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

Mesafint Wana^{1,4*}, Atinafu Nega² and Kassahun Tafesse Hidoto³

¹Department of Nursing, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia

²School of Nursing, College of Health Sciences and Medicine, Wolaita Sodo University, Sodo, Ethiopia

³School of Public Health, College of Health Sciences and Medicine, Wolaita Sodo University, Sodo, Ethiopia

Mesafint Wana

⁴Wolaita Sodo University, Department of Nursing, Kassahun Tafesse

*Corresponding author

Abstract

Health extension program (HEP) is an innovative community based strategy to deliver preventive and promotive services. It brings community participation through creation of behavioral change. It also improves the utilization of health services by bridging the gap between the community and health facilities. The aim of this study is assessing attitude and participation level of households towards health extension program in Nefas Silk Lafto Sub-city, Addis Ababa, Ethiopia. Community based cross-sectional study design was used with the sample size of 423 households were included by using systematic sampling method. 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. Participation level of households in health extension program was 42% (95% C.I= 0.37-0.47). The attitude of households (HHs) on the change HEP implementation brought; satisfaction on HEP services; communication skill of HEWs; believing HEWs skillful and satisfaction on HEWs 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. Participation level of households in health extension program is low. The level participation is associated with attitude on the change HEP implementation brought; satisfaction on HEP services; communication skill of HEWs; believing HEWs skillful and satisfaction of on HEWs service provision. Strong advocacy on HEP and continuous improvement of HEWs capacity is important.

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Introduction

Many low-income countries in Sub-Saharan Africa and others suffer from shortage of health services. Like any low-income countries; Ethiopia experiences a heavy

burden of disease mainly attributed to communicable diseases and nutritional deficiencies. The country ranked second as most populous nation in Africa with estimated population of 94 million; of which more than 85% live rural areas (1).

The government of Ethiopia adapted the rural HEP for the urban setting since 2009. Although the government is trying to solve urban health problems through urban health extension program (UHEP), there are major issues like waste management practices that are poorly addressed and affect urban communities health in which only 14% urban population has access to an improved toilet facility in the country(1).

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 (2-3).

Households are organized in to health development army (HDA) for participatory learning and action meetings to actively engage community in health extension program (4).The desired result of the program is a community practicing through awareness creation, behavioral change, community organization and mobilization and producing good health being (3).

Materials and Methods

Study area, design and period

Community based cross-sectional study design was used to assess household participation level in Nefas Silk Lafto sub-city, Addis Ababa, Ethiopia. Using single population proportion formula assumptions of 50% proportion, 5% marginal error 95% confidence interval and considering 10% non-response rate the final sample size was determined to be 423 households.

Study population and sampling technique

The Nefas Silk Lafto sub-city has 12 Woredas/districts where there were about 139 kebeles. Four Woreda were selected by lottery method and total sample size was distributed proportionate to each Woreda. The respondents from each Woreda were selected by SRS method. First HEWs selected and then households under the health extension worker were included into the study.

Data collection method and quality control

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.

Data quality management

To control the data in quality; data collectors were trained prior to data collection and regular supervision were done during the field work. Close supervision of data collection was done by supervisors and principal investigator. All filled questionnaires were reviewed at the end of the day by the supervisor and investigator.

Data processing and analysis

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.

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 (ERCAAU127/05 issued on date 12/06/2013). The letter obtained from Addis Ababa University was submitted to the sub city and the respective Kebele. 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. Then written consent was obtained from each respondent.

Operational definitions

Attitude: is 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: the extent to which households were working in collaboration with and through group to support HEP implementation in different means.

Results and Discussions

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 respondents, majority 303 (75.7%) were married, whereas 49(12.3%) single and 48(12%) either widowed or divorced. The mean family size of the household was 4.45. Majority of the 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. One hundred fifty one (37.8%) of households were with estimated monthly income of below 1000 birr (Table 1).

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 source.

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.

Households' attitude 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 2).

Households' attitude 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 3).

Households' attitude 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 4).

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%).

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 1).

Predictors of participation level of households in health extension program

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 bivariate 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 6).

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 6).

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 bivariate analysis. Bivariate 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 6).

Annex 1 List of Tables and figure

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

Variables	Number	percent
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
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 1001 and 1900	70	17.5
Between 1901 and 2800	83	20.8
Above 2801	96	24

Table.2 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		
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		
All my health information needs	66	16.5
Most my health information	84	21.1
Only some of my health	78	19.5
None of my health information	122	30.6
Don't know	49	12.3
HEP increased awareness about		
Yes	159	53.9
No	186	46.1
HEP increased health seeking		
Yes	179	51.9
No	166	48.1
Changes observed after HEP		
Yes	138	40.2
No	205	59.8
HHs satisfied with the services		
Yes	179	51.9
No	166	48.1

Table.3 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

Table.4 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

Table.5 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)	0.248(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					
Below1000 birr	40(27.8)	82(41)	0.071	0.591(0.333-1.047)	0.854(0.389-1.877)
Between1001-1900 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)
Above2801 birr	38(26.4)	46(23)		1	

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

Table.6 Association of Participation level of HHs in HEP based on their attitude in the health extension program Nefas Silk Lafto sub-city, Addis Ababa, March-April, 2015

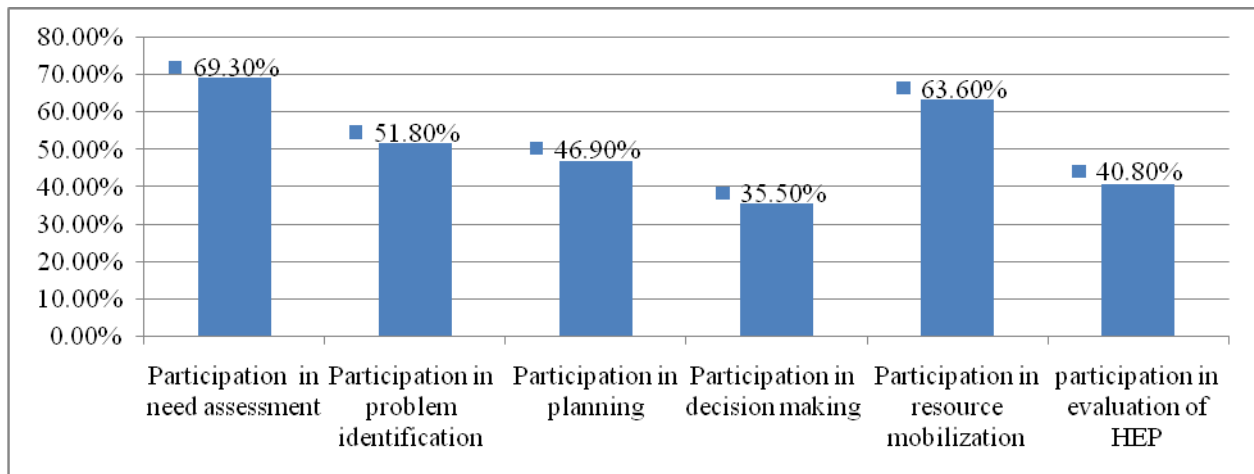
Variables	Participation level		p-value	COR(95% C.I)	AOR(95%C.I)
	Yes (%)	No (%)			
Graduated as model family					
Yes	76(52.4)	72(36)	0.002	1.958(1.267 - 3.026)	0.592(0.327-1.070)
No	69(47.6)	128(64)		1	
HHs happy in HEP					
Yes	89(61.4)	90(45)	0.003	1.942(1.257-3.002)	2.794(0.217-35.946)
No	56(38.6)	110(55)		1	
HHs benefited from HEP					
Yes	88(60.7)	83(41.5)	0.000	2.176(1.407-3.366)	1.099(0.507-1.358)
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.

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

Figure.1 Type and extent of household’s participation in HEP, Nefas Silk Lafto Sub- city, Addis Ababa, Ethiopia, March-April, 2015



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. 93% of households are 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 (5). 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 (6).

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 (6,7) 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 (6).

The above figures are lower than related study in Hadiya zone towns in exposure to urban health extension environmental health packages (8) 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 [9] 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 (7) 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 Debre Tabor town (10) 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 (11) 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 (7).

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 HH's 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 (7).

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 (12). 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 (10). 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 intersectorial activities have a significant impact on success and sustainability (12).

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 was 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 (14).

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. The discrepancy is result of evaluation place difference (rural vs. urban). Satisfaction of HHs in HEW's service had association with participation level (14).

Conclusion and Recommendation are as follows:

Participation level of households in health extension program is low. The level participation is associated with attitude on the change HEP implementation brought; satisfaction on HEP services; communication skill of HEWs; believing HEWs skillful and satisfaction of on HEWs service provision. Strong advocacy on HEP and continuous improvement of HEWs capacity is important.

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Contribution of the authors – all authors actively participated from the concept generation to final manuscript preparation as well as review of the manuscript.

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