



**COLLEGE OF NATURAL AND COMPUTITIONAL SCIENCE  
DEPARTMENT OF ZOOLOGICALSCIENCE**

**KNOWLEDGE, ATTITUDE AND PRACTICE OF NON-  
COMMUNICABLE DISEASE IN COMMUNITIES  
LIVING MEYU TOWN, EASTERN HARARGHE  
OROMIA ETHIOPIA**

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## List of Abbreviation and acronyms

A	Attitude
A.A.U	Addis Ababa University
BCC	Breast and cervical cancer
CD	Cardiovascular disease
CHRD	Chronic respiratory disease
CHW	Community health workers
D	Diabetes mellitus type 2
E	East
EFMOH	Ethiopian Federal Ministry of Health.
K	Knowledge
KAP	Knowledge, attitude and practice
LMICS	low and middle income countries.
N	North
NCD	Non- communicable disease.
P	Practice
RF	Risk factor
VHT	Village Health Team
WHO	World Health Organization
WHO PEN	WHO's Package of Essential Non communicable Disease Interventions

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## **ABSTRACT**

*The burden of Non communicable is high in the world wide. The country profile reported that about 30% of total deaths in Ethiopia were associated with NCDs from which cardiovascular disease cancers ,chronic respiratory disease, diabetes, and other NCDs accounted for 9,6,3,1 and 11% respectively. The study was undertaken to study knowledge, attitude and practice non communicable disease in communities living in meyu town, eastern Hararghe ,oromia, Ethiopia. The study was conducted in Meyu town (Huse) which is capital city of district This study was a type of descriptive survey research design that involve cross –sectional study design method .The 286 sample size was calculated by using the sloven’s formula from 1000 of total population of15-64 ages. The sampling method was done by lottery method and systematic sampling .Finally; the data was discussed, summarized and put in meaningful form. The KAp study of community on NCD show that most of respondent (66.17%) had knowledge of the disease. and could isolate it from communicable. The study on tobacco use show that, there were good attitude of the study subject toward harm of smoking cigarettes (79.18%) and its effect on their lung and heart(57.99%). As well as smoking around other(90.33%) also harmful .On other hand ,alcohol use Respondent were rare and those who drink it was due to influence of friend(70.26%).The attitude and practice of the study subject toward using salt in diet is also good. However, some people (16.36%) didn’t consider amount of salt they used in their diet (83.64%).The study on cardiovascular disease show that majority of the respondent (62.08%)were only heard the term before. The relative frequency of respondent knowledge and practice on pap smear were : 28.62%,6.69% ,3.35% , and 61.34% those didn't have time ,did it every three and five years, and those didn't understand it respectively .The survey on diabetes mellitus type2 show that majority of the participant (65.43 %) had little knowledge about the disease. Among all of the respondent only (8.18 %) had good knowledge about the Chronic respiratory disease . Generally, knowledge, attitude and practice on NCD and its risk factor were not enough in the community living meyu twon. There was gap of knowledge, attitude and practice of toward the disease and it's risk factor. So anybody who have responsible to solve this gap should be contact it. And also the area have economic problem and must be changed.*

**Key word:** *knowledge, Attitude, Practice, Non communicable disease and Risk factor*

## **1. Introduction**

Non communicable Disease (NCD) is chronic conditions that do not result from an (acute) infectious process and hence are “not communicable.” A disease that has a prolonged course, that does not resolve spontaneously, and for which a complete cure is rarely achieved (McKenna, et al, 1980) .Types of NCDs are Cardiovascular disease (e.g., Coronary heart disease, Stroke), Cancer, Chronic respiratory disease, Diabetes, Chronic neurologic disorders (e.g., Alzheimer’s, dementias), Arthritis/Musculoskeletal diseases and Unintentional injuries (e.g., from traffic crashes). Among this there are 4 main NCD that are focus of WHO. These are Cardiovascular ,Diabetes ,Cancer and Chronic respiratory .NCD kill 41 million people each year globally (WHO,2018). The rising prevalence of non-communicable diseases (NCDs) and associated mortality in low and 29 middle income countries (LMICS) is well established (Demaio et al,2011;Depue et al ,2013).Given the limited health and economic resource in these setting ,effective ,scalable strategies for addressing NCD are urgently needed . Uganda is an example of an LMIC experiencing a growing burden of NCD .WHO 2014 country profile reported that about 30% of total deaths in Ethiopia were associated with NCDs from which cardiovascular disease , cancers ,chronic respiratory disease, diabetes, and other NCDs accounted for 9,6,3,1 and 11% respectively.

According to the World Health Organization (WHO), 2017 report, NCDs kill 40 million people. Three quarters of NCD deaths (28 million) occur in low and middle income countries. Cardiovascular diseases account for most NCD deaths(17.7 million people) annually, followed by Cancers (8.8 million), Respiratory diseases (3.9 million),and diabetes (1.6 million) ( WHO, 2017 ). Globally blood pressure is the leading metabolic risk factor in terms of attributable deaths accounting for 18%, followed by overweight and obesity and raised blood glucose( Lim , 2012) .Chronic NCDs are rising fastest among lower income countries (WHO, 2014 and2016) .The Federal Ministry of Health of Ethiopia established a National Strategic Action Plan for Non-Communicable Disease in Ethiopia (2014-2016), and developed national treatment guidelines and training materials on major NCDs like hypertension and diabetes. The national WHO STEPS survey was undertaken by the Federal Ministry of Health (FMIH) as part of a situational analysis of NCD risk factors to provide baseline data for subsequent interventions

The rising burden of Non-communicable diseases (NCD) and mortality related to NCD in low and middle income countries (LMIC) has been established by recent studies (International Diabetes Foundation,2014; Maher et al., 2011;; Tollman et al., 2008; World Health Organization, 2013). According to 2012 data from the World Health Organization (WHO), nearly75% of deaths from NCD (28 million) occurred in LMIC, with 48% of those deaths occurring amongst people under 70 years old (World Health Organization, 2013). There is enough data available on the prevalence of NCD from some LMIC that corroborate (support) the necessity for health interventions to tackle this issue (International Diabetes Foundation, 2014; Maher et al., 2011; Mondo et al., 2013; Tollman et al., 2008).Indeed, several interventions have shown the benefits of using CHW-medical personnel partnerships to promote NCD prevention and management in Communities. In American Samoa, an intervention that employed Nurse-Community Health Teams in Diabetes care increased the odds of reducing HbA1c levels by at least 0.5% amongst the intervention group, twice more than the odds for patients receiving usual care (DePue et al., 2013) Naturally, VHT identified NCD education, availability of screening services and partnerships with medical personnel, as some of the key facilitators to their roles in NCD prevention. In terms of barriers to incorporating NCD care successfully into their roles, VHT spoke to the cycle of neglect where several barriers such as lack of services and medical personnel would hinder NCD preventive efforts at the community level. In LMIC, primary care systems are faced with unavailability of basic diagnostic instruments/services for NCD screening and detection, strained access to medications for treating most prevalent NCD, a shortage of health care professionals to handle NCD and poor reporting and referral systems (Mendis et al., 2012).

Recurrent attacks of “breathlessness and wheezing” (WHO, 2012)

A gradient of severity Can cause sleepiness, fatigue Low fatality rates, but often under diagnosed 235 million people affected

<http://www.who.int/mediacentre/factsheets/fs307/en/index.html>.The Diabetes is a disorder of metabolism the way the body uses digested food for growth and energy. There are 4 types: Type 1, Type 2, Gestational, and Pre-Diabetes (Impaired Glucose Tolerance). Type 2 is caused by modifiable risk factors and is the most common worldwide. >90% of all adult diabetes cases are

Type2. <http://www.who.int/mediacentre/factsheets/fs312/en/> National institute of Diabetes and Digestive and Kidney Diseases, 2012 .Cancer is Generic term for a large group of diseases that can affect any part of the body. “Rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs.” (WHO, 2012) ‘ Chronic obstructive pulmonary disease(COPD) – term used for lung diseases that prevent proper lung airflow Chronic bronchitis, emphysema More than just “smoker’s cough” .for instance, Chronic Respiratory Diseases: Asthma recurrent attacks of “breathlessness and wheezing” (WHO, 2012)

A gradient of severity Can cause sleepiness, fatigue Low fatality rates, but often under diagnosed 235 million people affected .<http://www.who.int/mediacentre/factsheets/fs307/en/index.html>

## **1.1 Objectives**

**General objectives:** To study knowledge, attitude and practice of non communicable diseases in communities living in Meyu town, Eastern Hararghe , Oromia, Ethiopia

**Specific objectives:**

- To assess knowledge, attitude and practice of communities toward four main NCD :Cardiovascular ,Cancer ,Diabetes ,and Chronic respiratory disease
- To assess the distribution of life-style factors (physical activity, tobacco and alcohol use).
- To distinguish status of communities’ knowledge and practice on modifiable risk factor.
- To know knowledge of communities toward non modifiable risk disease.
- To identify status of education community

## 2 Literature review

Non-communicable diseases cause 41 million deaths each year and accounts for an estimated 71% of all deaths globally. Of the deaths caused by Non-communicable diseases, 32 million occurred in low- and middle-income countries (Mendis et al, 2012). In sub-Saharan Africa in 2015, 34% of all deaths (3.1 million/9.2 million) were due to Non-communicable diseases. Quickly demographic changing and expanding of life expectancy as well as risk introduced by Human Immunodeficiency virus, the world Health organization guess that the African region will steep rises in non-communicable disease rate related mortality over the next time. However, services to prevent and control non-communicable diseases in the Region are largely inaccessible or lacking in quality, particularly for poor people and rural residents. (Dzudie et al 2018, and Mayosi et al 2009). There is global agreement that using the primary health-care system, which provides a decentralized and integrated platform of care, is important in addressing non-communicable diseases. WHO's Package of Essential Non-communicable Disease Interventions (WHO PEN) for primary health care in low resource settings, provides evidence-based clinical guideline to improve access and quality of non-communicable disease services delivered at primary health-care facilities while reinforcing the universal health coverage agenda (WHO, 2012). Some countries in sub-Saharan Africa have adapted the WHO package to the local context, however few have endorsed them and only two countries, Benin and Togo, have done a national implementation. However, published experiences from the translation of evidence-based guidelines to routine practice in resource constrained settings are scarce. The feature of Non-communicable disease are not easy to understand, extend course of illness, physical or mental impairment. Types of them are Cardiovascular disease (e.g., Coronary heart disease, Stroke), Cancer, Chronic respiratory disease, Diabetes, Chronic neurologic disorders (e.g. Alzheimer's, dementias) Arthritis/Musculoskeletal diseases, and Unintentional injuries (e.g., from traffic crashes) [http://www.who.int/gho/ncd/mortality\\_morbidity/en/index.html](http://www.who.int/gho/ncd/mortality_morbidity/en/index.html). The Signs and Symptoms of Diabetes Are Frequent urination, Excessive thirst, Extreme hunger, Unexplained weight loss, Increased fatigue, Irritability, Blurred vision, Itching of the private parts in women, Slow healing of cuts and wounds, Impotence-failure to sustain an erection, Numbness, burning sensations, pins and needles of the feet and hands. The Risk Factor "An aspect of personal behavior or lifestyle, an environmental exposure, or a hereditary characteristic that is associated with an increase in the occurrence of a particular disease, injury, or other.

Health condition. "Principles of Epidemiology, CDC, 2006 . Modifiable risk factor is life style factor can be decreased ,by that reducing the chance of the disease. These are physical inactivity ,use of tobacco ,use of alcohol, and unhealthy diet(WHO).where as Non-Modifiable Risk Factors are A life style risk factor that cannot be decreased or controlled by intervention; for instance: Age, Gender, Race, and Family history (genetics).The Metabolic Risk Factors are the biochemical processes involved in the body's normal functioning Behaviors that can lead to Metabolic/physiologic changes. Four metabolic risk factor which listed by WHO are Raised blood pressure, Raised total cholesterol, Elevated glucose Overweight and obesity .Major modifiable Diabetes Risk Factors are Physical inactivity, Unhealthy diets, , Obesity or Overweight, High Blood Pressure, and High Cholesterol .And also Other Modifiable Risk Factors are Low socioeconomic status, Heavy alcohol use, Psychological stress, High consumption of sugar sweetened beverages, Low consumption of fiber. The Cancers are common term for a large group of diseases that can harm any part of the body .The quick creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other Organs." (WHO, 2012) . Cervical Cancer are Cancer of the female reproductive system. The Two cell types present (squamous and glandular). The occurrence are tended where the two cell types meet.99% of cases linked to genital infection with human papillomavirus (HPV).Female Reproductive Systems Cervical Cancer risk Factors are Human papilloma virus infection (HPV), Smoking, Immune Deficiencies, Poverty, No access to PAP screening, and Family history of cervical cancer .Lung Cancer are Cancer that forms in tissues of the lung, usually in The cells lining air passages Affects more men than women. Two main types: Small cell lung cancer and Non-small cell lung cancer. Lung Cancer Risk Factors are Smoking cigarettes, pipes, or cigars - now or in the Past, Being exposed to second-hand smoke, Being treated with radiation therapy to the breast or Chest, being exposed to asbestos, radon, chromium, Nickel, arsenic, soot, or tar and Living where there is air pollution. The Breast Cancer is the Cancer that forms in the tissues of the Breast, Usually in the ducts or in the lobules. It Occurs commonly in women, not many occurs in men .Breast Cancer risk Factors are Hormone therapies, Weight and physical activity, Race, Genetics or family history, BRCA1 and BRCA2 genes, Age is the most reliable risk factor and Risk increases with age. <http://www.goldcopd.org/other-resources-gold-teaching-slide-set.html>.Cancer is to a large extent avoidable. Many cancers Can be prevented. Others can be detected early in their Development

treated and cured. Even with late stage Cancer, the pain can be reduced, the progression of the Cancer slowed, and patients and their families helped To cope. Tobacco's various forms of exposure, constitutes the main cause of cancer related deaths worldwide among men, and increasingly among women. Forms of exposure Include active smoking, breathing secondhand tobacco smoke (passive or involuntary smoking) and smokeless tobacco. Tobacco causes a variety of cancer types, such as lung, esophageal, Laryngeal, oral, bladder, and kidney, stomach, cervical and colorectal. The total death toll in 2005 from tobacco use was estimated at 5.4 million people (Mathers & Loncar, 2006), including about 1.5 million cancer deaths. If present usage patterns continue, the overall number of Tobacco-related deaths is projected to rise to about 6.4 million in 2015, including 2.1 million Cancer deaths. In 2030, the projected overall death toll will amount to 8.3 million. In low- and Middle-income countries, tobacco attributable deaths have been projected to double between 2002 and 2030. The Alcohol use is a risk factor for many cancer types including cancer of the oral cavity, Pharynx, larynx, esophagus, liver, colorectal and breast. Risk of cancer increases with the Amount of alcohol consumed. The risk from heavy drinking for several cancer types (e.g. Oral cavity, pharynx, larynx and esophagus) substantially increases if the person is also A heavy smoker. Attributable fractions vary between men and women for certain types of Alcohol-related cancer, mainly because of differences in average levels of consumption. For Example, 22% of mouth and oropharynx cancers in men are attributable to alcohol whereas in women the attributable burden drops to 9%. A similar sex difference exists for esophageal And liver cancers (Rehm et al., 2004). 31% of the world's population does not get enough physical activity

1. <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>

2. <http://www.sciencedirect.com/science/article/pii/S0140673612608988>

A study from slums in Mumbai revealed 84.4% respondents had poor knowledge regarding NCDs. This difference can be attributed to the fact that the slum in this study has a functioning UHTC of a Medical College , which runs several information, education and communication (IEC) drives in that area( Mahajan H *et al* ,2012) .The significantly less influence of mass media in our study Subject may be due to lack of access or low literacy. In our case, although 44% stated that they had received cancer information from a doctor, only 17% thought that cancer is curable and only 29% thought that cancer treatment is effective(journal,2017) Less than one third of interviewees had good knowledge of T2DM (Kiberenge et al., 2010:2)

### 3. Material and Methods

#### 3.1. Description of the study area

##### 3.1.1 location (study site).

The Oromia region (with 180 woredas) of Ethiopia. Meyu Muluke woreda is composed of approximately 124 villages (divided into 19 kebeles) . woreda ranges from 500-1700 meters above sea level. It lies between 7° 32' and 8° 54' N latitude. The area found at the distance of 600km East of Addis Ababa and 140km from South East of Harar town (Fig1.)

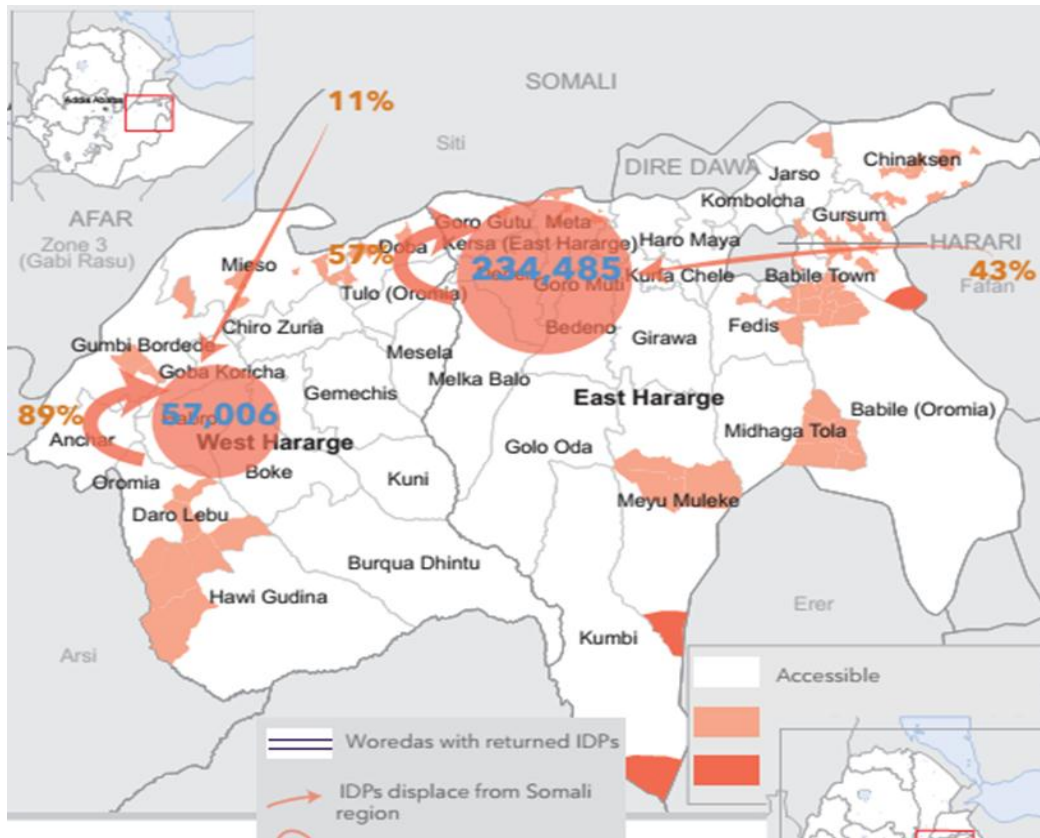


Figure 1 Map of study area .Sources: OCHA, Humanitarian Partners Feedback:ocha-eth@un.orwww.unocha.org/ethiopia

<https://www.humanitarianresponse.info/operations/ethiopia>

### 3.1.2. Demographics

An Estimated population of 55,496 in districts and 1000 population between age of 15 up to 64 in administrative town. Almost all of the population this area are Oromo. And most of them are Islam religious follower.

### 3.1.3 Local economy

The communities living in Meyu Muluke woreda are pastoralist and agro pastoralist who continue to face food insecurity from recurring drought and subsequent livestock losses.

## 3.2 Method

### 3.2.1 Study subject s

This town has 4 cluster (ketene).the subject study was assessing knowledge, attitude and practice of community resident in this area. The study include all population

With age of 15-64 .not involve above and below of it.

### 3.2.2 Sample determination

This study was a type of descriptive survey research design that involve cross –sectional study design method. The Data sources were both primary and secondary data source. The sample size was calculated by using the Slovene’s formula for sample size (Slovin, 1960)

$$n=N/(1+NE^2)$$

Where n=sample size

N=Total population

E=margin of error=0.05

$$E^2 = (0.05)^2 = 0.0025$$

Thus,  $n=1000/(1+1000(0.0025)) = 1000/3.5=286$

The total population of age group 15-64 in this town were 1000 and thus the total sample size was 286 .The Random sampling techniques was employed to select cluster. .The sampling method was done by Lottery method and one ketena was selected for interview and the house hold was selected by systematic random sampling method . Another ketena was selected for

Focusing group discussion(FGD).The interview is a type of structured questioning prepared in English and translated in to Afan oromo for under standing

### **3.3 Data analysis**

After data collection was over the raw items was ordered, edited, coded, and arranged in the way they are suitable for data analysis. Both qualitative and quantitative methods of data analysis techniques were used .Then the data was tabulated in grouped frequency sample analysis and percentages of sample information was described using proportion for discrete qualitative data .95% confidential level is used to estimate mistakes. Finally the data was discussed, summarized and put in a meaningful form.

#### **3.3.1 Ethical consideration**

This study obtained ethical clearance from Addis Ababa University, College of Natural and Computational science, Department of zoological science, Ethical committee. The respondent would be informed about objectives and purpose of the study and it was under the moral values and ethics according to the rule and regulation of participation and guide line. This study was based on interest of respondent.

## **4. Results**

### **4.1. Demographic information**

This section briefly describes socio demographic characteristics of survey respondents such as age, sex, Education, income and marital status. Out of the 286 participant samples, 269 individuals were contacted and given consent for step one making overall response rate of 95% confidence level. Among the respondent, most age group was between 15-27. That is 80% of the respondent as shown in Table (1) and above 50 age groups (32%) were rare in number. The percentage of age range of the community was 46. Majority of the respondent (56.88%) were female. Where the male respondent were (43.12 %). As described in the below table, most of the respondent (77.69%) were married. Whereas 20%, 11.89% and 2.22 % of the respondent were widow, single and divorced respectively. Even though, many of the respondents join the Education from Adult Education up to Higher Education, some of the respondents (30.11%) were illiterate peoples. The study of salary of the respondent show that, most of the community income were those between 2000\_6000 (40.52% and those does not had any income (33.08%).

**Table 1: Demographic information of the study subject**

KAP question on demographic information	Category	Percent (%)
Age	15-21	22.30
	22-27	21.93
	28-33	13.75
	34-39	8.92
	40-45	13.38
	46-51	7.81
	52-57	5.20
	58-64	6.69
Sex	Male	43.12
	Female	56.88
Marital status	Married	77.69
	Single	11.89
	Widow	8.20
	Divorced	2.22
Level of education	Illiterate	30.11
	Adult education	9.66
	Primary school	19.70
	secondary school	18.22
	Higher education	22.30
Salary	2000-6000	40.52
	0	33.08
	<2000	20.82
	>6000	5.58

## 4.2 General Knowledge, attitude and practice related to non-communicable disease.

As shown in table (2) most of the respondent had knowledge of NCD. Of the respondent 66.17% replay that it cannot transmit from one person to another person. The respondent understands that, the current burden NCD were high. Most of the respondent (71.75%) were dis agree that NCD were not less harmful than Communicable disease

**Table 2: General asses of knowledge, attitude and practice related to non-communicable disease.**

KAP question on NCD	Response	Frequency	Percent (%)
,Non-communicable disease is one that cannot be spread between people	YES	178	66.17
	No	61	22.68
	I don't know	30	11.15
NCD are less dangerous than infectious disease	Strongly dis agree	16	5.95
	Dis agree	193	71.75
	Agree	47	17.47
	Strongly agree	13	4.83

## 4.3 Knowledge, Attitude, and Practice on NCD Behavioral modifiable risk factor .

### 4.3.1 Tobacco use

There were good attitude of the community toward harm of smoking cigarettes. Almost all respondent (79.18%) were replied any smoke harms the health.

However, some respondent answer that smoking affect individual health if smoke at least once a week, only daily, and only packet of cigarettes per day. Their relative frequencies were 8.18%, 5.58%, and 7.06% respectively. Almost all of the community had good knowledge and attitude on effect of smoking on their lung and heart. They replied that it is harmful (57.99%) and very harmful (40.89%) on their organ. The following result shows that smoking around other person can affect the individual health. Among the respondent (90.33%) were replied this and 3.35% were answer of no harm where as 6.34% were those can't identify it is harm or not.

**Table 3: Knowledge, attitude and practice of study subject on tobacco use**

KAP question on tobacco use	Response	Frequency	(%)
How much do you have to smoke for it to harm your health ?	Any smoke harms the health.	213	79.18
	You must smoke a t least once a week	22	8.18
	Only daily smoking is harmful	15	5.58
	Only packet of cigarettes or more per day is harmful	19	7.06
Does smoking harm your heart and lung?	Harmful	156	57.99
	Very harmful	110	40.89
	No harmful	3	1.12
. Do you think smoking around others could affect their health?	Yes	243	90.33
	No	9	3.35
	I don't know	17	6.34

### 4.3.2 Alcohol use

Most of the respondent had good practice (92.56%) on the drinking alcohol .Only 7.43% have less practice. The percentage of respondent in the below table (4) show that, the reason why most of the people were to drink alcohol, was due to peer or friend (70.26%) and for relax (19.70%).Where as to forget the problem (5.20%), help digestion (3.34%) and for enjoyment (1.49%)

**Table 4: Practice of the study subject alcohol use.**

KAP question on alcohol use	Response	Relative Frequency (%)
8 Do you ever drink any alcohol	Yes	7.43
	No	92.56
Why you drink the alcohol?	Due to peer pressure.	70.26
	De-stress	19.70
	To stop thinking stress.	5.20
	To help digestion	3.34
	for feeling of pleasure	1.49

### 4.3.3. Health Diet

Most of the study subjects agree that it is important to eat every day fruit and vegetable.

However, 4.46% does not understand the importance of it.

The attitude and practice of the community toward using salt in diet is good (83.64%).However, some people (16.36%) didn't consider amount of salt they used in their diet.

**Table5: the knowledge, attitude and practice of study subject on health diet.**

KAP question on health diet.	Response	Percent
How important is it for people to eat fruit and vegetables every day	Very important	5.95
	Important	82.9
	Moderately	6.69
	not important	4.46
Do you ever think about how much salt you have in your diet?	Yes	83.64
	No	16.36

#### **4.3.4 Exercise**

As the criteria of WHO, most of the respondent fulfill the opinion of how often should person do exercise to . stay health. That were 16.38% those did 1-4 per week and 75.09 were those did 5 or more per week. Other were did monthly (1.86%), twice a month (4.46%) and once a week (2.23%).

The survey illustrated in table (6) show that most of the respondent (33.46%) and 28.99% those think it is not needed and didn't have knowledge respectively. where 20.45% , 5.95% and 11.15% were those no time to do ,too expensive and didn't want it.

**Table 6: the practice of study subject on exercise.**

KAP question on Exercise	Response	Frequency	(%)
In your opinion how often a person should do exercise to stay health?()	Monthly	5	1.86s
	Twice a month	12	4.46
	Once a week	6	2.23
	1-4 time per week	44	16.38
	5 or more time per week	202	75.09
What is the main reasons many peoples don't get this much exercise?	No time to do	55	20.45
	Too expensive	16	5.95
	They don't know	78	28.99
	They don't want	30	11.15
	They think it is not needed	90	33.46

#### **4.3.5 Stress management**

The feeling of stressed were rare among the community in meyu town. Most of the respondent (91.45%) was those feeling stressed some time, whereas 2.23%, 5.20%, and 1.12% were those stressed always, often and never stressed respectively. As illustrated in the Table (7) , the main currently cause stressed were money(34.20%) and Family(31.60%). The other factor like Relationship (7.81%), School/University (14.50%) and lack of work (11.89%) were rare. The investigation show that ,ways of in which the community decrease their stressed were as such: Exercise(27.51%),talk to the friend/family(26.39%) ,eat(22.30%) ,talk to health worker(17.47%) ,drink some alcohol(1.86%) and those didn't identify the way(4.83%)

**Table 7: Attitude of study subject on stress management.**

KAP question on stress management	Response	Frequency	(%)
From day to day, how often do you feel stressed?()	Always	6	2.23
	Often	14	5.20
	Some time	246	91.45
	No ,never	3	1.12
What is currently the main cause of stress in your life?	Family	85	31.60
	Relationship	21	7.81
	School/university	39	14.50
	Lack of work	32	11.89
	Money	92	34.20
IN WHAT Ways you reduce stress?	Exercise	74	27.51
	Talk to Friend OR Family	71	26.39
	Eat	60	22.30
	Talk to health worker	47	17.47
	Drink some alcohol	5	1.86
	I don't know	13	4.83

**4.3.6 High blood pressure.**

The finding Table(8) show that ,most of the respondent (58.74%) were those have been only heard the term before and those had little knowledge about high blood pressure were 25.28% .While 6.32% were those familiar with term and those completely didn't know the term or nothing at all were9.66%. The frequency of the respondent attitude was good. The frequencies that show in below table (8) on the importance of checking their blood pressure (239) and 30

frequency were those didn't understand the importance of it. The majority of the respondent(52.42%) had knowledge on it is needed to check regularly and other 10.41%,11.89% ,14.13%and 11.15%,those checked every 2 years ,more than once a year and once a year and every 5 years respectively in the below table. The percentage of participant those didn't think that to checked their blood pressure and hadn't knowledge it were 35.69% and 43.12% respectively. Whereas those didn't have time and didn't know where to access service were 7.81% and 13.38% respectively. Even though, some respondent didn't know the effect of salt on blood pressure, most of them (83.64%) were had knowledge on it.

**Table 8: Knowledge of study subject on high blood pressure**

KAP question on high blood pressure	Response	Percent (%)
How much do you know about blood pressure?	Nothing at all	9.66
	I have only heard the term before	58.74
	I know a little about it	25.28
	I am very familiar with it	6.32
. Do you think it is important to checked your blood pressure?	Yes	88.85
	No	11.15
Approximately, how regularly do you think your age should have checked blood pressure?	Every 2 years	10.41
	More often than once a year	11.89
	It is needed to check regularly	52.42
	Once a year	14.13
	Every 5 years	11.15
What do you think is the main reason that you do not check your blood pressure regularly?	Don.t have time	7.81
	Don't know where to access service	13.38
	Don't think it is important regularly.	35.69
	Don't know	43.12
can eat food with a lot of	Yes	83.64

salt affect blood pressure?	No	9.29
	I don't know	7.06

#### 4.4 Knowledge, attitude and practice of study subject on four main NCD.

##### 4.4.1 Cardiovascular disease

The study on knowledge of study subject on Heart disease which summarized in table (9) show, majority of respondent (62.08 %) were only heard the term before. The respondents those had a little knowledge were 26.02% and those familiar with it and didn't have any knowledge were 5.58% and 6.32% respectively. As the studies indicate that, majority of the respondent had little knowledge (39.03%) and those only heard the term (34.20%). While 19.33% and 7.43% were those nothing at all and familiar with it respectively. Among the categories that may increase the chance of getting cardiovascular disease smoking (29.74%) was the first one. other risk factor like stress (20.07%), being overweight (29.37%) and older age (20.82%). Most of the respondent had knowledge (68.77%) on the way of prevention cardiovascular disease. Those unsure(21.93%) and as well as 9.29% of those dis agree as analyzed in table(9)

**Table 9:knowledge of study subject on cardiovascular disease.**

KAP question on cardiovascular disease	Response	Percent (%)
How much do you know about heart disease?	Nothing at all	6.32
	I have only heard the term before	62.08
	I know a little about the disease	26.02
	I am very familiar with it	5.58
What about stroke?	nothing at all	19.33
	I have only heard the term before	34.20
	I know a little about the disease	39.03
	I am very familiar with it	7.43
Cardiovascular disease can be prevented?	Agree	68.77
	Un sure	21.93

	Dis agree	9.29
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#### 4.4.2 Cancer

As analyzed in table (10) only 7.81% were very familiar with the disease. However, those had little knowledge (46.47%) and only heard the term (39.40%).6.32% were nothing at all. The relative frequency of respondent knowledge and practice on pap smear were : 28.62%,6.69% ,3.35% , and 61.34% those didn't have time ,did it every three and five years, and those didn't understand it respectively. Most of the respondent (72.49%) that illustrated in table (10) had knowledge about vaccine of cervical cancer. Whereas 10.41 % and17.10% was those had missed understand and those didn't understand respectively.

**Table 10: Knowledge, attitude and practice of study subject on cancer.**

KAP question on cancer	Response	Percent (%)
How much do you know about breast cancer?	Nothing at all	6.32
	I have only heard the term before	39.40
	I know a little about the disease	46.47
	I am very familiar with it	7.81
what was the main reason you didn't have test for the early detection of cancer of the uterus and cervix?	I don't have time	28.62
	Every three years	6.69
	Every 5 years	3.35
	I don't know	61.34
Do you know if cervical cancer can be prevented by vaccination?	Yes it can	72.49
	No, it cannot	10.41
	I don't Know	17.10

#### 4. 4.3, Diabetes mellitus type 2

The survey on diabetes mellitus type 2 show that majority of the participant (65.43 %) had little knowledge about the disease. Whereas the percentage of nothing at all (5.95%), those only know the term (21.19%) and those familiar (7.43%). Most response of the community on the way reduce the chance of getting diabetes were by improving their diet (26.76%) and doing more exercise (23.42%). other mechanism like taking medication, losing weight, quit smoking and

those didn't understand were 4.46%,18.69%,17.47% and 5.95% respectively. The relative frequency of the respondent show the majority of them were not communicating with health worker. These were 34.94%, 42.75% and 22.30 were those no, yes and those didn't remember respectively.

**Table 11 Knowledge, attitude and practice of study subject on Diabetes mellitus type 2**

KAP question NCD	Response	Percent
Knowledge of study subject on Diabetes mellitus type 2	Nothing at all	5.95
	I Have only heard the term before	21.19
	I know a little about the disease	65.43
	I am very familiar with it	7.43
The way of reduce chance of getting diabetes	Improving their diet	26.76
	Taking medication	4.46
	Doing more exercise	23.42
	Losing weight	18.69
	Quit smoking	17.47
	I don't know	5.95
	There is nothing someone can	2.97
Advise of health worker on prevention of diabetes	No	34.94
	Yes	42.75
	I don't know	22.30

#### 4.4.4, Chronic Respiratory Disease

Among all of the respondent only 8.18 % had good knowledge about the disease. While 38.66% had little knowledge and 43.12% were only know the term and as well as 10.04% were those didn't had any knowledge. Majority of the respondent had knowledge on risk factor of chronic respiratory disease (56.13%).While the rest one was those didn't had(43.87%)

**Table 12, Knowledge of study subject on chronic respiratory disease**

KAP question on Chronic respiratory disease.	Response	Frequency	(%)
How much do you know about chronic respiratory disease?(	Nothing at all	27	10.04
	I have only heard the term before	116	43.12
	I know a little about the disease	104	38.66
	I am very familiar with it	22	8.18
Do you know risk factor of this disease?	Yes	143	53.13
	No	126	43.83

## 5. Discussion

Previous study show that there was gap on KAP of community toward NCD worldwide (WHO,2018-2019). For instance, only 29.1% knew about the effects of tobacco in causing cardiac disease and 33.6% of the subjects knew its harmfulness in causing cancer.(national journal of community,2018). other studies among different groups have also reported similar findings( Gajalakshmi *et al* ,2004) .similar finding observe in the other study also indicate that more than half of participants knew that the beneficial role of fruit and vegetable consumption and only45% people aware regarding the salt restriction and exercise (Cotter T *et al*, 2013). Awareness regarding meaning of hypertension, diabetes only 62% and 42 % were aware respectively and more than half of were unaware their complication. (Mohan D *et al*, 2005). In CURES-9 Study conducted at Chennai among general population emphasized that more than 25% of the 26,000 subjects screened by standard questionnaires were unaware of the term called diabetes and in his study on awareness of risk factors for stroke highlighted

That 21% of the total 942 individuals were unaware Of even single risk factor for the stroke (pandian jDet al, 2005) . Other study also indicate that ,>90% of all adult diabetes cases are Type2.<http://www.who.int/mediacentre/factsheets/fs312/en/> (National institute of Diabetes and digestive and Kidney Diseases, 2012).Like that, this research study attempted to provide Information on KAP of community between ages of 15-64 toward NCD in Meyu Town. The survey indicates that most of the respondents were between 15.40 ages. The investigation also shows that, majority of the community were female and marital status of most respondent were married. In terms of status of education majority of the respondent were illiterates and whereas most of the respondent depend on aid or no revenue this indicate that the community may exposed to the disease. Three quarters of NCD deaths (28 million) occur in low and middle income countries (WHO, 2017). According to 2012 data from the World Health Organization (WHO), nearly75% of deaths from NCD (28 million) occurred in LMIC, with 48% of those deaths occurring amongst people under 70 years old (World Health Organization, 2013)

The most of respondent had knowledge of the disease. And could isolate it from communicable. The studies on tobacco use show that, there were good attitude (79.18%) it And it's effect on their lung and heart (57.99%). As well as smoking around other also harmful .on other hand, alcohol use respondents were rare .and most of them drink it due to influence of friend .The attitude and practice of the respondents toward using salt in diet is also good. However, some

people (16.36%) didn't consider amount of salt they used in their diet .The study also show that most of respondent fulfill criteria of WHO that explain how often person do exercise to stay healthy. The reason why most of the respondent do not do exercise was those had lack of knowledge on it . Most of respondents only stressed some time. However, money and family issue were the factor that cause stress in the study subjects .To reduce the stress, the study subjects used many ways .Among them doing exercise and communicate with their family /friend were common one. Table (8) show that, most of the respondent (58.74%) were those have been only heard the term before about blood pressure (hypertension) and those had little knowledge about high blood pressure were 25.28% .While 6.32% were those familiar with term and those completely didn't know the term or nothing at all were9.66%and the attitude and practice of the community on checking their blood pressure was good. The Federal Ministry Health of Ethiopia established a National Strategic Action Plan for Non Communicable Disease in Ethiopia (2014-2016), and developed national treatment guidelines and training materials on major NCDs like hypertension and diabetes had got the similar result. When we come to heart disease and stroke, majority of respondent were knew only the term of it and they ranked factor that may increase chance of getting cardiovascular: smoking, stress, being overweight and older age respectively from high risk factor low risk factor. In the case of prevention cardiovascular disease, most of them had knowledge of it. The results on cancer show that ,most of the study subject didn't have knowledge about it and practice on pap smear were not enough .But most of them had knowledge about vaccine of cervical cancer. The survey on diabetes mellitus type 2 shows that majority of the participants had little knowledge about the disease .However; some of the respondents reduce their chance of getting it by improving their diet and doing exercise. Also some of the study subjects had relationship with health workers .On the other hand, among the entire respondents only 8.18% had good knowledge about chronic respiratory disease and some of study subject had knowledge on risk factor.

## **6. Conclusions and Recommendation**

### **6.1 Conclusions**

The burden of Non communicable is high in the world wide. The country profile reported that about 30% of total deaths in Ethiopia were associated with NCDs from which cardiovascular disease cancers ,chronic respiratory disease, diabetes, and other NCDs accounted for 9,6,3,1 and 11% respectively

- There were many people those have lack of education.
- Most of respondent had good knowledge, attitude and practice toward NCD .However; there were people those lacks of knowledge, attitude and practice toward the disease.
- most of the study subject didn't had knowledge about cancer and practice on pap smear were not enough .But most of them had knowledge about vaccine of cervical cancer .And also majority of the participant had little knowledge about the diabetes mellitus type 2 disease .However, some of the community reduce their chance of getting it by improving their diet and doing the exercise.
- Generally, knowledge, attitude and practice on NCD and its risk factor were not enough in the community living meyu twon.

### **6.2 Recommendation**

- There is lack of knowledge and practice of respondents .so health worker and other body should be involved.
- There is need of awareness and change the attitude of the societies
- Generally ,further research is needed on KAp Of NCD.

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## 8. Appendix

### Appendix I: Participant information sheet

#### Introduction

Hello my name is Jemal Ebrahim .I work on knowledge, attitude and practice of non-communicable disease in communities living meyu town, eastern Hararghe oromia,Ethiopia.The general objective is to study knowledge, attitude and practice of non communicable disease in communities living in meyu town,estern Hararghe,Oromia, Ethiopia and with particular focus to undertake is to assess the distribution of life-style factors (physical activity, tobacco and alcohol use).

#### Participation procedure and guide line

1. The information you provide will be kept completely anonymous .That is your name will be not indicated on any of the forms.

2. It will take about 25 minute to complete the survey. Nevertheless if you do not want to participate in the study it is your right and has no influence on the care being provided in this study.

3. Since the questions are prepared in English the discussion will be English, the interview will be in your language.

#### 4. Participation benefit and risk

1. Risk: There is no risk with your participation.

2. Benefits: You may experience some benefits from participation in the project.

3. Incentives/payment for participation: No payment will be given in this study.

5. Confidentiality. The information will be confidential and will not to be exposed to anybody.

6. Right to refuse: The study will be voluntary.

7. Right as participant: you have right to have any question about this research project answered.

8. Informed consent form with do understanding of the aforementioned information, are you willing to participate in the study? 1. If yes \_\_\_\_\_ (continues the interview)

2. No \_\_\_\_\_ (terminate the interview)

Signature of participant \_\_\_\_\_ date \_\_\_\_\_

## Consent form

In signing this document ,I am giving my consent to participate in the study entitled” knowledge, attitude and practice of non-communicable disease in communities living in meyu town ,eastern Hararghe, Oromia,Ethiopia.The general objective is to study knowledge, attitude and practice of non-communicable disease in communities living in meyu town,Eastern Hararghe,Oromia, Ethiopia. “The purpose of this particular study is to assess the distribution of life-style factors (physical activity, tobacco and alcohol use)...I have been informed that participation in this study is entirely voluntary .I understand that the result of this research will be given to me if I asked

Respondent’s signature \_\_\_\_\_ dates \_\_\_\_\_

Thank you.

**Appendix II** structured interview questionnaire. Knowledge, attitude and practice survey on non-communicable disease.

### **A .Personal information**

Age \_\_\_\_\_

Place of birth\_\_\_\_\_

Sex: male \_\_\_\_\_ female\_\_\_\_\_

Marital status: single\_\_\_\_\_ , married\_\_\_\_ , Widowed\_\_\_\_\_ , divorced\_\_\_\_

Level of education\_\_\_\_\_

Salary per month (in birr) \_\_\_\_\_ Number of children \_\_\_\_\_

### **B .General question on knowledge, attitude related to no communicable disease (NCD)**

I would like to ask you some questions about health, focusing on a group of disease called non communicable disease or NCD.

Please tell me if the following is true, false or you don't know;

1, a non-communicable disease is one that cannot be spread between people?

True (1)          False (2)          C, I don.t know (3)

2, NCD are less dangerous than infectious disease

Strongly dis agree (1) Disagree (2) Agree (3)          strongly agree (4)

C .Question on Knowledge, Attitude and Practice on NCD Behavioral risk factors (RF)

Tobacco use

3 How much do you have to smoke for it to harm your health?( RF2A)

Any smoke harms your health (1 )

You must smoke at least once a week (2 )

Only daily smoking is harmful (3)

Only a packet of cigarettes or more per day is harmful (4 )

4 If yes “is it harmful or very harmful?”(RF4A)

Harmful (1) Very harmful (2)

5. What about your heart, does smoking harm your heart?(RF5k)

Yes (1) No 2 (skip next) I don't know 3(skip next)

6 If yes “Is harmful or very harmful”(RF6A )

Harmful (1) Very harmful 2

7. Do you think smoking around others could affect their health? RF7K)

Yes( 1) No( 2) I don't know ( 3)

Alcohol use: Question on alcohol use.

8 Do you ever drink any alcohol? (RF9 P)

Yes ( 1) No ( 2)

9. I will now give you 5 common reasons for drinking alcohol. Please rank the following reasons starting with the most common reason you drink to the least common. ( RF10P)

to forget your problem (1)

To relax( 2) For enjoyment (3) To drink with friend( 4) To help digestion (5)

10. Have you ever thought there is a need to reduce the amount of alcohol you drink (RF11P)

Yes( 1) No( 2)

11. Do you drive a car? (RF12P) Yes (1) No 2(skip next)

12. Have you ever been advised by health workers about the harms of drinking alcohol? (RF3P)

Yes (1) No( 2)

Diet: Question on diet.

Let's talk about a healthy diet.

13 In general, how important is it for people to eat fruit and vegetables every day? (RF14A)

Not (1) moderately (2) important (3) Very important (4)

14. Do you ever think about how much salt you have in your diet? (RF15A)

Yes (1) No (2) Exercise: Question on exercise.

15. In your opinion how often a person should do exercise to stay health? (RF16p)

Monthly (1) Twice a month (2) Once a week (3) 1-4 times per week (4)

5 or more times per week (5)

16 What are the main reasons many people don't get this much exercise? From the following options, choose one. (RF17p)

No time (1) Too expensive (2) They don't know (3) They don't want (4)

They think it is not needed (5) Other specify

Stress management: question on stress.

17. From day to day, how often do you feel stressed? (Rf18A)

Always (1) Often (2) Sometime/ infrequently (3) No, never (skip)

18. What is currently the main cause of stress in your life?

Choose from the following list. (Rf19A)

Family (1) Relationship (2) School/university (3) Work or lack of work (4) Money (5)

Health (6) Other (specify)

19. In general, please list any ways that someone could reduce their own stress? (RF20A)

Exercise (1) Talk to friend /family (2) Eat (3) Talk to health worker (4)

Drink some alcohol (5) I don't know (6) Other (specify) (7)

High blood pressure

20. How much do you know about blood pressure? (RF21)

Nothing at all (1) I have only heard the term before (2) I know a little about it. (3)

I am very familiar with it. (4)

21. Do you think it is important to check your blood pressure (RF21A)

Yes (1) No (2)

22. Approximately, how regularly do you think your age should have checked blood pressure?

(R F22k) It is needed to check regularly (1) Every 5 years (2) Every 2 years (3) Once a year (4)

More often than once a year (5)

23 What do you think is the main reason that they do not check their blood pressure regularly? Please choose one (RF23p) Don.t has time Don.t know where to access service ( 2) Don.t thinks it is important (3) Don't know how (4) Other (specify) 5

24 can eat food with a lot of salt affect blood pressure? (RF24k)

Yes (1) No (2)(skip next) I don't know<sup>3</sup> (skip next)

D. Question on Knowledge, attitude and practice related to cardiovascular disease

25 How much do you know about heart disease? (CD1K)

Nothing at all (1)

I have only heard the term before( 2)

I know a little about the disease (3)

I am very familiar with it( 4)

26.What about stroke? (CD2K)

Nothing at all (1)

I have only heard the term before ( 2)

I know a little about the disease( 3)

I am very familiar with it( 4)

27.I will read 5 things ,one at a time .please tell me if you think they would increase someone's chance of getting cardiovascular disease or not :It is ok if you are unsure, Smoking ,Stress ,Being overweight, Older age (CD3k) Yes (1) No (2) Unsure (3)

28, Cardiovascular disease can be prevented. (CD4k)

Agree (1) Unsure (2 ) Disagree(3)

E. Question on Knowledge, attitude, practice related breast and cervical cancer (BCC)

(This section is only to be answered by women) Breast cancer

29, How much do you know about breast cancer?( BCC1k)

Nothing at all (1 ) I have only heard the term before(2) I know a little about the disease.(3)

I am very familiar with it( 4)

30 Do you know how to examine your own breast for abnormality or signs(BCC2k)

Yes (1) No (2)

31. During the last 3 years have you had a pap smear?( BCC3p)

Yes (1) No (2)(skip next)

32. If not, what was the main reason you didn't have a pap smear?( BCC4p)

I don't have a time( 1) Every three years( 2) Every 5 years ( 3 )

I don't know (4) 35.Do you know if cervical cancer can be prevented by vaccine? (BCC5k)

Yes it cans ( 1)

No it cannot (2)

I don't know( 3)

F. Question on Knowledge, attitude, and practice related to diabetes mellitus type 2.

33.How much do you know about diabetes? (DIK)

Nothing at all(1)

I have only heard the term before( 2)

I know a little about the disease (3)

I am very familiar with it ( 4)

34.Answer the following about diabetes with true, false or I am UN sure

Diabetes is when there is too much sugar in the blood.( D

True (1 )

False( 2)

I don't know(3)

35.Can you think of things a person can do to reduce their chance of getting diabetes?

If answer is "no" then asked," is this because you don't know or there is nothing a person can do?( D3k)

Improving their diet (1)

Taking medication( 2)

Doing more exercise( 3)

Losing weight (4)

Quit smoking( 5)

I don't know( 6)

There is nothing someone can do( 7)

Other

36.Has a health worker ever spoken to you about how you can prevent diabetes?( D4p)

No (1)

Yes (2)

Don't know/ don't remember (3)

**G. Question about chronic respiratory disease**

37 How much do you know about chronic respiratory disease?( ChRD1k )

Nothing at all( 1)

I have only heard the term before( 2)

I know a little about the disease (3)

I am very familiar with it( 4)

38.Do you know risk factor of this disease? (CHrD2K)

Yes (1)

No (2)

**Appendix III:** Focus group discussions questionnaire

Topics of discussions Direction of discussion question

Nutrition 1, what are the role of fruit and vegetable consumption as a part of a healthy diet and nutrition?

2, what are factors influencing fruit and vegetable consumption (social, Economic, geographic and access)?

3, what are negative and positive influence of fruit and vegetable taking among the population and availability of information related to it?

4, How Direct and indirect dietary source of salt and the health impacts of salt consumption?

Physical activity 1How Understanding what is physical activity

2, what are positive and negative health impacts of being p/active and inactive?

3, How many do you know types of physical activity?

Smoking cigarette 1 .What do you think and know about smoking cigarette?

2, what are factors influencing excessive smoking?

3, what are the negative impacts and health risk of smoking cigarettes?

**Consent form in local language(Afaan Oromoo)**

**1. Guca waliigaltee**

Odeeffannoo hirmaatoota qorannichaaf

Akkam bultan|Akkam oltan| Gaaffanno kana guutuuf yeroo waan nakennitaniif galatoomaa jedhaa. Haara asiiti kan argamneef qorannoo dhunfaa ani gaggeesu waa'ee dhukkuboota hin daddabaree fi sababoota dhukkuboota kanaa kan jedhuu ilaalchiiseeti.

Kaayyoon ijoo qorannoo kanaa Dhukkuboota hin daddabarree fi sababoota tahan ilaalchise Beekumsa, Ilaalcha, fi barteen Hawaasnii Magaalaa mayu maal fakkaata kan jedhuu addaan baafachuudhaaf. Akkasumaas rakko fayyaa irratti geesisuu walqabatee hubannoo hawaasaa foyyeesuu fi akkaataa off irraa tohatan fi ittisan kallatti agarsiisuuf dha.

Gaaffannoo kana guutuuf giddu galaan daqiiqaa 25 nifudhata. Odeeffannoon isiin kennitan hundii iccittummaan isaa Kan eegamee dha. Gaaffannoo keessatti maqaan kessan hinbarreeffamu, galma gahiinsa qorannoo kanaaf odeeffannoo isiin nuuf kennitan baayee barbaachisaa dha.

Odeeffanno itti aanan guutuuf waliigaltuu?

1. Yoo waliigaltuu tahee itti fufaa

2. Yoo waliihingalee gaaffannoo Nama itti aanuuf dabarsaa

Maqaa Nama odeeffannoo kana funaanee\_\_\_\_\_

Mallattoo\_\_\_\_\_

Maqaa qindeessaa \_\_\_\_\_

Mallattoo\_\_\_\_\_

Guyyaa \_\_\_\_\_

Gaafannoo Qu`annoo fi Qoranno Mataduree

Beekumsa, Ilaalcha fi gocha waa'ee dhukkuboota hindaddabaref qorachuu

Kabajamtoota hirmaatootaa kayyoon qorannoo kanaa Beekumsa, Ilaalcha fi gocha waa'ee dhukkuboota hindaddabare f I sababoota isaani hawaasa magaalaa mayu kessatti maal fakkaata Kan jedhuu qorachuudhaaf.

Gaafii Afaanii

A Waa,ee ragaalee bu'uura gaafatamtootaa.

Umrii\_\_\_\_\_

Saala\_\_\_\_\_dhiira\_\_\_\_\_dhalaa\_\_\_\_\_

Sadarkaa gaa'ila kan hin fuudhin(heerumin)\_\_\_ kan fuudhe(heerumte)\_\_\_ tandhirsi jala du'e \_\_\_ kan wal hiikan\_\_\_

Sadarkaa barnootaa \_\_\_\_\_

B gaafilee waliigala waa'ee kaayyichaa

1,Dhukkuboota hin daddabarre warri ja'aman akkuma maqaan isaa ibsu warra namarra namatti hin daddabarre.

Dhugaa(1) soba(2) hin beeku(3)

2,dhukkuboonni kun warra darban caalaa miidha fidu

Wali galla(1) adda fagoo(2) Waliin gallu(3) Sirritti(4)

C ,Gaafilee waa'ee Haala jireenyaa waliin wal qabatan kan fooyya'uu danda'an.

### **Fayyadama tinbahoo**

3,tinbahoo xuuxun fayyaa dhunfaa keetii ni miidhaa

Eeyye(1) Lakkii(2) darbi gara gaaffii 5<sup>ffaa</sup>

4<sup>h</sup>Hamman yoo dhugan nama miidha

Dhugaatiin kamiyyu(1) torbaanitti al tokko(2) Guyyu yo dhugan qofa(3) pakka yodhugde

5,somba ni miidha

Eeyye(1) lakkii(2) (irra tari) Hin beeku(irra tari)

6,yoo eeyye jette

Ni miidha(1) Baayyee miidha(2)

7,Onne hoo

Eeyyee(1) lakkii(2) (tari) Hin beeku(3)(tari)

8,Eeyyee yoo jette

Ni miidha(1) baayyee miidha(2)

9,Kan nama moggatti aarfamu hoo

Eeyyen(1) Lakkii(2) hinbeeku(3)

### **Alkooholi dhuguu**

**10,** Takkaa alkoholi dhugdee?

Eeyyee(1) lakki(2)

11,sababoota alkooholi dhugduuf kana tarreessi

Rakkoo hir'aanfachuuf (1) Cinqata of dhoorkuf (2) bashannanaaf(3)dhiibbaa Hiriyaaf(4)  
bulla'inaaf(5)

12,Dhugaatii alkooolii xiqqeessuun nibarbaachisa jettee yaaddaa?

Eeyyee(1) lakkii(2)

13,Ati konkolaachisaadha?

Eeyye(1) Lakkii(2)(tari0

14,Ogeessa fayyaan gorfamtee beektaa?

Eeyyee(1) lakkii(2)

Nyaata ilaalchisee

15,guyyaa hunda fuduraafi muduraa nyaachuun ni barbaachisaa?

Lakki(1) giddu galeessa(2) ni barbaachisa(3) Baayyee barbbachisa(4)

16,waa'ee hamma ashaboo nyaataa yaaddee beekta?

Eeyyee(1) Lakki(2)

Sochii qaamaa

17,fayyummaaf sochiin qaama hammam barbaachisa

Baattiti(1)baatitti al lama(2)torbanitti(3)1-4baatitt(4)torbanitti yeroo baye(5)

18,sababni hojjachu nama dhoorku maali?

Yeroo dhabuu(1) qaala'uu(2)hanqina hubannoo(3)Fedhii dhabuu(4)hinbarbachisu(5)

### **yaaddo**

19,guyyaatti hammam si yaachisa. Yeroo hunda(1)Yeroo baaye(2)Yeroo tokko

tokko(3)gonkuma(4)

20,maaltu si yaachisa?

Maatii(1) hiriya(2)barnota(3)hojidhabdumma(4)maallaqa(5)fayya(6)

21,akkamitti hirista?

Sochi qaama hojachuun(1)hiriyatti hasahun(2)nyaachu(3)ogessa fayya waliin haasa'uu(4)alcoli  
dhuguu(5)hinbeeku(6)

### **Dhiibbaa dhiigaa**

Waa'ee dhiibbaa dhiigaa hammam beekta?

Homaa (1) Jecha qofa dhagahe(2) Waa xiqoo beeka (3) Sirritiin beeka(4)

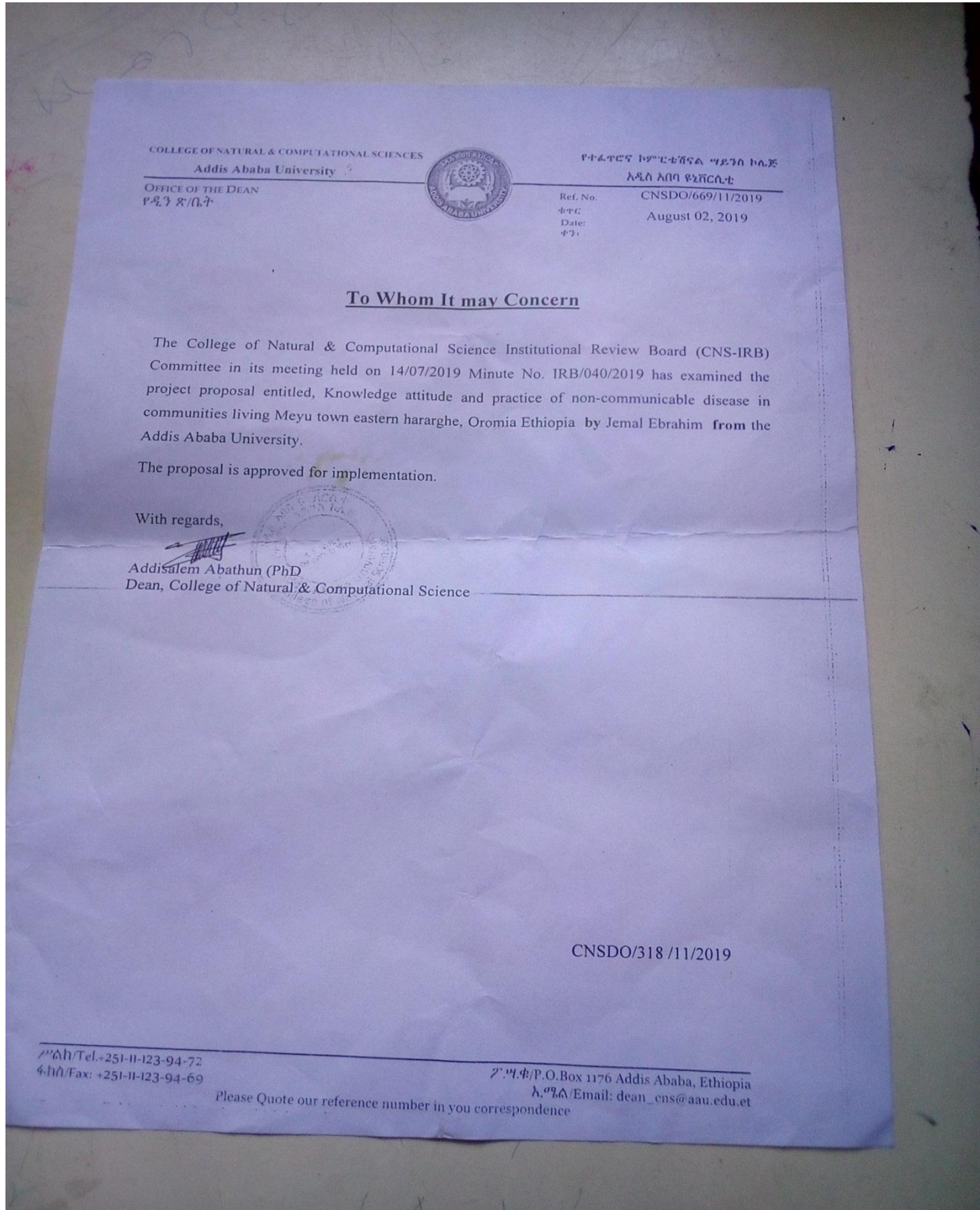
23. Dhiibba dhiigaa qorachiisuun ni barbaachisa? Eeyyeen(1) Lakkii (2)
24. Jireenya kee keesaatti hangam gochuun barbaachisa? Yeroo hunda (1)  
Waggaa shan(2) Waggaa lama(3) waggaa (4)
25. Sababni akka of hin qorachiisne si godhe maal ? Yeroo dhabuu(1) Bakka inni  
itti kannamu walaaluu(2) hin barbaachisu(3) waan hin beekneef(4)
26. Ashaboo baay'ee nyaachuun dhiibba dhiigaa ni fidaa? Eeyyee (1) Lakkii(2)  
hinbeeku(3)
- D. Gaafiilee Gurguddoo waa'ee dhukkuba hin daddabare(dhukkuba  
Kaardoovaaskular. Dhukkuba kaansarii , Dhukkuba shukarraa fii dhukkuba  
hargansuu
27. Waa'ee dhukkuba onnee maal beekta? Humaa (1) jecha qofa dhagahe(2) waa  
xiqo beeka(3) sirriti beeka (4)
28. Waa'ee kaansarii sammuu hoo? Humaa (1) jecha qofa dhagahe(2) waa xiqo  
beeka(3) sirriti beeka (4)
29. Sababbooni akka tamboo xuuxxuu , yaada'uu, ulfaatina gara malee, Umrii  
dhukkuba kaardiyooaaskularii fidaa? Eeyyee (1) Lakkii (2) mamii qaba(3)
30. Dhukkubni kaardiyooaaskularrii ni ittifama? Eeyyee (1) Lakkii (2) miti(3)
31. Waa'ee kaansarii hamam beekta? Humaa (1) jecha qofa dhagahe(2) waa  
xiqo beeka(3) sirriti beeka (4)
32. Waa'ee dhukkuba kaansarii harmaa of qorachiiistee beektaa? Eeyyee (1)  
Lakkii(2)
33. Waggoota sadan darban qorannaale duursaa gootee beekta? Eeyyee (1)  
Lakkii(2)
34. Lakkii yoo jette maaltu si dhowwe? Yeroo dhabuu(1) waggaa 3 (20) waggaa5  
(3) hin beeku(4)
35. Talaaliin isaa ni jiraa ? Eeyyee (1) Lakkii (2)

36. Waa'ee dhukkuba shukaraa hoo? Humaa (1) jecha qofa dhagahe(2) waa xiqo beeka(3) sirriti beeka (4)
37. Akkamiiti carraa dhukkuba shukaraan qabamuu hiri'suun danda'ama? Nyaata Fooyyeessuu (1) Qorich fudhachuu(2) Hojjii hedduu hojjachuu(3) hinbeeku(4)
38. Oggeesi fayyaa si gorse beekaa? Eeyyeen(1) Lakkii(2)
39. Waa'ee dhukkuba hargansuu hoo Humaa? (1) jecha qofa dhagahe(2) waa xiqo beeka(3) sirriti beeka (4)
40. Sababboota isaa hoo ni beektaa ? Eeyyee (1) Lakkii(2)

### **Gaafiilee Banaa kan garee**

1. Gaheen Fuduraa fii Kuduraa nyaachuu maali?
2. Sabaabni fuduraa fii kuduraa akka hin nyaanne si godhan maali?(hawaasumma,qabeenya dhiheessa.)
3. Waa'ee sochii qaama hangam beekta?
4. Gar- malee akka tamboo aarsitu maaltu si godha

Appendix iv Ethical letter



COLLEGE OF NATURAL & COMPUTATIONAL SCIENCES  
Addis Ababa University

OFFICE OF THE DEAN  
የዲን ጽ/ቤት



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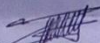
Ref. No. CNSDO/669/11/2019  
Date: August 02, 2019

**To Whom It may Concern**

The College of Natural & Computational Science Institutional Review Board (CNS-IRB) Committee in its meeting held on 14/07/2019 Minute No. IRB/040/2019 has examined the project proposal entitled, Knowledge attitude and practice of non-communicable disease in communities living Meyu town eastern hararghe, Oromia Ethiopia by Jemal Ebrahim from the Addis Ababa University.

The proposal is approved for implementation.

With regards,

  
Addisalem Abathun (PhD)  
Dean, College of Natural & Computational Science

CNSDO/318 /11/2019

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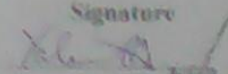

ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES

KNOWLEDGE, ATTITUDE AND PRACTICE OF NON-COMMUNICABLE  
DISEASES IN COMMUNITIES LIVING IN MEYU TOWN, EASTERN  
HARARGHE, OROMIA, ETHIOPIA

BY  
JEMAL EBRAHIM ESA

THESIS IN PARTIAL FULFILLMENT OF DEGREE OF MASTER  
SCIENCE (MSc) IN BIOLOGY EDUCATION

APPROVED BY EXAMINING BOARD

Name		Signature
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2. Dr. Tilaye Wube	(Examiner)	
3. Dr. Bezawork Afework	(Chair Person)	