

**A Thesis document Submitted to Proyecto Kalu Humanitarian Aid studies centre
in Partial fulfilment on the Requirements for the Degree of Master's in
International Cooperation and Humanitarian Aid**

**Assessment of Health and Health related Problems in Hoja-Dure town of Special
Zone Surrounding Finfinne, Oromia Region, Ethiopia**

By: Fikadu Asrat

Supervisor: Karin Michotte

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Ethiopia

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1.3. Contributions by others

All written documents taken from other sources as reference were fully acknowledged; in addition my research team members: Advisor and data collectors who supported me were incorporated under acknowledgement part of the report.

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2. About this document

2.1. Categories

Countries	Document type	Subject	Institutions	Language
Ethiopia	Survey report	Health care	Hoja-dure town Health Office	English

2.2 Author



Fikadu Asrat was born since August 29, 1979 in Ethiopia, and currently lives in Ethiopia Addis Ababa. Graduated in Master of Health Care and Hospital Administration: has work experience in all health system of the country: at Primary level worked in Health center and Woreda Health Office, at secondary level employed in General hospital, zone health department and Regional Health Bureau and at tertiary level employed in Ministry of Health.

For the last one year I am employed in Ministry of Health as HR Forecasting Planning Monitoring and Evaluation Specialist; before that for two years I was employed in National WaSH Program as Planning Management and Community Development Specialist; before that I had been employed in Management Science for Health as HRM Specialist for two years and ten months, and before that I had been employed in different public health institutions, and I was married and have three children.

2.3. Executive Summary

The health status of population is determined by many factors, including; socio-economic status such as income and job opportunity, institutional factors: such as access to health and development sectors and provision of services to the community, environmental and hygiene practices, disease burden and others. The purpose of this study was to explore about health and health related problems in Hoja-dure town, Ethiopia.

Hoja-dure is a small rural town found at 47 km from country capital Addis Ababa, having a total population of 2,683 with estimated households of 559, out of which 56 households were selected randomly for the study, and household wives were included in the study. Exploratory study design was used and quantitative and qualitative data were collected from the community and development sectors; including Woreda Health, Water, Education and finance offices. The instruments were translated to native language, quantitative data were collected through interviewer administered instruments, then document review and desk review were used to supplement it, then the data analyzed using scientific calculator, and the result were narrated in frequency and percentage and data presented in tables.

71.43% of women's weren't joined high school; only 51.79% participants have ANC follow up for their last pregnancy; only 40% participants vaccinated their children with full dose and the majority was delivered at home. Nearly half of the participants leave with animals in the same house. 75% of households use below 50 liter water per day and 60.71% weren't covered their water storage container

at home and they weren't got adequate water, and challenged with water interruption problem. Improved latrine coverage accounted only 13.21% and the utilization was also low; the commonest source of energy was wood and wood products due to high electric power interruption. All top ten diseases in the area were communicable and have direct relation with poor sanitation and hygiene practices.

The town is near the capital city of the country, but lacks many basic infrastructures including road, adequate water supply, basic health infrastructures and most of the community were uneducated and their wealth was highly affected, communicable diseases were common, so the local Administration and all stakeholders have to strongly collaborate to mobilize resource for infrastructure development and avail basic services and provide behavioral change interventions to improve community health, bring them more productive and wealthier.

3. Introduction and Background of the study

3.1. Introduction

Contemporarily, health care system in 3rd world has undergone various structural changes over the years in response to prevailing health problems and in recognition of weakness in the existing health deliver system [1]. Global infectious threats, scrutiny of progress towards the millennium development Goals, and performance-based release of donor funding have all contributed to this increased awareness of the need for evidence. Decentralization and delegation of budgetary controls have shifted much of this growing burden to the periphery, requiring districts to provide local health statistics as a basis for decision-making. Increase in the global investment to control AIDS has begun to lift the historical financial barriers, but have brought into sharper focus the dual underlying constraints of human resources and health information [2].

In Ethiopia, the emphasis of health systems development aimed at the district level. Based on primary health care the district health system is supposed to be self-contained segment of the national health system and it comprises a well-defined population within a clearly delineated administrative and geographical area [3]. The district health offices are coordinating-the diversified spectrum of health services at the district level and the system contains a network of primary health units such as health center and health posts and district hospital in some areas. According to WHO, a district health system includes all the relevant health care activities such as promotive, preventive, curative and rehabilitative health services [1].

Quality of health care is defined as having at least three dimensions. Which include structure, process and outcome [4]. In the health care, purpose of quality assessment is to improve the effectiveness of programs and quality assessment will show not only the outcomes or accomplishment of services and programs in relation to standards but it may also suggest points of difficulty; so that efforts can be focused on the weak link in the chain of service provision [5]. The Alma-Ata Conference in 1978 declared primary health care and community based health care as the most practical approach in achieving a health status consistent with socially and economically productive life. The principles of PHC are equity, community participation, focus on prevention & health promotion, appropriate technology, inter sectoral collaboration, and decentralization. The commitment of many nations never translated into real effect and the concept of PHC/CBHC has hardly achieved its goal.

The socialist government of Ethiopia tried to introduce rapid expansion of PHC, but its rapid expansion was hampered due to protracted war, centralized, urban-based, bureaucratic approach and attitudes that failed to participate the community. Currently achievements and opportunities of PHC are characterized by economic progress, democratization, decentralization and private initiatives [6]. Health Extension Package (HEP) is a new initiative included in the HSDP II. It is an innovative community-based health care delivery system aimed at creating healthy environment as well as healthful living. The main objective of HEP is to improve access and equity through community/kebele based health services with strong focus on sustained preventive health actions and increased health awareness [7]. HEP initiative at this level is its pioneering role towards the

implementation of the concepts and principles of PHC/CBHC. It is not only its pioneering role to access the households to the best of its effect, but also it is the most feasible approach to bring the household to discuss and contribute towards its health matters. This has a comparative advantage in using a shortcut to address the basic health needs of the household with its full participation, and it's being easy to integrate with other household based development schemes like the agricultural extension package [8]

3.2. Statement of the Problem

The health status of the people in a county is among the poorest; a combination of natural and man-made factors has contributed to such a deplorable state of affairs which have prevailing the past and present centuries. In addition for a number of years the issue of community participation and empowerment has been raised and effort has been made to this end. But realizing the participation of the community in health and health related problems were weak and many concerns were raised as the problems occurs. The nation major health problems are those which are more of communicable diseases such as TB, HIV/AIDS, Malaria and diarrheal diseases, by this mothers and children are highly affected group (9). People access to health institution is also a challenge. This in turn contributes to maternal child mortality through pregnancy and birth complications, diarrheal diseases, malnutrition and respiratory problems. This might be reduced by health promotion and prevention actions through community participation in collaboration with other development interventions. In Ethiopia there is wide spread poverty, low educational levels, inadequate access to clean water and sanitation facilities, poor nutritional status, a high fertility rate, together with low levels of access to health services contributing to the high burden of ill health in the country. Infectious and communicable diseases account for about 60-80% of the health problem in the country (10). Both the quality and coverage of the health service are very low. Provision of safe water reaches only 24.7% of the rural population, and 83.5% of those living in urban areas. Around 7.2% of rural and 74% of urban populations have access to sanitation services. The quality of health service is inadequate due to poorly maintained infrastructure and equipment, shortage of trained manpower and sufficient supply of drug and other necessary supplies [11].

Monitor and review of health services interventions are always important to increase service availability and utilization, and to achieve this information flow is mandatory at all level. Invariably, health and health related problems of a given population are determined by a number of factors. This study was designed to investigate the status of health and health related problems of peoples living in Hoja-dure town of Special zone surrounding Finfine, Oromia national regional state, Ethiopia.

3.3. Research goal and Research question

The goal of this study was to assess health and health related problems of Hoja-dure town populations: Socio-economic and demographic characteristics, Environmental health and hygiene practices, major maternal and child health challenges, trend of vital statistic data, Morbidity and

Mortality data and water coverage and utilization were identified.

The research question of this study was: what were the major health and health related problems of Hoja-dure town population?

3.4. Significance of the Study

Healthy population of a country can contribute a lot for individual and country economic development, accordingly assessing the status of health and health related problems, including water access and quality, maternal and child health issues, including: ANC, delivery, postnatal care, immunization, female genital cutting, hygiene and environmental health issues such as availability and utilization of excreta disposal, controlling of insects & vector and assessing the risk behaviors exercised in the community helps to identify community health and related problems, prioritize the problems and to take possible solutions. In general the study provides magnificent information concerning health status and health related problem of the study population in the area and help different stakeholders to take proper measure that can improve community health status and lead to development.

3.5. Scope of the Study / Added value

The study assessed the major health and health related problems of Hoja-dure town population using community level study, in addition some relevant data were collected from health and development sectors of the town and the result was compared with other studies, and used as base line for further wide studies.

3.6. Limitations of the Study

The study was one time study due to that we can't identify causative agent (cause and effect), in addition it only focused on few factors and couldn't address all health and related factors and no enough literature from the locality with similar content and context.

3.7. Description of the Study Area

Hoja-Dure is a small rural town found in Mulo Woreda and is the town where Woreda offices found, and it's among Woredas found in the central part of Ethiopia. Located Northern to Addis, situated at a distance of 47 km from Addis. The Woreda was re-structured under special zone surrounding Finfine since 2008. The Woreda is bordered by North with Sululta, by South with Walmera, by West with Ada'a-Berga, and by East with Sululta and Walmera Woredas. Mulo Woreda have 10 kebeles: out of which 8 are rural kebeles (peasant associations) and 2 are small towns: namely Hoja-dure and Kamisa. The total populations of Hoja-dure town since 2017 were 2,683 and the estimated house hold were 559.

The area has five climatic zones: wet-dega, dega, weyna-dega, dry weyna-dega and kola, the area has one rainy season: from mid-June to mid-October. The major economic activity was mixed agriculture,

which accounted 97% and small number of communities are engaged on trade. The Woreda is favorable for the production of different types of grains because it has fertile soil with many hectares of irrigable land and stream. The area is known with cereals production: wheat, teff, maize, sorghum and barely are the dominant crops produced in the area, in addition beans, peas, lentils, and oil seed are produced, and they are the main sources of agricultural products used for consumption and as main source of income.

In Hoja-dure town one Commercial bank, one Cooperative Bank of Oromia S.C. and 2 credit and saving facilities (Oromia Saving & Credit S.C, Oromia Special Saving & Loaning Institute S.C) provide service for the community, but there was no functional postal service. The town has a 24 hour electric power supply, 2 day market facility per week; in addition the town has one Health Center, two elementary, one high school (grade 9-10) and 1 preparatory school.

4. RESEARCH RESULTS

Fifty six female households were participated on the study yielding a response rate of 100%, in addition two FGDs were conducted and all participants were female in sex, because women's are the major victims of health problems and some questions are specific to them.

4.1. Economic status of the respondents

Sixteen (28.57%) participants earn less than 1,000.00 ETB monthly per household, 26 (46.43%) earn 1,000 to 2,000.00 ETB, 5 (8.93%) earn between 2,000.00 – 3,000.00 ETB, 4 (7.14%) earn between 3,000.00 to 4,000.00 ETB and only 1 (1.79%) participant earn more than 5,000.00 ETB, for detail [table 1](#) below; accordingly the majority of the community were found below the absolute poverty line.

Table 1: Income of Hoja-dure town population, Ethiopia: March 2017

Family monthly income	Frequency	%
Below 1,000.00 ETB	16	28.57
1,000.00 – 2,000.00 ETB	26	46.43
2,000.00 – 3,000.00 ETB	5	8.93
3,000.00 – 4,000.00 ETB	4	7.14
4,000.00 – 5,000.00 ETB	4	7.14
Above 5,000.00 ETB	1	1.79

4.2. Socio-demographic status of study participants

The majorities (85.71%) of study participants were Oromo in ethnicity and Orthodox is the dominant religion in the study area. The majorities (91.07%) of participants were married in marital status and 71.43% weren't completed high school in educational status, for detail [table 2](#) below, according to this finding showed women illiteracy was high.

Table 2: Socio-demographic status of Hoja-dure town population, Ethiopia March 2017

Study variables		Frequency	%
Ethnicity	- Oromo	48	85.71
	- Amhara	5	8.93
	- Others	3	5.36
Religion	- Orthodox	42	75
		6	10.71

	- Muslim	7	12.5
	- Wakefeta	1	1.79
	- Others		
Marital Status	- Married	51	91.07
	- Single	2	3.57
	- Divorced	1	1.78
	- Widowed	1	1.78
	- Separated	1	1.78
Educational status	- Illiterate	10	17.86
	- Can read & write	12	21.43
	- Grade 1 -8	18	32.14
	- Grade 9-10	13	23.14
	- Certificate & diploma	3	5.36

4.3. Age and occupation of study participants

Sixteen (28.57%) participants were found in the age range of 26 to 30 years and the majorities (67.86%) were housewife in occupation, for detail [table 3](#) below. According to this finding the majorities of women were housewife and took the responsibility of taking care for children and spent more time in house.

Table 3: Age and occupation of Hoja-dure town population, Ethiopia March 2017

	Variable	Frequency	%
Age	- < 20 years	4	7.14
	- 20 – 25 years	10	17.86
	- 26 – 30 years	16	28.57
	- 31 – 35 years	11	19.64
	- 36 – 40 years	8	14.29
	- 41 – 45 years	4	7.14
	- 46 – 50 years	2	3.57
	- > 50 years	1	1.78
Occupation	- House wife	38	67.86
	- Merchant	14	25
	- Daily laborer	3	5.36
	- Others		

	1	1.78
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4.4. Maternal and Child Health issues

Forty eight (85.71%) study participants know family planning (FP) methods and 38 (67.86%) of them use it. Among the users 55.25% are currently using FP, the commonest FP method used in Hoja-dure town was Injectable which accounted 57.89% and among the non-users the major reasons not to use FP were waiting to have child, lack of knowledge and fear of drug side effects.

Only 29 (51.79%) mothers follow ANC during their last pregnancy, 57.14% of the interviewed mothers have knowledge on Exclusive Breast Feeding (EBF), 14 (40%) of the women fully vaccinated their children and 15 (42.85%) were partially vaccinated their children but not complete full dose, for detail [table 4](#) below. In the study area maternal and child health service utilization was low; the majority (52.94%) of mothers delivered at home and only 40% of children fully vaccinated.

Table 4: Maternal and Child health issues among Hoja-dure town population, Ethiopia, March 2017

Variables		Frequency	%
Knowledge of Family Planning	- Yes	48	85.71
	- No	8	14.29
Utilize FP methods	- Yes	38	67.86
	- No	18	32.14
Type of FP methods used	- Injectable	22	57.89
	- Pill	11	28.95
	- Norplant	5	13.16
	- Others	1	2.63
Current utilization of FP	- Yes	21	55.26
	- No	17	44.74
Reason for not utilize	- waiting to have a child	6	33.33
	- Lack of knowledge	6	33.33
	- Fear of side effects	5	27.78
	- Others	1	5.56
Utilization of ANC service during last pregnancy – Yes		29	51.79
	- No	19	33.93
	- N/A	8	14.28

Frequency of ANC utilization	- regularly	14	48.27
	- during vaccination	12	41.38
	- when ill	3	10.35
Existence of new born less than 1 year	- Yes	17	30.36
	- No	39	69.64
Site of new born	- Health center	8	47.06
	- Home	9	52.94
Duration of EBF	- < 1month	3	5.36
	- 1 to 3 months	6	10.71
	- 3 to5 months	14	25
	- 6 months	32	57.14
	- > 6 months	1	1.79
Existence of < 5 children	- Yes	35	62.5
	- No	21	37.5
Immunization status < 5 children	- Fully immunized	14	40
	- Partially immunized	15	42.85
	- Not immunized	6	17.15

FGD members explained that FP utilization in Hoja-dure town is better, but the practice of permanent methods was low in the study area. Moreover the practice of ANC follow up, health institution delivery and vaccinating children with full dose antigen were low in the town and this might be due to inadequate knowledge and poor mobilization of the community by health cadres.

4.5. Harmful Traditional Practice

The majority of study participants (91.07%) described that they have knowledge on harmful traditional practices, and the majorities (75%) weren't practice it, but still 25% of them exercise HTP such as FGM, Abduction, Uvulectomy and tooth extraction, for detail table 5 below.

Table 5: Existing HTPs in Hoja-dure town, Ethiopia, March 2017

Variables		Frequency	%
Knowledge on HTP	- Yes	51	91.07
	- No	5	8.93
Knowledge on types of HTP			
FGM	- Yes	56	100

	- No	0	0
Uvulectomy	- Yes	53	94.64
	- No	3	5.36
Tooth extraction	- Yes	33	58.93
	- No	23	41.07
Abduction	- Yes	56	100
	- No	0	0
Practice about HTP	- Yes	14	25
	- No	42	75
Practice on types of HTP			
FGM	- Yes	7	12.5
	- No	49	87.5
Abduction	- Yes	3	5.36
	- No	53	94.64
Tooth extraction	- Yes	2	3.57
	- No	54	96.43
Uvulectomy	- Yes	6	10.71
	- No	50	89.29

FGD participants described that in the area practice of harmful traditions were due to different awareness creation programs implemented by Youth and Women affair offices and the implementation of enforceable law to take punishment on those who practice HTP in the community.

4.6. Environmental Health Survey

4.6.1. Housing

Most study participants (94.64) live in their own house, the roof of 89.29% study participants house were made of zinc, 75% of study participants house floor were mud, 41.07% of study participants have only one room house and 44.64% of study participants have two room house, in addition the illumination of 25% houses were bad, 58.93% of the kitchens have no window, 38 (67.85%) of study participants live with domestic animals, and even in houses where domestic animals separated from individuals in the majority (54.05%) animals haven't separate house rather they released inside a compound, accordingly the majority of houses weren't standardized and fill WHO definition, for detail [table 6](#) below.

Table 6: Housing condition of Hoja-dure town population, Ethiopia March 2017

Variables		Frequency	%
Owner of the house	- Private	53	94.64
	- Rental	2	3.57
	- Other(relatives)	1	1.79
Roof of the house	- Grass	6	10.71
	- Zink	50	89.29
Floor of the house	- Mud	42	75
	- Wood/kerkeha	6	10.71
	- Concert	8	14.29
Number of rooms	- 1	23	41.07
	- 2	25	44.64
	- 3	6	10.71
	- 4 and above	2	3.57
Illumination of the rooms	- Good	15	26.79
	- Fair	27	48.21
	- Bad	14	25
Type of kitchen the family use	- inside main house	14	24
	- outside & attached to main house	30	53.57
	- in separate kitchen	12	21.43
Does the kitchen have window	- Yes	23	41.07
	- No	33	58.93
Does the kitchen have Soot outlet	- Yes	19	33.93
	- No	37	66.07
Availability of domestic animal	- Yes	38	67.86
	- No	18	32.14
Domestic animal live with human	- Yes	19	33.93
	- No	37	66.07
Where do animals live	- In a separate house	17	45.95
	- Inside compound (on field)	20	54.05

FGD participants also described that some people leave with animals, the floor of most houses are mud, the houses have no adequate room and space, the rooms have no adequate illumination, most houses and kitchens have no proper window for ventilation, animals were released inside a compound and this need dual effort to improve the quality of residential of Hoja-dure town population.

4.6.2. Water Supply

The majority of study participants use public stand bono source of water. The majorities of them get water within 500m radius and travel less than 30 minute distance. Most of study participants (73.21%) store their water in Jerican /plastic jar), the majorities (75%) of households use below 2 Jerican (50 little) water per day and in most of the HHs (60.71%) water storage container weren't covered, for detail [table 7](#) below.

Table 7: Availability of water supply in Hoja-dure town, Ethiopia, March 2017

Variable		Frequency	%
Main Source of water supply	- pipe in the compound	11	19.64
	- Public stand (bono)	42	75
	- Protected well	3	5.36
Distance of water source from house	- < 15 m	22	39.29
	- 16 to 100 m	18	32.14
	- 101 to 500 m	10	17.86
	- 500 to 1,000 m	3	5.36
	- > 1,000 m	3	5.36
Time taken to fetch water (estimation)	- < 10 minutes	18	32.14
	- 10 to 30 minute	19	33.93
	- 30 to 60 minutes	15	26.79
	- 1 to 2 hrs	4	7.14
Method of water storage	- Jerican	41	73.21
	- Bucket	10	17.86
	- Pot	5	8.93
Amount of water utilized by HH per day –	below 1 Jerican	19	33.93
	- 1 to 2 Jerican	23	41.07
	- 3 to 4 Jerican	9	16.07
	- More than 5 Jerican	5	8.93
Water storage container covered	- Yes	22	39.29
	- No	34	60.71

FGD participants also described their major source of water is public stand (bono); the majority of the community have no trend of covering water storage due to lack of knowledge gap and negligence, and most of the time they didn't get adequate water due to town water interruption.

4.6.3 Waste disposals

Fifty three (94.64%) households have latrine but most (86.79%) of the existing latrines were unimproved. Among those who have latrine 33.64% were non-functional, and the major reason for non-functionality includes: it needs maintenance, the latrines were filled and the surroundings were dirty. The majorities (75%) of the visited compounds were neat but quarter (25%) need cleaning, for detail [table 8](#) below.

Table 8: Availability and functionality of latrine in Hoja-dure town, Ethiopia, March 2017

Variables		Frequency	%
Having latrine	- Yes	53	94.64
	- No	3	5.36
Type of latrine	- Improved latrine	7	13.21
	- Unimproved	46	86.79
Estimated distance from the house (m)	- < 10 m	20	37.74
	- 10 to 20 m	30	56.6
	- > 20 m	3	5.66
Estimated distance from the kitchen)	- < 10 m	31	58.49
	- 10 to 20 m	21	39.62
	- > 20 m	1	1.87
Location of latrine from water source	- uphill	18	33.96
	- The same level	11	20.75
	- Down hill	27	50.94
Current status of latrine	- Functional	41	77.36
	- Non-functional	12	22.64
Reason for non-functionality	- filled	4	33.33
	- Surrounding was dirty	2	16.67
	- Need maintenance /dangerous	6	50.0
The compound is neat and clean	- Yes	42	75.0
	- No	14	25.0

FGD participants also described that most of the existing latrines in the town were unimproved due to that it was challenging to use the latrines properly by the household members and all concerned

stakeholders have to work on awareness creation to change the attitude of community to construct improved latrine and start proper utilization. Moreover the supply of latrine construction materials such as slab is not available in the area, so that Woreda health office and concerned stakeholders has to promote for the establishment of sanitation marketing.

4.7. Insects and Rodents

Thirty nine (69.64%) participants described that there are minor vermin and insect problems in the study area: including housefly, lice fleas, bed bugs, rat and Cockroach which accounted 56.41%, 10.25%, 5.13%, 12.82% and 15.38% respectively, and the major control mechanism applied in the area includes sanitation and using insecticides which accounted 61.54% and 38.46% respectively, for detail [table 9](#) below.

Table 9: Vermin & insect problems & control mechanism in Hoja-dure town, Ethiopia, March 2017

Variable	F	%
Existence of vermin & insect problems - Yes	39	69.64
- No	17	30.36
Type of vermin exist - Housefly	22	56.41
- Lice fleas	4	10.26
- Bed bugs	2	5.13
- Rat	5	12.82
- Cockroach	6	15.38
Control mechanism - Sanitation	24	61.54
- Insecticides	15	38.46
- Other	1	2.56

4.8. Means of Communication

Out of 56 study participants: 38(67.86%) uses radio and 30 (53.57%) uses television as a means of getting information. Forty seven (83.93%) participants explained they use mobile, but only 11 (19.4%) participants read newspaper and 21 (37.5%) use postal services, for detail [table 10](#) below.

Table 10: Means of communication in Hoja-dure town, Ethiopia, March 2017

Communication system	Frequency	%
Radio Yes	38	67.86
No	18	32.14

Television	Yes	30	53.57
	No	26	46.43
Telephone (mobile or public)	Yes	47	83.93
	No	9	16.07
Read News paper	Yes	11	19.64
	No	45	80.36
Access to postal service	Yes	21	37.50
	No	35	52.5

Postal office was not functional in this small town due to that utilization of postal service and getting of newspaper were low in the town.

4.9. Common Sources of Energy

The commonest source of energy in the town was wood and wood products (charcoal) which accounted 44.64% and 33.93% respectively, but only few populations (5.36%) use electricity as source of energy, for detail [table 11](#) below.

Table 11: Different sources of energy in Hoja-dure town, Ethiopia, March 2017

Fuel Sources	Frequency	%
Wood	25	44.64
Charcoal	19	33.93
Dung	7	12.5
Electricity	3	5.36
Liquid petrol gas	2	3.57

FGD participants described that in the town there was high electricity interruption, and there were only limited community member that took power from the main source and have their own “electro-meter”; but others took from them only for lightening source; due to that the majority of the community use traditional source of energy; wood and wood products, such as charcoal for cooking.

4.10. Top ten causes of Morbidity

Morbidity data was taken from Hoja-dure health center and it is an indication for major health problem of the community, accordingly most of the top ten diseases of the town have direct or indirect relation with inadequate, poor quality and utilization of sanitation and hygiene practices. Among these Acute Febrile Illness, Typhoid fever, parasitic disease, Diarrhea and Epidemic typhus have direct or indirect relation with poor quality of sanitation and hygiene practices. In the presence of adequate sanitation and hygiene practices it is possible to reduce those communicable diseases by 70-80%. Acute Febrile

illness was the 2nd leading ten top diseases in the small town which can be prevented and controlled by sanitation and hygiene practices, for detail table 12 below.

Table 12: Top ten causes of Morbidity in Hoja-dure Health Center, Ethiopia: March 2017

Ser No	Types of Diagnosis	# of reported cases	Rank	%
1	Upper Respiratory tract infection	1,278	1	20.6
2	AFI	958	2	15.4
3	Typhoid fever	819	3	13.2
4	Trauma	775	4	12.4
5	Pneumonia	637	5	10.2
6	Parasitic diseases	394	6	6.3
7	Diarrhea [Non bloody]	376	7	6.0
8	Epidemic typhus	363	8	5.8
9	Dyspepsia	331	9	5.3
10	Urinary tract infection	274	10	4.4
Total		6,205		94.3

Source: Hoja-dure Health center, February 2017 e-HMIS report

5. Conclusions and Recommendation

5.1. Conclusion

The majority of study participants weren't completed high school education, farmer in occupation, weren't took all ANC follow up, delivery at home and weren't vaccinate their children with full dose of antigen, but most of them use FP methods: among the non-users their major reasons includes waiting to have child, lack of knowledge and fear of drug side effects.

Some study participants have no separate house for their wilde animals; the flower of most houses were mud, the houses have no adequate room and space, the rooms have no adequate illumination, most houses and kitchens have no proper window for ventilation and animals released inside the compound, due to that the sanitation of the compound was poor.

The majority of study participants use water from public stand (bono) source, the communities weren't properly store their water at home and most of the population explained that they weren't got adequate water due to town water interruption.

Most of the existing latrines at HH level were unimproved due to that it was challenging to use the them properly and there were many non-functional latrines and the major reason for non-functionality includes need maintenances, the latrines were filled and the surroundings were dirty in addition quarter of the assessed compounds need cleaning.

The commonest source of energy in the town was wood and wood products (charcoal) because electricity interruption is common in Hoja-dure town and the trend of electric power utilization as source of energy was low.

The top ten diseases of the town have direct or indirect relation with inadequate, poor quality and utilization of sanitation and hygiene practices. Among these Acute Febrile illness, Typhoid fever, parasitic disease, Diarrhea and Epidemic typhus have direct or indirect relation with poor quality of sanitation and hygiene practices. Acute Febrile illness is the 2nd leading ten top diseases in the small town which can be prevented and controlled by sanitation and hygiene practices.

5.2. Recommendation

Healthy and wealthy are inseparable: Health population can produce more, less exposed to natural and manmade disasters, therefore to keep the health of the community and made them more productive the followings were recommended:

- ✓ It is preferable to provide continuous health education to the community to change their behavior using IEC /BCC materials.
- ✓ Educational Office has to strongly collaborate and work with community to improve the educational status of women because they have more responsibility at HH level and in the community than male partners.

- ✓ Health professionals and HEWs have to create community sensitization programs on maternal and child health issues, including: FP, ANC, delivery and vaccinations.
- ✓ HEWs have to collaborate with community to improve environmental health issues: separation of human being and animal house; avail adequate illumination and ventilation to houses and kitchens; improve the cleanness of the compound; properly store water at home, and construct more improved latrines and improve its utilization.
- ✓ Woreda water mineral and Energy office has strongly collaborate with all stakeholders and solve water interruption problem.
- ✓ Woreda Electric power office has to work with all concerned stakeholders to improve the electricity interruption and increase its access to the community.
- ✓ The top ten diseases in the study area have direct relation with inadequate, poor quality and utilization of sanitation and hygiene practices; therefore improve the sanitation and hygiene practices in study area to reduce the burden of communicable diseases.

In general great effort is required from Health Professionals, town Administration, Woreda Health Office, Woreda Water and Energy Office, Woreda electric power office, Woreda Educational Office, different NGOs and the community to design and implement the right strategy jointly to create healthier population that can produce more and become wealthier and developed.

6. Annexes

6.1. Abbreviation and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BCC	Behavioral Change Communication
CBHC	Community Based Health Care
CSA	Central Statistics Authority
DHS	Demographic Health Survey
EBF	Exclusive Breast Feeding
ETB	Ethiopian Birr
FGD	Focus Group Discussion
FGM	Female General Mutilation
FP	Family Planning
HEP	Health Extension Program
HEWs	Health Extension workers
HH	Households
HI	Health Institutions
HPs	Health Professionals
HSDP	Health Service Development Program
HTP	Harmful Traditional Practice
IEC	Information Education and Communication
MDG	Millennium Development Goal
NGOs	Non-governmental Organizations
PHC	Primary Health Care
RH	Reproductive Health
SNNP	South Nation Nationality People
STD	Sexually Transmitted Disease
SZSF	Special Zone surrounding Finfine
WHO	World Health Organization

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6.3. Literature Review

In Ethiopia there is wide spread poverty, low educational levels, inadequate access to clean water and sanitation facilities, poor nutritional status, a high fertility rate, together with low levels of access to health services contributing to the high burden of ill health in the country. Infectious and communicable diseases account for about 60 - 80% of the health problem in the country. Both the quality and coverage of health service are very low. The quality of health services is inadequate due to poorly maintained infrastructure and equipment, shortage of trained manpower and insufficient supply of drugs and other necessary supplies [12].

6.3.1. Maternal and Child Health

The global burden of sexual and reproductive health conditions can be expressed in absolute numbers: 60-80 million infertile couples; 120-201 million couples with unmet need for contraception; 4 million newborn deaths, 8 million life-threatening maternal morbidities; 529,000 maternal deaths, including 68, 000 from unsafe abortions [16]. According to the most recent calculations by the WHO, sexual and reproductive health conditions account for a substantial portion of the global burden of disease, but for women their reproductive years: 15 years, the burden of SRH conditions is far higher than any other category of illness. Maternal health conditions for women in Sub-Saharan Africa, the burden of sexual and RFI conditions is particularly alarming [17].

Despite dramatic advances in maternity care for women in high and middle income countries, women in developing countries remain at increased risk for preventable birth complications and have high rates of maternal and neonatal mortality. Although it is essential to improve referral and transport systems, upgrade health facilities, and increase the number of skilled birth attendants in developing countries, these improvements take considerable economic resources and time to implement. If low-cost, community-based programs can contribute to the prevention of maternal mortality and serious

birth complications, they may serve as important adjuncts to larger human resource and infrastructure improvements [18]. Community-based interventions that encourage use of health facilities for antenatal care (ANC) and delivery, preparations for the birth, and prompt recognition and reaction to danger signs of complications during pregnancy and childbirth have the potential to prevent maternal mortality and birth complications [19].

In Ethiopia, the majority of births occur without the help of a skilled assistant (midwife, nurse trained, or a doctor) and mainly at home [20]. Home deliveries are bound to be un-hygienic, unsupervised and when intervention is required it usually late [21]. Despite skilled delivery is one of the most tracked Millennium Development Goals (MDG) indicators, the proportion of births attended by skilled health personnel in Ethiopia is about 6% [21]. Home deliveries have been associated with adverse infant and maternal outcomes [22]. The highest number of maternal deaths occurs on the first day after delivery highlighting the critical need for good quality care during this period [21]. Interestingly, a large proportion of these maternal deaths could be prevented through timely and appropriate interventions. The presence of skilled delivery service utilization at each birth can significantly reduce the maternal mortality and morbidity [22]. Many studies revealed the presence of positive association between utilization of maternal health care and residence; those living in urban and closest to health facilities tend to utilize skilled delivery services than rural dwellers. Maternal education is also considered as the most important factor in determining women's delivery care seeking behavior. However, education of mothers may not maintain its effects across all levels of education and social settings. Knowledge is also an important factor that affects attitude, intention and behavior. Knowledge relates to behavior, and behavior produces change towards service utilization. The more knowledge they have about dangerous signs of pregnancy and delivery the more they go for antenatal and delivery services [23].

According to the EDHS, 2000 report, national ANC coverage was 26.7%. The coverage was 27.0%, 83.1% and 57.6% for Oromia, Addis Ababa and Dire Dawa respectively, and the use of ANC services is highly associated with the mother's level of Education. Majority of births (95%) were attended at home, with urban and rural differentials of 68.3 and 97.9% respectively [24]. A longitudinal community based study conducted in southwest Ethiopia, which includes urban and rural residences of Jimma Zone, Showed ANC utilization rate of 52.6%. Only 16.7% of the women have delivered in health institutions. The same study showed that 19.6% of deliveries were attended by health personnel with urban rural differentials of 39.8 and 2.4 percent respectively [25].

Extensive researches have shown that human milk is the most beneficial choice for infant feeding. Breast-feeding provide many advantages to both infants and mothers. These include social, economic, nutritional, developmental, immunological, and other health benefits [26]. A study done by UNICEF in 195 countries showed the global practice of exclusive breast-feeding within the first six months after birth to be 25% [27]. In 2001, only 69.5% of women in the U.S. breast-fed their infants and 46.3% of women exclusively breast-fed their infants in the early postpartum period, in the same year, only 32% of mothers were still breast-feeding for a one year time and only 17.2% were exclusively

breast-feeding at six months postpartum [28]. In Bolivia, Lapaz, the prevalence of exclusive breast-feeding practice was 25% in the first 6 months [29]. In Egypt, only 76% of infants initiate breast-feeding within the first 3 days. A study done by UNICEF in 2001 also showed that the prevalence of exclusive breast feeding in sub Saharan countries to be 33%. Another study also showed that the prevalence of exclusive breast-feeding in Ethiopia to be within a range between 41 - 59 percent [30]. In the 2001, Ethiopian DHS report showed the prevalence of exclusive breast-feeding for the first 6 months of life was found to be 38% [29], and according to the Ethiopian DHS 2005 report the prevalence of exclusive breast-feeding for the first 6 months of life declined to 18.1% [32].

6.3.2. Immunization

A study done in Zimbabwe showed that poor coverage of Immunization was related to the poor quality of EPI service; specifically to invalid doses and missed opportunities. Despite the high prevalence of vaccine preventable disease in Ethiopia, immunization coverage rates stagnated and remained very low for many years. In most Woreda of Ethiopia the important weakness that impede immunization program to achieve expected goals are found to be insufficient outreach services, poor staff motivation, infrequent in-service training and inadequate supervision, insufficient communication between health staff and community members, inadequate monitoring systems at all levels and lack of community participation due to lack of awareness and absence of social mobilization [36].

Immunization service shall be provided at all static unit and qualified health workers should carry out each immunization session. These requirements should apply for both static and outreach sessions. A study conducted in Dhaka city, Bangladesh revealed that at each of the 13 clinics, among workers who are giving immunization all but three indicated that they had received on the job training on immunization [37]. A study done in west Gojam showed that out of 50 service provider thirty -four (68%) service providers were trained in peripheral level EPI training, two (4%) in mid-level EPI training, 10 (20%) in cold chain management, and nine (18%) in motorcycle riding. Most of those who had the training in one or other acknowledged that the training was sufficient to enable them to perform their duties effectively [38].

6.3.3. Environmental factors

Unhygienic and unsafe environments contributed about 1.5 million child deaths and around 88% of death from diarrhea [33]. Improved water supply and sanitation reduced the incidence of diarrhea among young children by 20.27% [34]. More commonly however two diseases occur together because they have same environmental or behavioral risk factors such as poor sanitation or no breast feeding in infancy leading to increased exposure to infection. This co-morbidity also result synergism leading to increased risk of death [33]. At national level 62.7% of populations do not have access to safe water and 71.1% do not have access to excreta disposal, and in Gambella 70.9% and 93.4% of urban population do not have access to safe water and excreta disposal respectively [35].

6.3.4. Harmful Traditional Practice

The major harmful traditional practices that different findings sited include: FGM, abduction, early marriage, Uvulectomy and milk teeth extraction. A study conducted on the prevalence of FGM in the SNNP of Ethiopia showed the overall prevalence to be 33% with prevalence differing significantly by zones and special districts. The higher rate was reported in Dasnech Gurage (73.8 %), Hadia (74.6%). The same study revealed the prevalence of Uvulectomy and milk teeth extraction to be over 50%, 10.5% of the girls in SNNP get married before they celebrate the age of 15 years [42].

The Central Statistics Authority (CSA, 2001) made a national demographic and health survey in 2000 which involved 15,367 women aged 15-49 and 2,607 men aged 15-59, and the findings showed that: one-sixth Ethiopian children dies before celebrating 5th birthday; 85% of the women believe that a husband is justified in beating his wife if she neglects the children, burns the food, argues with the husband, goes out some place without telling him, and refuses to have sex with him; 80% of the women admitted that they have been circumcised and the figure is 100% for the Somale and Afar women; 60% of the women stated that they support girls' circumcision and half of the women participants who had daughters reported that at least one of their daughters had been circumcised.

In two studies which were conducted in Addis Ababa schools on interpersonal violence (1998) and in Southern Ethiopia on various psychosocial issues (2000), the following human rights violations and practices have been found (43): 63% of Addis Ababa high school students who participated in the study) have been hit (beaten) by parent in the past year; 68% of the students have been hit by their teachers in the school in the past year; 61% of the students themselves have hit, punched or slapped someone by hand or fist in the past six months; 69% of the students reported that they had a physical fight at least with one person in the past year; 91% of 432 household heads of Dawro, Gamo and Kaffacho ethnic groups in Southern Ethiopia preferred having sons than daughters; 86% reported that children are forced to eat some food they do not like to eat; 92% of the parents use some physical punishment to discipline their children; 83% of the parents indicated that children should participate in manual work; 75% of the parents reported that children should not participate in adults' discussion, and should lower their voice when talking to adults; 54% of the parents divided household chores and farm activities based on sex, cooking and fetching water to girls and farming and looking after cattle to boys; 82% of the participants reported that children should obey (without question) their parents in all circumstances, and 35% indicated that girls should not be educated as much as the boys.

6.4. Research design and methodology

6.4.1. Introduction

Community based study was conducted in a small rural town near Addis Ababa, the capital city of Ethiopia called Hoja-dure to assess health and health related problems of the population and data was also collected from institution to get morbidity data, access and utilization of basic services to the community.

6.4.2. Study design

Exploratory study design was employed, and data were collected from community and some

development sectors, including; Health, Water, Education and Finance to assess the major health and related problems of the study area.

6.4.3. Study site

The study was conducted in capital town of Mulo Woreda, Hoja-dure, situated at a distance of 47 km from Addis Ababa, capital city of Ethiopia, the total populations of Hoja-dure town were 2,683 and the estimated house hold of the town was 559.

6.4.4. Study target population and respondent selection

The study was conducted at house hold level and 10% of HH women's were included in the study, accordingly $10\% \times 559$ (total household) = 56 households were selected using systematic random sampling technique and out of the 1st 10 houses one was selected randomly, and every 10th house were included in the study, then at household level wife (house head women) were included in the study because most of the instruments target women and women's are more affected by health issues. In addition two FGDs having 8 women participants were conducted to triangulate with quantitative data, and last morbidity data were taken from Hoja-dure Health center.

6.4.5. Research instruments

The instruments were adopted [46] with slight modification, then the questionnaires were translated to native language the area Afan Oromo. A structured Oromifa version questionnaire was used after pre-testing on 5% of the population other than the sampled population. It was interviewer administered questionnaires and open-ended questionnaires were used for qualitative data collection during FGD.

6.4.5.1. Semi structured interviews

The instruments were asked by trained data collectors, most of the questionnaires were closed ended with few open ended, the data collector ask the question in local language and tick on the alternative for closed ended questions and take note for open ended questions on the space provided for response.

6.4.5.2. Focus Group Discussions (FGDs)

Two FGDs were conducted with selected participants from the community, per each FGDs 8 participants were included and the findings were triangulated with quantitative data. The principal investigator together with one experienced data collector facilitated the FGD.

6.4.5.3. Document review and Desk review

Woreda Health, Water, Education and Finance strategic planning and reporting documents were reviewed to get morbidity, mortality, access and development progress data, and discussions were conducted with sector heads and professionals on the required information.

6.5. Research procedures

Two native language speaker data collectors were recruited and trained on the instruments, objectives and data collection process and procedure were employed for quantitative data collection. The investigator supervises and assists data collectors, check the completeness of questionnaires

every day and check for consistencies and completeness. Qualitative data and desk review were conducted by investigator with one data collector; in general the investigator coordinates the overall data collection process.

6.6. Data management

The Questions prepared in English language was translated to Oromifa language and retranslated back by other translator to English to compare its consistency. Prior to the actual data collection, questionnaire was pre tested on 5% of the population who were not part of the actual sample. Data collectors were trained on study instruments and data collection procedure. During the actual data collection process, investigator check the quality of data on field randomly every day for questionnaires consistency and completeness and the all filled questionnaires were checked daily.

After data collection, each questionnaire was given a unique code by investigator, then tallied and ready for analysis. Quantitative data were analyzed using scientific calculator: first data master sheet was prepared and all information provided by respondents were tallied according to the code given to each respondent, and the result were explained in percentage and compared with other similar studies and data were presented on tables, and for qualitative data Themes were prepared and the findings were narrated and triangulated with qualitative study results.