. The only and exceptional difference between the two is that HEP focuses on households at the community level and it involves fewer facility-based services [7].Furthermore, HEP addresses the health need of each member of the household as individual and as a household unit. This is done considering a great deal of work on health promotion which can be done at home by parents who are informed on key health issues and supported with health promoting techniques and skills [14].

2.2 Community Participation

The philosophy of HEP is grounded on the concept and principles of primary health care (PHC) and it was designed to improve the health status of families, with their full participation, using local technologies and the community's skill and wisdom. Moreover, health is a product that can be produced by individuals and it is believed that HEP empowers communities to make informed decisions about their own health by equipping them with appropriate skills and knowledge through successful community mobilization and active community participation [7]. The participation of community leaders especially those that lead influential associations like the idir, mahaber, equb /local associations/, religious leaders is not satisfactory and needs to be worked a lot. These influential stakeholders have to be targeted and invited in the process of HEP implementation. One way forward is make communities active participants in the suggested village HEP committee which can bring ownership of program to the communities [15]. Involving the broader community to identify interventions that have to be prioritized increases communities ownership [15].Study conducted on assessing the working conditions of HEWs in

six regions (Amhara, Benishangul Gumuz, Harari, Oromia, SNNPR and Tigray), there was very little participation of communities in planning, programming and management of health post or health extension program (HP/HEP) in general during farming season in few places [16]. But in urban area the participation of communities in health extension program planning and implementation is very low, which may be due to the living condition of communities that most of the household members are not in their house at working time and the other factors that hinder community participation to health extension program is not studied. Experience elsewhere shows that the greater the participation of the community, the greater the acceptance and use of services and the lesser the demand for expensive curative services. There is overwhelming evidence that community participation in the design and implementation of health sector and inter-sect oral activities have a significant impact on success and sustainability [11]. Therefore, it is recommended that HEP has to use participatory planning of village interventions by forming a village HEP structure/committee involving all stakeholders including sectors in charge of planning, programming and monitoring and evaluating implementation processes and outcomes [15]. The HEP was designed and implemented in recognition of the fact that the major factor underlying the poor health status of the country's population is the lack of empowerment of households and communities to promote health and prevent disease. The government of Ethiopia recognized that the delivery of public health information and services in urban settings is less than optimal and developed an urban health extension program(UHEP) which is building on the success of the rural HEP [8].

One of the targets of HEP is to educate households about their health and bringing them to model family. Those graduated as model families are assumed to be model in any ways like continue practicing the knowledge gained from HEWs and display to others. They are required to participate in planning, monitoring and facilitating others. But the graduation of model families is not happening at the rate expected, may be due to lack of commitment on the side of HEWs and limited assistance from wereda and village leaders in mobilizing the communities to involve more model families and voluntary community health workers (vCHWs). Study done in Hawasa town showed there is significantly higher prevalence of diarrhea among children residing in non model households compared to those residing in model households. This could be due to health extension workers spend more time on capacity building part for model households (HHs) and they gave extra training, support and follow up to those who were participating in the program

[17]. As survey conducted in last ten kilo meters (L10k) implementation areas in four regions (Amhara, Oromia,SNNPR and Tigray) indicated women's awareness about model family can be considered low with only 19% reporting ever having heard of a model family from the four regions. Only about 4% reported their family graduated as a model family, of which only half presented certification to the interviewer. On the other hand, about 6% are working towards becoming a model family. A high willingness to participate in the model family program can be noted, as reported by 87% of the women who heard about the program but were not yet part of it [18].

Health services are strengthened in both whereby people, both individually and in groups, exercise their right to play an active and direct role in the development of appropriate health services, in ensuring the conditions for sustained better health and in supporting the empowerment of community to help development. The availability of good quality services will not produce the desired health outcomes if individuals, families, and communities cannot make healthy decisions and act on them [12].

Respondents from Jimma zone, Ethiopia believed that men are more professional in handling technical issues; have the capacity to withstand challenging work conditions and are right decision makers for immediate action during health hazards. The argument was that females are fearful and subjected to ill-decision. Moreover, it was believed that males are physically and biologically strong to work in risky conditions; are better in improving the availability of drugs and other supplies at heath post (HP) as they can exert a strong pressure on higher concerned bodies [2].

2.3. Acceptability, Accessibility and Cultural Sensitivity of HEWs

According to the fact that HEP is first and foremost designed to change societal beliefs about health which are traditional and have positive and negative impacts on the health of communities, In line with this, it necessitates all HEWs to be cautious about indigenous health beliefs of the community [7]. To solve the three delays (deciding to seek care, identifying and reaching medical facility, receiving adequate & appropriate care) accounting for high maternal and newborn mortality in the country can be averted through helping women and their families recognize danger signs, helping women reach appropriate care, supporting women receive care at health facilities.

Strategies have been designed and relevant activities are being performed to remove the bottlenecks hampering access to safe motherhood services and other health services such as harmful traditional beliefs and practices which expose women to death and performing intensively in order to promote behavioral change as well as to ensure the implementation of all health extension packages in the communities so that they can produce and sustain their own health, including maternal health [11,12,13,19]. In Tigray a year into implementation (2004), 58% of 60 female heads-of-household randomly selected, said their HEW was helpful and 93% preferred over a traditional birth attendant (TBA) to assist them during delivery because they seemed more knowledgeable and accessible [20]. The involvement of female HEWs in the program was preferred on the grounds of degree of closeness, easier disclosure of personal problems and cultural norms. This might reflect the fact that most mothers tend to have better relationship with HEWs. Despite, the good interpersonal relationship, HEWs had less acceptance and less trusted in Jimma zone, Ethiopia [21]. Mothers who had frequent household visits by health extension workers were 1.289 more likely to visit the health posts (AOR = 1.289, 95% CI = 1.028 to1.826) than mothers who did not get frequent visits [22] which indicate the more HEWs visit or support households, the more the households seek and participate in services provided by HEWs.

In 2009 in L10K areas, 12% of women reported using any health professional for delivery and 4% HEW. These levels were compared favorably with essential services health in Ethiopia (ESHE) 2008 statistics of 7% and 2% respectively in three of four L10K regions, and 5% professional care use in 2005 [18]. Respondents' from Jimma zone, Ethiopia on the exposure to HEP packages revealed that 289 (78.6%) of the respondents had received health information from HEWs. For instance 95.6%, 94.0% and 92.6% of the respondents received information on housing hygiene/ condition, personal hygiene and environmental hygiene respectively. On the other hand, the proportions of respondents who were exposed to communicable diseases packages (eg. Tuberculosis) appeared to be lower [21].The utilization of the HEP also had a significant positive association with family income [22]. The initial community perspectives on the health extension program in Welkait, Ethiopia community revealed HEWs are helpful, more preferred over traditional birth attendants (TBAs), provide good health services. Despite the above, communities perceive that HEWs visit rarely, they are poor in major communicable diseases knowledge [20]. Continuous home visits of non-model

households and following up the existing model households, producing more model households by giving model-family training to non-model households, and strengthening the information, education, and communication package are crucial in the implementation of the HEP to increase basic health services utilization [22].

2.4. Communities perception on social behavior of HEWs

Data on community satisfaction and perception about HEP was collected from over 10,000 people shown those who knew HEWs are working in their kebele (the lowest level of administration in Ethiopia) were asked about the social behavior of the HEW and majority (81.6%) of them said HEWs involve with community during happy and sad occasions, 90.6% said HEWs use local language during communication, 87.8% said HEWs had good conduct, and 81.6% said HEWs involve in community work activities. In addition, more than 60% of the respondents rated all components of the HEP services as very satisfactory or satisfactory and family planning got the highest score (76.5%). Majority of respondents have good attitude towards the performance and social behavior of HEWs [14]. Study in Jimma zone, Ethiopia, revealed three-fourth, 286 (75.5%), of the respondents perceived that they had positive interpersonal relationship with HEWs and 316 (83.4%), of them knew HEWs in person. Similarly, most of the respondents, 329 (86.8%), preferred to receive health related information or advice from HEWs. The remaining percentage (14.2%) preferred other individuals such as community volunteers and traditional healers [21]. The perception of communities about the conduct of HEWs and the quality of services provided in the HP had no significant association with the HP visits [22].

2.5. Communities Perception on performance of HEWs in service provision

Data collected from over 10,000 people asked whether the HEWs were really attentive, appeared to enjoy caring, seemed friendly, gave complete explanations, understood their problems, appeared to be skillful, made helpful suggestions, treated with respect, explained things in understandable way, made them free to ask questions, helped them to understand their illness, and discussed the treatment options, ranging between 82.5 to 91.2% answered these questions positively except for one variable i.e. only 62.7% of respondents said that the HEWs were friendly. In particular, only 8.9% in Benishangul Gumuz, 19.4% in Harari, 33.6% in Afar and 34.6% in Amhara said that the HEWs were

unfriendly [14]. Engaging health extension workers in demand creation and linking them to facilities helped improve IUD (itra-uterine device) uptake. Health extension workers are key partners to improve family planning [23]. The contraceptive prevalence rate (CPR) has increased from 28.6% to 41.8% in 2011 EDHS (Ethiopian demographic and health survey) and 2014 mini EDHS. Trends in ANC (anti-natal care) use has increased from 34% to 40% in 2011 EDHS and 2014 mini EDHS. Country wide ANC service provision increased from 10% to 17.7% HEWs in 2011 EDHS and 2014 mini EDHS respectively [14, 24, 25].

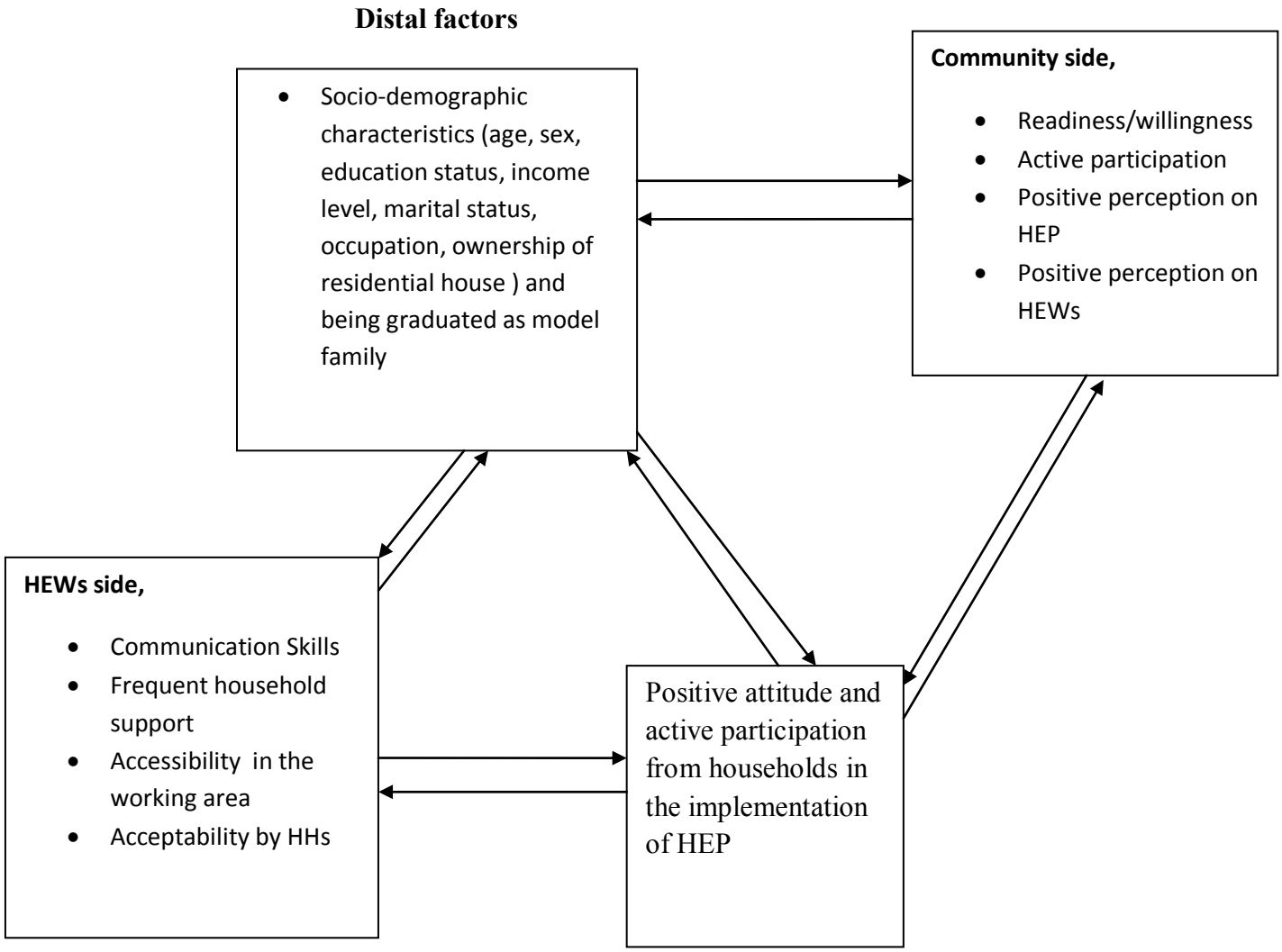
Study conducted in Debretabor town, north west Ethiopia to assess utilization of environmental health services of urban health extension program and associated factors, 9 in 10 of the respondents 373(90.3%) had positive attitude towards HEWs being female which is almost similar proportion, 380(91.8%) were in favor of the home to home service delivery approach of the health extension workers. Also from 414 respondents 362 (87.4%) had positive attitude towards environmental health services of the urban health extension service, approach, and service providers [26].Community based cross-sectional study in north and south central Ethiopia showed HEWs visit during pregnancy has generally improved utilization of maternal health services. However, health facility delivery is heavily affected by other factors and possibly due to inadequate performance of HEWs to promote health facility delivery during ANC visits [27]. HEP in Ethiopia has shown significant positive impacts on the health of communities, in disease prevention, family health, environmental hygiene and sanitation [15].Utilization of the HEP had a significant positive association with HEP implementation related factors, such as number of years after graduation as model household, frequency of household visits by HEWs, and understanding the HEP [22].

A cross sectional survey conducted in northern Ethiopia consisting 725 randomly selected women with under-five children from three districts showed HEWs have contributed substantially to the improvement in women's utilization of family planning, antenatal care and HIV testing. However, their contribution to the improvement in health facility delivery, postnatal check up and use of iodized salt seem insignificant. Women who were literate (OR, 1.85), listened to the radio (OR, 1.45), had income generating activities (OR, 1.43) and had been working towards graduation or graduated as model family (OR, 2.13) were more likely to demonstrate good utilization of maternal health services [28].

Study in Jimma zone, Ethiopia tried to show rarely visit of community members to HEP mainly due to non-existence of curative services, less availability of HEWs at HP. Nearly half 185 (48.8%) of the respondents did not agree with the range of services provided by HEWs. It also revealed mothers' satisfaction with HEP were based on age of the mothers, perceived HEWs' skill to diagnose community problems, perceived respect, involvement of husband in the program and being titled as model family [21]. HEWs visit to households during pregnancy improved utilization of maternal health services. Those who were visited by HEWs during pregnancy were most likely to attend post natal care during the first three days [AOR 3.68(2.05, 6.59)] [27].

The above facts showed a program implemented in a community has to advocate a lot and got acceptance from the community. If communities take ownership of the program, they identify, prioritize, and design activities and raise funds from their own to the success of the program. In line with this, community participation is vital to community based programs to use their knowledge, skills and wisdom. Communities to participate in certain programs, workers and other stakeholders in the community have to be equipped with communication skills, mobilization skills and committed to the work. In areas where workers are committed and approach communities with good approach, community is getting part of its own.

Figure 1, Conceptual framework of the study



3. Objectives

3.1. General objective

The general objective of this study was to assess the attitude and participation level of households towards health extension program in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia.

3.2.Specific objectives

The specific objectives of this study were;

1. To assess the attitudes of households towards health extension program in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia
2. To assess attitudes of households towards health extension workers in the implementation of HEP.
3. To describe participation level of households in the implementation of health extension program in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia

4. Method of the Study

This section deals with design of the study, study area, subjects of the study, sample and sampling techniques of the study, methods of data collection, instruments, procedures of data collection and methods of data analysis.

4.1. Study design

The attitude and participation level of households towards health extension program in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia was assessed by using community based cross-sectional study design. The rationale and justification for employing a cross sectional method is that it provides information concerning the situation at a given point in time. It helps to get information on the attitude and participation level of households that would help to strengthen the implementation of health extension program in urban area.

4.2. Study area

The study was conducted in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia. The sub-city is demarcated on the north by Lideta and Kirkos sub-cities, on the east Bole and Akaki Kality sub-cities, on the west Kolfe Keraniyo sub-city and on the south Oromia regional state and alienated into 12 wereda (lowest administrative level in Addis Ababa, Ethiopia). The sub-city is selected because it is one of the ten sub cities where urban health extension program is being implemented.

4.3. Study population

The study was conducted in Nefas Silk Lafto sub-city, Addis Ababa. Nefas Silk Lafto sub-city encompassing 12 woredas, which has a projected population of 351,967 and from this 165,793 (47.1%) are males and 186,174(52.9%) are females and contributes 11.55% share of population of the Addis Ababa city. It is the third largest in population next to Kolfe Keraniyo and Bole sub-cities respectively [29]. In the sub-city, there were about 139 HEWs at the time of the study in which each HEW is required to provide preventive and promotive services to 500 households.

4.4. Sample size

Samples of the study were taken from 500 households under HEW in which health extension workers were selected randomly and were included systematically following the interval. The

sample size was calculated using single population proportion formula since there were no similar studies on the program.

$$n = \frac{(Z\ 1-\alpha/2)^2 p\ (1-p)}{d^2} = \frac{(1.96)^2 .5(.5)}{(.05)^2} = 384+10\%\ (384) = 423$$

With the following assumptions;

Expected proportion (p) of the study participants who were assumed to participate in HEP were (50%), marginal error (d) 5% and confidence interval of 95%. A proportion of 50% is preferred due to lack of similar studies. This yields a sample size of 384 households.

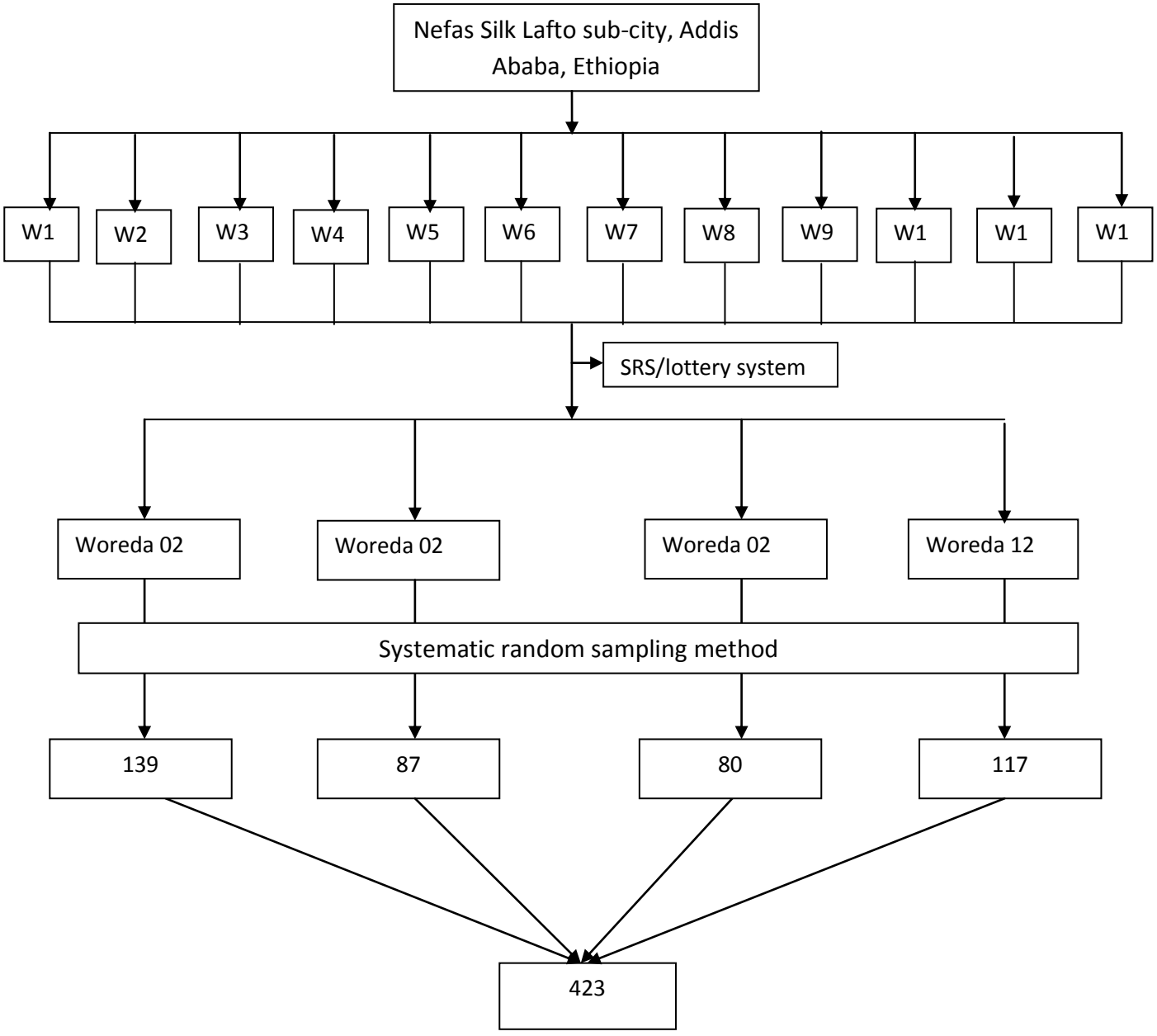
Considering 10% non-response rate, the final sample size was determined to be 423.

4.5. Sampling procedures

Nefas Silk Lafto sub-city is one of the sub cities in Addis Ababa, Ethiopia which has 12 districts (woreda) where there were about 139 HEWs in which each HEW is required to provide preventive and promotive services to 500 households. From this, 4 woreda were selected by lottery method and total sample size was distributed proportionate to the number of households found in each woreda. The final respondents in each woreda were selected by systematic random sampling method. The interval Calculated between the sampling units was 5 and the first household was selected randomly. Data collectors followed this interval till the sample size was obtained. When more than one eligible respondent was found in a house, a lottery (a classical simple random sampling) method was used to select one respondent.

Adults greater than 18 years who lived more than six months in the wereda were included in the study. In line with this, each woreda had separated previously based on the number of households into 500 and each HEW holds 500 households, so HEW selected first and households under the health extension worker were included into the study.

Figure 2, schematic presentation of sampling procedure



4.6. Data collection procedures

Structured questionnaire was designed and first translated to Amharic and back translated to English by different individuals to check consistency and conceptual equivalence. Pretesting of the questionnaire for clarity and ease of administration were done in non-surveyed households. Data collectors and supervisors were selected with previous experience of data collection and training was given for five days on data collection technique.

4.7. Operational definitions

Attitude:-whether positive or negative may be affected by experience. Attitudes may also be vital to successful experiences with program as well as to the implementation and use of new initiatives in health or other areas of society and communication. So in this study, attitude tends to show what households think and perceive in the implementation of health extension program.

Households: In this study, households were people residing in urban woreda or smallest administrative unit in Addis Ababa.

Participation:- For the purpose of this study, it is the extent to which households were working in collaboration with and through group to support HEP implementation in different means to their health issues that affect their well-being initiated by HEWs.

4.8. Data Analysis procedures

Each questionnaire was screened, cleaned and data were entered using SPSS (statistical packages of social science) version 20. Proportion was used for description of the study population. Cross-tabulation was also computed using dependent and independent variables to determine the proportions of respondents and the existence of association between independent and dependent variables. Some selected socio-demographic characteristics of household respondent's odds ratio and adjusted odds ratios with their 95% confidence interval were calculated to assess the strength of associations between variables and see the relative effect of independent variables on dependent variable.

4.9. Data quality management

In order to control data quality during data collection, the first household was chosen randomly as following the intervals determined by calculating total number of households to number of households required to be included in the study and collectors followed this procedure

throughout the households determined for the study. Those households which were interviewed marked on top of their door. All data collectors were trained prior to data collection and regular supervision were done during the field work. Each data collector checked the questionnaires for completeness before leaving each study participant. Supervisors also visited households randomly to cross-check the proper filling of questionnaire since all households included were marked. One in three questionnaires was cross-checked by principal investigator to increase data quality. All filled questionnaires were reviewed at the end of the day by the supervisor and investigator.

4.10. Ethical consideration

The necessary permission to undertake the study was obtained from Ethical Review Committee of Addis Ababa University College of Health Science School of public health. All participants were informed about the purpose of the study, confidentiality of the information, and the right not to be participated or withdraw at anytime. It was told to the participants, participating in this study will bring improvements in the implementation of the program and being participated in the study will not have any harm.

4.11. Variables

Independent variables:- socio-demographic characteristics of household respondent's sex, age, educational status, marital status, religion, monthly family income, graduated as model family, family size, and being owner of residential house.

Dependent variable: - participation of households in the health extension program which was measured by:

- Attitudes of households towards health extension program.
- Attitudes of households towards health extension worker
- Satisfaction of households by the service provided by health extension program and HEW

5. Result

5.1. Socio-demographic characteristics of respondents

Out of 423 households included into the study, 400 households have participated in this study, giving a response rate of 94.6%. Of the total study subjects, 373 (93.2%) were females. The mean age of the respondent was 37.6 with ±13 standard deviation. Of the majority respondents, 303 (75.7%) were married, and 215 (53.8%) were housewives. The mean family size of the household was 4.45. Of the majority respondents, 288 (72%) were Orthodox religion followers. Nearly half of the households 220(55.4%) were privately owned. About one hundred sixteen (29.1%) of the respondents attended primary (1-8) education and ninety eight(24.6%) of the respondents attended secondary(9-12) education. 151(37.8%) of households' were with estimated monthly income of below 1000 birr (Table-1).

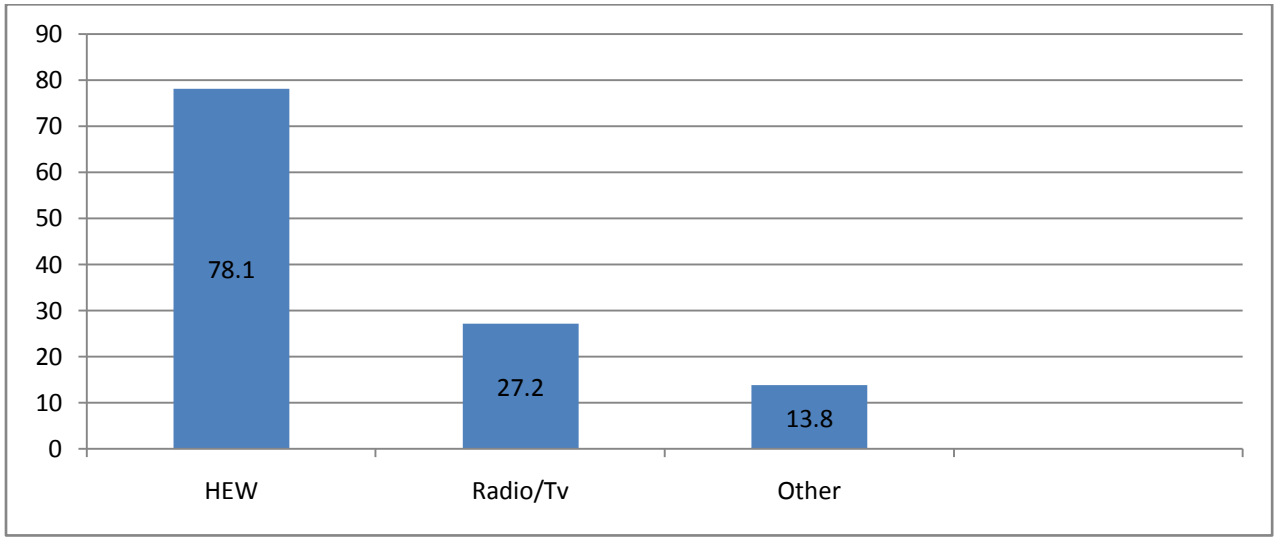
Table 1 Distribution of socio-demographic characteristics of respondents in Nefas Silk Lafto Sub-city, Addis Ababa, Ethiopia, March-April, 2015

Variables	Number	percent
Sex		
Male	27	6.8
Female	373	93.2
Family size		
≤4	224	56
>4	176	44
Age group		
18-28 years	113	28.3
29-38 years	139	34.8
39-48 years	74	18.5
≥49 years	74	18.5
Religion		
Orthodox	288	72.0
Protestant	45	11.3
Muslim	63	15.8
Others (catholic)	4	1.0
Marital status		
Married	303	75.7
Single	49	12.3
Other(divorced, widowed and separated)	48	12
Educational status		
Illiterate	65	16.3
Read and write	53	13.3
Primary school (1-8)	116	29.0
Secondary school (9-12)	98	24.5
Education above Certificate	68	17.0
Occupation		
House wife	215	53.8
Those have work	175	43.8
Retired	10	2.5
Estimated monthly income		
Below 1000 birr	151	37.8
Between 1001and 1900	70	17.5
Between 1901 and 2800	83	20.8
Above 2801	96	24
Residential house privately owned		
Yes	220	55
No	180	45

5.2. Awareness of households on health extension program

Out of 400 respondents about 372 (93%) of households were aware of health extension program being implemented in their area from different information means. About 252 (78%) of HHs were aware of HEP from health extension worker and 88(27.2%) from radio/television and 45(13.8%) from other information centers (see figure-3).

Figure 3, Source of information for households about health extension program, Nefas Silk Lafto Sub-city, Addis Ababa, Ethiopia, March-April, 2015



5.3. Knowledge of households towards health extension program and its packages

Household respondents were asked whether they knew about health extension program, three hundred forty five (86%) knew about health extension program and packages implemented in the city. Even though HEP is designed to provide services in 15 different packages, HEWs gave more attention to some of the programs like solid and liquid waste disposal package (83.1%), toilet/excreta handling package (77.4%), maternal and child health packages (69.1%). Health extension program packages such as prevention of accidents, adolescent and reproductive health and nutrition packages were given the least attention, even though these are serious health problems in urban areas (Table-2).

Table 2 Exposure of households to HEP packages in Nefas Silk Lafto Sub-city, Addis Ababa, March-April, 2015

Variables	Number	Percentage
Maternal and child health package	233	71.9
Family planning package	217	67
Nutrition package	128	39.5
Immunization package	180	55.6
Adolescent and reproductive health package	109	33.6
Excreta disposal package	252	77.8
Solid and liquid waste disposal package	271	83.6
Water supply and safety measures package	133	41
Food hygiene and safety measures package	148	45.7
Healthy home environment package	174	53.7
Control of insects and rodents package	76	23.5
Personal hygiene package	181	55.9
Non-communicable diseases package	67	20.7
HIV/AIDS and TB prevention and control package	199	61.4
Accident prevention package (firs aid)	67	20.7

5.4.Attitudes of households towards health extension program

Household respondents who knew about health extension program (HEP) and being happy in health extension program implementation were 179 (51.9%) and those who believe that they are benefited from the health extension program were 171 (50.4%). Household respondents whose expectation from health extension program can address their need were 66 (16.5%) and none of their expectation from the program addressed was 122 (30.6%). Households who believe HEP increased their health seeking behavior were about 179 (51.9%) and those who believe there were changes observed after HEP started to be implemented were 138 (40.2%). About 179 (51.9%) of households were satisfied by HEP being implemented in their area (Table 3).

Table 3 Households' Awareness and Attitude towards health extension program in Nefas Silk Lafto Sub-city, Addis Ababa, March-April, 2015,

variables	Number	Percent
Heard of about HEP		
Yes	372	93
No	28	7
Know about HEP		
Yes	345	86
No	55	14
Graduated as model family		
Yes	148	42.9
No	197	57.1
Duration of HEW support to model family		
Weekly	15	10.2
Twice a month	30	20.4
Monthly	50	34.0
Quarterly	25	17.0
Twice in a year	17	11.6
Do not support	10	6.8
Being happy in the HEP		
Yes	179	51.9
No	166	48.1
Being benefited from HEP		
Yes	171	50.4
No	174	49.6
HEP addressed health information need		
All my health information needs are addressed	66	16.5
Most my health information needs are addressed	84	21.1
Only some of my health information needs are addressed	78	19.5
None of my health information needs are addressed	122	30.6
Don't know	49	12.3
HEP increased awareness about health		
Yes	159	53.9
No	186	46.1
HEP increased health seeking behavior		
Yes	179	51.9
No	166	48.1
Changes observed after HEP packages started to implement		
Yes	138	40.2
No	205	59.8
HHs satisfied with the services provided by the HEP		
Yes	179	51.9
No	166	48.1

5.5.Attitudes of households towards health extension workers competence and job related behavior

Out of 400 households participated in the study, 311(90.1%) had positive attitude towards HEW being female. HH respondent/member who had fever and diarrhea six months back were 68 (20.7%) and from this 43 (63.4%) households did not consult HEW and their preference were health center (45.5%) and private clinic/pharmacy (17.9%)(Table-4).

Table 4 Attitudes of households on HEW being female and contacting during unhealthy conditions in Nefas Silk Lafto Sub-city, Addis Ababa, March-April, 2015

Variables	Number	percent
Feeling good on HEW being female		
Yes	311	90.1
No	34	9.9
An individual with fever and diarrhea		
Yes	68	21
No	277	80.3
An individual consulted		
HEW	23	34.8
HC professional	30	45.5
Private clinic/ pharmacy	13	17.9
HEW provide referral services to health center		
Yes	17	73.9
No	6	26.1
HEW follow up based on the referral result		
Yes	7	41.2
No	10	58.8

5.6.Attitudes of HH's on HEW job Competence and quality of service provision

About 96 (27.2%) of HHs believe that HEWs' skill to diagnose their health problem were poor. About 113 (32.8%) of households perceive the quality of service provided by HEW were poor. HHs who were not satisfied by the service provided by HEW were 177 (51.3%) and 68 (38.6%) HHs stated HEWs do not come always and follow us (Table-5).

Table 5 Attitudes of HH's on HEW job Competence and service provision in Nefas Silk Lafto Sub city, Addis Ababa, March-April, 2015

Variables	Number	Percent
HEW is skillful		
Yes	187	54.2
No	158	45.8
HEW skill to diagnose community health problem		
Very good	74	21.4
Good	141	40.9
Fair	34	9.9
Poor	94	27.2
Very poor	2	0.6
Availability of HEW on her job		
Always	124	35.9
Occasionally	65	18.8
Rarely	89	25.8
Have not seen in the area	67	19.4
Quality of services provided by the HEW		
very good	55	15.9
Good	116	33.6
Fair	61	17.7
Poor	101	29.3
Very poor	12	3.5
HHs satisfaction on HEW service provision		
Yes	168	48.7
No	177	51.3
Reasons of not satisfied on HEW service provision		
HEW doesn't come always	68	38.6
Didn't understand HEW teaching	8	4.5
HEW is not confident enough	15	8.5
The change is not enough	49	27.8
Time not comfortable to learn	36	20.5

5.7. Households' attitude on health extension worker communication skill and social behavior

From HHs participated in the study which believed HEW give complete explanation, transfer health message in understandable way, respecting others culture during her teaching were 193(55.9%), 183(53%), and 291(84.3%) respectively and households who didn't think that HEWs not attentive and caring were 176(51%) (Table-6).

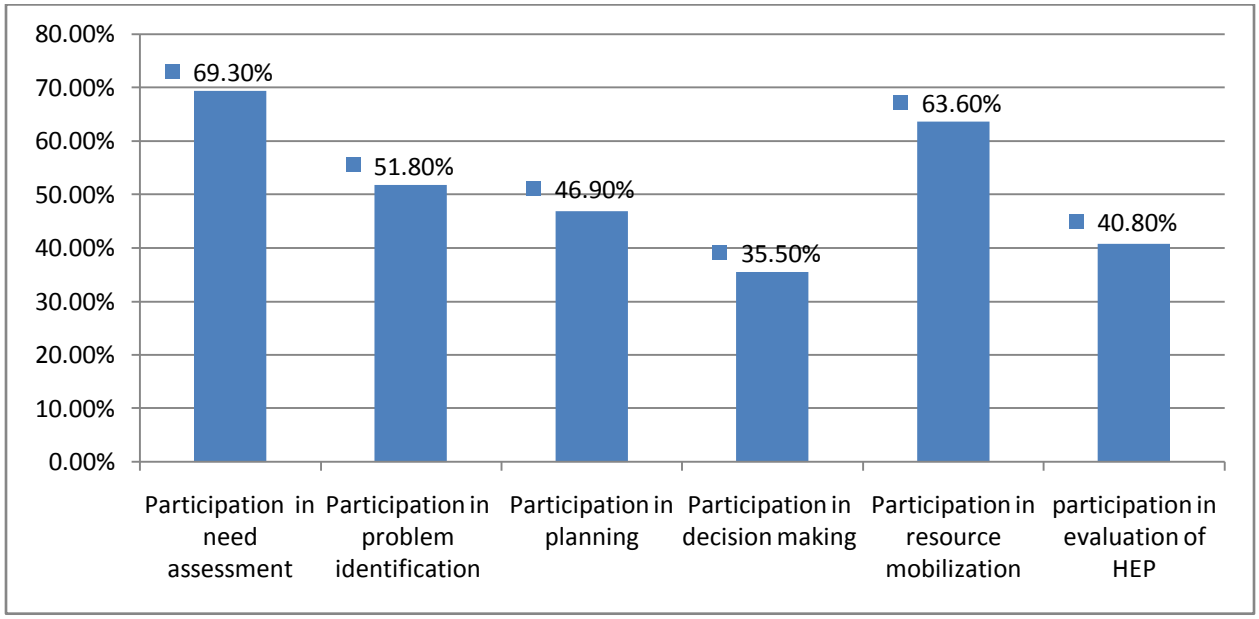
Table 6 Households attitude on health extension worker communication skill in Nefas Silk Lafto Sub-city, Addis Ababa, March-April, 2015

Variables	Number	Percent
HEW give complete explanation about what she teaches		
Yes	193	55.9
No	152	44.1
HEW is attentive and caring		
Yes	169	49
No	176	51
HEW transfer health messages in an understandable way		
Yes	183	53
No	162	47
HEW respecting others culture		
Yes	291	84.3
No	54	15.7
HEW social interaction with households		
Very good	139	40.3
Good	169	49
Fair	15	4.3
Poor	22	6.4
Very poor	-	-

5.8. Participation level of households in health extension program

Out of 345 households who knew about HEP implementation in their area, 145 (42%) of households participated in health extension program implementation in different means. HHs who participated in need assessment were 158 (69.3%) and 118 (51.8%) of HHs participated in problem identification. From the study participants who had participated in planning based on the identified and prioritized problem ,decision making ,resource mobilization, and evaluation of the program were 107 (46.9%), 81 (35.5%),145 (63.6%) and 93 (40.8%) respectively (Figure-4).

Figure 4, Type and extent of households participation in HEP, Nefas Silk Lafto Sub- city, Addis Ababa, Ethiopia, March-April, 2015



5.9. Predictors of participation level of households in health extension program

5.9.1. Socio-demographic factors for the participation of households in health extension program

As shown in the table below, important variables which were independently associated with the participation of households in health extension program such as age, educational level, marital status, income level, family size, occupation and ownership of house were identified by bivaraite analysis and P-value ≤0.1 were selected for multivariate analysis. Based on the above analysis age, family size, educational status and estimated family income had showed association with participation level. Households of age between 18 and 28 years were 2.82 times more likely to participate in HEP. Households of age between 29 and 38 years were 2.76 times more likely to participate in HEP. Household's participation was also associated with family size, educational status and income level but multivariate analysis result of p-value≤0.05 considered as significant and it showed that except age the other predictors were not significantly associated with participation level (Table-7).

Table 7, Participation level of HHs in HEP in relation to selected socio-demographic characteristics in Nefas Silk Lafto sub-city, Addis Ababa, March-April, 2015

Variables	Participation level		p-value	COR(95% C.I)	AOR(95% C.I)
	Yes (%)	No (%)			
Age group					
18-28	46(31.7)	49(24.5)	0.003	2.816(1.407-5.639)	3.073(1.160-8.141)**
29-38	58(40)	63(31.5)	0.003	2.762(1.415-5.391)	2.606(1.059-6.415)**
39-48	25(17.2)	40(20)	0.103	1.875(0.881-3.989)	1.890(0.718-4.974)
49+	16(11)	48(24)		1	
Family size					
≤4	90(62.1)	99(49.5)	0.021	1.669(1.08-2.58)	1.318(0.732-2.373)
>4	55(37.9)	101(50.5)		1	
Education status					
Illiterate	22(15.2)	32(16)	0.280	0.665(0.318-1.394)	0.705(0.245-2.023)
Read and write	20(13.8)	28(14)	0.342	0.691(0.323-1.482)	1.248(0.441-3.532)
Primary(1-8)	35(24.1)	61(30.5)	0.077	0.555(0.289-1.065)	0.429(0.173-1.061)
Secondary(9-12)	37(25.5)	49(24.5)	0.351	0.731(0.378-1.412)	0.714(0.313-1.630)
Education above certificate	31(21.4)	30(15)		1	
Income level					
Below 1000 birr	40(27.8)	82(41)	0.071	0.591(0.333-1.047)	0.854(0.389-1.877)
Between 1001-1900 birr	35(24.3)	27(13.5)	0.181	1.569(0.810-3.038)	1.922(0.788-4.685)
Between 1901- 2800 birr	31(21.5)	45(22.5)	0.571	0.834(0.445-1.562)	0.826(0.375-1.821)
Above 2801 birr	38(26.4)	46(23)		1	

** Represented are P-value less than 0.05 and considered as significantly associated with the outcome variable.

5.9.2. Association between households attitude on health extension program and participation level

As indicated in table 8,bivariate analysis was carried out to assess whether there is association between households attitude and participation level in health extension program and it was revealed that households attitude on happiness on the program, benefit of health extension program, households attitude on the increase of their awareness on health, attitude of households on the increase of their health seeking behavior, attitude of households on changes observed after health extension program implementation and satisfaction of services from health extension program were associated with participation level. Households graduated as model families were twice more likely to participate in the program.

Variables associated with participation level of P-value ≤0.1 were adjusted using multivariate analysis. Accordingly, being happy on the program, being benefited from the program, increase of household's awareness on health, increase of households health seeking behavior and being model family were not significantly associated with participation level. Households satisfaction on the health extension program, households who believe there were changes observed after HEP started to be implemented (COR(95% C.I=1.76(1.14-2.72) and 2.74(1.75-4.28), AOR(95% C.I)=21.08(2.32-191.38) and 0.15(0.04-0.54)) were highly associated with participation level in health extension program (Table-8).

Table 8 Participation kevel of HHs in HEP based on their attitude in the health extension program Nefas Silk Lafto sub-city, Addis Ababa, March-April, 2015

Variables	Participation level		p-value	COR(95% C.I)	AOR(95%C.I)
	Yes (%)	No (%)			
Graduated as model family					
Yes	76(52.4)	72(36)	0.002	1.958(1.267 - 3.026)	0.592(0.327-1.070)
No	69(47.6)	128(64)		1	
HHs happy in HEP					
Yes	89(61.4)	90(45)	0.003	1.942(1.257-3.002)	2.794(0.217-35.946)
No	56(38.6)	110(55)		1	
HHs benefited from HEP					
Yes	88(60.7)	83(41.5)	0.000	2.176(1.407-3.366)	0.099(0.007-1.358)
No	57(39.3)	117(58.5)		1	
HEP increased awareness on health information					
Yes	82(56.6)	77(38.5)	0.001	2.079(1.346-3.211)	4.832(0.710-32.862)
No	63(43.4)	123(61.5)		1	
HEP increased health seeking behavior					
Yes	88(60.7)	91(45.5)	0.006	1.849(1.198-2.855)	1.616(0.214-12.185)
No	57(39.3)	109(54.5)		1	
Changes observed after HEP implementation					
Yes	78(54.2)	60(30.2)	0.000	2.738(1.752-4.278)	0.150(0.042-0.539)**
No	66(45.8)	139(69.8)		1	
Satisfaction on HEP					
Yes	87(60)	92(46)	0.010	1.761(1.142-2.716)	21.080(2.322-191.381)**
No	58(40)	108(54)		1	

** Represented are P-value less than 0.05 and considered as significantly associated with the outcome variable.

5.9.3. Association between households attitude on health extension worker and participation level in health extension program

Similar process of computing household attitude variables towards HEW in association with participation level in health extension program was carried out to differentiate predictor from non predictor via bivaraite analysis. Bivaraite analysis revealed attitudes of households on health extension worker communication skill, job competence and job related behaviors like complete explanation of health message during teaching, health extension worker attentiveness and caring of households, health extension worker's ability to teach households in an understandable way, health extension worker's skillfulness and satisfaction of households in health extension worker's service provision were highly significant and associated with participation level in health extension program.

Adjusting variables which have p-value ≤0.1 revealed except HEW's skillfulness and satisfaction of households on health extension worker's service (COR (95% C.I)= 6.40 (3.92-10.45), AOR (95% C.I)=0.11(0.03-0.35), (COR (95% C.I)= 3.87(2.46-6.09) and AOR (95% C.I)=2.67(1.01-7.09)) respectively and other variables were not significantly associated with household's participation level in health extension program (Table-9).

Table 9 Participation level of HHs in HEP based on their attitude in the HEW competence and job related behavior in Nefas Silk Lafto sub-city, Addis Ababa, March-April, 2015.

Variables	Participation level		p-value	COR(95% C.I)	AOR(95%C.I
	Yes%	No%			
HEW give complete explanation during teaching					
Yes	113(77.9)	80(40)	0.000	5.297(3.265-8.593)	0.062(0.006-0.636)**
No	32(22.1)	120(60)		1	
HEW is attentive and caring					
Yes	91(62.8)	78(39)	0.000	2.636(1.697(-4.095)	
No	54(37.2)	122(61)		1	
HEW transfer health messages in an understandable way					
Yes	106(73.1)	77(38.5)	0.000	4.342(2.728-6.909)	
No	39(26.9)	123(61.5)		1	
HEW is skillful					
Yes	114(78.6)	73(36.5)	0.000	6.398(3.918-10.447)	0.108(0.033-0.353)**
No	31(21.4)	127(63.5)		1	
HHs Satisfaction of service by HEW					
Yes	98(67.6)	70(35)	0.000	3.872(2.461-6.092)	2.670(1.005-7.092)**
No	47(32.4)	130(65)		1	

** Represented are P-value less than 0.05 and considered as significantly associated with the outcome variable

6. Discussion

The aim of this study was to assess household's attitude and their participation level in HEP and in this study it was found that household's participation level in HEP is 42%. Households were mainly participating in environmental health activities like making sanitation campaign, contributing money to build liquid waste disposal system (sewerage system) and the like. About 93% of households aware of health extension program.But as it is stated by the National Urban Health Extension Package Implementation Guide Line, let alone not to be aware of the program, it was expected that within three years of implementation all of the households should become graduated as model family and practice HEP packages but the participation of households in the implementation of the program is very low.

Implementations of HEP in Addis Ababa was started 5 years back and only about 42.4% of households responded in this study were graduated as model families. Household graduation status (being model households) had a positive significant association with contraceptive utilization in the community [36]. So, increasing the number of model families increases the utilization of services. It is good that eight in ten and above (86%) of households knew about health extension program which is good to bring households to their full participation in the program. Study on HEP factors, frequency of household visits and being model households, improved utilization of basic health services in Ethiopia and assessment done in Addis Ababa health office in collaboration with Walta Information Media Center on community's suggestion towards HEP package implementation indicated similar result [22, 30]. The knowledge to health extension program is increased may be due to the reason that HHs grouped into groups of 30 as health development army (HDA) in which this 30 HHs grouped into groups of 5 and each group has leader who graduated as model family or those households who have better knowledge on the health extension program become leader of the team and differentiate those households who are not included in the program, those who are pregnant, those who have children not getting vaccination and facilitate environmental activities like prepare sanitation campaign and others, which is not functional in all areas of the city but households have chance to know about HEP and participate in the program via the leader beside HEW.

Households exposure to health extension program packages was high in environmental health packages and eight in ten and above (83.1%) mentioned solid and liquid waste disposal

management package in which study on health extension program factors, frequency of household visits and being model households, improved utilization of basic health services in Ethiopia and new study on Strengthening Ethiopia's Urban Health Program (SEUHP) revealed familiarity of the package(67.2% and 61% respectively [22,34] and the difference may be due to the sampling and other factors. Seven in ten and above (77.4%) of HHs mentioned excreta disposal method package and maternal and child health package 69.1%. Some packages got less attention even though these are serious health problems in urban area such as accident control, insect control, adolescent and reproductive health package, nutrition package (20.2%, 22.6%,32.3%,38.9%) respectively which is similar in the study health extension program factors, frequency of household visits and being model households, improved utilization of basic health services in Ethiopia[22].

The above figures are lower than related study in Hadiya zone towns in exposure to urban health extension environmental health packages [35] which may be due to population living style, societal set up which may include rural areas and other reasons. About 311(90.1%) of the households had positive attitude towards HEWs being female in which the involvement of female HEWs in the program was preferred on the grounds of degree of closeness, easier disclosure of personal problems and cultural norms. This might reflect the fact that most mothers tend to have better relationship with HEWs. Despite, the good interpersonal relationship, HEWs had less acceptance and less trusted in Jimma zone, Ethiopia [21] and study in Hadiya zone town which is almost similar proportion, 373 (90.3%).

In this study about 49.1% of households were not happy in the HEP implementation and this finding is supported by new study on strengthening Ethiopia's urban health extension program 46.1% of households had unfavorable attitudes about solid and liquid waste management and unhappy on the practice in their neighborhood [34] and 49.6% of HHs in this study believe that they were not benefited from the program. About 46.1% of households in this study believed that their awareness about health were not increased after HEP started to implement and 48.1% of HHs believe their health seeking behavior was not changed which has discrepancy to related study in Debretabor town [26] and Addis Ababa health office assessment in collaboration with Walta Information Media Center on community's suggestion on HEP package implementation

showed positive attitude on the benefit of the program two years back and the discrepancy might be due to the time gap which shows HHs attitude increased a lot.

HEP was designed and implemented in recognition of the fact that the major factor underlying the poor health status of the country's population is the lack of empowerment of households and communities to promote health and prevent disease [8] and in line with this, out of 400 HHs responded in this study about 59.8% of households did not believe that there were changes observed after HEP is started to implement in their area compared to the situation before. There were slight changes observed after the implementation of HEP in environmental sanitation but a lot of households are disposing solid and liquid waste here and there and people are urinating to side of the road. This study is supported by new study on Strengthening Ethiopia's Urban Health Program (SEUHP) including Addis Ababa 63.7% and 49.8% of households have poor knowledge on solid waste disposal management and human waste disposal management respectively [34]. Still there were mothers giving birth in their home but it was decreased a lot after the implementation of the program where mothers were connected to health facilities via HEW referral system and give birth in the health institution whose cumulative effect decreased maternal death in the country. About 51.9% of HHs were satisfied by the service provided in the health extension program. This figure is lower than related studies in Hadiya zone and Jimma zone (67.4%, 69.9%) respectively. The difference may be due to variation in societal set up, living style of the people, diversity of the population and other reasons. This study is supported by current study on Strengthening Ethiopia's Urban Health Program (SEUHP) about 44.7% households had unfavorable attitudes about current neighborhood practices in sanitation and FGD participants in Arada sub city in Addis Ababa agreed that most people defecate and urinate openly, even though they have good awareness[34].

HEP in Ethiopia has shown significant positive impacts on the health of communities, in disease prevention, family health, environmental hygiene and sanitation through community participation strategy to change community's norms and values regarding health problem being addressed [18]. Health is a product that can be produced by individuals and it is believed that HEP empowers communities to make informed decisions about their own health by equipping them with appropriate skills and knowledge through successful community mobilization and active community participation [7].Out of the households responded in this study about 42%

participated in the program implementation in different times and means which is very low compared to HSDP 2010-2015 expectation. Household's participation was based on their attitude to the program and those who were satisfied from the program and observing the change after HEP started to implement participated most. There is overwhelming evidence that community participation in the design and implementation of health program and inter-sectoral activities have a significant impact on success and sustainability [11].

Households level of participation in HEP is associated with age of respondents in which HHs with lower age were more likely to participate in HEP. This may help to say lower age households are early adopters and easily understand the importance and benefit of the program and participate in the program than others. HHs attitude in observing the change is significantly associated with participation level. Participation level of HHs were increased in those who observed the change.

In this study 51.9% of households were satisfied by health extension program and 58% of households were not participating in HEP. The related study in Hadiya zone town shown how ever 67.4% of communities were satisfied on overall HEP service, 61.4% of communities were not participating in planning and implementation of HEP. The discrepancy may be due to the difference in expectation of the communities and mobilization skill of HEWs. Households participation in HEP was associated with their satisfaction on the program. Community participates in the community program if community takes ownership and gets benefited from the program [32].

This study showed households level of participation in HEP is associated with HEWs communication skill. HHs were asked whether HEWs were really attentive, appeared to enjoy caring, seemed give complete explanations, appeared to be skillful, explained things in understandable way revealed ranging between 49-55.9% had positive attitude and evaluation cared out by Center for National Health Development in Ethiopia, Columbia University ranged between 82.5 to 91.2% answered these questions positively [14]. The discrepancy is result of evaluation place difference (rural vs urban). Satisfaction of HHs in HEW's service had association with participation level.

7. Strength and Limitation of the study

7.1. Strength of the study

To enhance the quality of the data, data collectors were trained well on data collection technique and followed by the supervisors and principal investigator every time and every day till sample units were obtained.

7.2. Limitation of the study

This study has some limitations which include; the information on the attitude section may not reflect the actual situation that may be observed in the various seasons of the year which could be addressed via studies on the practice of households in HEP and actual utilization of HEP service. The study was employed using interviewer administrated questioner that might result in social desirability bias.

8. Conclusion and recommendations

8.1. Conclusion

The finding of the present study has clearly showed that the majority of the respondents have negative attitude and low participation level in HEP. This is due to household's attitude towards change that the program has brought was very low and their satisfaction on the program was low. The majority of respondents preferred female to deliver HEP services which is good to use their attitude to the implementation of the program. Households' attitude on the technical competence of HEW and communication skill of health extension worker was unfavorable and influence participation in the program.

8.2. Recommendations

This study considered the attitude and participation level of households in HEP services.

- The Nefas Silk Lafto government has to take different measures to bring changes on the implementation of HEP like strengthening the new approach of health development army (HDA) to increase model families and increase visibility of changes by strengthening HEP package practice.
- Increasing household's awareness and health seeking behavior go with the change. Strengthening solid and liquid waste disposal management system and other services like strengthening food, drink, drug and environmental control team in wereda level and increasing public health institution capacity to household's need.
- To increase participation of communities in HEP, health extension workers and other stakeholders in the community has to be equipped with communication skills, mobilization skills and committed to the work. So continuous training has to be given on competency and communication skill to update and increase HEW's level of knowledge.
- Health extension worker's teaching manuals have to be updated with current conditions and information.
- Further study is needed considering the aspect of the actual utilization and the quality of the service provision.

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Annex

Annex-I English Version questionnaire

Questionnaire ID _____

1. Information sheet

Hello, my name is _____I came from Addis Ababa University College of Health Science School of Public Health research team. I would like to ask few questions which take 20 minutes about your attitude and participation level in health extension program implemented in Addis Ababa. Your information that you are going to provide will help policy makers to design strategy based on communities to increase their participation.

Title of the study: Attitude and participation level of households towards health extension program in Addis Ababa, Ethiopia

Benefit of the study: There is no direct benefit for participants for participating in responding to this questionnaire. The result will be disseminated to all stakeholders for designing community based programs.

Risk of the study: participating in the survey has no risk and interview will also be conducted privately to have free feeling in households.

Rights of the participant: Participating or not participating is the survey is the full right of the participants and you can stop participating in the study at any time. And also the participant can skip questions which you do not want to respond. Participants can ask any questions which is not clear for understanding.

Confidentiality: Any information forwarded will be kept private and name will not be specified.

2. Informed consent

I have read this form or it has been read to me in the language I comprehend and understood all conditions stated above. Therefore, I am willing to participate in this study.

Respondent agrees to be interviewed ⇨ continue with survey

Respondent does not agree to be interviewed ⇨ end

Remark: For any inconvenience and problem related to questionnaire please contact principal investigator.

Name of PI – Mesafint Wana

Address: Tell- 0913758030

E-mail: mesafint.wana@yahoo.com

Household survey identification

Complete the information below for all households interviewed.

Wereda no.....

Cluster no.....

House no.....

Interviewer visits	1	2	3	Final visit
Date [dd/mm/yyyy]				
Interviewer's Name				
Result				
Next visit: (If survey not completed on date of first visit)				

Results Codes

1 = Completed 4 = Partially Completed

2 = Not at Home 5 = Refused

3 = Postponed 6 = Not Eligible

Section 1

1. Socio-demographic characteristics of household head

S.NO	Questions	Responses	Code	Skip to-
101	Sex	Male ---------- 1 Female---------- 2		
102	Age	--------years		
103	Family size(in number)	--------		
104	Religion?	Orthodox---------- 1 Protestant---------- 2 Catholic ---------- 3 Muslim ---------- 4 Others ---------- 5; specify----------		
105	Marital status?	Married ---------- 1 Single---------- 2 Divorced ---------- 3 Widowed---------- 4 Separated---------- 5		
106	Educational status?	Unable to read and write---------- 1 Read and write---------- - 2 Primary school (1-8)---------- 3 Secondary school (9-12)---------- - 4 Certificate---------- 5 Diploma---------- -6 Degree and above---------- 7		
107	Occupation?	Housewife---------- 1 Private employed ---------- 2 Government employed----------3 NGO employed----------4 Other----------5, specify……..		
108	Estimated monthly Income of household?	_____(in birr)		
109	Is this residential house yours?	Yes (my Own)----------1 No (rental) ---------- 2		

Section 2

2. Concerning households awareness and attitude towards health extension program

S.no	Questions	Responses	Code	skip
201	Have you heard about the health extension program?	Yes No	1 2	
202	If yes, where did you hear from?			
	TV/Radio	Yes No	1 2	
	News paper	Yes No	1 2	
	Private health professional	Yes No	1 2	
	Health extension worker	Yes No	1 2	
	Other specify	Yes No	1 2	
203	Do you Know about the health extension program?	Yes No	1 2	
204	If yes, Which packages are provided by health extension program?**(Multiple Responses are Possible)**			
	Maternal and child health package	Yes No	1 2	
	Family planning package	Yes No	1 2	
	Nutrition package	Yes No	1 2	
	Immunization package	Yes No	1 2	

S.no	Questions	Responses	Code	skip
	Adolescent reproductive health package	Yes No	1 2	
	Toilet handling and excreta disposal package	Yes No	1 2	
	Solid and liquid waste disposal package	Yes No	1 2	
	Water supply and safety measures package	Yes No	1 2	
	Food hygiene and safety measures package	Yes No	1 2	
	Healthy home environment package	Yes No	1 2	
	Control of insects and rodents package	Yes No	1 2	
	Personal hygiene package	Yes No	1 2	
	HIV/AIDS, (STIs) and TB prevention and control package	Yes No	1 2	
	Non-communicable disease package	Yes No	1 2	
	First Aid emergency measures package	Yes No	1 2	
205	Are you happy in HEP implementation?	Yes No	1 2	
206	Do you think that you benefited from HEP implementation?	Yes No	1 2	
207	How did HEP address your health			
	All my health information need addressed	Yes No	1 2	

S.no	Questions	Responses	Code	skip
	Most of my health information needs are addressed	Yes No	1 2	
	Only some of my health information needs are addressed	Yes No	1 2	
	None of my health information needs	Yes	1	
	Don't know	Yes	1	
208	Did HEP increase your awareness about health?	Yes No	1 2	
209	Did HEP increase your health seeking behavior after its implementation?	Yes No	1 2	
210	Do you believe that there are changes observed after HEP packages started to implement?	Yes No	1 2 →	212
211	If yes, in which services do you believe is the change?			
	Maternal and child health package	Yes No	1 2	
	Family planning package	Yes No	1 2	
	Nutrition package	Yes No	1 2	
	Immunization package	Yes No	1 2	
	Adolescent reproductive health package	Yes No	1 2	
	Toilet handling and excreta disposal package	Yes No	1 2	
	Solid and liquid waste disposal package	Yes No	1 2	

S.no	Questions	Responses	Code	skip
	Water supply and safety measures package	Yes No	1 2	
	Food hygiene and safety measures package	Yes No	1 2	
	Healthy home environment package	Yes No	1 2	
	Control of insects and rodents package	Yes No	1 2	
	Personal hygiene package	Yes No	1 2	
	HIV/AIDS, (STIs) and TB prevention and control package	Yes No	1 2	
	Non-communicable disease package	Yes No	1 2	
	First Aid emergency measures package	Yes No	1 2	
212	Are you satisfied with the services provided by the health extension program?	Yes No	1 2	
213	If not satisfied, why are you not satisfied?	Yes No	1 2	
214	Are you graduated as model family?	Yes No	1 2 →	301
215	If yes, how often does health extension worker support you?	Yes No	1 2	
	Weekly	Yes No	1 2	
	Twice a month	Yes No	1 2	

S.no	Questions	Responses	Code	skip
	Monthly	Yes No	1 2	
	Quarterly	Yes No	1 2	
	Twice in a year	Yes No	1 2	
	Once in a year	Yes No	1 2	
	Do not support	Yes No	1 2	

Section 3

3. Health extension workers competence and job related behavior

S.NO	Questions	Responses	Code	Skip
301	Was there any one who had fever or diarrhea during the last 6 months in this house?	Yes No	1 2	 →305
302	If yes, where did you take him/her to consult for the health problem?			
	Health extension worker	Yes No	1 2	
	Health center professional	Yes No	1 2	
	Hospital professional	Yes No	1 2	
	Private clinic or pharmacy	Yes No	1 2	
	Traditional healer	Yes No	1 2	
	Religion ('Tebel')	Yes No	1 2	
	Other Specify	Yes No	1 2	
303	If the answer to the above question is HEW, does HEW provide referral services to health centers if there is health problem?	Yes No	1 2	 →305
304	If yes, does HEW follow based on the referral result?	Yes No	1 2	
305	Do you feel good on health extension worker being female?	Yes No	1 2	
306	Does HEW give you a complete explanation about what she teaches?	Yes No	1 2	
307	Do you think that HEW is attentive and caring?	Yes No	1 2	

308	Is HEW able to transfer health messages in an understandable way?	Yes No	1 2	
309	Do you believe that HEW is skillful?	Yes No	1 2	
310	How do you rate HEW skill to diagnose community health problems?	Very good Good Fair Poor Very poor	1 2 3 4 5	
311	Does HEW respect your culture?	Yes No	1 2	
312	Does HEW make discussions on the health problem?	Yes No	1 2	
313	How can you evaluate health extension worker's social interaction?	Very good Good Fair Poor Very poor	1 2 3 4 5	
314	Are you satisfied with the services provided by health extension worker?	Yes No	1 2	
315	If not satisfied, why are you not satisfied?	1. 2. 3.		
316	How do you rate the availability of HEW on her job? How do you rate the quality of services provided by the health extension worker?	Always occasionally Rarely Have not seen	1 2 3 4	
317	How do you rate the quality of services provided by the health extension worker?	Very good Good Fair Poor Very poor	1 2 3 4 5	

Section 4

4. Concerning households participation level in health extension program

S.NO	Questions	Responses	Code	Skip to-
401	Did you participate in health extension program?	Yes No	1 2 →	404
402	If yes, in which participation means did you participate?			
	In need assessment during HEP design	Yes No	1 2	
	In identifying the health problem and prioritizing	Yes No	1 2	
	In planning process to solve the identified health problem with health extension worker?	Yes No	1 2	
	In decision making regarding HEP implementation?	Yes No	1 2	
	In the evaluation of HEP at the end of the year?	Yes No	1 2	
	In resource mobilization to support HEP implementation?	Yes No	1 2 →	404
403	If participated in resource mobilization, on what was your participation?			
	Contributing labor	Yes No	1 2	
	Contributing money	Yes No	1 2	
	Contributing Knowledge	Yes No	1 2	
	Contributing materials	Yes No	1 2	
	Other specify----------	Yes No	1 2	
404	Why you did not participate in health extension program?			
	Due to the work condition	Yes No	1 2	
	Don't think that HEW workers are helpful to me	Yes No	1 2	
	Don't know what services HEW provide	Yes No	1 2	
	Have family health professional	Yes No	1 2	
	Other specify_	Yes No	1 2	

Annex II Amharic Version Questionnaire

የአማርኛ ትርጉም መጠይቅ

የመጠይቁ መለያ ቁጥር _____

ጤና ይስጥልኝ ስሜ _____ ይባላል፡፡ እኔ የመጣሁት ከአዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ ከህብረተሰብ ጤና ትምህርት ቤት ከጥናት ክፍል ነው፡፡ አሁን ሊጠይቆት የሚፈልገው ለ20 ደቂቃ የሚያቆይ በጤና ኤክስቴንሽን ፕሮግራም ዙሪያ ያለዎት አመለካከት እና የተሳትፎ ደረጃ ለማወቅ ነው፡፡ የሚሰጡት መረጃ ፖ`ልሲ አውጭዎች በህብረተሰብ ዉስጥ ለሚሰሩ ፕሮግራሞች የተሻለ ግንዛቤ እንዲኖራቸዉና ለማሰተካከል የሚረዳ ነዉ፡፡

የጥናቱ ርዕስ

በአዲስ አበባ ከተማ ውስጥ እየተፈፀመ በላዉ ጤና ኤክስቴንሽን ፕሮግራም ዙሪያ ቤተሰቦች ያላቸዉ አመለካከት እና የተሳትፎ ደረጃቸዉን ለማጥናት ነዉ፡፡

ከጥናቱ የሚገኝ ጥቅም

ቤተሰቦች ይህን መጠይቅ በመመለስ ስለተሳተፉ ቀጥተኛ የሆነ ጥቅም አያገኙም፡፡ሆኖም የዚህ ጥናት ውጤት ለሚመለከታቸው አካላት ሁሉ የሚሰራጭ በመሆኑ በቀጣይ እየተተገበረ ባለዉ ጤና ኤክስቴንሽን ፕሮግራም ዉጤታማነት ከፍተኛ ሚና የሚጫወት በመሆኑ በተዘዋዋሪ ተጠቃሚ ይሆናሉ፡፡

በጥናቱ የመሳተፍ ስጋት

ቤተሰቦች ይህንን መጠይቅ በመመለስ የሚደርስ ምንም አይነት ጉዳት የሌለ ሲሆን የቤተሰቦች ግላዊ መረጃ ለማንም አይገለጽም፡፡

በጥናቱ ተሳታፊ ቤተሰቦች መብት

በዚህ ጥናት መሳተፍ እና አለመሳተፍ ቤተሰቦች ሙሉ መብት አላቸዉ፡፡ ከዚህ ባሻገር ለመመለስ የማይፈልጉት ጥያቄ መዝለልም ሆነ ከጥናቱ ሙሉ በሙሉ መተው ይችላሉ፡፡ በተጨማሪ ያልገባው እና የተጠራጠረቡት ጥያቄ ካለ የጥናቱ አስተባባሪውን መጠየቅ ይችላሉ፡፡

ምስጢራዊነት

በዚህ መጠየቅ የተሰጠው መረጃ መስጥራዊነቱ የተጠበቀ ሲሆን የቤተሰቦች ስም በፍፁም አይገለፅም፡፡

ስምምነት

ከላይ የተፃፈውን መረጃ እኔ በሚችለው ቋንቋ ስለተገለፀ ሁሉንም በማንበብ/ተነቦ ተረድቻለሁ፡፡ ስለሆነም በጥናቱ ለመሳተፍ ፈቃደኛ ነኝ፡፡

ተጠያቂዉ ለመጠየቅ ፈቃደኛ ከሆነ ⇨ ጥያቄዉን ቀጥል

ተጠያቂዉ ለመጠየቅ ፈቃደኛ ካልሆነ ⇨ መጠይቁን ማቆም

ማሳሰቢያ፡- ያልገባዎት ወይም ጥያቄ የሆነበዎት ነገር ካለ የጥናቱ ዋና አጥኝዉን መጠየቅ ይችላሉ፡፡

የጥናቱ ዋና አጥኚ መሳፍንት ዋና ዋባሎ

አድራሻ ስልክ 0913758030 ኢ-ሜይል mesafint.wana@yahoo.com

የቤተሰብ ሁኔታ መለያ

ቀጥሎ ያለውን መረጃ ይምሉ፣

ወረዳ ----------

የቀጠና ቁጥር----------

የቤት ቁጥር----------

የቃለ-መጠይቅ ጉብኝት	1	2	3	የመጨረሻ ጉብኝት
ቀን/ወር/ዓመት				
የጠያቂ ስም				
ዉጤት				
ሁለተኛ ጉብኝት፡፡ (ዳሳሳው ለመጀመርያው ቀን ካልተጠናቀቀ)				

<u>የውጤቶች ኮድ</u>

ተጠናቋል 1

ቤት የሉም 2

የጉብኝት ቀን ተላልፏል 3

በግማሽ ተጠናቋል 4

ፈቃደኛ አልሆኑም 5

ለጥናቱ ብቁ አይደሉም 6

ክፍል I

1. <u>የህብረተሰቡ ጠቅላላ ሁኔታ</u>

ተ.ቁ	ጥያቄ	መልስ	ኮድ	ወደ--እለፍ
101	ፆታ?	ወንድ---------- 1 ሴት---------- 2		
102	ዕድሜ?	---------ዓመት		
103	የቤተሰብ ብዛት(በቁጥር)	---------		
104	ሀይማኖት?	ኦርቶዶክስ ----------1 ፕሮተስታንት---------- 2 የካቶሊክ ---------- 3 ሙስሊም---------- 4 ሌሎች ----------5		
105	የጋብቻ ሁኔታ?	ያገባ ---------- ---------- 1 ያላገባ---------- 2 የተፋታ/ች---------- 3 የሞተበት/ባት---------- 4 የተለያየ/ች---------- 5		
106	የትምህርት ደረጃ?	መጻፍና ማንበብ የማይችል---------- 1 መጻፍና ማንበብ የሚችል---------- 2 የመጀመሪያ ደረጃ (1-8) ---------- 3 ሁለተኛ ደረጃ (9-12)---------- 4 ሰርተፍከት ---------- 5 ድፕሎማ ---------- 6 ድግሪ እና በላይ----------7		
107	የሰራ ሁኔታ?	የቤት እመቤት---------- 1 የግል ስራ---------- 2 መንግስት ሰራ---------- 3 መንግስታዊ ያልሆነ ድርጅት ስራ---------- 4 ሌላ---------- 5 ,ይገለፅ----------		
108	ግምታዊ የቤተሰብ የወር ገቢ ምን ያክል ነዉ?	----------ብር		
109	መኖሪያ ቤቱ የራስ ነዉ?	አዎ---------- 1 አይደለም ---------- 2		

ክፍል 2

2. በጤና ኤክስቴንሽን ፕሮግራም ዙሪያ የህብረተሰቡ ግንዛቤና አመለካከት

ተ.ቁ	ጥያቄዎች	መልስ	ኮድ	እለፍ
201	ስለጤና ኤክስቴንሽን ፕሮግራም ሰምተዉ ያዉቃሉ?	አዎ አይ	1 2	
202	መልሱ አዎ ከሆነ ከየት ነዉ የሰሙት?			
	ከቴለቭዥንና ረዲዮ	አዎ አይ	1 2	
	ከጋዜጣ	አዎ አይ	1 2	
	ከግል ጤና ባለሙያ	አዎ አይ	1 2	
	ከጤና ኤክስቴንሽን ባለሙያዋ	አዎ አይ	1 2	
	ከሌላ ይገለፅ	አዎ አይ	1 2	
203	ስለጤና ኤክስቴንሽን ፕሮግራም ያዉቃሉ?	አዎ አይ	1 2	
204	መልሱ አዎ ከሆነ የተኞቹ ፓኬጆች ናቸዉ በዋናነት በጤና ኤክስቴንሽን ፕሮግራም የሚሰጡት?			
	የእናቶችና ህፃናት ጤና ፓኬጅ	አዎ አይ	1 2	
	በተሴብ ምጣኔ ፓኬጅ	አዎ አይ	1 2	
	ስነ-ምግብ ፓኬጅ	አዎ አይ	1 2	
	በክትባት ፓኬጅ	አዎ አይ	1 2	
	የወጣቶች ስነ-ተዋልዶ ጤና ፓኬጅ	አዎ አይ	1 2	
	የመፀዳጃ ቤት ንፅህና አያያዝ ፓኬጅ	አዎ አይ	1 2	
	የደረቅና ፍሳሽ ቆሻሻ አወጋገድ ፓኬጅ	አዎ አይ	1 2	
	የወታ ንፅህናና አያያዝ ፓኬጅ	አዎ አይ	1 2	
	የምግብ ንፅህናና ፓኬጅ	አዎ አይ	1 2	
	የቤት ንፅህናና አያያዝ ፓኬጅ	አዎ አይ	1 2	
	ነፍሳት ቁጥጥር ፓኬጅ	አዎ አይ	1 2	
	የግል ንፅህና ፓኬጅ	አዎ አይ	1 2	
	በHIV/AIDS ፣(በግብረ-ስጋ ግኑኝነት የሚመጡ በሽታዎችን መከላከልና መቆጣጠር ፓኬጅ	አዎ	1	

		አይ	2	
	ተላላፊ ያልሆኑ በሽታዎች ቁጥጥር ፓኬጅ	አዎ አይ	1 2	
	የመጀመሪያ ህክምና እርዳታ አሰጣጥ ፓኬጅ	አዎ አይ	1 2	
205	በጤና ኤክስቴንሽን ፕሮግራም አፈፃፀም ደስተኛ ነዎት?	አዎ አይ	1 2	
206	ከጤና ኤክስቴንሽን ፕሮግራም ተጠቃሚ ነኝ ብለዉ ያስባሉ?	አዎ አይ	1 2	
207	ጤና ኤክስቴንሽን ፕሮግራም የጤና ፍላጎትን ከመዳሰስ አኳያ እንዴት ያያሉ?			
	ሁሉም ጤና ጉዳዮቼን ለመዳሰስ ሞክረዋል	አዎ አይ	1 2	
	በብዛት ፍልጎቶቼን ለመዳሰስ ሞክረዋል	አዎ አይ	1 2	
	በጣም የተወሰኑትን ነዉ ለመዳሰስ የሞከረዉ	አዎ አይ	1 2	
	ምንም	አዎ	1	
	ምንም አላዉቅም	አዎ	1	
208	ጤና ኤክስቴንሽን ፕሮግራም የጤና ግንዛቤዎን ደረጃ አሳድገዋል?	አዎ አይ	1 2	
209	ጤና ኤክስቴንሽን ፕሮግራም በጤናማነት ህይዎት እንዲኖሩ አድርጎታል?	አዎ አይ	1 2	
2010	ጤና ኤክስቴንሽን ፕሮግራም ፓኬጆች ተፈፃሚ ከሆኑ በኃላ ለዉጦች ታይቷል ብለዉ ያምናሉ?	አዎ አይ	1 2 →	212
211	መልሱ አዎ ከሆነ፣ በየተኞቹ አገልግሎቶች ለዉጡ ታይቷል ብሎ ያምናሉ?			
	የእናቶችና ህፃናት ጤና ፓኬጅ	አዎ አይ	1 2	
	በተሴብ ምጣኔ ፓኬጅ	አዎ አይ	1 2	
	በስነ-ምግብ ፓኬጅ	አዎ አይ	1 2	
	በክትባት ፓኬጅ	አዎ አይ	1 2	
	በወጣቶች ስነ-ተዋልዶ ጤና ፓኬጅ	አዎ አይ	1 2	
	በመፀዳጃ ቤት ንፅህናና አያያዝ ፓኬጅ	አዎ አይ	1 2	
	በደረቅና ፍሳሽ ቆሻሻ አወጋገድ ፓኬጅ	አዎ አይ	1 2	
	በወፃ ንፅና ፓኬጅ	አዎ አይ	1 2	
	በምግብ ንፅህና ፓኬጅ	አዎ አይ	1 2	
	በቤት ንፅህና ፓኬጅ	አዎ አይ	1 2	

	ነፍሳት ቁጥጥር ፓኬጅ	አዎ አይ	1 2	
	በግል ንፅህና ዙሪያ ፓኬጅ	አዎ አይ	1 2	
	በHIV/AIDS ፣(በግብረ-ስጋ ግኑኝነት የሚመጡ በሽታዎችን መከላከልና መቆጣጠር ፓኬጅ	አዎ አይ	1 2	
	ተላላፊ ያልሆኑ በሽታዎች ቁጥጥር ፓኬጅ	አዎ አይ	1 2	
	የመጀመሪያ ህክምና እርዳታ አሰጣጥ ፓኬጅ	አዎ አይ	1 2	
212	በአጠቃላይ በጤና ኤክስቴንሽ ፕሮግራም በሚሰጡ አገልግሎቶች ረክቷል?	አዎ አይ	1 2	
213	መልሱ አይ ከሆነ ምክንያቱ ምንድ ነዉ?	1. 2. 3.		
214	ሞዴል ቤተሰብ ተብሎ ተመሪቋል?	አዎ አይ	1 2 →	301
215	መልሱ አዎ ከሆነ፣በምን ያክል ጊዜ ነዉ ጤና ኤክስቴንሽን ባለሙያዋ ድጋፍ የሚታደርገዉ?			
	በየሳመንቱ	አዎ አይ	1 2	
	በወር ሁለት ጊዜ	አዎ አይ	1 2	
	በየወሩ	አዎ አይ	1 2	
	በ3 ወር አንዴ	አዎ አይ	1 2	
	በዓመት ሁለት ጊዜ	አዎ አይ	1 2	
	በዓመት አንዴ	አዎ አይ	1 2	
	ምንም ድጋፍ አድርጋ አታቅም	አዎ አይ	1 2	

ክፍል 3

3 የጤና ኤክስቴንሽን ባለሙያዎች ብቃት እና የሥራ ባህሪ

ተ.ቁ	ጥያቄ	መልስ	ኮድ	እለፍ
301	ከ6 ወር በፊት ከቤተሰብዎ ተቅማጥና ተኩሳት የያዘዉ ሰዉ ነበረ?	አዎ አይ	1 2 →	305
302	መልሰዎ አዎ ከሆነ, በመጀመሪያ ደረጃ ያማከሩት ማንን ነዉ?			
	ጤና ኤክስቴንሽን ባለሙያ	አዎ አይ	1 2	
	የጤና ጣቢያ ባለሙያ	አዎ አይ	1 2	
	ሆስፒታል ባለሙያ	አዎ አይ	1 2	
	የግል ክሊንክ/ ፋርማሲ ባለሙያ	አዎ አይ	1 2	
	ባህላዊ ህምና ባለሙያ	አዎ አይ	1 2	
	የሀይማኖት አባት (ጠበል)	አዎ አይ	1 2	
	ሌላ ይገለፅ	አዎ አይ	1 2	
303	መልሱ ጤና ኤክስቴንሽን ባለሙያዋ ከሆነ፣ ጤና ኤክስቴንሽን ባለሙያዋ የጤና ችግር ካገኘች በኃላ ወደ ጤና ጣቢያ ትይልካለች?	አዎ አይ	1 2 →	305
304	መልሱ አዎ ከሆነ ጤና ኤክስቴንሽን ባለሙያዋ በሪፈራሉ መሰረት ክትትል ታደርጋለች?	አዎ አይ	1 2	
305	ጤና ኤክስቴንሽን ባለሙያዋ ሴት በመሆነዋ ጥሩ ስሜት ይሰማዎታል?	አዎ አይ	1 2	
306	ጤና ኤክስቴንሽን ባለሙያዋ በሚታስተምርበት ወቅት በጥሩ ሁኔታ ገለፃ ታደርጋለች?	አዎ አይ	1 2	
307	ጤና ኤክስቴንሽን ባለሙያዋ የሚትሰጠዉ አገልግሎት ጠቃሚና በጥሩ ሆኔታ ትንከባከባለች ?	አዎ አይ	1 2	
308	ጤና ኤክስቴንሽን ባለሙያዋ ስታስተምር በሚገባ ሁኔታ ነዉ ብሎ ያምናሉ?	አዎ አይ	1 2	
309	ጤና ኤክስቴንሽን ባለሙያዋ ክህሎት አላት ብሎ ያምናሉ?	አዎ አይ	1 2	
310	የጤና ኤክስቴንሽን በላሙያዋ የማህበረሰብ ጤና ችግሮችን የማቃለል ክህሎት እንዴት ያዩታል?	በጣም ጥሩ ጥሩ ምንም አይልም ደካማ በጣም ደካማ	1 2 3 4 5	
311	የጤና ኤክስቴንሽን ባለሙያዋ ስታስተምር ባህልን ለመጠበቅ ትጥራለች ?	አዎ አይ	1 2	
312	ጤና ኤክስቴንሽን ባለሙያዋ ችግሮችን በመለየት ሂደት ዉይይት ታካህዳለች?	አዎ አይ	1 2	
313	የጤና ኤክስቴንሽን ባለሙያዋን ማህበራዊ ሁኔታ እንዴት ያዩታል?	በጣም ጥሩ ጥሩ ምንም አይልም ደካማ በጣም ደካማ	1 2 3 4 5	

314	ጤና ኤክስቴንሽን ባለሙያዋ በሚትሰጠዉ አገልግሎት ረክቷል?	አዎ አይ	1 2	
315	ካልረኩ ምንድነዉ ምክንያት?	1. 2. 3.		
316	መቼ መቼ ነዉ ጤና ኤክስተንሽን ባለሙያዋ በስራ ገበታቸዉ የሚገኙት?	ሁሌ	1	
		በአጋጣሚ	2	
		እንዳንዴ	3	
		አይቼ አላቅም	4	
317	የጤና ኤክስተንሽን ባለሙያዋ የአገልግሎት ጥራት እንዴት ያዩታል ?	በጣም ጥሩ	1	
		ጥሩ	2	
		ምንም አይልም	3	
		ደካማ	4	
		በጣም ደካማ	5	

ክፍል 4

የህብረተሰቡ የተሳትፎ ደረጃ

ተ.ቁ	ጥያቄ	መልስ	ኮድ	ወደ---እለፍ
401	በጤና ኤክስቴንሽን ፕሮግራም አፈፃፀም ሂደት ተሳትፈዉ ያዉቃሉ?	አዎ አይ	1 2 →	404
402	መልሰዎ አዎ ከሆነ በምን በምን ላይ ነዉ የተሳተፉት?			
	በጤና ኤክስቴንሽን ፕሮግራም ፍላጎት ዳሰሳ ጊዜ ተሳትፈዉ ያዉቃሉ?	አዎ አይ	1 2	
	በጤና ኤክስቴንሽን ፕሮግራም የጤና ችግሮችን በመለየትና በደረጃ በማስቀጠመጥ ሂደት ተሳትፈዉ ያዉቃሉ?	አዎ አይ	1 2	
	በጤና ኤክስቴንሽን ፕሮግራም የጤና ችግሮችን ለመፍታት በሚደረገዉ ዕቅድ በማዘጋጀት ሂደት ላይ ተሳትፈዉ ያዉቃሉ?	አዎ አይ	1 2	
	በጤና ኤክስቴንሽን ፕሮግራም አፈፃፀም ዙሪያ በወሳኔ ሰጪነት ሂደት ላይ ተሳትፎ ያዉቃሉ?	አዎ አይ	1 2	
	በጤና ኤክስቴንሽን ፕሮግራም አፈፃፀም ግምገማ ሂደት ተሳትፈዉ ያዉቃሉ?	አዎ አይ	1 2	
	ለጤና ኤክስቴንሽን ፕሮግራም የሚያስፈልጉ ግብዓቶችን ከማሰባሰብ እና ከማቅረብ ረገድ ተሳትፈዉ ያዉቃሉ?	አዎ አይ	1 2 →	404
403	መልሱ አዎ ከሆነ በምን በምን ተሳትፈዉ ያዉቃሉ?			
	በጉልበት	አዎ አይ	1 2	
	በገንዘብ	አዎ አይ	1 2	
	በእዉቀት	አዎ አይ	1 2	
	በቁሳቁስ	አዎ አይ	1 2	
	በሌላ ,ይገለፅ----------	አዎ አይ	1 2	
404	ተሳትፈዉ ካልሆነ ምንድ ነዉ ምክንያቱ?			
	በስራ ሁኔታ ምክንያት	1		
	ፕሮግራሙ ጠቃሚ መስሎ ስላልታየኝ	2		
	ጤና ኤክስተንሽን ባለሙያዋ የሚሰጠዉን አገልግሎት ለይቼ ስለማላዉቅ	3		
	የራሴ የግል ጤና ባለሙያ ስላለኝ	4		
	ሌላ ይገለፅ	5		

Letter of Declaration

I undersigned here declare that this is my original work and to my knowledge, has never been presented in this or other university or other part of the country, and that all the references and materials used for thesis, have been fully acknowledged.

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Signature:- .....

Place Addis Ababa, Ethiopia

Date of Submission.....

This thesis has been submitted for examination for our approval as university advisor.

Name:- Ababi Zergaw (PhD) Signature:- .....

Robel Yirgu (MPH) Signature:- .....

Assurance of Principal Investigator

I under signed here agrees to accept responsibility for scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and condition of the research I will communicate to my advisor and other stakeholders involved in the this research publication offices in effect at the time of grant is forwarded as the result of this application.

Name of the student: Mesafint Wana

Signature---------- Date----------=

Approval of primary advisor

Name of the primary advisor: Ababi Zergaw (PhD)

Signature ---------- Date----------