



ETHIOPIA STEPS REPORT ON RISK FACTORS FOR NON-COMMUNICABLE DISEASES AND PREVALENCE OF SELECTED NCDs



Ethiopia Public Health Institute



FMOH



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ETHIOPIA STEPS REPORT ON RISK FACTORS FOR CHRONIC NON- COMMUNICABLE DISEASES AND PREVALENCE OF SELECTED NCDs



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Federal Ministry of Health



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Forward

The global prevalence of chronic non-communicable diseases is increasing with greatest burden in developing countries. Non-communicable diseases (NCDs) are responsible for a high proportion of the death and disability burden in all countries. In developing countries, the burden of disease caused by NCD is increasing rapidly and expected to have significant economic, social, and health consequences. Prior the present survey, there was no representative NCD risk factor survey undertaken in Ethiopia. As the trend of NCD burden is increasing in the health facilities of the country, the need to conduct comprehensive survey was given priority by FMOH.

Depending on the global and national situations that are related to NCDs, the Ethiopian Federal Ministry of Health has recently developed a strategic framework that would help for prevention and control of chronic non-communicable diseases. One of the objectives of this strategy is generating empirical evidence on NCD. In light of this understanding, the Ethiopian Public Health Institute(EPHI) in close collaboration with health development partners has conducted a study aimed to assess risk factors for major non-communicable diseases (NCDs) and prevalence of selected NCDs to establish baseline information for policy and program development.

Data on prevalence of NCD risk factor is aimed to inform policy makers to design evidence-based public health interventions to prevent and control the epidemics of NCDs. The WHO STEPS survey is a comprehensive study tool to compare with other similar studies done across the world. Furthermore, it provides baseline data to establish epidemiological surveillance system for NCDs risk factors in the country.

This is the first national representative population based risk factor survey conducted in the Ethiopia. I hope that the findings and recommendations will be taken into consideration by the government and all stakeholders. I would like to take this opportunity to express my gratitude to all who have been instrumental in the successful completion of this important study.

Dr. Amha Kebede
Director General (EPHI)

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Abbreviations

AAU	Addis Ababa University
BMI	Body mass index
BP	Blood pressure
CI	Confidence interval
CSA	Central Statistical Agency
CVD	Cardiovascular disease
DBP	Diastolic blood pressure
DM	Diabetes mellitus
EAs	Enumeration areas
EDHS	Ethiopian demography and health survey
EPHA	Ethiopian Public Health Association
EPHI	Ethiopian Public Health Institute
EMA	Ethiopian Medical Association
FMOH	Federal Ministry of Health
GPAQ	General Physical Activity Questionnaire
IFG	Impaired fasting glycaemia
HC	Hip circumference
HDL	High-density lipoprotein
HMIS	Health management information system
HR	Heart rate
LDL	Low-density lipoprotein
HPV	Human papillomavirus
IRB	Institutional review board
IFSS	Internet file streaming system
MET	Metabolic equivalent
n	Number of respondents
NCD	Non communicable disease
OR	Odds ratio
PDA	Personal digital assistant
PSU	Primary sampling unit
SSU	Secondary sampling unit
SBP	Systolic blood pressure
STEPS	WHO STEP-wise approach to surveillance
TWG	Technical Working Group
VIA	Visual inspection with acetic acid
WHR	Waist–hip ratio
UNICEF	United Nation International Children Emergency Fund
WB	World Bank
WC	Waist circumference
WHO	World Health Organization

Executive Summary

Introduction: As the leading cause of death globally, non-communicable diseases (NCDs) particularly cardiovascular diseases (CVDs), diabetes, chronic respiratory diseases and cancer were responsible for 38 million (68%) of the World's 56 million deaths in 2012. Almost three quarters of all NCD deaths (28 million), and the majority of premature deaths (82%) occur in low-and middle-income countries (LMIC). It is estimated that the cumulative economic losses in LMIC between 2011 and 2025 will be US\$7 trillion. This figure exceeds the annual US\$ 11.2 billion cost of implementing a set of high-impact interventions to reduce NCD burden. Non-communicable diseases have been a neglected area in many low-income countries, due to the heavy burden of communicable diseases, and other competing priorities. There is scarcity of published studies describing the burden of major non-communicable disease in sub-Saharan Africa. Likewise, except very few studies in some pocket areas, there was no representative NCD risk factor survey undertaken in Ethiopia. As the trend of NCD burden is increasing in the health facilities of the country, the need to conduct a comprehensive survey has been given priority by FMOH. The Ethiopia NCD STEPS survey provides baseline data of risk factors for non-communicable diseases (NCDs). The survey was conducted with the objectives of assessing behavioural and biological risk factors for major chronic non-communicable diseases (NCDs) and prevalence of selected NCDs to establish baseline information for policy and program development.

Methods: A community based cross sectional study was conducted in accordance to the WHO a step-wise approach to the surveillance of NCD risk factors. The survey was carried out between April and June 2015. The data collection processes included three steps - **Step 1:** This step comprised a questionnaire to gather demographic and behavioural characteristics of the study population, **Step 2:** Physical measurement was done to build on the core data in step 1 and to determine proportion of the study population with raised blood pressure, overweight and obesity, and **Step 3:** Biochemical measurements were undertaken to build on the core data in step 1 and step 2 to measure proportion of the study population with diabetes, raised blood glucose and abnormal lipid level. In addition to core and expanded modules, some optional modules were included in each of the three steps. Data were collected digitally using personal digital assistants (PDAs) from which data were transferred to central server using internet file streaming system (IFSS) and exported to Microsoft Excel on personal computers. Data was cleaned using SPSS and Stata and analysed using Epi Info version 3.5.4. Descriptive weighted analysis was done along with complex sample analysis, and bivariate and multivariate analysis was conducted for increased blood pressure and increased blood sugar.

Results: Totally, 9,801 study participants age 15 -69 years were involved in the survey and the response rate was 95.5%. Of the total 9,801 respondents of STEPs survey, about six in ten were women. Regarding education level by age, the younger group was more likely educated compared with respondents in the older age group. Of all the respondents 49.4 % had no formal education, while 28.8 % attended formal education with less than primary level. Majority of the respondents (67.3 %) were currently married; nearly 10% were employed; 71% of study participants reported their annual income less than 12,000 Birr. The data collected on behavioural

characteristics showed that about 4.2% of the survey participants were current smokers (men 7.3%, women 0.4%). Among all current smokers of both sexes, 82.8% of them smoked tobacco daily. Ten percent were exposed to second-hand smoke at home whereas 13% in the workplace. With regard to alcohol consumption, nearly 41% had consumed alcohol during the past 30 days prior to the survey. The proportion of men who consumed alcohol (46.6%) was higher than that of women (33.5%). The average number of days per week on which fruit and vegetable consumed was 0.9 and 1.5, respectively. More than ninety-eight percent of the population consumed fewer than five servings of fruit and vegetables daily. About six percent of the study population did not meet WHO recommendations on physical activity for health. Individuals in rural areas were found to be more exposed to physical activity than urban residents. About 16% of respondents were current khat chewers. Regarding injury, about 3% of respondents involved in a road traffic crash as a passenger, driver, or pedestrian during the past 12 months preceding the survey. Prevalence of raised blood pressure (SBP > 140 and/or DBP > 90 mmHg) among Ethiopian adult population was 15.6%, with no difference by sex. Six percent of study participants had raised blood glucose and diabetes. Mean body mass index (BMI) was 20.4 (20.1 for men and 20.7 for women). Few individuals (6.3%) were overweight or obese, with a higher prevalence of overweight in urban residents. The percentage of women respondents' age 30–49 years that had ever undergone screening for cervical cancer was 2.65%.

Conclusions and Recommendation: Most of the behavioural risk factors, such as tobacco use, alcohol consumption, khat consumption, were more prevalent among men compared to women. Conversely, the biological risk factors, such as obesity, impaired fasting glycaemia, and raised total cholesterol were more prevalent among women than men. The demographic and behavioural risk factors such as sex of respondent, age group, area of residence, not engaged in vigorous physical activity, alcohol consumption, not doing vigorous recreational activities, and adding salt to food had significant association with raised blood pressure. In addition, the demographic and behavioural factors (age group, area of residence, alcohol consumption, adding salt to food, not engaged in vigorous physical activity, chewing chat) and biological risk factors (raised BP or currently on medication) were significantly associated ($p < 0.001$) with raised blood glucose. In this survey, 95% of the study population were found with 1-2 NCD risk factors and a forecast of the disease burden prevailing in urban population. Modifying the lifestyle like avoiding consumption of alcohol and khat limiting salt intake are highly recommended to decrease the risk of developing raised blood pressure and blood glucose level. In order to promote interventions for prevention and control of NCDs, reduce the risks associated with it, a comprehensive approach is needed which will involve all sectors including Ministries of Health, Education, Agriculture, Trade, Youth Women and Children Affair, Sport Commission, Mass Media, among others. The attention of other health development partners is also required in the fight against NCDs in Ethiopia. Strengthening the capacity of health facilities is also recommended to offer the service related to NCDs and ensures that the health system adequately monitors compliance with national standards. Furthermore, strategies of surveillance system for risk factors need to be established to monitor and measure changes in NCDs burden over time.

1. Introduction

1.1. Background

In countries across the world, regardless of geographic location, size of population or stages of social and economic development, non-communicable diseases (NCDs) are responsible for high proportion of death and disability. The global prevalence of non-communicable disease is increasing, with the greatest burden occurring in developing countries, and it is projected to increase over the next decades. This increase reflects an epidemiological transition in developing countries from communicable disease to NCDs. As the leading cause of death globally, NCDs particularly cardiovascular diseases (CVDs), diabetes, chronic respiratory diseases and cancer were responsible for 38 million (68%) of the World's 56 million deaths in 2012. Almost three quarters of all NCD deaths (28 million), and the majority of premature deaths (82%) occur in low-and middle-income countries. It is estimated that the cumulative economic losses in low-and middle-income countries between 2011 and 2025 will be US\$7 trillion. This figure exceeds the annual US\$ 11.2 billion cost of implementing a set of high-impact interventions to reduce NCD burden(1). Non-communicable diseases have been a neglected area in many low-income countries, due to the heavy burden of communicable diseases, and other competing priorities. The prevalence of NCDs is actually rising rapidly and is projected to cause almost three-quarters as many deaths as communicable, maternal, neonatal, and nutritional diseases by 2020, and estimated to exceed as the most common causes of death by 2030(2). The rapidly increasing burden of these diseases is affecting poor and disadvantaged population disproportionately, contributing to widening health gaps between and within countries. As non-communicable diseases are largely preventable, the number of premature deaths can be greatly reduced through proper intervention programs(3). Existing evidence based studies inform us that the NCDs epidemic can be reduced by preventing and controlling the four behavioural risk factors for NCDs: tobacco use, insufficient physical activity, harmful use of alcohol, and consumption of unhealthy diet. Limited epidemiologic studies indicate that non-communicable diseases are emerging as a major disease burden in Africa. Consequently, developing countries in Africa are challenged with a double burden of disease from pre-existing communicable diseases and the emerging NCD epidemic (4, 5). In sub-Saharan Africa, the increasing NCD burden is compounded by lack of a coherent policy on chronic disease prevention, control, surveillance, and research. There is scarcity of published studies describing the burden of major non-communicable diseases in sub-Saharan Africa. Likewise, except very few studies in some pocket areas, quantitative information on the burden of chronic diseases or their risk factors in Ethiopia is very limited. Furthermore, the existing health management information system (HMIS) lacks completeness. Although, there were some small-scale pocket area studies in relation to some of NCDs and their risk factors conducted in Ethiopia, the results were not comprehensive and nationally representative. According to EDHS 2011, some of behavioural risk factors (tobacco use, alcohol consumption, and khat chewing) were considered in the survey. The finding showed 7 % of men use tobacco products; 45% of women and 53% of men reported drinking alcohol at some point in their lives; 11% of women 28% of men reported that they have ever chewed khat (6). In one of the administrative zones of Ethiopia, a population-based cross-sectional survey (STEPS) was conducted in Gilgel Gibe, one of the Ethiopian demographic and surveillance sites in 2009 and a random sample of 4,469 individuals age 15-64 years were studied. Overall prevalence of NCDs was 8.9%. Prevalence of 3.1% for diabetes, 9.3% for hypertension, 3.0% for

cardiovascular diseases, 1.5% for asthma and 2.7% for mental illness were described(7). A national situation analysis on NCD was carried out in the country in 2009 and the findings depicted lack of completeness of routine information at health facilities. Consequently, the analysis was short of revealing the magnitude, pattern or trend of chronic diseases reliably. Despite the limitations in the health management information system (HMIS), chronic diseases such as hypertension and diabetes mellitus appear on the list of leading causes of morbidity and mortality at hospitals and regional health bureaus across the country(8).

In response to the above challenges, several efforts were exerted by the Ethiopian government to tackle the problem of NCDs. FMOH is responding with measures that lessen the risk factors that are associated with NCDs. In accordance with the 2011 UN declaration on NCDs, the FMOH has developed and launched the National NCD Prevention and Control Strategy. Ethiopia is also a signatory of the Framework Convention on Tobacco Control (FCTC) and following the proclamation by the Peoples Representative of the FDRE on tobacco use, FMOH developed an implementation/execution guideline. As part of the effort to fight cancer, 22,818 women aged 30-49 had undergone cervical cancer screening; out of whom 2,801(12.3%) had signs of the disease and 1,348 (5.9%) were identified as full-blown cancer. Furthermore, preparation to introduce cancer registry was finalized. A pilot population based cancer registry started in Addis Ababa City Administration. The Hawassa UniversityHospital started facility based cancer registry. Various tasks were also performed towards integrating mental health services with PHCU(9, 10).

1.2. Rationale

To date, there is no representative NCD risk factor survey undertaken in Ethiopia. As the trend of NCD burden is increasing in the health facilities of the country, the need to conduct comprehensive survey was given priority by FMOH. Data on prevalence of NCD risk factor will inform policy makers to design evidence-based public health interventions to prevent and control the epidemics of NCDs. The WHO STEPS survey tool was used in the present survey because it is a comprehensive study tool to compare with other similar studies done across the world. Furthermore, it provides baseline data to establish epidemiological surveillance system for NCDs risk factors in the country.

1.3. Objective:

To assess risk factors for major non-communicable diseases (NCDs) and prevalence of selected NCDs to establish baseline information for policy and program development.

Specific objectives:

- To assess socio-demographic characteristics in relation to major non-communicable disease risk factors
- To estimate the magnitude of behavioural and biological risk factors for major NCDs
- To determine the magnitude of increased blood pressure and glucose in Ethiopia
- To identify factors associated with selected NCDs (increased blood pressure and glucose) in Ethiopia
- To provide reliable and valid information for planning and evaluating public health interventions.

2. Methods and materials

2.1. Survey design:

According to the WHO step-wise approach to the surveillance of NCD risk factors, a community-based cross sectional study was carried out.

2.2. Survey population:

The target population for this survey included all men and women age 15-69 years old who have been living at their place of residence for at least six months. This target population included all people who consider Ethiopia to be their primary place of residence. This definition included those individuals residing in Ethiopia regardless of their citizenship status.

People with the following characteristics were not included:

- those who were not a permanent resident of Ethiopia.
- those who were institutionalized-including people residing in hospitals, prisons, nursing homes, and other similar institutions or residents whose primary residences are military camps or dormitories.

Furthermore, critically ill, mentally disabled and those with some type of physical disability that is not suitable for physical measurement were excluded from this study. In general, the target population of the study included individuals 15-69 years old and residing in all geographic areas of the country.

2.3. Sample size determination and sampling procedure:

A single population-proportion formula was implemented to determine the sample size. To adjust for the design effect, a complex sampling design effect coefficient of 1.5 was used to compute the sample size. In order to have an adequate level of precision for each age-sex estimate and place of residence, the sample was multiplied by the number of age-sex and place of residence groups for which the estimates were reported. Thus, Z-score=1.96; proportion =35.2% (11); marginal error=0.04; design effect =1.5; age-sex estimate and place of residence - sex estimate =10 groups, and non-response rate=20%. Thus, 10,260 study participants were to be included in the study. In this study, a mix of sampling approach namely stratified, three-stage cluster sampling, simple random sampling and Kish method were employed to select the study settings and the study participants. The sampling frame was based on the population and housing census conducted for Ethiopia in 2007 (CSA, 2008). There are 11 regions including the two city administrations (Addis Ababa and Dire Dawa). Each region is divided into administrative zones. The two city administrations are divided into sub-cities. The administrative zones in the nine regions and sub-cities in the two city administrations are subdivided into districts or 'Woreda'. The districts 'Woredas' are also further divided into 'Kebele'. The *kebeles* are the smallest administrative units with clear geographic jurisdiction in Ethiopia. Within Kebeles, there are Enumeration Areas (EAs) which are delineated by the Central Statistical Agency (CSA) of Ethiopia. Therefore, Enumeration Areas (EAs) were considered as the primary sampling units for this survey. According to the 2007 population and housing census, there were a total of 15,837 Kebeles in Ethiopia i.e. 14,364 in rural and 1,473 in urban *kebeles* (12). Taking into account the cost of the study and the level of precision, 20 households per EA and one eligible individual from each household with a total of 513 EAs were covered nationwide. Stratifying the sampling design by place of residence we allocated about 404 EAs for rural and the remaining 109 to urban areas (Table 2).

Table 2. 1 Total sample size allocation by region, Ethiopia NCD STEPS, 2015.

Regions	Total EAs		Total	Sampled EAs		Total	Sampled House Holds		Total
	Rural	Urban		Rural	Urban		Rural	Urban	
Tigray	4,098	1,484	5,582	23	12	35	460	240	700
Afar	774	245	1019	4	2	6	80	40	120
Amhara	17,827	3,300	21,127	111	21	132	2,220	420	2,640
Oromia	25,264	4,909	30,173	158	31	189	3,160	620	3,780
Somali	1,763	214	1,977	10	2	12	200	40	240
Benishangul G.	781	171	952	5	1	6	100	20	120
SNNPR	14,299	2,058	16,357	89	13	102	1,780	260	2,040
Gambella	273	127	400	2	1	3	40	20	60
Harari	95	167	262	1	1	2	20	20	40
Dire dawa	128	313	441	1	2	3	20	40	60
Addis Ababa		3,747	3,747	0	23	23	0	460	460
Total	65,302	16,735	82,037	404	109	513	8,080	2,180	10,260

As shown in the table 2.1 above, the Primary Sampling Units (PSUs) were the EAs both in rural and urban settings. At the first stage, 513 PSUs (404 rural and 109 urban) were selected with probability proportionate to size. This is followed by a random selection of secondary sampling units (SSUs) per selected PSU in the second stage. The Secondary Sampling Units (SSUs) were the households. The total number of EA in 2007 was 82,037. The Enumeration areas essentially comprise on average 100 households both in urban and rural settings. Twenty households were selected from each EA using systematic sampling. Thus, a total of 10,260 households were selected from the 513 EAs (20 households per EA). The sampling interval was determined by dividing the total number of households in the selected EA by 20. Prior to sampling, supervisors and data collectors visited the selected EAs and conducted a fresh listing of all households in that EA in consultation with local health workers and any other active member who have a good understanding of the local context. In the third stage, eligible individuals were selected from household using Kish method. Only one eligible participant (an adult age 15-69 years) in the selected household was enrolled in the survey. Using the Kish method, eligible participants in each household were ranked in order of decreasing age, starting with men followed by women.

2.4. Survey instrument:

The survey was conducted using the WHO NCD STEPS instrument version 3.1. The questionnaire consisted of three STEPS for measuring the NCD risk factors. STEP I included questionnaires, STEP II included physical measurements and STEP III included biochemical measurements. Each step consisted of a number of core, expanded and optional questions. The questionnaire was modified with expanded and optional questions to suit local needs. Additional optional questions were added to the instrument because they were deemed locally relevant, Khat chewing, for instance. All the modifications were done in accordance with the STEPS manual (WHO steps, 2005). The complete stepwise survey of non-communicable diseases risk factors is a three-stage process. It starts with gathering key information on risk factors with a questionnaire, then moves to physical measurements and then to collection of blood samples for biochemical analysis. Biochemical measures include fasting total cholesterol, blood glucose; triglycerides and high-density lipoproteins were measured using cardio-check analyser.

Step 1: This step comprised of data collection using a questionnaire. Its purpose was to gather demographic and behavioural characteristics of the population from a representative sample.

Step 2: Physical measurement. The purpose was to build on the core data in step 1 and to determine proportion of the study population with raised blood pressure, overweight and obesity.

Step 3: Biochemical measurement: The purpose was to build on the core data in step 1 and step 2 and measure proportion of the study population with diabetes, raised blood glucose and abnormal lipid level.

Table 2. 2 Components of steps survey variables used, Ethiopia NCD STEPS, 2015

Steps	Core	Expanded	Optional
Step 1: Behavioural	Basic demographic information, including age, sex, literacy, and highest level of education.	Expanded demographic information including years at school, ethnicity, marital status, employment status, household income	
	Tobacco use, alcohol consumption, fruit and vegetable consumption, physical activity	Smokeless tobacco use, Past 7 days drinking, Oil and fat consumption, History of blood pressure, treatment for raised blood pressure, history of raised blood pressure and diabetes, CVD/cholesterol and their treatment	Tobacco. policy Injury and violence Khat consumption
Step 2: Physical measurement	Weight and height, waist circumference, blood pressure	Hip circumference Heart rate	
Step 3: Biochemical measurement	Fasting blood sugar, total cholesterol,	HDL-cholesterol and fasting triglycerides	Urine examination (protein and creatinine ratio) to examine kidney status.

Adopted from the WHO Stepwise survey manual and WHO recommended table attached in annex for reference.

Validated questionnaires comprising core and expanded items as well as optional modules on violence and injury, and khat use were translated into local languages, namely Amharic, Tigrigna and Oromifa. The questionnaire is then translated back into English, reviewed by the STEPS TWG member, and used for the data collection.

Training and pre-test

Qualified field data collectors (nurses and laboratory technicians) and field data supervisors (health officers, medical doctors or nurses with Master's Degree and above) were recruited. One week training on the STEPS survey was organized by the Ethiopian Public Health Institute (EPHI) in collaboration with the Ministry of Health and the WHO Country Office in Ethiopia from 2nd –9th April 2015. A total of 75 data collectors and 27 supervisors attended the training. The training of data collectors was conducted by the survey's technical working group, which had previously been given general training (without differentiation) during a four-day national orientation seminar, organized by EPHI in collaboration with WHO, from 30 March to 1st April 2015. The focus area of the training was on the survey questionnaire, physical measurement, and blood collection and testing, using personal digital assistants (PDAs) for data collection and data transfer via internet file streaming system (IFSS) to central server located at EPHI. The training also comprised interactive sessions to introduce data collection methods for STEPS 1, 2 and 3 of the survey. The questionnaires were pretested to detect any possible problems in the flow of the questionnaires, gauge the length of time required for interviews, as well as any problems in the translations and problems with PDA. The pre-test for the survey took place from April 7-9, 2015, Adama, Ethiopia. During pre-test data collection, EAs within Oromia region which were

not sampled in the main survey were surveyed for three days to test and refine the survey instruments and the PDA programmes. The pre-test started with the selection of one individual within the household, according to the Kish sampling methodology, and dissemination of information about the survey. Each team administered the questionnaire, performed physical measurements, and laboratory testing. The pre-test was aimed at validating the field data collectors' skills in using the survey questionnaire, performing physical measurements, laboratory testing, using PDAs and data transfer system. After the pre-test, the questionnaires and PDA programmes were finalised for the main data collection. EPHI research team lead the training and some of TWG members provided technical support during the training in the area of their expertise.

2.5. Data collection procedure:

The survey data were collected between 14 April and June 26, 2015. Thirty-five teams were formed to conduct the data collection. Each team comprised of three people a supervisor and two data collectors (i.e. one nurse and one laboratory technologist), and each team was provided with a field car. Local field guides (either health extension worker or a community volunteer) were used to reach the selected households. On the day of data collection, the selected households were visited and the data collectors gave general information verbally on the objectives of the survey. This was followed by selection of one study subject from all eligible adults 15–69 years old in each household using Kish method Further information was given to the selected participant and two consents were requested (one for STEPS 1 and 2); after finishing the data collection for the first two steps, consent was requested for STEP 3. The collection of capillary and venous blood was carried out the day after STEP 1 and STEP 2 data collection. Blood was taken from the survey participant who fasted at least for 8 hours. The blood collection was conducted at the nearby primary health care facility.

STEP 1: Questionnaire survey

The questionnaire was used to collect data on respondent's demographic and socioeconomic status; tobacco use; alcohol consumption; diet, including fruit and vegetable consumption, oil and fat consumption, meal consumption outside the home, and dietary salt intake; physical activity; Khat use, violence and injury, history of raised blood pressure, diabetes, raised cholesterol and/or CVDs, lifestyle advice, and screening for cervical cancer.

Assessing tobacco use

Tobacco use was assessed in terms of current and previous smoking status, duration of smoking, quantity of tobacco use, smokeless tobacco use, and exposure to second-hand smoking. Data collectors used show cards depicting types of commonly used tobacco products.

Assessing alcohol consumption

Alcohol consumption was measured using the concept of a standard drink. A standard drink is any drink containing about 10g of alcohol. Data collectors used show cards depicting most commonly consumed alcoholic beverages as standard drinks. Respondents who reported using alcohol within the past month were classified as current drinkers. Three risk categories were used to classify respondents who consumed alcohol according to the average amount of alcohol consumed per day.

Assessing diet

In order to assess the diet pattern of the surveyed population, the respondents were asked about frequency of fruit and vegetable consumption, mean number of portions of these foods consumed daily, type of oils and fat used for meal preparation, number of meals eaten outside the household per week and the amount of salt consumed daily. Consumption of fruit and vegetables was assessed in terms of the number of servings, with a serving being equal to 80g. Show cards were used to collect data on fruit and vegetable consumption on a typical day. Oil and fat intake was assessed by asking about the type of oil or fat most frequently used for cooking. Salt consumption was assessed by asking about frequency of addition of salt or a salty sauce to food during preparation, or before or while eating; and/or frequency of consumption of processed food high in salt. Participants were also asked about their perception of the quantity of salt they consumed and its link with health problems, as well as about the importance of reducing salt intake, and the measures undertaken to control it.

Assessing physical activity

Physical activity was assessed based on intensity, duration and frequency of physical activity at work, in recreational settings and involving transportation (journeys), using a set of 16 questions. Data were collected on the number of days, hours and minutes of physical activity performed at work, involving transportation and in recreational settings for at least 10 minutes or more continuously each day. The complex questionnaire has the advantage of assessing not only the duration, but also the intensity of physical activity. Show cards were used to depict different types of physical activity. The total time spent on physical activity per day at work, involving transport and in recreational activities was measured by using a continuous indicator: the metabolic equivalent (MET) time in minutes per week spent in physical activity. The population was classified into specific groups according to their amount of physical activity. METs are commonly used to express the intensity of physical activities, and are used for the analysis of General Physical Activity Questionnaire (GPAQ) data. MET is the ratio of a person's working metabolic rate relative to their resting metabolic rate. One MET is defined as the energy cost of sitting quietly, and is equivalent to a caloric consumption of 1 kcal/kg/hour. For the analysis of GPAQ data, existing guidelines have been adapted. It was estimated that, compared with sitting quietly, a person's caloric consumption is four times as high as when being moderately active, and eight times as high as when being vigorously active. In order to calculate the categorical indicator for the recommended amount of physical activity for (good) health, the total time spent carrying out physical activity during a typical week and the intensity of the physical activity were taken into account. According to WHO global recommendations on physical activity for health, throughout a normal week adults should do at least the following amount of exercise (including activity for work, as well as during transport and leisure time):

- 150 minutes of moderate-intensity physical activity; or
- 75 minutes of vigorous-intensity physical activity; or
- An equivalent combination of moderate- and vigorous-intensity physical activity achieving at least 600 MET-minutes.

For comparison purposes, tables presenting cut-offs from WHO recommendations(13) were also used during the data analysis. The three levels of physical activity suggested in these recommendations for classifying populations are: (1) low, (2) moderate, and (3) high.

High-level physical activity involves a person reaching any of the following criteria: vigorous-intensity activity at least three days per week, achieving at least 1500 MET-minutes per week; or seven or more days of any combination of walking, moderate- or vigorous-intensity activities achieving at least 3000 MET-minutes per week.

Moderate level physical activity involves a person not meeting the criteria for the high-level category, but meeting any of the following criteria:

Three or more days of vigorous-intensity activity of at least 20 minutes per day; or five or more days of moderate-intensity activity or walking for at least 30 minutes per day; or

- Five or more days of any combination of walking, moderate- or vigorous-intensity activities achieving at least 600 MET-minutes per week.

Low level physical activity involves a person not meeting any of the above-mentioned criteria for the moderate- or high-level categories.

History of NCDs and their risk factors

History of diabetes, CVDs, raised blood pressure and raised cholesterol were assessed by asking whether specific measurements for these purposes previously performed by a doctor or health worker. Study participants were also asked about any medication taken.

Lifestyle advice

The participants were asked about any advice given by a doctor or a health worker during the past three years relating to reducing common risk factors for NCDs.

Assessing cervical cancer screening status

Cervical cancer screening status was assessed by asking about whether participants had undergone visual inspection with acetic acid (VIA) testing, a Pap smear and/or human papilloma virus (HPV) test.

STEP 2: Physical measurements

Blood pressure and heart rate were measured for all survey participants whereas body weight, height, waist circumference, and hip circumference were measured for all survey participants other than pregnant women. Body weight and height was measured with the electronic Growth Management Scale. This is a device suitable for measuring a combination of factors (body scale with height gauge) with laser. It measures body weight and height, and calculates body mass index (BMI). BMI is a ratio of body weight in kilograms to the square of body height in metres and was calculated according to the formula.

BMI calculation formula

$BMI = \text{Body weight (kg)} : \text{Body height}^2(\text{m}^2)$. A $BMI \geq 25$ indicates that a person is overweight, while a $BMI \geq 30$ indicates that a person is obese. Waist and hip circumferences were measured by a non-stretch tape - meter with millimetre precision. Waist circumference was measured by placing a tape measure around the bare abdomen at the midpoint between the lower margin of the last palpable rib and the top of iliac crest of the hip bone. Hip circumference was measured by placing a tape measurement around the hip at the maximum circumference over the buttocks or around the greater trochanter of the femoral bone. The waist-hip ratio (WHR) was computed using measurements of waist and hip circumferences among all

respondents, excluding pregnant women. The WHO reference cut-off for WHRs was used to define obesity at above 0.90 for men and above 0.86 for women.

Blood pressure and heart rate measurements were taken three times on the right arm of the survey participants in a sitting position, using a Boso-Medicus Uno instrument with a universal cuff and automatic blood pressure and heart rate monitor. The mean of three measurements was taken for analysis. The measurements were taken after the participant had rested for 15 minutes, and each with three minutes of rest between the measurements (maximum deviation of cuff pressure measurement ± 3 mmHg, and of pulse rate display $\pm 5\%$).

Percentage of raised blood pressure was defined as:

- Systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) ≥ 90 mmHg, or currently taking medication for raised blood pressure or hypertension.

The percentage of respondents with treated and/or controlled raised blood pressure among those with raised blood pressure (SBP ≥ 140 and or DBP ≥ 90 mmHg) or currently taking medication for raised blood pressure was categorized as follows:

- Percent taking medication and SBP < 140 mmHg and DBP < 90 mmHg
- Percent taking medication and SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg
- Percent not taking medication and SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg.

STEP 3: Laboratory analysis

Laboratory tests were performed for blood glucose, total cholesterol and HDL cholesterol using CardioCheck PA Analyser and for Triglycerides levels using Cobas Integra 400 Plus (Roche Diagnostics GmbH, Mannheim, Germany) clinical chemistry analyser. Concentrations of glucose, total cholesterol and HDL cholesterol were measured in capillary blood the next day after STEPS 1 and 2 of the data collection. Capillary blood tests were performed for all survey respondents using a CardioChek PA Analyser, after fasting. Laboratory test results were assessed and categorized according to the definition.

2.6. Data quality assurance

Standard data quality control procedures were implemented for each critical stage of the study. Quality assurance started at the very beginning – during the design of the data collection instrument and translation to local language, training field staff and pre-testing, the physical handling of survey instruments and data, to the final data entry and analysis. The relevant items of field instruments were translated into local languages (Amharic, Oromifa and Tigrigna), then translated back to English to assure consistency and accuracy, and then pre-tested. The designed questionnaire was tested at the field level with similar clients at a location that has not been selected for the actual survey, to ensure that there are no errors in the questionnaire design and that the data collectors can easily gather the data with the respondents easily understanding and responding to the questions. Based on the results of the pre-test and the back translation, the questionnaires were further reviewed and finalized. NCD TWG members and other stakeholders were invited to attend training to provide comments and alternative perspectives on implementation of the research instruments, contribute their unique experiences to the study, offer any particular considerations that must be taken into account, and input any other contextual experiences and knowledge that may be useful for the assignment. To ensure that all the field staff are aware of their duties, detailed to-do lists

were prepared with day to day schedules. Checklist was also prepared for field staff to check their performance against the time allocated. Intensive monitoring and follow-up during each phase of data collection was undertaken by central staff. During this time, experienced core research team members technically assisted the field staff and closely followed the study progress. Furthermore, the monitoring team comprised representatives from FMOH, EPHA, and WHO delegation from WHO HQ and country office were involved with the task of monitoring the survey data collection. The teams carried out monitoring in the field and provided technical and logistical support to data collection teams throughout the data collection process. During field assistance, members of the core research team randomly select 5% of completed households and recheck them with the responses of the client in the survey and Kish data, check ID variables and check that questions are being properly understood and completed. Corrections and clarifications were carefully discussed and explained to field staff. The quality of data was further ascertained during the data management process. The data management team strictly monitored the field team during the entire data collection period. Ranges and necessary rules for variables were set during template preparation, so that unlikely values were rejected. Re-evaluation and judgments on the rejected responses were made and appropriate actions were taken by the data management team. For Biochemical data all data entry clerks checked their entered data specific to the identified variables by checking against the form. In addition, the data entry system was programmed in such a way that outlier entries were not accepted. Finally, all entered data were further visually checked for outliers.

2.7. Data management process

The survey data were collected entirely using PDAs. eSTEPs software was used to design and program the data collection tools in the PDAs. The use of the software and PDAs to collect the data helped to generate the final dataset quickly following the completion of data collection. The collected datasets were stored in the device as well as the memory card in rml format. The rml files from the PDAs were transferred to the supervisors tablet computers via the Windows Mobile Device Centre. The files were then transferred to a central server located at EPHI via Internet file streaming system (IFSS) software. IFSS is an application that connects to and exchanges data with the server component. Supervisors managed tablets supported by internet (EVIDEO) and run the IFSS icon (IfssClientPC.exe) located in their desktop to send all the updated data files to central server by entering their user name and password. Finally IFSS automatically perform Automatic packaging and delivering file and Automatic receiving of incoming files. At central level, data management activity was performed by creating two groups of folders on the central server and stored data from 35 teams (group one 1-17 teams and group two 18-35 teams), and exported data to usable format. The central data management team checked the data monitoring sheet to monitor team progress, produced progress report every week on the performance of teams, provided feedback to data collectors, supervisors, and regional coordinators. The data were converted into Microsoft Excel® format. Each survey respondent had a unique identifier comprised cluster, household number within cluster and individual ID number. Next, the survey data were compiled into a single file, and the accuracy of recording respondents' age and sex, among other variables, was established within a week using range and logic checking functions. Finally, data checking was also carried out using the analysis code provided by WHO HQ, which includes a code to check the data prior to every analysis performed.

2.8. Weighting of data

Because the data comprised a sample of the target population, it was necessary to weight the data. Thus, sample weighting and adjustments were carried out to correct differences in the age, sex and area of residence distribution of the sample versus (vs) the target population and probabilities of selection. The sample weight for each case in the survey sample accounts for the number of cases it represents in the sampling frame, based on the sample selection procedure. The product of the sample weight and the population adjustment weight and non-response weight was used in all weighted analysis.

2.9. Data analysis

Statistical analysis of the survey data was performed by data management team of the Ethiopian Public Health Institute in consultation with teams from WHO HQ. Data analysis was performed using Epi Info version 3.5.4, using appropriate methods for the complex sample design of the survey. The prevalence and measures of central tendency of NCD risk factors were estimated. Outcome measures (prevalence and mean variance) and differences between groups (age, sex and urban/ rural groups) were calculated with a 95% CI. Sampling error, which could potentially affect the accuracy of the results of the current survey, was measured by the standard error of variables. Margins of error in prevalence and in measures of central tendency are represented by numeric values for the lower and upper limits of a 95% CI. Results of the survey on the prevalence of NCD risk factors, and the measures of central tendency can be considered representative for the target population, since they were adjusted using population, non -response and sample weights. Further statistical analyses were done by using chi- squared tests and logistic regression models. Chi- squared tests were used when comparing groups. All factors with a p-value <0.05 in the bivariate analysis were further entered into the multivariate model to control for confounding effects. Odds ratios (OR) with 95% confidence intervals (CI) were calculated. Statistical significance was accepted at the 5% level (p<0.05).

2.10. Ethical clearance

The project is intended to collect community based primary data across the country. Principles of Ethics were considered. Data were collected unlinked anonymously, without any personal identifiers. For the purpose of data collection, informed consent was obtained from the study participants before administering the questions/collecting blood sample and objectives of the study was explained to the participants by the data collectors. For under eighteen children (age <18 years) survey participants assent and consent from their parents or guardians was obtained. Ethical clearance was obtained first from the EPHI Institutional review board (IRB) then from National research and Ethics review committee. Furthermore, official letter was produced and delivered to the respective regional health bureaus by EPHI during fieldwork. Physical measurement was done by performing measurements at a separate room and an area that has been screened off from other people within the household. Individuals with abnormal physical and biochemical results were referred to the near-by health facilities for further investigation, diagnosis and follow up. Blood sample was drawn by trained health professional under standard clinical procedure. Study participants were indirectly benefited from this study through early identification of risk factors for NCDs for which they were advised and referred for further clinical follow up.

3. Demographic information results

This section briefly describes socio demographic characteristics of survey respondents such as age, sex, education, ethnicity, occupation, household income and marital status. Out of the 10,260 planned samples, 10, 029 individuals were contacted and 9801 given consent for step one making overall response rate of 95.5%.

Table 3. Prportion of respondents by age group and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Sex					
	Men		Women		Both Sex	
	n	%	n	%	n	%
15-17	219	5.5%	330	5.7%	549	5.6%
18 - 29	1222	30.7%	2188	37.6%	3410	34.8%
30 - 44	1438	36.2%	2061	35.4%	3499	35.7%
45 - 59	781	19.6%	909	15.6%	1690	17.2%
60 - 69	317	8.0%	336	5.8%	653	6.7%
Total	3977	100.0%	5824	100.0%	9801	100.0%

The background information of the respondents were used in subsequent sections for comparing findings across different population subgroups. Of the total 9,800 respondents of STEPS survey, more than half of the respondents which is 5823(59.4 %) were women. This is consistent across all age groups though the highest proportion of women 2518 (63.6 %) belonged to the younger age group (15-29) compared with men respondents 1441 (36.4 %). (Table 3. 1).

Table 3. 2 Summary information by age group and sex of the respondents Ethiopia NCD STEPS, 2015

Age Group (years)	Men		Women		Both Sexes	
	n	%	n	%	n	%
15-29	1441	36.4	2518	63.6	3959	100
30-44	1438	41.1	2061	58.9	3499	100
45-59	781	46.2	909	53.8	1690	100
60-69	317	48.6	335	51.4	652	100
Total	3977	40.6	5823	59.4	9800	100

With regards to mean number of years spent in school, all study participants spent an average of 3.8 years with male respondents attaining 4.5 mean number of years which is slightly higher than the female counterparts (3.2). For both sexes, the mean number of years of education consistently decrease with age where younger age group were more educated than the older. The mean number of years of education for the youngest (15-29) and oldest age group was 5.40 and 1.28, respectively. Generally, men respondents were more likely to be educated than women respondents across all age groups (tables3.2 and 3.3).

Table 3. 3 Mean number of years of education among respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Men		Women		Both Sexes	
	n	Mean	n	Mean	n	Mean
15-29	1441	6.322	2518	4.8876	3959	5.4097
30-44	1437	4.1545	2061	2.4202	3498	3.1326
45-59	781	2.9513	909	1.4455	1690	2.1414
60-69	317	1.9306	335	0.6657	652	1.2807
Total	3976	4.5264	5823	3.2341	9799	3.7584

Of the total survey respondents, 49.4 % had no formal education while 28.8 % attended formal education with less than primary level. The percentages of respondents who completed primary, secondary and college or university completed was 9 %, 7.0 %, and 5.1 %, respectively. Among all the respondents, 38.8 % of men and 56.6 % of women had no formal education. Among men respondents, 36.2 % attended less than primary education while the remaining 10.9 %, 7.0 %, and 6.8 % of survey respondents completed primary, secondary and college/university completed, respectively. Similarly among women respondents, 23.7 %, 9.3 %, 6.4 %, and 3.9 % completed less than primary, primary, secondary and college/university education respectively. Generally, very small number (0.1 %) of all respondents completed college or university level education. Of which 0.2 % were men and 0.1 % were women. Regarding education level by age, the younger group was more likely educated compared with respondents in the older age group. For instance, of all respondents who completed primary education 16.3 %, 6.9%, 3.9 %, and 3.1 % belong to 15-29, 30-44, 45-59, and 60-69 age groups, respectively. This is consistent for all survey respondents across both sexes and all educational levels (Table 3.3).

Table 3. 4 Highest level of education achieved among Men survey respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Men						
	n	% No formal schooling	% Less than primary school	%Primary school completed	%Secondary school completed	%College/ University completed	% Post graduate degree completed
15-29	1441	19.1	42.7	17.7	11.4	9.0	0.2
30-44	1438	41.4	37.7	8.9	4.8	6.9	0.3
45-59	781	57.0	29.2	4.4	5.0	4.4	0.1
60-69	317	72.2	17.4	4.7	2.2	3.2	0.3
Total	3977	38.8	36.2	10.9	7.0	6.8	0.2

Table 3. 5 Highest level of education achieved among women survey respondents, Ethiopia NCD STEPs Survey, 2015

Age Group (years)	Women						
	n	% No formal schooling	% Less than primary school	%Primary school completed	%Secondary school completed	%College/ University completed	% Post graduate degree completed
15-29	2518	35.1	34.5	15.5	9.1	5.8	0.0
30-44	2061	67.3	18.7	5.6	5.5	2.9	0.1
45-59	909	80.4	10.7	3.5	2.9	2.5	0.0
60-69	335	88.4	8.4	1.5	1.8	0.0	0.0
Total	5823	56.6	23.7	9.3	6.4	3.9	0.1

Table 3. 6 Highest level of education achieved by survey respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Both Sexes						
	n	% No formal schooling	% Less than primary school	%Primary school completed	%Secondary school completed	%College/ University completed	% Post graduate degree completed
15-29	3959	29.3	37.5	16.3	9.9	6.9	0.1
30-44	3499	56.7	26.5	6.9	5.2	4.5	0.2
45-59	1690	69.6	19.2	3.9	3.8	3.4	0.1
60-69	652	80.5	12.7	3.1	2.0	1.5	0.2
Total	9800	49.4	28.8	9.9	6.7	5.1	0.1

Ethiopia is a nation of diverse ethnic groups with unique cultural and socio economic background relevant to exposure to major NCD risk factors. Of all survey respondents, 28.3% were Oromo, 27.2% were Amhara, 10.8% were Tigre, 6.1% were Somali, 3.5% were Sidama, 3.4% were Afar, 3.2% were Guragie, 2.3% were Wolayta, Hadiya and Gamo were 1.6% each while the remaining 12% were from other ethnic groups.

Table 3. 7 Summary results for the ethnicity of the respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Both Sexes											
	n	% Oromo	% Amhara	% Tigray	% Somali	% Sidama	% Afar	% Guragie	% Wolayta	% Hadiya	% Gamo	% Other ethnic group
15-29	3956	30.6	24.9	10.2	4.3	3.9	3.5	3.3	2.3	1.7	1.4	13.9
30-44	3499	27.1	26.8	10.3	6.9	3.5	3.7	3.0	2.7	1.7	1.8	12.6
45-59	1689	25.6	32.0	12.6	7.5	2.5	2.7	3.7	1.8	1.4	1.9	8.2
60-69	652	28.2	31.3	12.3	9.2	2.9	2.8	2.9	0.9	1.2	1.4	6.9
Total	9796	28.3	27.2	10.8	6.1	3.5	3.4	3.2	2.3	1.6	1.6	12

Majority of the respondents (67.3 %) were currently married followed by single (17.4 %) and widowed (6.8 %) . Nearly similar proportions (3.9 % and 4.1 %) of respondents were separated and divorced, respectively. Overall, less than one in hundred (0.4 %) respondents were cohabiters. The proportion of currently married respondents was higher among men (72.5 %) than women (63.8 %). Likewise, the proportion of men who had never been married was higher (21.9 %) compared with women counterparts (14.3 %). On the other hand, the number of women respondents who were separated, divorced, and widowed was nearly two times, four times, and five times higher than their men counterparts, respectively(table 3.7, 3.8)..

In terms of age, 15-29 age group has the largest number 3956 (37.9 %) of never married individuals while the largest number (79.3 %) of currently married individuals belong to 30-44 age group. Women respondents are more likely to get married (64.1 %) at younger age (15-29) compared with men (48.3 %). Generally, being single decreases with advancing age while marriage is a predominant status among respondents as age increases (table 3.7, 3.8 and 3.9).

Table 3. 8 Marital status of men survey respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Men						
	N	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-29	1440	53.3	43.8	1.9	0.8	0.1	0.1
30-44	1438	6.0	88.7	2.2	1.9	1.2	0.1
45-59	781	1.7	90.3	3.2	1.5	3.3	0.0
60-69	316	1.3	85.1	1.9	3.5	7.9	0.3
Total	3975	21.9	72.5	2.3	1.5	1.8	0.1

Table 3. 9 Marital status of women survey respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Women						
	N	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-29	2516	29.1	64.1	3.3	2.7	0.6	0.3
30-44	2061	4.0	72.7	7.1	7.0	8.2	0.9
45-59	909	2.0	54.9	5.5	9.7	27.2	0.8
60-69	335	0.9	30.7	5.4	12.2	49.6	1.2
Total	5821	14.3	63.8	5.1	5.9	10.3	0.6

Table 3. 10 Marital status of all survey respondents, Ethiopia NCD STEPS, 2015

Age Group (years)	Both Sexes						
	N	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-29	3956	37.9	56.7	2.8	2.0	0.5	0.2
30-44	3499	4.8	79.3	5.1	4.9	5.3	0.6
45-59	1690	1.8	71.2	4.4	5.9	16.2	0.4
60-69	651	1.1	57.1	3.7	8.0	29.3	0.8
Total	9796	17.4	67.3	3.9	4.1	6.8	0.4

Of all survey respondents, nearly one in ten (9.9%) were employed (13.1 % men and 7.8 % women). Among employed respondents, 5.9% were government employed whereas the remaining 1.0 % and 3 % were nongovernmental organization and self-employed, respectively. Survey participants of younger age groups were more likely to be employed by government institutions compared to the older age group. This is consistent across all age groups and both sexes. More than 90% (92.3%) of women and 86.9% of men respondents were engaged in unpaid work or unemployed (Table 3.10).

Table 3. 11 Proportion of men respondents in paid employment and unpaid by age group, Ethiopia NCD STEPS 2015

Employment status					
Age Group (years)	Men				
	N	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-29	1409	9.8	1.0	3.3	85.9
30-44	1409	8.9	1.7	3.8	85.7
45-59	771	6.2	1.4	3.0	89.4
60-69	306	4.6	1.3	3.3	90.8
Total	3895	8.3	1.4	3.4	86.9

Table 3. 12 Proportion of women respondents in paid employment and unpaid by age group, Ethiopia NCD STEPS, 2015

Women					
Age Group (years)	N	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-29	2499	5.0	0.9	3.4	90.7
30-44	2043	4.5	0.7	2.5	92.3
45-59	900	3.1	0.1	2.2	94.6
60-69	329	0.3	0.3	1.2	98.2
Total	5771	4.3	0.7	2.8	92.3

Table 3. 13 Proportion of respondents in paid employment and unpaid by age group, Ethiopia NCD STEPS, 2015

Both Sexes					
Age Group (years)	N	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-29	3908	6.8	0.9	3.4	89.0
30-44	3452	6.3	1.1	3.0	89.6
45-59	1671	4.5	0.7	2.6	92.2
60-69	635	2.4	0.8	2.2	94.6
Total	9666	5.9	1.0	3.0	90.1

Among unpaid or unemployed respondents, farmers represent the highest proportion (48.1%) with 74.0% men and 31.7% women. Substantial proportion of those unpaid respondents were home makers (27.5%) where women constitute the vast majority (44.7%) of home makers compared with men counterparts (0.6%). More than 3% of unpaid survey respondents were unemployed of which 2.8% were able to work and 0.7% unable to work. Among unpaid and unemployed population about one in ten individuals were students (11.7% men and 8.3% women).

Table 3. 14 Proportion of men respondents in unpaid work by age group, Ethiopia NCD STEPS, 2015

Age Group (years)	Men							Unemployed	
	n	% Private skilled worker	% Farmer	% Trader	% Student	% Home-maker	% Retired	% Able to work	% Not able to work
15-29	1211	4.3	53.7	6.1	32.3	0.6	0	2.8	0.2
30-44	1207	2.9	85.6	9.5	0.3	0.5	0.1	1.1	0
45-59	689	3.5	88	4.9	0.1	0.6	1.2	1.5	0.3
60-69	278	1.1	78.1	4.7	0	0.7	9.4	1.4	4.7
Total	3385	3.4	74	7	11.7	0.6	1	1.8	0.5

Table 3. 15 Proportion of women respondents in unpaid work by age group, Ethiopia NCD STEPS, 2015

Age Group (years)	Women							Unemployed	
	n	% Private skilled worker	% Farmer	% Trader	% Student	% Home-maker	% Retired	% Able to work	% Not able to work
15-29	2266	2.4	23.1	8	19	42.3	0.4	4.4	0.4
30-44	1885	3.6	35.9	8.6	0.3	47.7	0.6	2.8	0.5
45-59	851	2.7	42	4.7	0.4	45.4	1.3	2.5	1.2
60-69	323	2.5	39.6	2.8	0.9	41.8	6.5	2.8	3.1
Total	5325	2.9	31.7	7.4	8.3	44.7	1	3.4	0.7

Table 3. 16 Proportion of respondents in unpaid work by age group, Ethiopian NCD STEPS, 2015

Age Group (years)	Both Sexes							Unemployed	
	n	% Private skilled worker	% Farmer	% Trader	% Student	% Home-maker	% Retired	% Able to work	% Not able to work
15-29	3477	3	33.8	7.3	23.6	27.8	0.3	3.9	0.3
30-44	3092	3.3	55.3	9	0.3	29.3	0.4	2.1	0.3
45-59	1540	3.1	62.5	4.8	0.3	25.3	1.2	2	0.8
60-69	601	1.8	57.4	3.7	0.5	22.8	7.8	2.2	3.8
Total	8710	3.1	48.1	7.2	9.6	27.5	1	2.8	0.7

All individual older than 18 years in the household were asked about their earnings. Of those who were able to estimate their earning, the mean reported per capita annual income of respondents was 1500.79 Birr. For individuals who were not able to estimate the exact annual income, quintiles of estimated household earnings was set and respondents were asked which quintile best fits their income category. Accordingly, majority (71.1%) of survey respondents fall under first quintile with annual earning of less than 12,000 Birr. About 17.4% of survey respondents were in the second quintile with annual earnings of more than 12,000 and less than or equal to 18,000 Birr.

Table 3. 17 Mean reported per capita annual income of respondents in local currency (Eth Birr), Ethiopia NCD STEPS, 2015

Mean annual per capita income	
n	Mean
9798	1500.7903

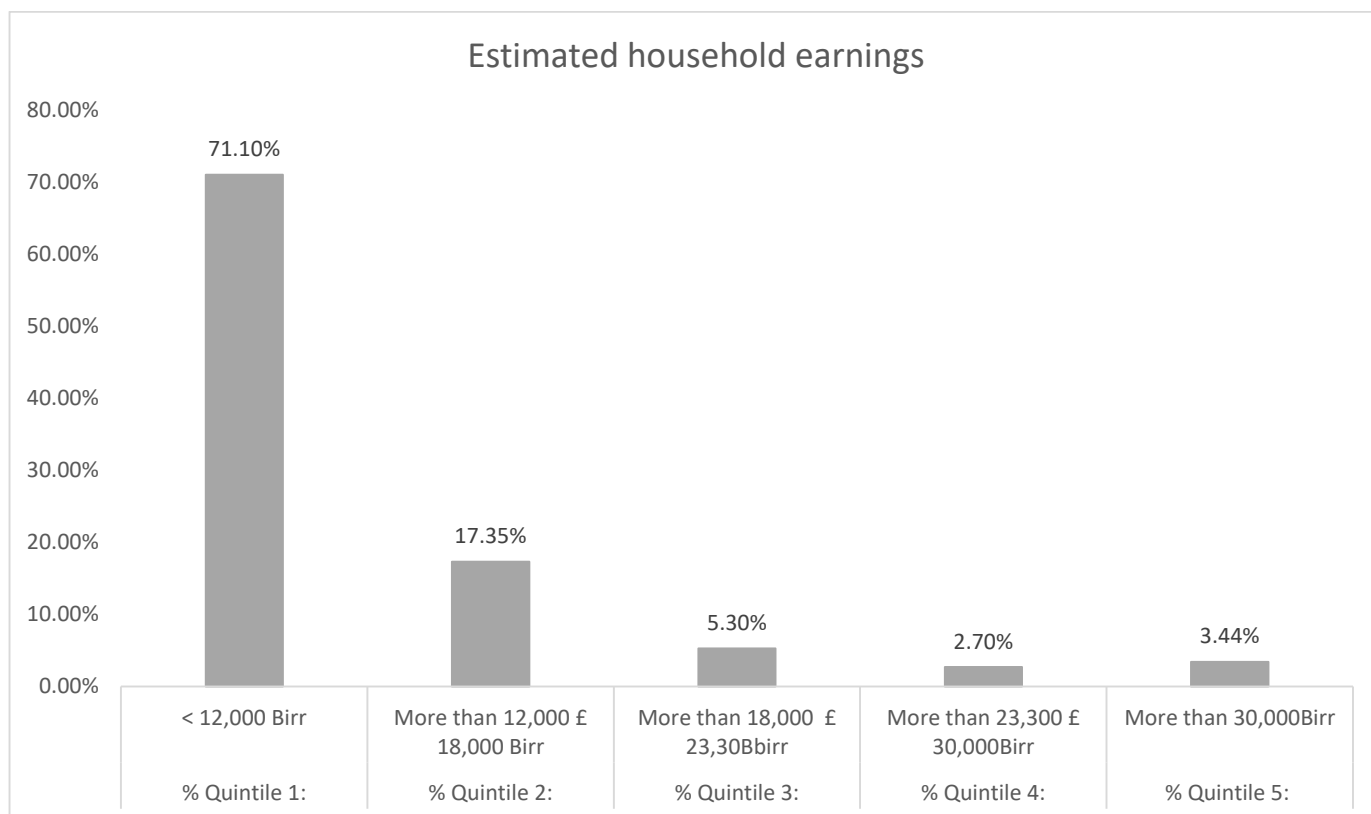


Figure 3. 1 Household earnings by quintile for those who didn't know their exact per capital annual income, Ethiopia NCD STEPS, 2015

4. Tobacco use and policy

4.1. Tobacco use

To assess tobacco use, the survey respondents were interviewed about their current smoking status, previous smoking experience, the age they started smoking, duration of smoking, the quantity of tobacco smoked daily, use of smokeless tobacco, types of tobacco products used, and duration of exposure to second-hand smoke.

⁵ Over all, about 4% (4.2%, 95% CI: 3.5-4.9) of the survey participants were current smokers (daily, and non-daily smokers) of all tobacco products. There were more men smokers 7.3% (95% CI: 6.1-8.6) than women 0.4% (95% CI: 0.3-0.6). There was also a notable increase in the proportion of smokers in 45-59 age groups, observed in both men and women respondents. There was only slight difference between the percentage of current smokers in urban and rural areas, aside from a slightly higher prevalence of smoking among the rural population (4.3%, 95% CI: 3.5-5.1 versus 3.9%, 95% CI: 2.6-5.1). Urban resident women had higher magnitude of smoking 0.9%, (95% CI: 0.4-1.4) than their rural counterparts 0.3% (95% CI: 0.1-0.5) (Table 4.1. 1).

Table 4.1. 1 Percentage of current smokers among all respondents by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Current smoker ¹	95% CI	n	% Current smoker	95% CI	n	% Current smoker	95% CI
15-29	1441	5.3	3.9-6.7	2516	0.4	0.2-0.6	3957	3.1	2.3-3.8
30-44	1437	10.1	7.7-12.5	2059	0.2	0.1-0.3	3496	5.3	4.0-6.5
45-59	781	10.4	7.5-13.3	909	1.0	0.3-1.8	1690	6.5	4.8-8.2
60-69	317	7.8	4.0-11.7	335	0.5	0.0-1.2	652	5.1	2.7-7.5
Place of Residence									
Rural	3199	7.3	5.9-8.7	3910	0.3	0.1-0.5	7109	4.3	3.5-5.1
Urban	777	7.6	5.0-10.3	1909	0.9	0.4-1.4	2686	3.9	2.6-5.1
Total	3976	7.3	6.1-8.6	5819	0.4	0.3-0.6	9795	4.2	3.5-4.9

¹ Currently smoking any tobacco products, such as cigarettes, cigars, or pipes

Among all survey participants, 3.5% (95% CI: 2.8-4.1) smoke tobacco daily, and 0.7% (95% CI: 0.5-1.0) of them were nondaily smokers: while 1.8% (95% CI: 1.4-2.2) were former tobacco smokers, and 94% (95% CI: 93.2-94.9) of them never smoked any tobacco product before. Men were more likely to use or smoke tobacco daily 6.2% (95% CI: 5.0-7.4) than women 0.2% (95% CI: 0.1-0.4); and rural residents were more likely to smoke tobacco daily 3.7% (95% CI: 2.9-4.4) than urban residents 2.7% (95% CI: 1.6-3.7) (Figure 4.1. 1 and Figure 4.1. 2)

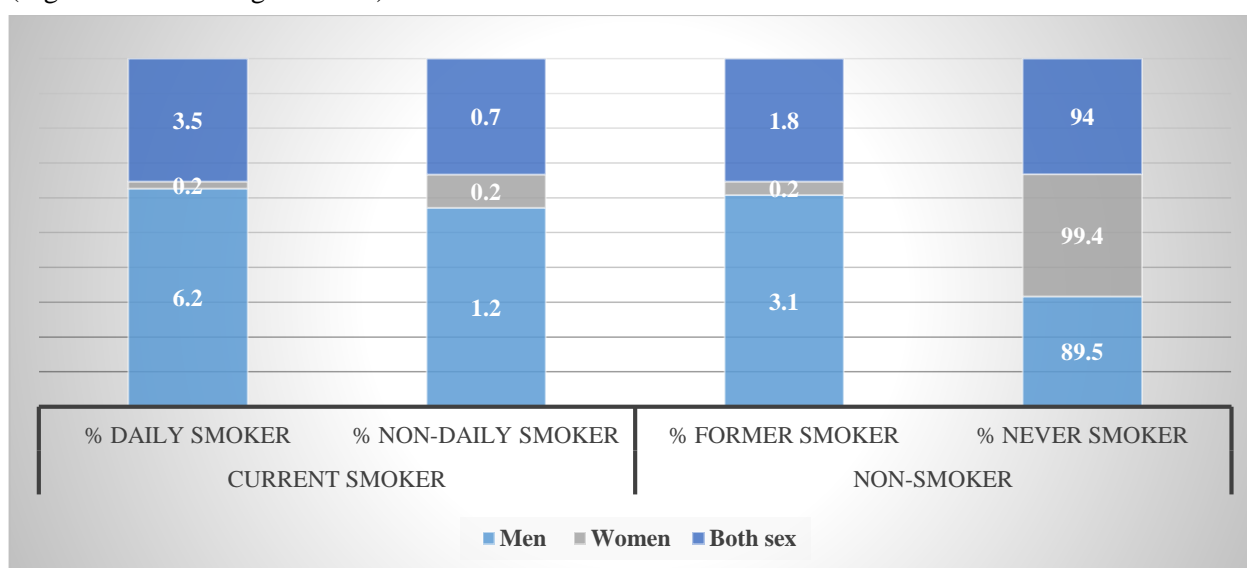


Figure 4.1. 1 Percentage of smoking status among all respondents, by sex category, Ethiopia NCD STEPS 2015.

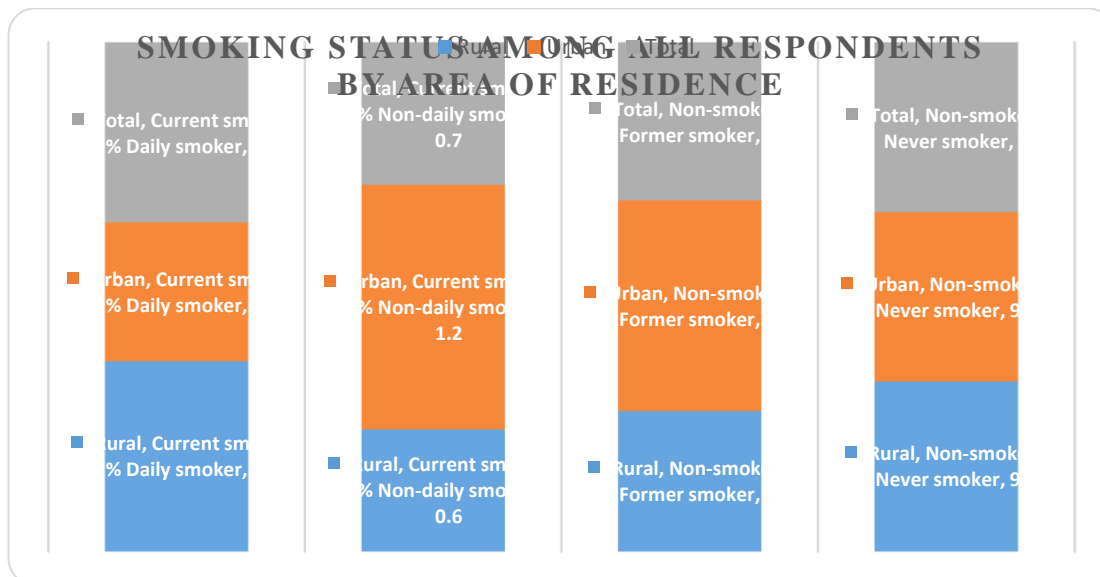


Figure 4.1. 2 Smoking status among all respondents by area of residence, Ethiopia NCD STEPS, 2015

Among all current smokers of both sexes, 82.8% (95% CI: 77.2-88.5) of them used or smoked tobacco daily. The proportion of daily smokers among men was 84.2% (95% CI: 78.5-89.9), which was higher than that of women 54.6% (95% CI: 34.5-74.7), but the age group with the highest prevalence of daily smokers 93.5% (95% CI: 78.5-100) was women of age 60–69 years. The percentage of daily smokers for both sexes was higher in rural 85.7% (95% CI: 79.9-91.6) than urban residents 69.4% (95% CI: 54.9-84.0) (Table 4.1. 2).

Table 4.1. 2 Percentage of Current daily smokers among smokers by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
15-29	111	82.0	71.8-92.2	29	65.5	36.4-94.5	140	81.0	71.4-90.7
30-44	186	86.9	78.6-95.1	23	62.6	29.3-95.8	209	86.4	78.3-94.6
45-59	113	84.3	73.4-95.3	20	27.5	3.6-51.5	133	80.6	69.7-91.5
60-69	44	83.6	62.2-100	7	93.5	78.5-100	51	84.0	63.3-100
Place of Residence									
Rural	372	86.6	80.7-92.4	49	57.1	25.9-88.4	421	85.7	79.9-91.6
Urban	82	72.0	55.8-88.2	30	51.8	24.9-78.8	112	69.4	54.9-84.0
Total	454	84.2	78.5-89.9	79	54.6	34.5-74.7	533	82.8	77.2-88.5

The survey revealed that, over all, mean age of smoking started among smokers was 21.0 years (95% CI: 19.9-22.0). Men were more likely to start smoking earlier than women (20.9 years in men versus 22.8 years in women). There was a difference between age groups in terms of the mean age of starting smoking: in

men it varied from 17.9 years old in the age group 15-29 years to 24.4 years old in the age group 45-59 years. The difference among women was much higher, from 19.1(95% CI: 17.1-21.0) to 40.6 (95% CI: 30.9-50.3) years in age group 15-29 and 60-69 respectively. Urban residents started smoking at early age 19.3 years (95% CI: 16.6-22.0) than rural residents 21.3 years (95% CI: 20.2-22.4). (Table 4.1. 3).

Table 4.1. 3 Mean age started smoking among smokers by age group, sex, and areas of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men				Women				Both Sexes		
	n	Mean age	95% CI		n	Mean age	95% CI		n	Mean age	95% CI
15-29	96	17.9	16.7-19.2		22	19.1	17.1-21.0		118	18.0	16.8-19.2
30-44	169	21.7	20.0-23.5		20	22.6	20.0-25.2		189	21.8	20.1-23.5
45-59	101	24.4	22.1-26.7		13	29.5	26.3-32.8		114	24.5	22.3-26.8
60-69	35	23.6	19.4-27.8		6	40.6	30.9-50.3		41	24.4	20.1-28.6
Place of Residence											
Rural	337	21.2	20.1-22.3		40	24.1	17.8-30.4		377	21.3	20.2-22.4
Urban	64	19.1	16.2-22.0		21	21.3	19.8-22.8		85	19.3	16.6-22.0
Total	401	20.9	19.8-22.0		61	22.8	19.1-26.5		462	21.0	19.9-22.0

Mean years of duration of smoking among current smokers for both sexes was 14.4 years (95% CI: 12.7-16.5). Men were more likely to smoke for longer period than women, with 14.5 years were (95% CI: 12.7-16.6) for men, and 9.9 years for women. It varies across age groups from 38.9(95% CI: 33.7-44.2) to 5.9 (95% CI: 4.7-7.1) years in 60-69, and 15-29 age groups respectively. The was a slight difference in mean years of smocking by place of residence with 14.6 years (95% CI: 12.7-16.5) in rural and 13.1years (95% CI: 10.2-16.1) in urban (Table 4.1. 4).

Table 4.1. 4 Mean duration of smoking among current smokers by age, sex, and areas of residence, Ethiopia NCD STEP, 2015.

Age Group (years)	Men				Women				Both Sexes		
	n	Mean duration	95% CI		n	Mean duration	95% CI		n	Mean duration	95% CI
15-29	96	6.0	4.7-7.2		22	5.0	2.1-8.0		118	5.9	4.7-7.1
30-44	169	14.1	12.3-16.0		20	13.3	10.5-16.1		189	14.1	12.3-15.9
45-59	101	24.9	22.5-27.2		13	19.4	14.9-23.9		114	24.7	22.4-27.1
60-69	35	39.6	34.3-44.9		6	23.8	16.5-31.2		41	38.9	33.7-44.2
Place of Residence											
Rural	337	14.6	12.7-16.6		40	12.4	7.9-16.9		377	14.6	12.7-16.5
Urban	64	13.7	10.3-17.2		21	7.0	2.1-11.9		85	13.1	10.2-16.1
Total	401	14.5	12.8-16.3		61	9.9	6.2-13.6		462	14.4	12.7-16.0

The vast majority of current smokers 89.4% (95% CI: 85.3-93.6) smoked manufactured cigarettes in both sexes. Men were more likely to smoke manufactured cigarettes than women with a prevalence of 91.5% (95% CI: 87.4-95.5); and 14.1% (95% CI: 6.0-22.2) urban residents were more likely to smoke manufactured cigarettes than rural residents 9.8% (95% CI: 5.2-14.4). While age group 60-69 of both sexes

were less likely to smoke manufactured cigarettes than other age groups. (Table 4.1. 5).

Table 4.1. 5 Percentage of manufactured cigarette smokers among current smokers by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Manu- factured cigarette smoker	95% CI	n	% Manu- factured cigarette smoker	95% CI	n	% Manu- factured cigarette smoker	95% CI
15-29	111	96.8	93.3-100.0	29	53.1	23.5-82.8	140	94.2	90.2-98.2
30-44	186	92.8	87.6-98.0	23	18.1	0.0-41.1	209	91.5	86.2-96.7
45-59	111	82.8	70.6-95.1	20	56.6	22.8-90.4	131	81.0	69.4-92.6
60-69	44	75.8	52.5-99.0	7	19.6	0.0-50.2	51	73.6	51.1-96.1
Place of Residence									
Rural	372	9.0	4.3-13.7	49	36.7	12.8-60.5	421	9.8	5.2-14.4
Urban	80	6.1	0.0-12.6	30	67.9	37.3-98.6	110	14.1	6.0-22.2
Total	452	91.5	87.4-95.5	79	48.4	26.5-70.3	531	89.4	85.3-93.6

Mean number of manufactured cigarettes smoked was higher in men 7.3% (95% CI: 6.2-8.3) than women 2.4% (95% CI: 1.1-3.7); While mean number of gaya used was higher in women than men with 2.8% (95% CI: 0.0-6.5), and 0.9% (95% CI: 0.0-1.9) respectively. (Figure 4.1. 3)

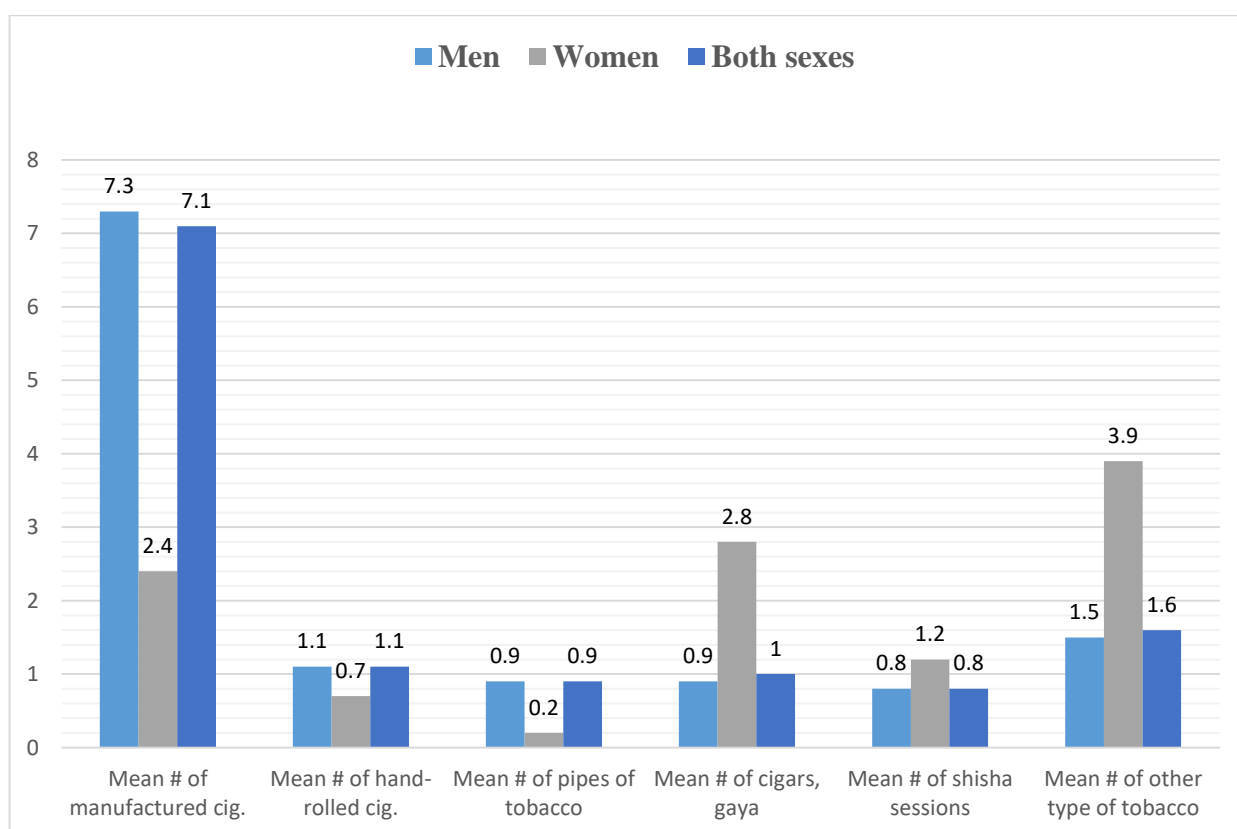


Figure 4.1. 3 Mean amount of tobacco used by daily smokers by type and sex category, Ethiopia NCD STEPS, 2015.

Overall, among current smoker of both sexes, about nine out of ten smoked manufactured cigarettes. Men were more likely to smoke manufactured cigarettes than women with 90.9% were (95% CI: 86.7-95.1) and 48.4% (95% CI: 26.5-70.3), respectively; while women were more likely to use shisha than men with 38.4% (95% CI: 17.7-59.0), and 5.9% (95% CI: 2.4-9.5) (Figure 4.1. 4). Figure 4.1. 5 shows, among both

sexes urban residents were more likely to use shisha than rural residents, with 20% (95% CI: 9.9-30.2), and 4.7% (95% CI: 1.0-8.5), respectively.

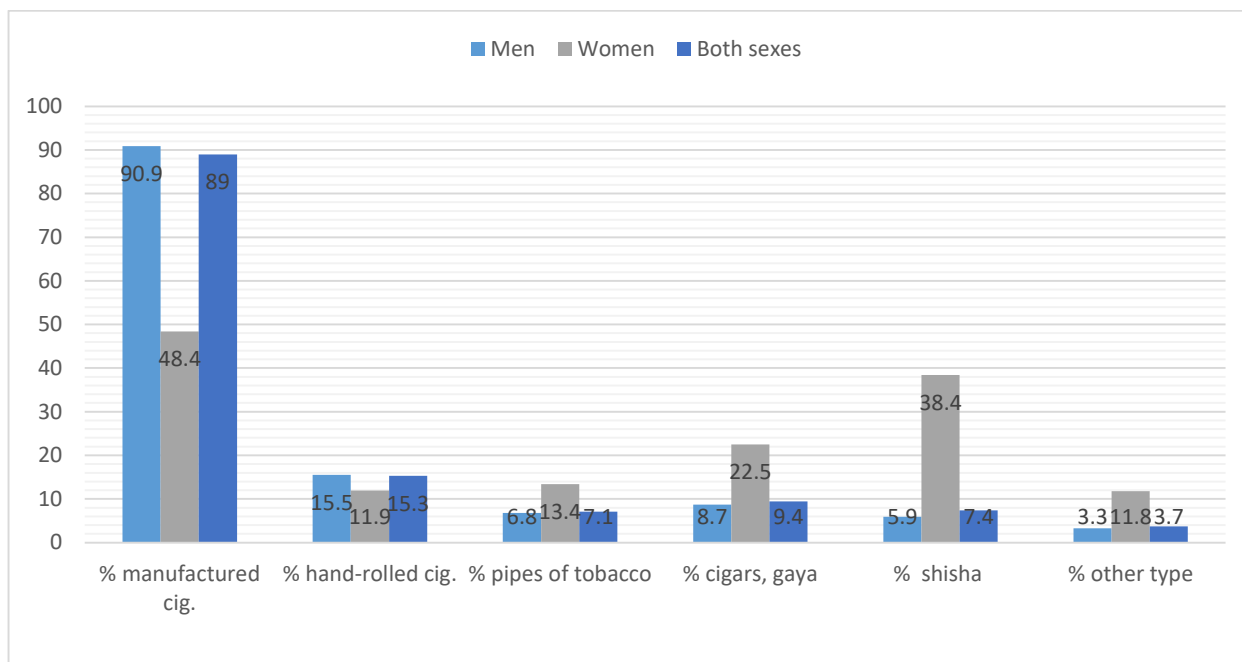


Figure 4.1. 4 Percentage of current smokers smoking each products by sex category, Ethiopia NCD STEPS, 2015.

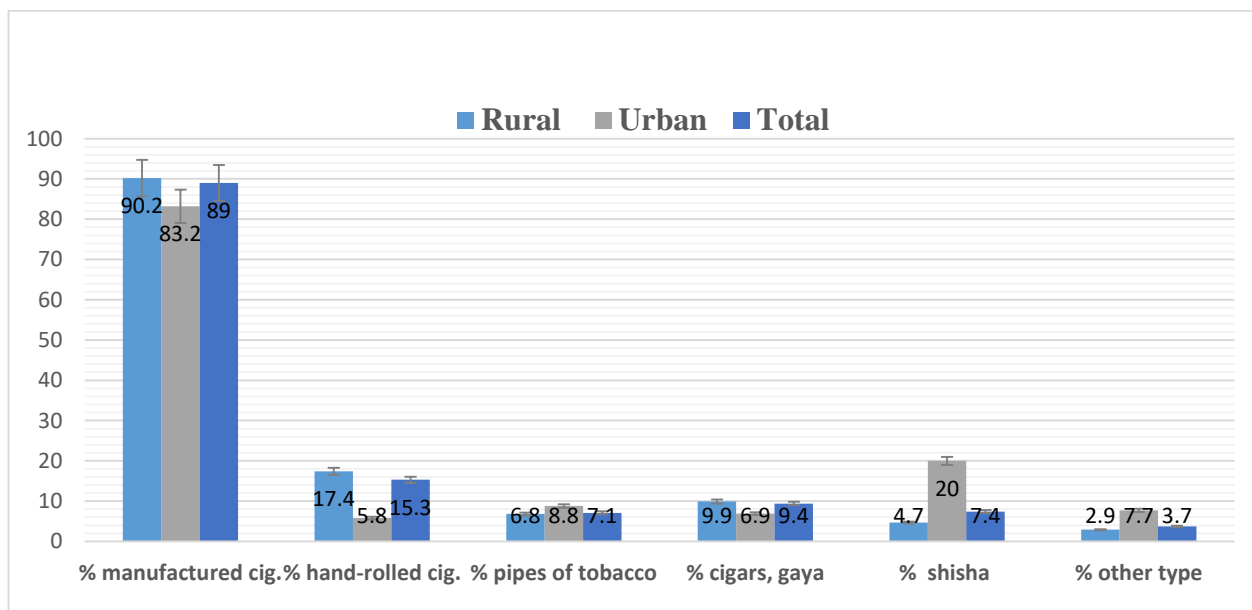


Figure 4.1. 5 Percentage of current smokers smoking each products by area of residence, Ethiopia NCD STEPS, 2015.

Figure 4.1. 6 presents percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day. In general, about seven out of ten daily smokers of both sexes smoked over five and above cigarettes per day. However, about five out of ten women who are daily smoker smoked less than five cigarettes per day and men were more likely to smoke above 10 cigarettes per day than women.

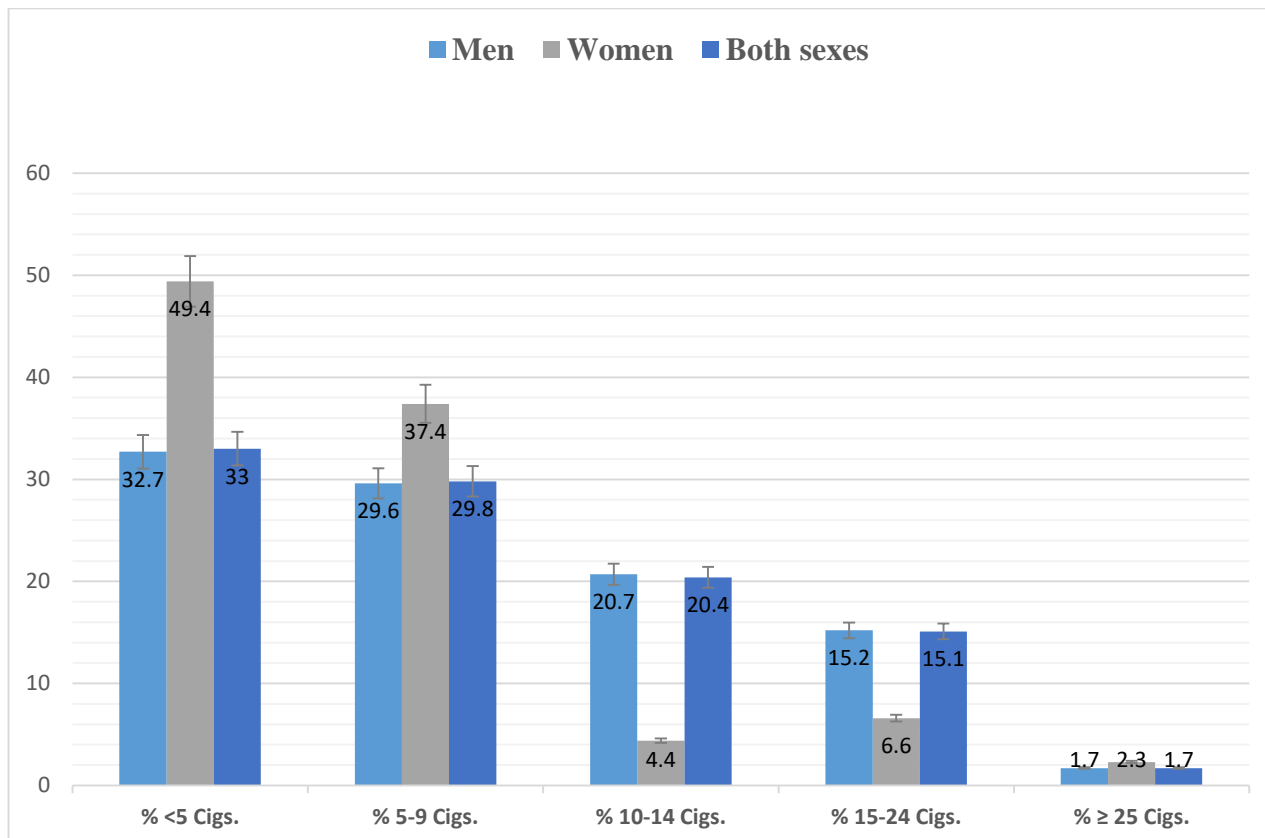


Figure 4.1. 6. Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes. Among the total number of currently smoking respondents, about 52% (95% CI: 44.9-59.0) had tried to stop smoking in the one year preceding the survey (52.1% of men (95% CI: 44.9-59.3), and 49.4% of women (95% CI: 28.1-70.8)). In general, more urban residents tried to stop smoking than rural residents, with 58.3% (95% CI: 43.4-73.3) and 50.6% (95% CI: 42.5-58.7) respectively (Table 4.1. 6).

Table 4.1. 6 Percentage of Current smokers who have tried to stop smoking by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Tried to stop smoking	95% CI	n	% Tried to stop smoking	95% CI	n	% Tried to stop smoking	95% CI
15-29	111	56.5	43.6-69.4	29	65.7	40.1-91.3	140	57.0	44.8-69.3
30-44	186	51.4	41.3-61.5	23	32.6	1.0-64.2	209	51.0	41.1-61.0
45-59	113	50.0	34.6-65.3	20	31.2	0.0-71.5	133	48.7	34.2-63.2
60-69	44	31.6	12.3-50.9	7	30.6	0.0-72.8	51	31.6	12.9-50.2
Place of Residence									
Rural	372	50.9	42.7-59.1	49	40.2	7.2-73.3	421	50.6	42.5-58.7
Urban	82	58.2	41.9-74.4	30	59.4	34.2-84.7	112	58.3	43.4-73.3
Total	454	52.1	44.9-59.3	79	49.4	28.1-70.8	533	52.0	44.9-59.0

Table 4.1. 7 presents current smokers who have been advised by doctor to stop smoking. In general, 17.2% (95% CI: 11.4-22.9) of both sexes (with men respondents 17.1% (95% CI: 11.1-23.1), and women respondents 18.5% (95% CI: 1.2-35.7) who had visited a doctor or other health workers in the 12 months preceding the survey had been advised to stop smoking. Survey participants in the age group 60-69 of both sexes had more visit to a doctor or other health workers and had more advice by a doctor or other health worker to stop smoking than other age groups. Urban resident women 37.3% (95% CI: 8.6-66.0) were more advised by a doctor or other health worker to stop smoking than rural resident women 0.9% (95%

CI: 0.0-2.2)

Table 4.1. 7 Percentage of current smokers who were advised by doctors to stop smoking by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Advised to stop smoking	95% CI	n	% Advised to stop smoking	95% CI	n	% Advised to stop smoking	95% CI
15-29	84	13.3	4.0-22.7	25	20.7	0.0-46.4	109	13.9	5.0-22.8
30-44	142	21.5	12.1-30.9	16	20.1	0.0-50.5	158	21.5	12.2-30.7
45-59	93	12.9	2.6-23.3	15	12.6	0.0-29.9	108	12.9	3.1-22.7
60-69	32	35.5	7.0-63.9	7	21.6	0.0-53.9	39	34.7	7.6-61.8
Place of Residence									
Rural	286	17.8	10.9-24.7	39	0.9	0.0-2.2	325	17.2	10.6-23.8
Urban	65	13.1	3.7-22.6	24	37.3	8.6-66.0	89	16.9	7.7-26.2
Total	351	17.1	11.1-23.1	63	18.5	1.2-35.7	414	17.2	11.4-22.9

In general, 0.8% (95% CI: 0.5-1.0) of survey participants of both sexes currently used smokeless tobacco. Smokeless tobacco use varies across age group, from 2.4% (95% CI: 0.9-3.8) in age group 60-69 to 0.2% (95% CI: 0.1-0.3) in age group 15-29 of both sexes. Men respondents were more likely to use smokeless tobacco than women respondents, with 1.1% (95% CI: 0.7-1.4), and 0.4% (95% CI: 0.1-0.6), respectively; and rural residents were more likely to use smokeless tobacco than urban residents (

Table 4.1. 8)

Table 4.1. 8 Percentage of Current users of smokeless tobacco by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
15-29	1441	0.2	0.0-0.4	2516	0.1	0.0-0.2	3957	0.2	0.1-0.3
30-44	1437	2.1	1.1-3.2	2059	0.4	0.0-0.9	3496	1.3	0.7-1.9
45-59	781	1.8	0.9-2.7	909	1.2	0.3-2.1	1690	1.5	0.8-2.3
60-69	317	3.1	1.0-5.3	335	1.1	0.0-2.6	652	2.4	0.9-3.8
Place of Residence									
Rural	3199	1.2	0.8-1.6	3910	0.5	0.1-0.8	7109	0.9	0.6-1.2
Urban	777	0.3	0.0-0.6	1909	0.0	0.0-0.1	2686	0.1	0.0-0.3
Total	3976	1.1	0.7-1.4	5819	0.4	0.1-0.6	9795	0.8	0.5-1.0

The survey found that, overall about 0.8 % (95% CI: 0.5-1.0) of all the respondents of both sexes were currently using smokeless tobacco, ranging from 0.6% (95% CI: 0.4-0.8) of daily usage to 0.2% (95% CI: 0.1-0.3) of nondaily usage. This proportion of current users (daily and nondaily) of smokeless tobacco was higher in men than women (1.1% (95% CI: 0.7-1.4) versus 0.4% (95% CI: 0.1-0.6)); and rural residents of both sexes were more likely to use smokeless tobacco than urban residents with 0.9% (95% CI: 0.6-1.2), and 0.1% (95% CI: 0.0-0.3), respectively. (Figure 4.1. 7 and Figure 4.1. 8)

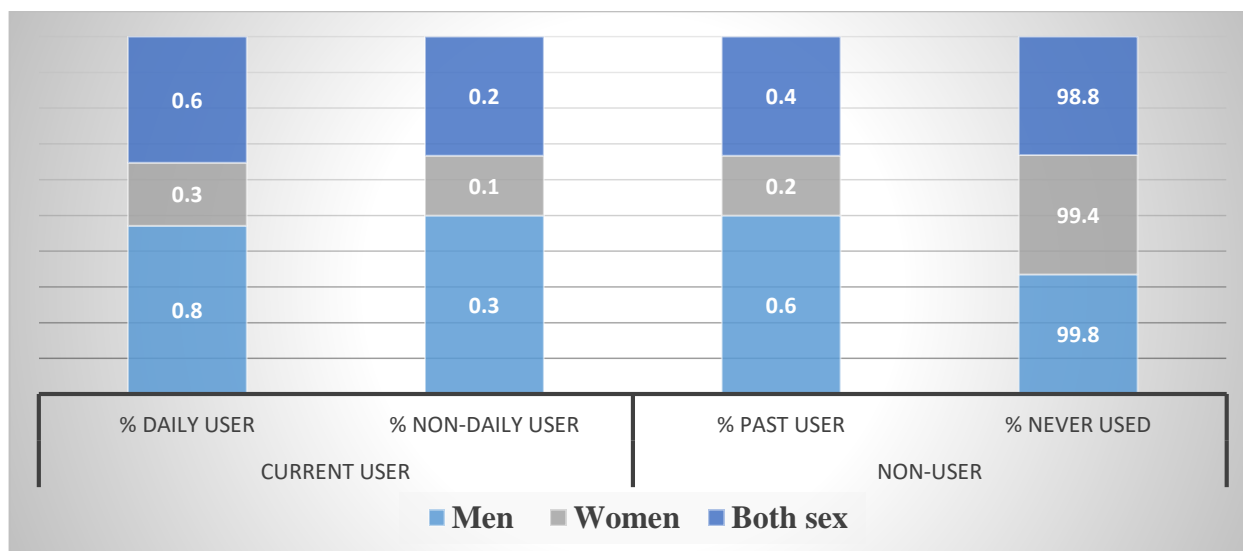


Figure 4.1. 7 Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day by sex category, Ethiopia NCD STEPS, 2015

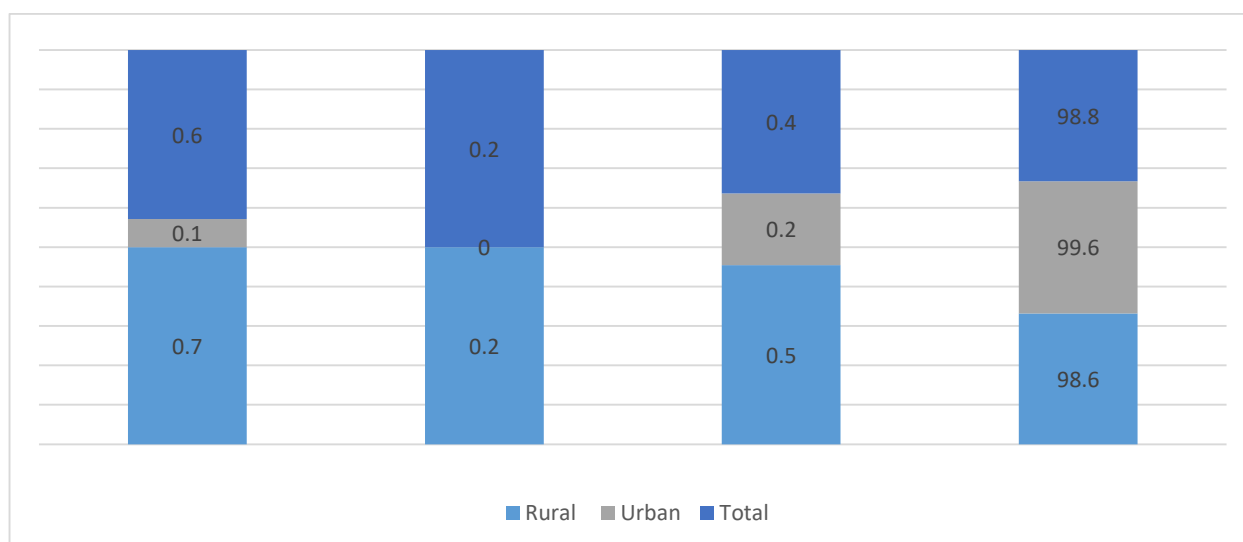


Figure 4.1. 8 Smokeless tobacco use among all respondents by area of residence, Ethiopia NCD STEPS, 2015.

The percentage of former daily users of smokeless tobacco products among all respondents were 0.3% (95% CI: 0.2-0.4). There were more men users (0.5% 95% CI: 0.3, 0.7) among the respondents than women (0.1% 95% CI: 0.0, 0.2) were. There was also a notable increase in the proportion of smokers in older age groups, observed in both the men and women respondents (see table 4.1.9). Furthermore, the percentage of former daily users of all respondents in rural men (0.5%) were slightly higher than urban men (0.1%). Similarly, women smokers were also higher in rural (0.2 %) than urban (0.0%), residence. Table 4.1. 10 shows, among all former daily users of all smokeless tobacco, 35.3% of respondents of both sexes were used daily. There were more men daily users (37.2%) among the respondents than women (28.7%) were. The percentage of men daily users in Rural residence (37.6. %) were greater than urban (28.6%), but in reverse women daily users were significantly higher in urban (80.0%) than rural residence (28.1%).

Table 4.1. 9 Percentage of former daily smokeless tobacco users among all respondents, Ethiopia NCD STEPS, 2015.

Age Group (Years)	Men			Women			Both Sexes		
	n	% Former daily users	95% CI	n	% Former daily users	95% CI	n	% Former daily users	95% CI
15-29	1441	0.1	0.0-0.3	2516	0.0	0.0-0.0	3957	0.1	0.0-0.2
30-44	1437	0.4	0.1-0.7	2059	0.3	0.0-0.8	3496	0.4	0.1-0.6
45-59	781	1.7	0.6-2.7	909	0.1	0.0-0.2	1690	1.0	0.4-1.6
60-69	317	0.9	0.0-2.0	335	0.5	0.0-1.2	652	0.7	0.0-1.5
Place of Residence									
Rural	3199	0.5	0.3-0.8	3910	0.2	0.0-0.3	7109	0.4	0.2-0.5
Urban	777	0.1	0.0-0.3	1909	0.0	0.0-0.1	2686	0.1	0.0-0.1
Total	3976	0.5	0.3-0.7	5819	0.1	0.0-0.2	9795	0.3	0.2-0.4

Table 4.1. 10 Percentage of former daily smokeless tobacco users among all smokers, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	% Former daily users	95% CI	n	% Former daily users	95% CI	n	% Former daily users	95% CI
15-29	12	41.7	0.0-88.0	11	3.1	0.0-10.0	23	32.9	0.0-71.2
30-44	40	24.7	8.2-41.3	25	50.3	12.6-88.1	65	31.7	14.5-48.9
45-59	46	51.7	31.0-72.5	16	6.0	0.0-17.0	62	42.0	22.3-61.8
60-69	21	23.4	0.0-50.6	6	63.2	10.2-100.0	27	27.7	2.3-53.1
Place of Residence									
Rural	112	37.6	24.8-50.4	56	28.1	3.0-53.1	168	35.4	23.7-47.2
Urban	7	28.6	0.0-66.1	2	80.0	32.4-100.0	9	31.9	0.0-68.5
Total	119	37.2	24.9-49.5	58	28.7	3.8-53.5	177	35.3	23.9-46.7

Among currently smokeless tobacco users, daily users consumed on average 1.7 (95% CI: 1.1-2.3) snuff by mouth, 2.2 (95% CI: 1.2-3.2) snuff by nose, 1.1 (95% CI: 0.5-1.7) chewing tobacco, and 1.4 (95% CI: 0.0-2.8) other smokeless products times per day (Figure 4.1. 9). There was difference between the mean time of daily smokeless tobacco product users of both sexes in urban and rural areas, aside from a slightly higher prevalence of users among the rural population of snuff by a nose (2.2 to 1), chewing tobacco (1.1 to 0.5) and other products (1.4 to 0), but for snuff by mouth was higher in urban resident (3.0 to 1.6). The mean time proportion of daily tobacco product users was higher in the older age groups of the study population.

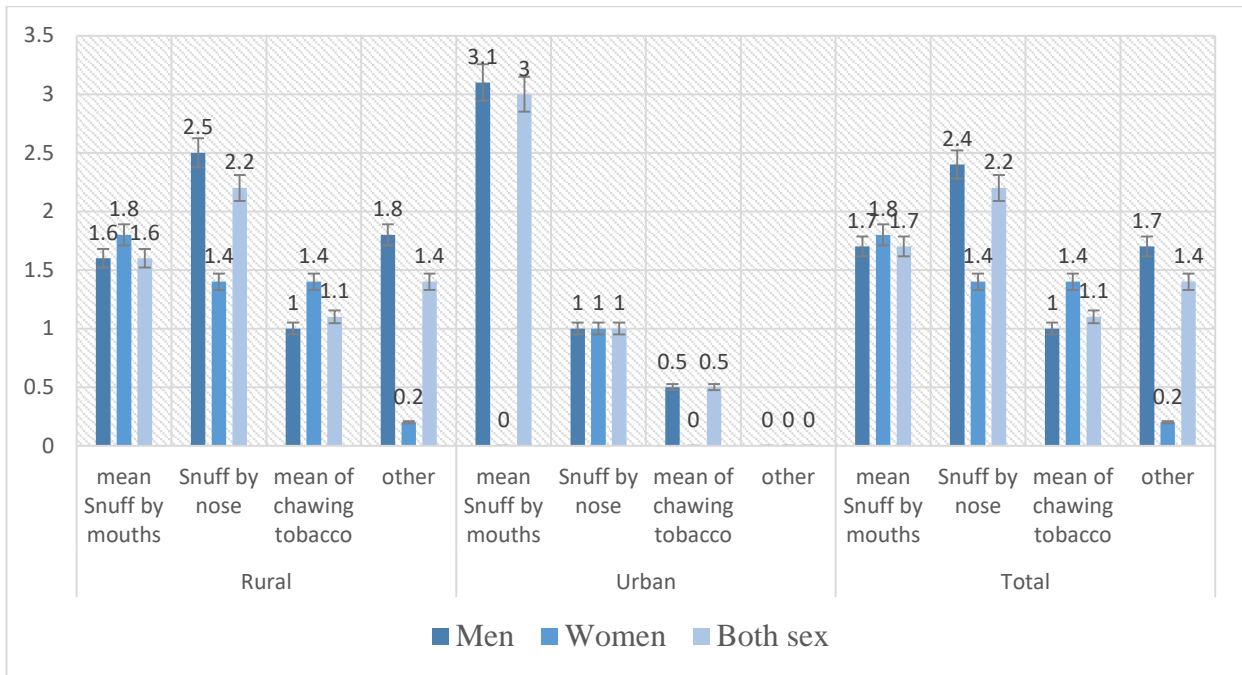


Figure 4.1. 9 Mean times of smokeless tobacco used by daily smokeless tobacco users per day, by type, Ethiopia NCD STEPS, 2015

More than fifty percent (53% (95% CI: 38.5-67.6)) of currently daily smokeless tobacco users consumed snuff by mouth per day. About 1 in 2 persons (50.1 %, 95% CI: 37.1-63.1) used snuff by the nose daily. Approximately thirty-three percent (32.7, 95% CI: 18.8-46.5) also used chewing tobacco and the rest 11.0 % (0.1-21.9) consumed other smokeless product. There were more men users than women in all of smokeless products of snuff by mouth (56.3% versus 41.9%), snuff by a nose (50.4% versus 49.2%), chewing tobacco (34.2% versus 27.2%) and other smokeless tobacco product (12.9% versus 4.6%) as shown in Figure 4.1. 10. There was not significant difference in the proportion of smokeless tobacco use in each age group, observed of both the men and women respondents. Furthermore, the percentage of daily users of snuff by nose, chewing tobacco, and other smokeless product in rural users (which was 50.8%, 33.4%, and 11.4%, respectively) were higher than urban users (32.4%, 14.2% and 0.0%, respectively) of both sex, but snuff by mouth is higher in urban residents (74.1%) than rural residents (52.2%)(Figure 4.10).

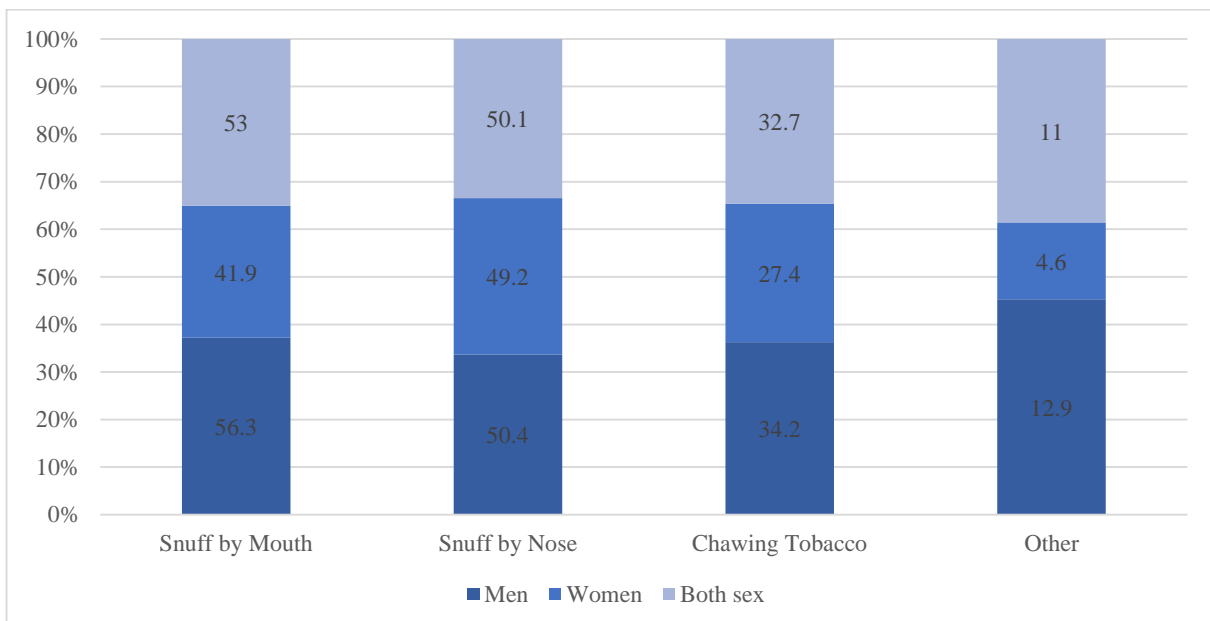


Figure 4.1. 10 Percentage of current user of smokeless tobacco by type and sex, Ethiopia NCD STEPS, 2015

The percentage of current tobacco user (daily and non-daily smokers) of both smoking and smokeless products among all respondents was 4.8% (95% CI: 4.0-5.5). There were more men tobacco user (8.2%) among the respondents than women (0.7%). There was also a notable increase in the proportion of smokers in older age groups, observed in both the men and women respondents (Table 4.1. 11). Furthermore, the percentage of current smokers of all tobacco products in rural men (8.2%) was slightly higher than urban men (7.9%). contrary, women smokers were higher in urban (0.9 %) than rural (0.7%) residence. Amongst all current smokers of all tobacco products, 4% of respondents in both sexes were smoked or consumed either smoking or smokeless tobacco daily. There were more men daily smokers (6.9%) among the respondents than women (0.5%) were. The percentage of men daily smokers in rural residence (7.1%) was slightly higher than urban (5.7%), but daily smokers among women were equal in both rural and urban residents (0.5%). (Annex 2).

Table 4.1. 11 Percentage of current tobacco users (both smoking and smokeless) among all respondents, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Current users	95% CI	N	% Current users	95% CI	N	% Current users	95% CI
15-29	1441	5.4	4.1-6.8	2516	0.5	0.2-0.7	3957	3.2	2.4-3.9
30-44	1437	11.6	9.0-14.2	2059	0.6	0.1-1.1	3496	6.3	4.9-7.7
45-59	781	11.9	8.8-14.9	909	1.8	0.7-3.0	1690	7.7	5.8-9.6
60-69	317	10.4	6.1-14.8	335	1.6	0.0-3.3	652	7.1	4.4-9.9
Place of Residence									
Rural	3199	8.2	6.8-9.7	3910	0.7	0.3-1.1	7109	5.0	4.1-5.8
Urban	777	7.9	5.2-10.6	1909	0.9	0.4-1.4	2686	4.0	2.7-5.2
Total	3976	8.2	6.9-9.5	5819	0.7	0.4-1.0	9795	4.8	4.0-5.5

Table 4.1. 12 Percentage of current daily tobacco users (both smoking and smokeless) among all respondents, Ethiopia NCD STEPS,2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Daily users	95% CI	N	% Daily users	95% CI	N	% Daily users	95% CI
15-29	1441	4.5	3.2-5.8	2516	0.3	0.1-0.5	3957	2.6	1.9-3.3
30-44	1437	9.9	7.5-12.4	2059	0.4	0.1-0.8	3496	5.3	4.0-6.6
45-59	781	10.1	7.2-12.9	909	1.4	0.4-2.3	1690	6.5	4.7-8.2
60-69	317	8.9	5.0-12.9	335	0.8	0.0-1.5	652	5.9	3.4-8.3
Place of Residence									
Rural	3199	7.1	5.7-8.5	3910	0.5	0.2-0.8	7109	4.2	3.4-5.0
Urban	777	5.7	3.4-8.1	1909	0.5	0.1-0.8	2686	2.8	1.7-3.8
Total	3976	6.9	5.6-8.1	5819	0.5	0.3-0.7	9795	4.0	3.3-4.7

More than one in ten respondents in this survey were exposed to second-hand smoke at home in the 30 days preceding the study. The magnitude of second hand smoke was higher in men than women (11.4% 95% CI: 9.3, 13.6) versus (8.9% 95% CI: 7.3, 10.5) were.

Table 4.1. 14 presents, the proportion of exposure to second-hand smoke at workplace was 15.1% for men (95% CI: 12.6-17.6) and 12.6% for women (95% CI: 10.7-14.5). Generally, exposure at workplace (12.6%) was higher than at home (10.3%), for both sexes. On the other hand, the proportion of exposure to second-hand smoking was higher in the younger age groups (30-44) of the study population both in home (11.8) and workplace (14.8), for both sex (Table 4.1. 13).

Table 4.1. 13 Proportion of respondents who were exposed to second-hand smoke in home during the past 30 days by sex, age group and area of residence, Ethiopia NCD STEPS,2015.

Age Group (years)	Men				Women				Both Sexes		
	n	% Exposed	95% CI		n	% Exposed	95% CI		N	% Exposed	95% CI
15-29	1441	11.6	8.8-14.4		2516	8.0	6.2-9.8		3957	9.9	8.0-11.9
30-44	1436	12.7	9.8-15.6		2059	11.0	8.3-13.6		3495	11.8	9.5-14.2
45-59	781	8.9	6.3-11.6		909	8.7	6.1-11.4		1690	8.8	6.8-10.9
60-69	317	10.9	5.5-16.3		335	8.4	3.5-13.3		652	10.0	5.7-14.2
Place of Residence											
Rural	3198	11.6	9.1-14.1		3910	9.2	7.2-11.2		7108	10.6	8.5-12.6
Urban	777	10.3	5.9-14.6		1909	8.1	5.4-10.8		2686	9.1	5.9-12.3
Total	3975	11.4	9.3-13.6		5819	8.9	7.3-10.5		9794	10.3	8.6-12.0

¹ Percentage of respondents exposed second-hand smoke in the home in the past 30 days.

Table 4.1. 14 Proportion of respondents who were exposed to second-hand smoke in the workplace during the past 30 days by sex, age and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Exposed	95% CI	n	% Exposed	95% CI	N	% Exposed	95% CI
15-29	1343	14.3	11.4-17.2	2330	9.3	7.2-11.3	3673	12.0	9.9-14.1
30-44	1332	17.9	14.2-21.7	1896	11.4	9.0-13.9	3228	14.8	12.1-17.4
45-59	732	13.9	10.2-17.6	831	7.8	5.3-10.3	1563	11.4	8.8-13.9
60-69	289	13.4	7.2-19.5	309	9.9	4.6-15.3	598	12.1	7.3-16.8
Place of Residence									
Rural	2942	14.6	11.7-17.4	3522	9.0	7.0-11.0	6464	12.2	10.0-14.4
Urban	754	17.6	12.1-23.2	1844	11.9	8.6-15.1	2598	14.4	10.6-18.2
Total	3696	15.1	12.6-17.6	5366	9.7	8.0-11.4	9062	12.6	10.7-14.5

1 Percentage of respondents exposed to second-hand smoke in the workplace in the past 30 days.

4.2. Tobacco policy

To assess tobacco policy, the survey respondents were asked about tobacco control policy, including questions on exposure to the media and advertisement, on cigarette promotions, health warnings and cigarette purchases. About three percent (3.1%, 95% CI: 2.4-3.7) of the survey participants reported noticing information on the dangers of smoking cigarettes or that encourages quitting in the newspapers or magazines. Approximately eight percent (7.8%, 95% CI: 6.4-9.3) reported noticing information about the dangers of smoking cigarettes or that encourages quitting on television. Higher percentage (16.5%, 95% CI: 14.4-18.7) of the population reported noticing information on the dangers of smoking cigarettes or that encourage quitting on radio (Figure 4.2. 1). There were more men who noticed information about danger of tobacco or encourage quitting on any of this media in the survey than women respondents. The percentage of respondents who noticed information on the media about the dangers of smoking or encourage to quit was higher in urban than rural areas. (Annex 2)

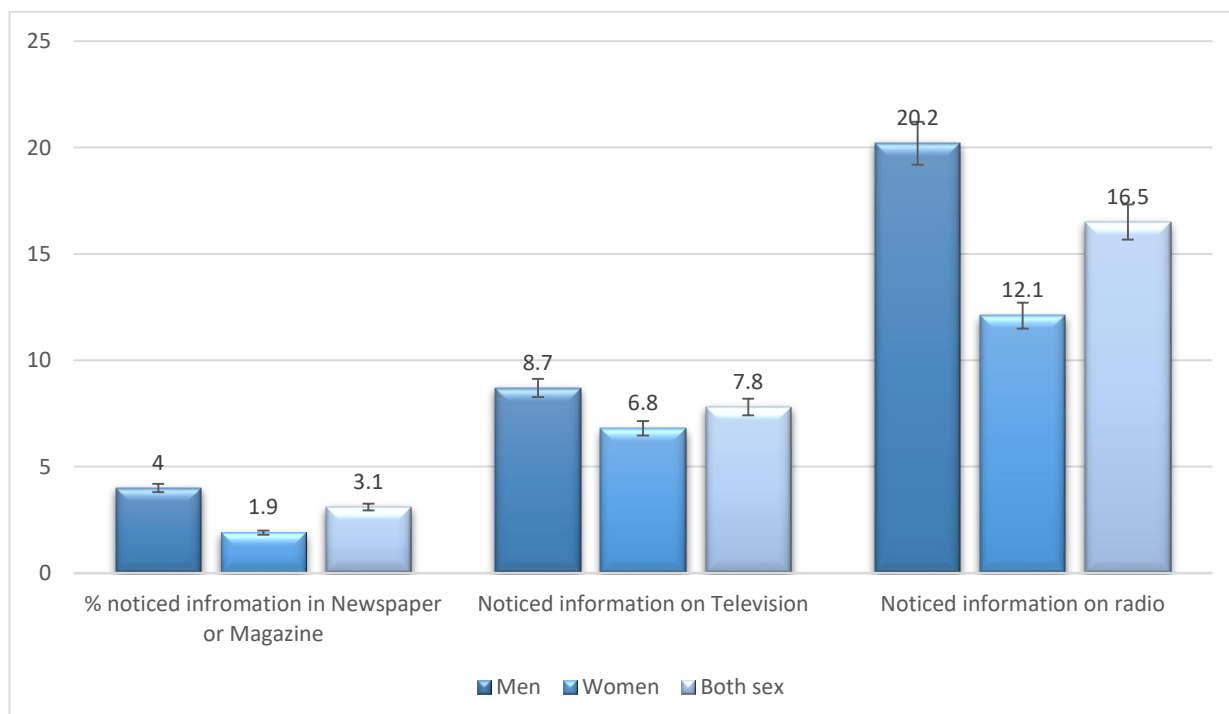


Figure 4.2. 1 Percentage of respondents who noticed information in a newspaper or magazine about danger of smoking or encourage to quit, by age and sex, Ethiopia NCD STEPS, 2015.

The percentage of all respondents of both sexes who noticed advertisement or signs promoting cigarette in stores was 0.8% (95% CI: 0.5-1.0%). There were more men (1.1%) than women (0.4%) respondents who noticed advertisement or signs promoting cigarettes in stores. In addition, the percentage of respondents in both sexes who noticed advertisement or signs promoting cigarette in stores was higher in urban (1.6%)

than rural (0.6%). (Table 4.2. 1)

Table 4.2. 1 Percentage of respondents who noticed advertisements or signs promoting cigarettes in stores, by age and sex, Ethiopia NCD STEPS, 2015.

Age Group (Years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1441	1.0	0.4-1.6	2516	0.5	0.1-0.9	3957	0.8	0.4-1.1
30-44-44	1436	1.3	0.5-2.0	2058	0.3	0.1-0.6	3494	0.8	0.4-1.2
45-59	781	1.5	0.4-2.6	909	0.2	0.0-0.4	1690	0.9	0.3-1.6
60-69-64	316	0.3	0.0-0.6	335	0.0	0.0-0.0	651	0.2	0.0-0.4
Place of Residence									
Rural	3197	0.8	0.5-1.2	3909	0.2	0.0-0.5	7106	0.6	0.3-0.8
Urban	777	2.6	1.0-4.2	1909	0.9	0.3-1.4	2686	1.6	0.8-2.5
Total	3974	1.1	0.7-1.5	5818	0.4	0.1-0.6	9792	0.8	0.5-1.0

A small proportion of the survey participants in both sexes indicated that they noticed some forms of cigarette promotion. These promotions include free sample of cigarettes 0.2% (95% CI: 0.0-0.5), sale price on cigarettes 0.6% (95% CI: 0.3-0.9), coupons for cigarettes 0.2% (95% CI: 0.0-0.4), free gift or special discount 0.2% (95% CI: 0.1-0.3), clothing or other items with a cigarette brand name or logo 0.8% (95% CI: 0.3-1.2), and cigarette promotions through the mail was 0.1% (95% CI: 0.0-0.2). There were relatively more men respondents who noticed cigarette promotion than women respondents in any of the mentioned promotion means(Figure 4.2. 2).



Figure 4.2. 2 Percentage of respondents who noticed promotion of cigarettes in the past 30 days, by type and sex, Ethiopia NCD STEPS, 2015.

The percentage of current smokers (daily and nondaily) who noticed health warnings on cigarette package among all respondents was 26.6% (95% CI: 20.0-33.2). There were more men current smokers who noticed health warning messages (27.3%) among the respondents than women (10.8%). There was also a high proportion of smokers who noticed health warning messages in younger age groups (15-44), observed in both men and women respondents (Table 4.2. 2). Furthermore, the percentage of current smokers (daily and nondaily) who noticed health warnings on cigarette package in urban respondents (48.9%) is two folds higher than rural respondent (21.2%). Additionally, men smokers were also higher in urban (53.1%) than rural (21.6%) residence, and similarly, urban resident women (15.4%) were more likely to notice health warnings on cigarette package than rural resident women (6.3%) were(Figure 4.2. 2).

Table 4.2. 2 Percentage of current smokers who noticed health warnings on cigarette packages in the past 30 days, by age, sex and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (Years)	Men			Women			Both Sexes		
	n	%	95% CI	N	%	95% CI	n	%	95% CI
15-29	99	38.8	25.2-52.5	25	12.4	0.9-23.9	124	37.2	24.3-50.2
30-44	153	21.7	11.2-32.2	19	30.1	0.0-67.2	172	21.9	11.5-32.2
45-59	97	18.3	6.5-30.2	14	0.0	0.0-0.0	111	17.4	6.1-28.6
60-69	42	13.7	0.0-33.1	7	0.0	0.0-0.0	49	13.1	0.0-31.7
Place of Residence									
Rural	314	21.6	14.6-28.6	42	6.3	1.3-11.3	356	21.2	14.4-28.0
Urban	77	53.1	34.4-71.9	23	15.4	0.0-32.9	100	48.9	31.5-66.4
Total	391	27.3	20.4-34.2	65	10.8	1.6-19.9	456	26.6	20.0-33.2

The percentage of current smokers who noticed health warnings on cigarette package that thought of quitting among all respondents was 79.5% (95% CI: 67.9-91.0). There were more men (79.8%) among current smoker respondents than women (58.4%) noticed health warning messages that thought of quitting. Moreover, the study also revealed that, rural (82.2%) respondents were more likely to notice health warning messages that thought of quitting than urban (74.5%). Additionally, men smokers were also higher in rural (82.7 %) than urban (74.5%) residence; and contrarily, women respondents in urban (75.7%) were more likely to notice health warning on cigarette packages that thought of quitting than rural residence (22.9%). (Table 4.2. 3)

Table 4.2. 3 Percentage of current smokers who saw health warnings on cigarette packages that thought of quitting in the past 30 days, by age and sex, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	39	87.2	75.9-98.4	7	40.2	6.9-73.5	46	86.2	75.0-97.4
35-44	37	78.6	60.0-97.2	1	100.0	100-100	38	79.0	60.8-97.2
45-59	17	49.8	11.8-87.9	0	0	0	17	49.8	11.8-87.8
60-69	5	100.0	100-100	0	0	0	5	100.0	100.0-100
Place of Residence									
Rural	61	82.7	67.1-98.3	4	22.9	0.0-88.4	65	82.2	66.7-97.7
Urban	37	74.5	55.3-93.7	4	75.7	71.2-80.2	41	74.5	56.0-93.1
Total	98	79.8	68.1-91.5	8	58.4	35.3-81.5	106	79.5	67.9-91.0

The cost of a pack of 20 cigarettes varied from low 14.7 birr to highest of 23.4 birr; the mean average price paid for a packet reported by both sexes was 15.3 birr per day. The mean average price paid for a packet of 20 cigarettes reported by women was higher than men (21.1 versus 15.0 Birr) were (Table 4.2. 4).

Table 4.2. 4 Average price paid for 20 manufactured cigarettes on the last purchase, by age and sex, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Mean (birr)	95% CI	n	Mean (birr)	95% CI ¹	n	Mean (birr)	95% CI ¹
15-29	106	14.7	13.3-16.1	17	23.4	-	123	15.0	-
30-44	175	15.1	13.3-17.0	9	18.2	-	184	15.2	-
45-59	104	15.7	14.1-17.4	12	19.1	-	116	16.0	-
60-69	36	14.9	12.2-17.5	4	19.9	-	40	15.1	-
Place of Residence									
Rural	343	14.5	13.4-15.7	30	21.5	-	373	14.7	-
Urban	78	17.5	15.1-19.9	12	20.2	-	90	17.7	-
Total	421	15.0	14.0-16.1	42	21.1	-	463	15.3	-

¹The confidence interval of average price paid for 20 manufactured cigarettes on the last purchase for women and both sex respondents is not calculated due to the presence of higher difference on the values, so that the extreme values affected the calculation of the interval estimation of the average price paid for 20 manufactured cigarettes

Conclusions

1. About four percent of the survey participants were current smokers (daily and non-daily smokers) of all tobacco products that have smoke or can be smoked, putting them at high risk for NCDs. There were more men smokers 7.3% among the survey respondents than women 0.4%.
2. Current tobacco use (smoke and non-smoke) was 4.8 %.
3. Among all survey participants, 3.5% of them smoke daily. The share of daily smokers among men (6.2%) was higher than women (0.2%).
4. Over all, mean age to start smoking started among smokers is 21.0 years. Men were more likely to start smoking earlier than women were (mean age = 20.9 years in men versus 22.8 years in women).
5. Manufactured cigarettes were the most commonly used tobacco product (used by 89.4% of the study population). Men daily smokers smoked more cigarettes (7.3 cigarettes) than women (2.4 cigarettes) did.
6. One in ten individuals (10.3%) were exposed to second-hand smoke at home, and one in eight in the workplace (12.6%), with more men (26.5%) exposed than women (18.6%), which considerably increases the risk of NCDs among exposed individuals.
7. In Ethiopia, a quarter of the population (26.6%) noticed health warnings on cigarette package and four in five individuals (79.5%) of these population reported thought about quitting after reading the warning labels.
8. The cost of a pack of 20 cigarettes varied from low 15.2 birr to higher of 146.6 birr; the mean average price paid for a packet reported by both sexes was 22.8 per day.

5. Alcohol consumption

5.1. Alcohol consumption status

The 2015 Ethiopian NCD steps survey studied the alcohol consumption patterns, frequency of alcohol drinking and risks associated with alcohol consumption according to sex, age and place of residence of the survey respondents.

Among all respondents, in the age group 15–69 years, nearly 41% (95% CI: 37.4–43.9) consumed alcohol during the past 30 days prior to the survey time. The proportion of men who consumed alcohol for the past 30 days (46.6%, 95% CI: 43.0–50.2) was more likely higher than that of women (33.5%, 95% CI: 30.3–36.7) (Figure 5.1).

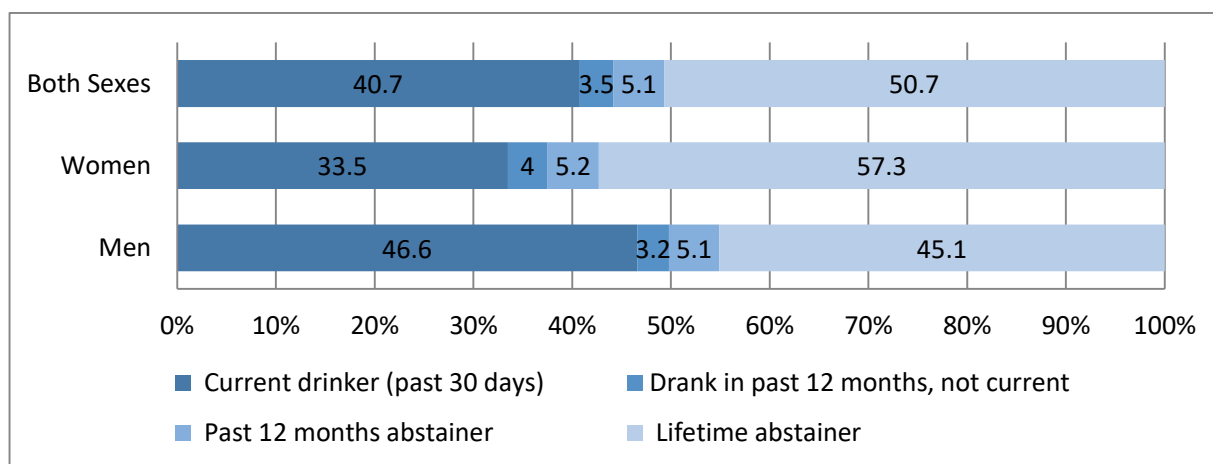


Figure 5.1 Alcohol consumption status of all respondents in the past 30 days, by sex, Ethiopia NCD STEPS, 2015.

Figure 5.1 shows a slight decrease in alcohol consumption in Ethiopia in comparison with the EDHS 2011 results that reported a prevalence of 53% among men and 45% among women. Although the EDHS analysed different age groups (15–49 age group for women and 15–59 age group for men), the lower prevalence of alcohol consumption in the youngest age group supports the conclusion that a positive trend is emerging in terms of a reduction in alcohol use.

Table 5. 1 Distribution of current (past 30 days) alcohol drinkers' status, by sex and age,, Ethiopia NCD STEPS, 2015.

Age Group (Years)	Men			Women			Both sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1441	42.6	38.2-47.0	2516	29.5	25.8-33.2	3957	36.6	32.9-40.4
30-44	1436	47.6	43.1-52.1	2060	38	34.0-42.0	3496	42.9	39.3-46.6
45-59	781	58	52.7-63.3	909	39.8	34.7-44.9	1690	50.5	46.1-54.8
60-69	317	52.6	44.0-61.1	335	39	30.8-47.3	652	47.5	40.8-54.2
Total	3975	46.6	43.0-50.2	5820	33.5	30.3-36.7	9795	40.7	37.4-43.9

Among urban residents of both sexes in the age group 15-69 years, almost half (47.1%), and from rural residents 39.1% had consumed alcohol in the past 30 days. This pattern is also consistent with the result from EDHS 2011 which was 61% and 51% of men in urban and rural dwellers were consumers of alcohol, respectively. Moreover, EDHS 2011 revealed that 50% of women in urban and 43% of women in rural area ever consumed alcohol (6).

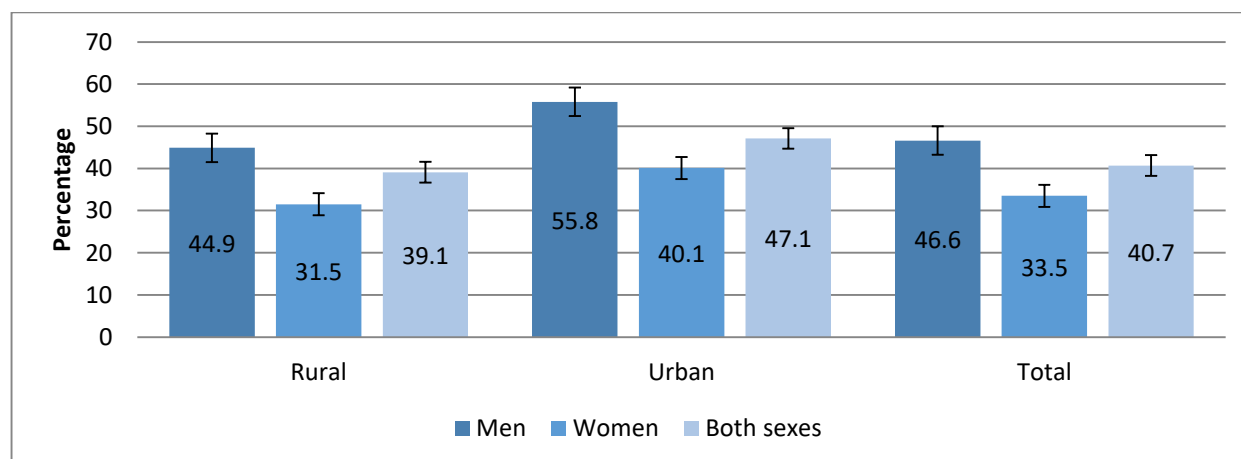


Figure 5. 2 Percentage of current drinkers, by sex and place of residence, Ethiopia NCD STEPS, 2015.

The survey revealed that, among ever drinkers, but not in the last 12 months, 28.5% (95% CI: 21.1-36.0) had stopped drinking due to health reasons. Moreover, 30.3% (95% CI: 19.9%-40.7%) of men, and 26.5% (95% CI: 18.7%-34.3%) of women had stopped consuming alcohol due to health reasons. Among the respondents who ever drank alcohol, the proportion of rural residents who stopped drinking due to health reasons for both sexes were more likely higher (28.9%; 95%CI: 20.3-37.5) than urban residents, which is 26.9% (95% CI: 11.0-42.7).

Table 5. 2 Distribution of respondents who stopped drinking due to health reasons by age group, sex and place of residence, NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Stopping due to health reasons (%)	95% CI	n	Stopping due to health reasons (%)	95% CI	n	Stopping due to health reasons (%)	95% CI
15-29	42	36.6	18.7-54.5	91	14.1	5.2-23.0	133	26.0	14.5-37.4
30-44	83	27.6	15.0-40.1	90	40.6	24.9-56.3	173	33.0	21.5-44.5
45-59	45	19.3	5.7-32.9	66	31.7	16.1-47.4	111	25.7	15.4-36.0
60-69	24	36.2	13.0-59.4	26	23.7	5.7-41.7	50	30.8	15.2-46.5
Place of Residence									
Rural	151	31.8	20.2-43.4	175	25.2	16.3-34.1	326	28.9	20.3-37.5
Urban	43	21.6	0.0-44.5	98	31.5	12.6-50.3	141	26.9	11.0-42.7
Total	194	30.3	19.9-40.7	273	26.5	18.7-34.3	467	28.5	21.1-36.0

About 9% of men and 3.5% of women who consumed alcohol in the last 12 months drank alcohol every day. The proportion of all the past 12 months consumers who drank alcohol daily constituted 4.1%; those who consumed alcohol on 5–6 days per week constituted 3.7%; and those who drank 3-4 days per week, 1-2 days per week, and 1–3 days per month constituted 10.3%, 34.4%, and 23.8% ,respectively. The rest of the respondents (23.7%) reported consuming alcohol once per month or less often. In the age group 30-44 years, it was observed that the proportion of daily drinkers were more likely higher than other age groups.

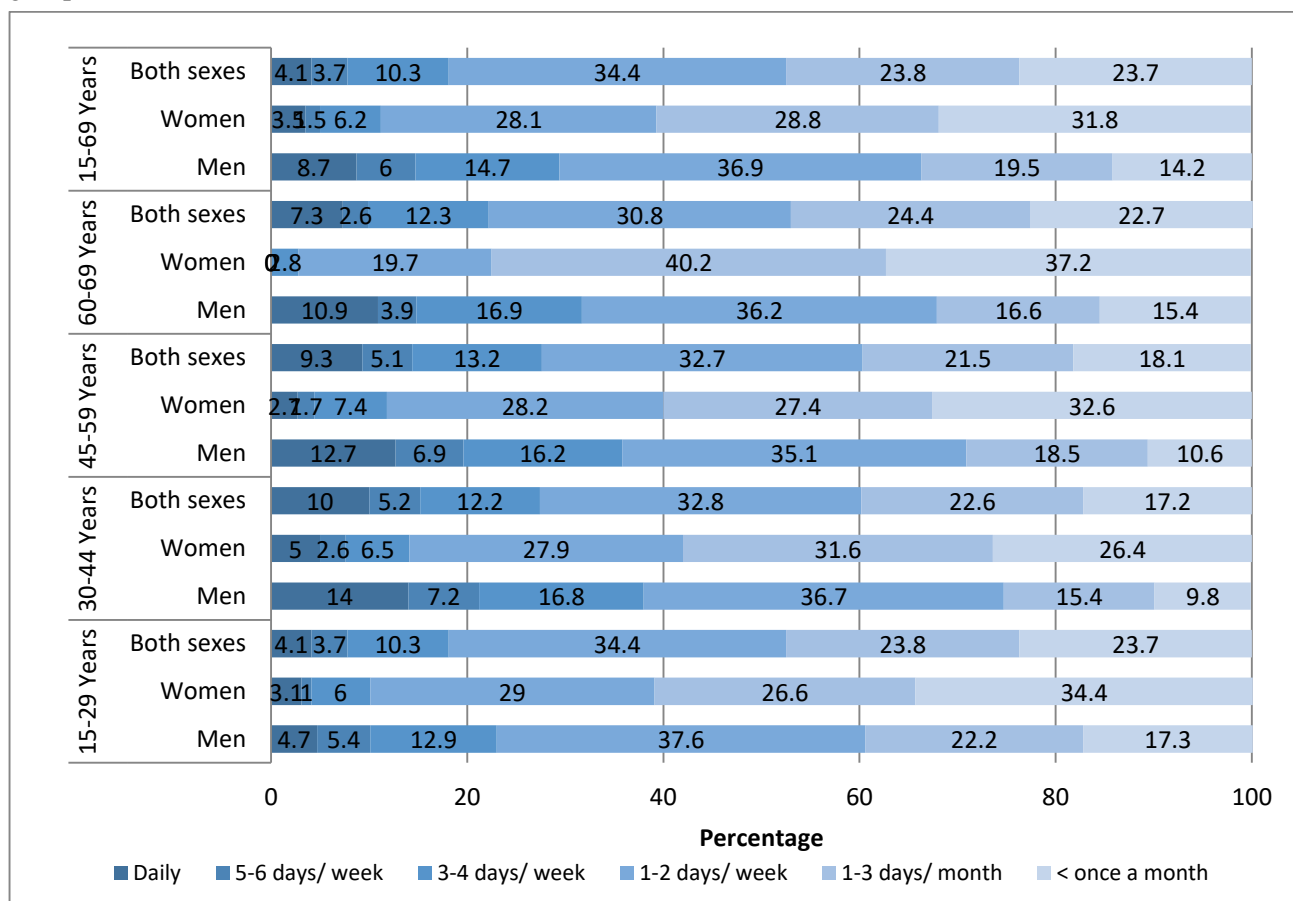


Figure 5. 3 Frequency of alcohol consumption in the past 12 months, by sex and age group, Ethiopia NCD STEPS, 2015.

Among men respondents, who are living in urban areas and consumed alcohol daily were a bit higher than rural residents; 10.8% and 8.2%, respectively. While, the proportion of women respondents who consumed alcohol in a daily bases were similar in urban and rural areas (3.5%). From men respondents, the proportion of rural residents who consumed alcohol 5-6 days per week, 3-4 days per week , and 1-2 days per week were found to be higher than those of urban dwellers, 6.7% versus 3.2%, 15.8% versus 9.7%, and 37.7% versus 33.5%, respectively. Likewise, the proportion of women respondents who are living in rural areas consumed alcohol 5-6 days per week, 3-4 days per week, and 1-2 days per week were more likely higher than urban residents. Figure 5. 4 reveals that women respondents who had consumed alcohol less than once a month were more likely higher than those of men respondents were.

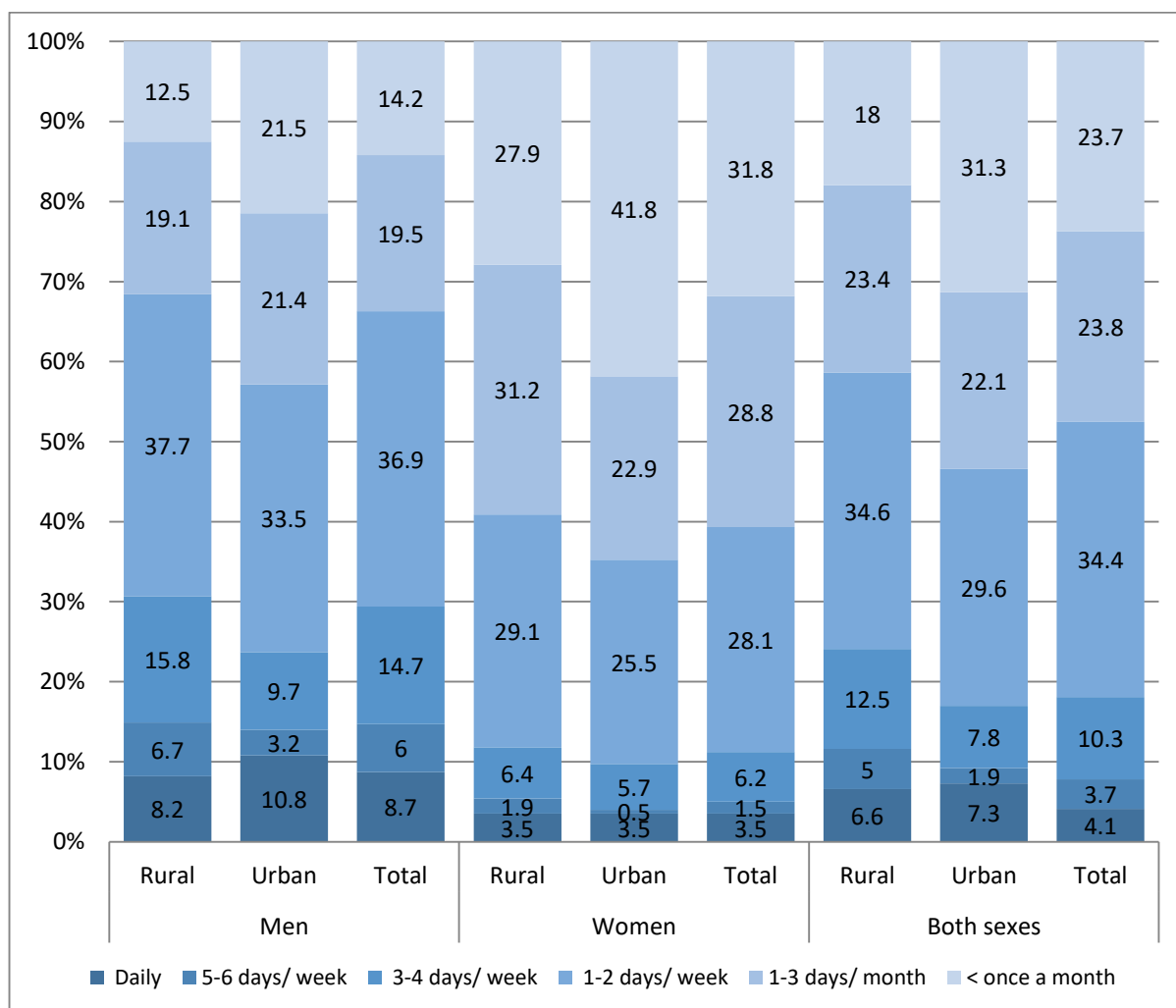


Figure 5. 4 Frequency of alcohol consumption in the past 12 months, by sex and place of residence, Ethiopia NCD STEPS, 2015.

The alcohol consumption pattern was further analysed by explaining the frequency of drinking in the past 30 days, and the mean number of standard drinks per drinking occasion. In the past 30 days current alcohol drinkers of both sexes had consumed alcohol on average on 5.5 occasions (95% CI: 4.9–6.2), with men showing to 6.3 occasions and women 4.3 occasions. For both sexes, the mean number of drinking occasions was found to be higher among rural populations, at 5.9 occasions (95% CI: 5.2–6.7) than among urban residents, at 4.2 occasions (95% CI: 3.3–5.1). The highest mean numbers of drinking occasions in the past 30 days among current drinkers of both sexes were observed in the age groups 30-44 and 45-59 years. (See Table 5. 3).

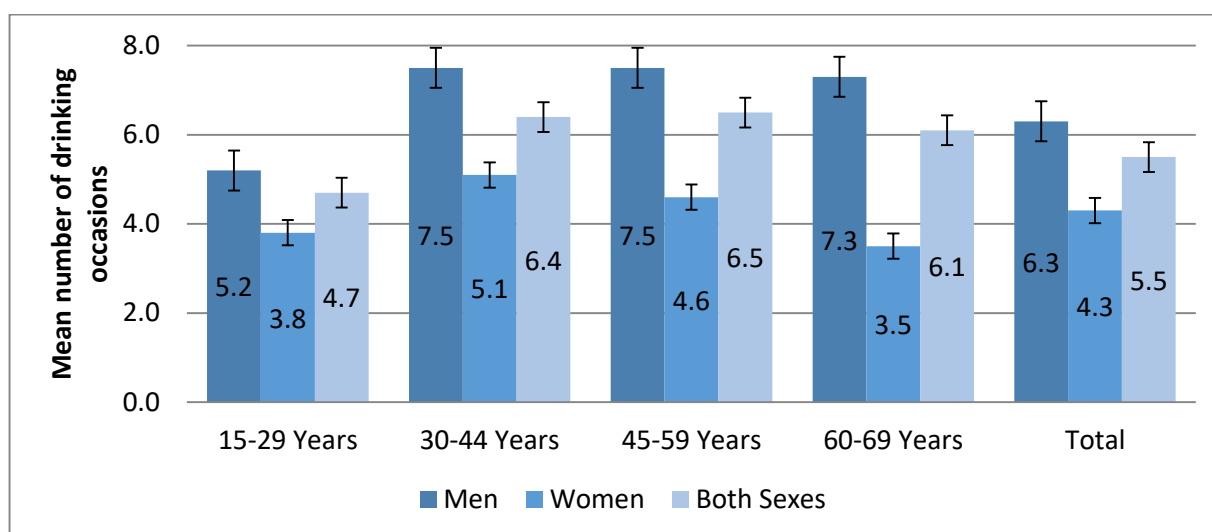


Figure 5.5 Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers, by sex and age group, Ethiopia NCD STEPS, 2015.

Table 5.3 Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers, by sex, age group and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI ¹	N	Mean	95% CI	n	Mean	95% CI
15-29	552	5.2	-	676	3.8	3.2-4.3	1228	4.7	4.0-5.3
30-44	605	7.5	-	658	5.1	4.2-6.0	1263	6.4	5.5-7.3
45-59	370	7.5	-	318	4.6	3.7-5.5	688	6.5	5.5-7.5
60-69	135	7.3	-	121	3.5	2.8-4.2	256	6.1	4.8-7.4
Place of Residence									
Rural	1282	6.5	-	1163	4.8	4.0-5.6	2445	5.9	5.2-6.7
Urban	380	5.3	-	610	3.0	2.3-3.6	990	4.2	3.3-5.1
Total	1662	6.3	-	17 73	4.3	3.7-4.9	3435	5.5	4.9-6.2

¹The confidence interval of mean number of drinking occasions for men respondents is not calculated due to the presence of high geographical variations, so that the extreme values affected the calculation of the interval estimation of the mean number of drinking occasions

Current drinkers of respondents consumed on average 3.5 standard drinks per drinking occasion (95% CI: 3.4–3.7), with men consuming 4.3 standard drinks and women consuming 2.3 standard drinks. In all age groups, men consumed almost two times more per drinking occasion than women (Figure 5.6). The number of standard drinks per occasion were higher among the rural population at 3.7 drinks as opposed to 3.1 drinks for urban residents. (Table 5.4).

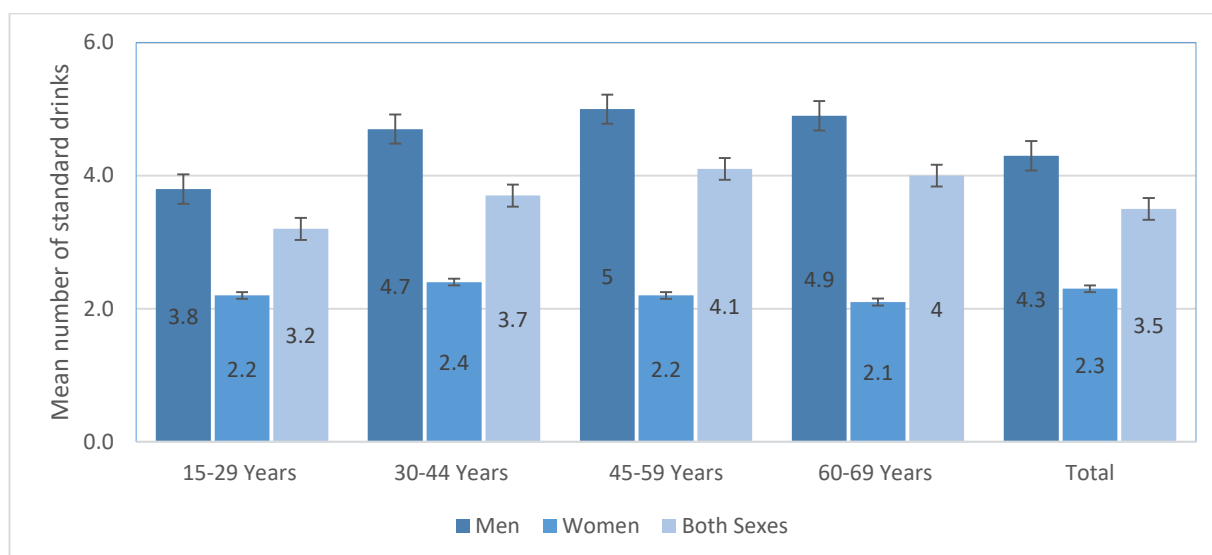


Figure 5. 6 Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers by sex and age group, Ethiopia NCD STEPS, 2015.

Table 5. 4 Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers, by sex, age group and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI ²	n	Mean	95% CI	n	Mean	95% CI
15-29	559	3.8	-	680	2.2	1.9-2.4	1239	3.2	3.0-3.5
30-44	613	4.7	-	659	2.4	2.2-2.6	1272	3.7	3.5-4.0
45-59	383	5.0	-	321	2.2	2.0-2.3	704	4.1	3.8-4.4
60-69	137	4.9	-	120	2.1	1.8-2.4	257	4.0	3.4-4.5
Place of Residence									
Rural	1307	4.4	-	1172	2.3	2.1-2.5	2479	3.7	3.5-3.9
Urban	385	3.9	-	608	2.1	1.9-2.3	993	3.1	2.8-3.3
Total	1692	4.3	-	1780	2.3	2.1-2.4	3472	3.5	3.4-3.7

²The confidence interval of mean number of standard drinks per drinking occasion for men respondents is not calculated due to the presence of high geographical variations, so that the extreme values affected the calculation of the interval estimation of the mean number of standard drinks

The risk associated with alcohol consumption was assessed in current (past 30 days) drinkers based on the average amount of alcohol consumed per drinking occasion in the past 30 days. The result revealed that a higher proportion of urban area respondents had a lower level risk (45.2%) than rural area respondents (36.3%). Figure 5. 8 shows that 38% of all current drinkers (95% CI: 34.9–41.2) had a low risk associated with alcohol consumption; 43.1% of men (95% CI: 39.5–46.7) and 32% of women (95% CI: 28.9–35.2). In addition, 1.8% of men (95% CI: 1.1–2.5) and 1% of women (95% CI: 0.5–1.5) had a medium risk, while 1% of men (95% CI: 0.6–1.4) and 0.1% of women (95% CI: 0.0–0.2) had a high risk. (Table 5.5 and Fig.5.7).

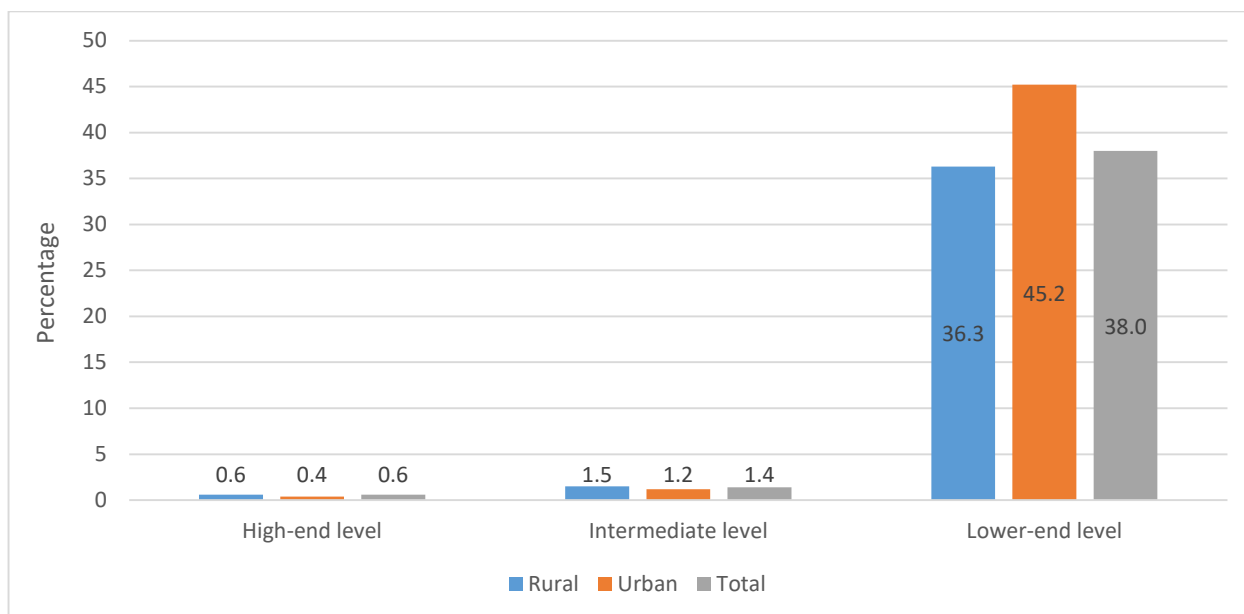


Figure 5. 7 Proportion of high-, intermediate-, and lower-volume drinking levels among all respondents, by place of residence, Ethiopia NCD STEPS, 2015

Table 5. 5 Proportion of high-, intermediate-, and lower-volume drinking levels among all respondents, by age group and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (Years)	n	High-end level ¹	95% CI	n	Intermediate level ²	95% CI	n	Lower-end level ³	95% CI
15-29	3942	0.2	0.1-0.4	3942	1.0	0.6-1.5	3942	35.0	31.2-38.7
30-44	3471	0.9	0.3-1.4	3471	2.0	1.1-2.9	3471	39.5	36.1-43.0
45-59	1664	1.1	0.3-1.9	1664	1.8	1.0-2.6	1664	46.4	42.0-50.8
60-69	639	1.8	0.0-3.6	639	1.8	0.5-3.0	639	42.3	35.8-48.9
Place of Residence									
Rural	7050	0.6	0.3-0.9	7050	1.5	0.9-2.1	7050	36.3	32.9-39.8
Urban	2666	0.4	0.1-0.7	2666	1.2	0.3-2.1	2666	45.2	36.4-53.9
Total	9716	0.6	0.3-0.8	9716	1.4	0.9-1.9	9716	38.0	34.9-41.2

¹Drinking at high-end level is defined as drinking ≥ 60 g of alcohol on average per occasion among men and ≥ 40 g of alcohol on average per occasion among women

²Drinking at intermediate level is defined as drinking 40-59.9g of alcohol on average per occasion among men and 20-39.9g of alcohol on average per occasion among women

³Drinking at lower-end level is defined as drinking < 40 g of alcohol on average per occasion among men and < 20 g of alcohol on average per occasion among women

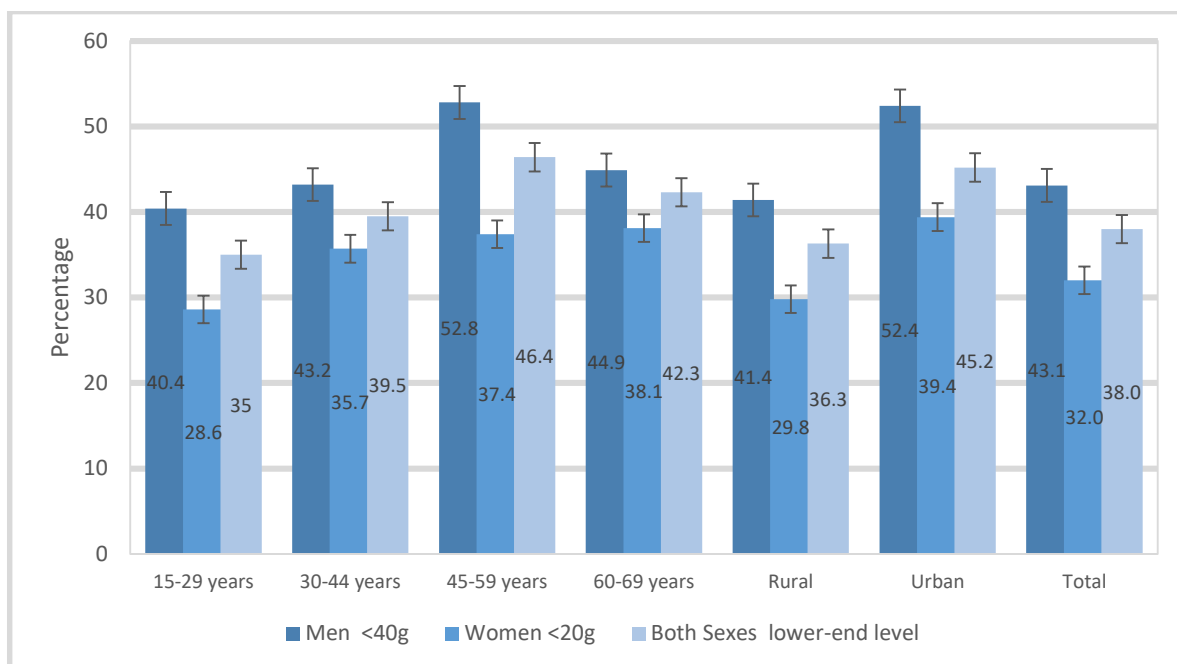


Figure 5. 8 Percentage of lower-volume drinking levels among all respondents, by sex and age group, Ethiopia NCD STEPS, 2015.

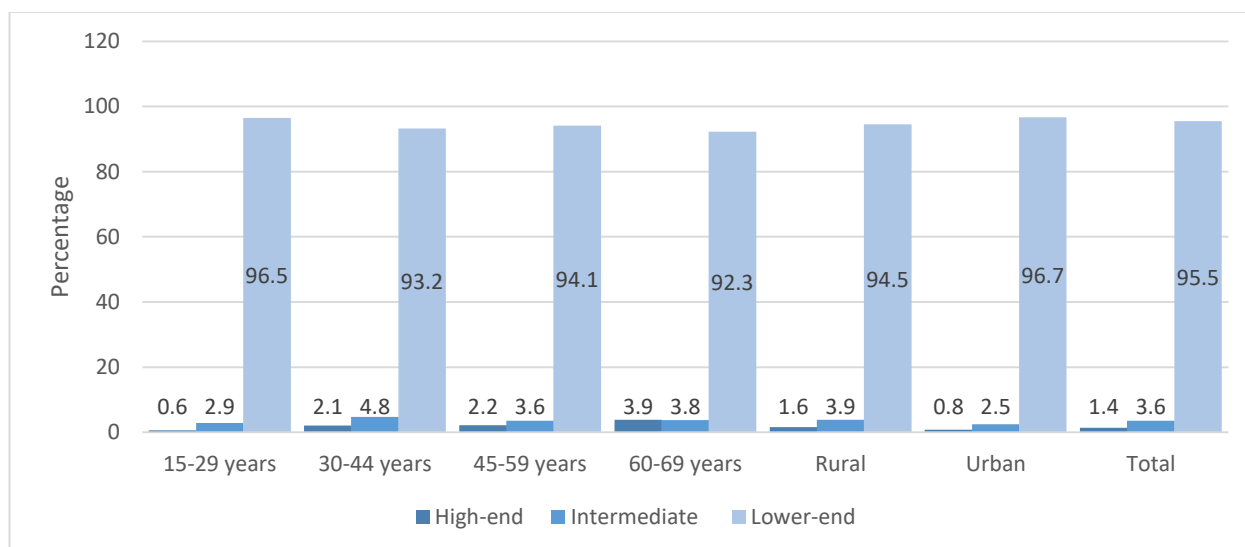


Figure 5. 9 Percentage of high-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers, by age group and place of residence, Ethiopia NCD STEPS, 2015.

Among the survey respondents, one in eight individuals consumed six or more drinks on a single occasion at least once during the past 30 days, with a significant difference between men and women. A total of 20.5% of men (95% CI: 18.2–22.7), and 2.7% of women (95% CI: 2.0–3.3) reported having consumed six or more drinks at least once during the last 30 days. The proportion of people reporting this experience is almost similar in the rural and urban residents for both men and women. The mean number of time with six and more drinks per drinking occasion was found to 1.1 for both sexes in the past 30 days. Men experienced this pattern 1.6 times while women only 0.2 times.

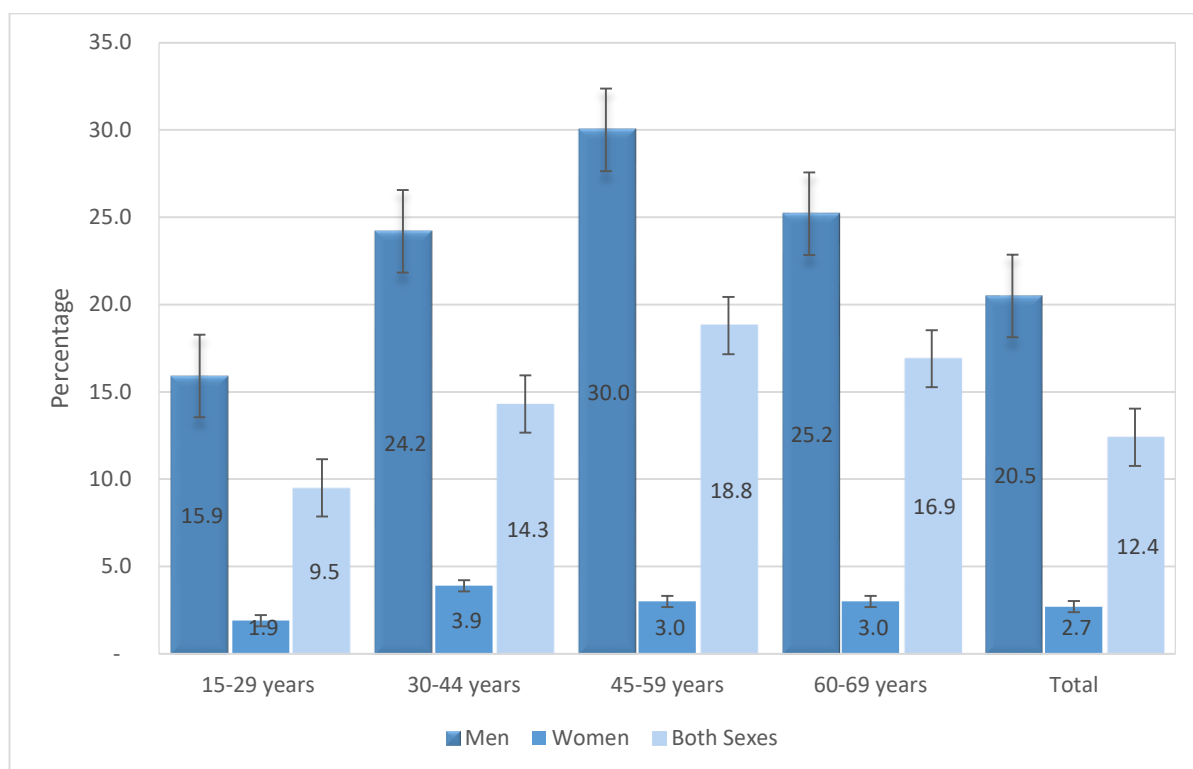


Figure 5. 10 Percentage of respondents who consume six or more drinks on a single occasion at least once during the past 30 days, by sex and age group, Ethiopia NCD STEPS, 2015.

Table 5. 6 Mean number of times with six or more drinks during a single occasion in the past 30 days among current drinkers, by age, sex and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of times	95% CI ³	n	Mean number of times	95% CI	n	Mean number of times	95% CI
15-29	552	1.3	-	681	0.2	0.1-0.2	1233	0.9	0.7-1.0
30-44	604	2.0	-	659	0.2	0.1-0.3	1263	1.2	1.0-1.5
45-59	371	2.0	-	324	0.2	0.1-0.3	695	1.4	1.1-1.7
60-69	136	1.8	-	122	0.1	0.0-0.2	258	1.3	0.8-1.7
Rural	1282	1.7	-	1172	0.2	0.1-0.2	2454	1.2	1.0-1.3
Urban	381	1.4	-	614	0.2	0.1-0.3	995	0.8	0.6-1.0
Total	1663	1.6	-	1786	0.2	0.1-0.2	3449	1.1	0.9-1.2

³The confidence interval of mean number of standard drinks per drinking occasion for men respondents is not calculated due to the presence of high geographical variations, so that the extreme values affected the calculation of the interval estimation of the mean number of standard drinks

About 11% (95% CI: 8.7-13.3) of men, and 6% (95% CI: 4.2-7.9) of women drank alcohol every day in the past 7 days among current (past 30 days) drinkers. The proportion of all respondents who drank daily constituted 9%; those who consumed alcohol on 5-6 days per week constituted nearly 14%; those who drank 3-4 times per week constituted 26%; and those who consumed 1-2 days per week constituted 37%. The rest of respondents (14%) did not consume alcohol in the past 7 days.

The survey results attested to a higher prevalence of daily drinkers in urban areas. The proportion of daily drinkers in urban 11% (95% CI: 7.3-15.2) was slightly higher than rural residents 9% (95% CI: 6.5-10.5). In contrary to this finding, EDHS 2011 revealed that higher percent of rural men (57% of rural versus 39.5% of urban) age group 15-59 years and women (55% of rural versus 27.7% of urban) age group 15-49 years drank six and more in the past 30 days compared to urban men and women respectively (6).

Moreover, in all age groups the proportion of daily and 5-6 days per week men drinkers were more likely higher than women drinkers.

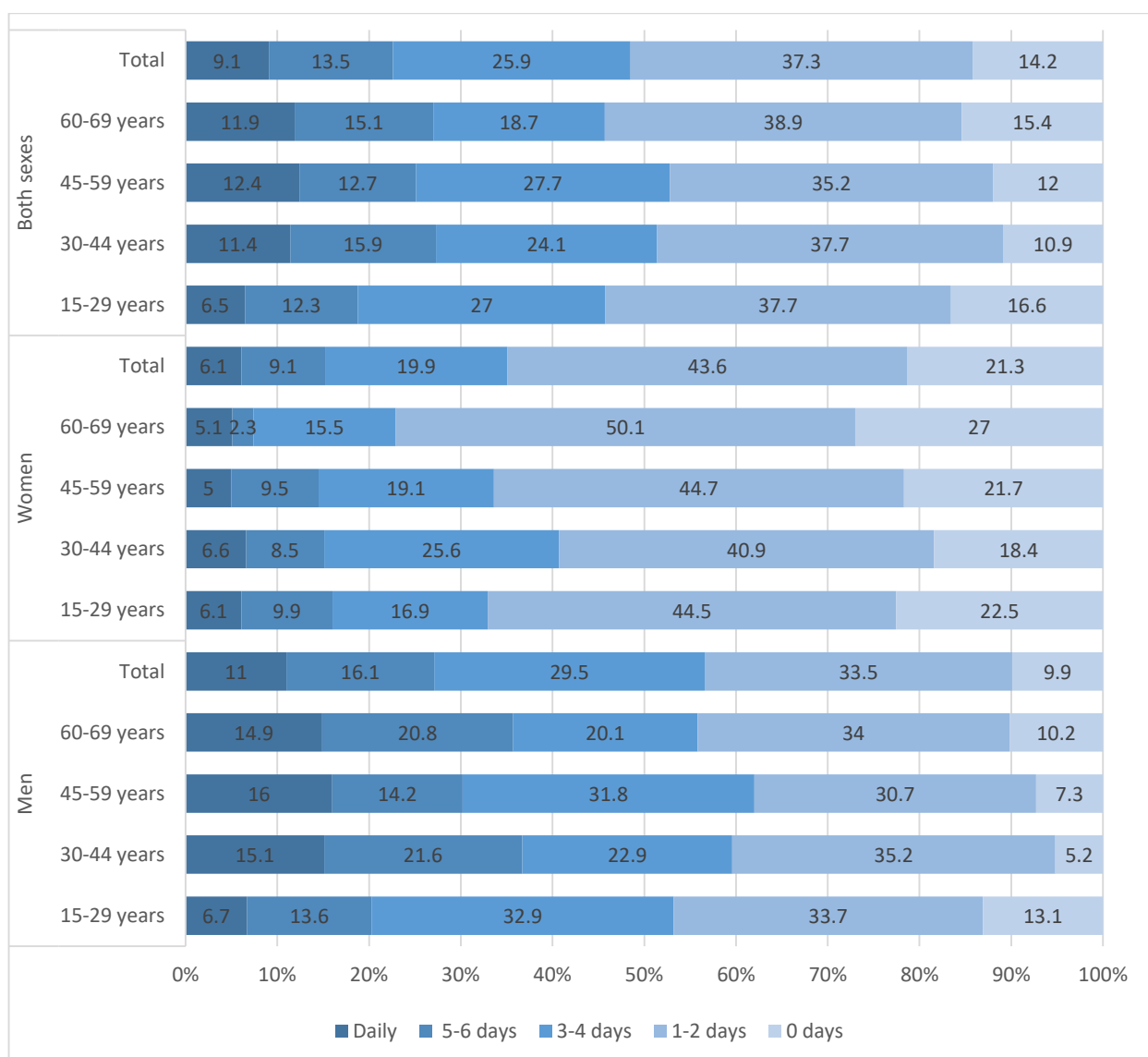


Figure 5. 11 Frequency of alcohol consumption among current (past 30 days) drinkers, in the past 7 days, by sex and age group, Ethiopia NCD STEPS, 2015.

Among all current drinkers on average number of standard drinks consumed daily in the past 7 days was 1.2(95% CI: 1.1-1.3). Men consumed 1.6 standard drinks in average per day that was nearly three times higher than women’s consumption of 0.6 (95% CI: 0.5-0.7). Rural respondents consumed alcohol 1.3 standard drinks (95% CI: 1.2-1.4) in average per day which was a bit higher than urban 1.0 (95% CI: 0.8-1.1), and similarly, rural men consumed 1.6 standard drinks in average per day compared with 1.3 that of urban counterpart. As age increases the mean number of standard drinks consumption also increases; 1.0(95% CI: 0.9-1.1) in the age group 15-29 compared with 1.5(95% CI: 1.1-1.8) in the age group 60-69. It is also true that the mean number of standard drinks on average per day was identical for rural and urban women.

Table 5. 7 Mean number of standard drinks consumed on average per day in the past 7 days among current (past 30 days) drinkers, by sex, age group and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Mean number	95% CI ⁴	n	Mean number	95% CI	n	Mean number	95% CI
15-29	557	1.2	-	680	0.6	0.5-0.6	1237	1.0	0.9-1.1
30-44	617	1.9	-	662	0.7	0.6-0.8	1279	1.4	1.2-1.5
45-59	382	1.9	-	322	0.6	0.5-0.7	704	1.5	1.3-1.7
60-69	142	1.9	-	120	0.5	0.3-0.7	262	1.5	1.1-1.8
Place of Residence									
Rural	1314	1.6	-	1173	0.6	0.5-0.7	2487	1.3	1.2-1.4
Urban	384	1.3	-	611	0.6	0.4-0.7	995	1.0	0.8-1.1
Total	1698	1.6	-	1784	0.6	0.5-0.7	3482	1.2	1.1-1.3

⁴The confidence interval of mean number of standard drinks per drinking occasion for men respondents is not calculated due to the presence of high geographical variations, so that the extreme values affected the calculation of the interval estimation of the mean number of standard drinks

Forty-eight percent of both sexes among the current (past 30 days) drinkers reported consuming unrecorded alcohol (homebrewed alcohol like 'Tella, Tej, Katikalla, Bordie', alcohol brought across the border, alcohol not intended for drinking or other untaxed alcohol) during the past seven days: 50% (95% CI: 43.8-56.5) of men and nearly 45% (95% CI: 38.5-50.8) of women. Fifty-two percent and nearly 35% of rural and urban respondents respectively consumed unrecorded alcohol. The proportion of men respondents consuming unrecorded alcohol increases with increasing age; 48% (95% CI: 40.5-55.8) in the age group 15-29 compared with 56% (95% CI: 43.8-67.6) in the age group 60-69.

An analysis was carried-out of mean number of standard drinks of unrecorded alcohol consumed on average per day in the past 7 days among current (past 30 days) drinkers. The result revealed that on average per day men consumed 1.4 while women consumed 0.6. Average number of unrecorded drinks per day in the past 7 days among current drinkers was 1.4 both for rural and urban residences (annex).

More than 6% of the survey participants, consumed alcohol monthly or more frequently in the 12 months preceding the survey. Eighty-five percent of men and 96% of women did not consume alcohol during the past 12 months among past 12 month drinkers. Nearly 2% and 3% of respondents consumed alcohol monthly or more frequently during the past 12 month among past 12 month drinkers in urban and rural areas, respectively (annex).

Table 5. 8 Percent consumption of unrecorded alcohol¹, by sex, age group and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	consuming unrecorded alcohol	95% CI	n	consuming unrecorded alcohol	95% CI	n	consuming unrecorded alcohol	95% CI
15-29	549	48.1	40.5-55.8	656	40.2	32.6-47.9	1205	45.2	38.3-52.2
30-44	616	50.4	42.9-58.0	644	46.8	39.7-54.0	1260	48.9	42.5-55.3
45-59	373	53.6	45.2-61.9	308	56.8	48.3-65.2	681	54.6	47.5-61.7
60-69	136	55.7	43.8-67.6	112	36.1	23.6-48.6	248	49.6	40.1-59.1
Place of Residence									
Rural	1302	53.5	46.7-60.2	1147	48.8	42.0-55.6	2449	51.9	45.5-58.2

Urban	372	35.3	21.3-49.4	573	33.7	21.3-46.1	945	34.6	22.0-47.1
Total	1674	50.1	43.8-56.5	1720	44.6	38.5-50.8	3394	48.1	42.2-54.0

¹Homebrewed alcohol ('Tella, Tej, Katikalla, Bordie'), alcohol brought across the border, alcohol not intended for drinking or other untaxed alcohol

During the past 12 months among the past 12 month drinkers, nearly 7% men (95% CI: 4.7-8.6) and 1% women (95% CI: 0.4-1.7) failed to stop consuming alcohol monthly; while 88% men (95% CI: 85.4-90.4) and 98% women (95% CI: 96.6-98.7) stopped consuming alcohol. Rural area residence 5% and urban residence 3% monthly or more frequently failed to stop drinking. Men in rural areas failed to stop consuming more than their counter part in urban areas; 7% rural men (95% CI: 4.7-9.0) and 6% urban men (95% CI: 1.6-10.0) consume alcohol monthly during the past 12 months among past 12 month drinkers. One percent women both in rural and urban area failed to stop consuming alcohol monthly or more frequently during the past 12 months among past 12 month drinkers.

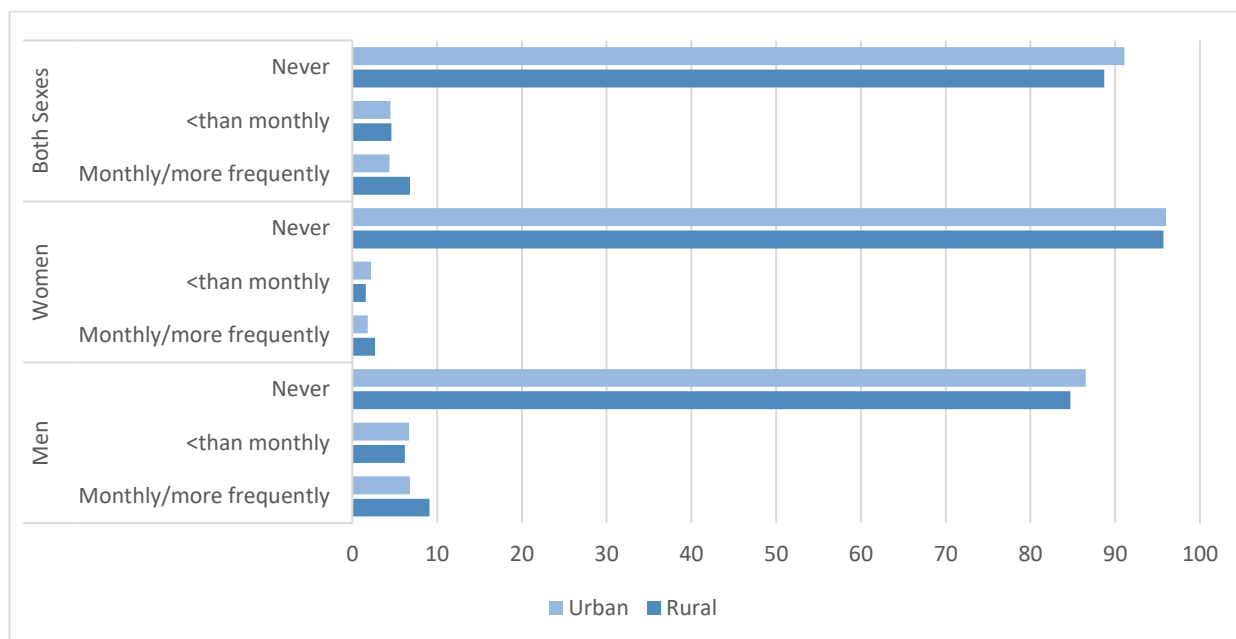


Figure 5.12 Frequency of not being able to stop drinking once started during in the past 12 months among past 12 month drinkers, by sex and place of residence, Ethiopia NCD STEPS, 2015.

Three percent of men (95% CI: 1.9-4.1), and less than 1% of women (95% CI: 0.2-1.2) need a first drink in the morning to get going after a heavy drinking session monthly or more frequently during the past 12 months among past 12 month drinkers. Among all past 12 month drinkers 2% (95% CI: 1.4-2.8) need a first drink in the morning during the past 12 months while 95% (95% CI: 94-96.5) never need first drink in the morning during the past 12 months. Rural women are more likely than urban women to need a first drink in the morning monthly. Respondents in the age group 45-59 need three times more than that of age group 60-69 a first drink in the morning monthly during the past 12 months among the past 12 month drinkers. More than 95 percent during the past 12 months among past 12 month drinkers never need a first drink in the morning.

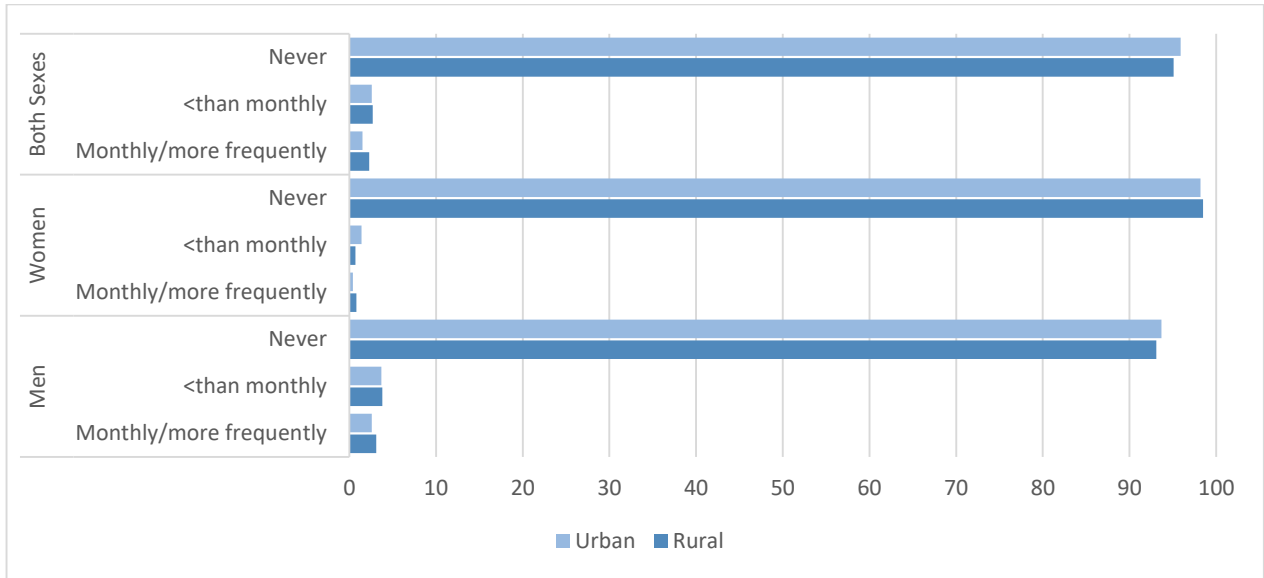


Figure 5. 13 Percentage of needing a first drink in the morning to get going during the past 12 months among the past 12 month drinkers, by sex and place of residence, Ethiopia NCD STEPS, 2015.

As depicted in Figure 5.13, only 1% (95% CI: 0.7-1.3) had monthly or more frequently family or partner problems due to someone else’s drinking during the past 12 months among all respondents; whereas 96% (95% CI:95.0-96.8) had never family problems due to someone else’s drinking during the past 12 months among all respondents. Of all respondents of both sexes of urban population, 1% (95% CI: 0.4-1.7) had family problems monthly or more frequently due to someone else’s drinking alcohol in the past 12 months, similarly, in rural areas the prevalence of the problem was 1% (95% CI: 0.6-1.3). The proportion of men having monthly or more frequently problems due to someone else’s drinking in urban areas nearly 2% (95% CI: 0.2-2.9) was a bit higher than men in rural areas 1% (95% CI: 0.6-1.6).

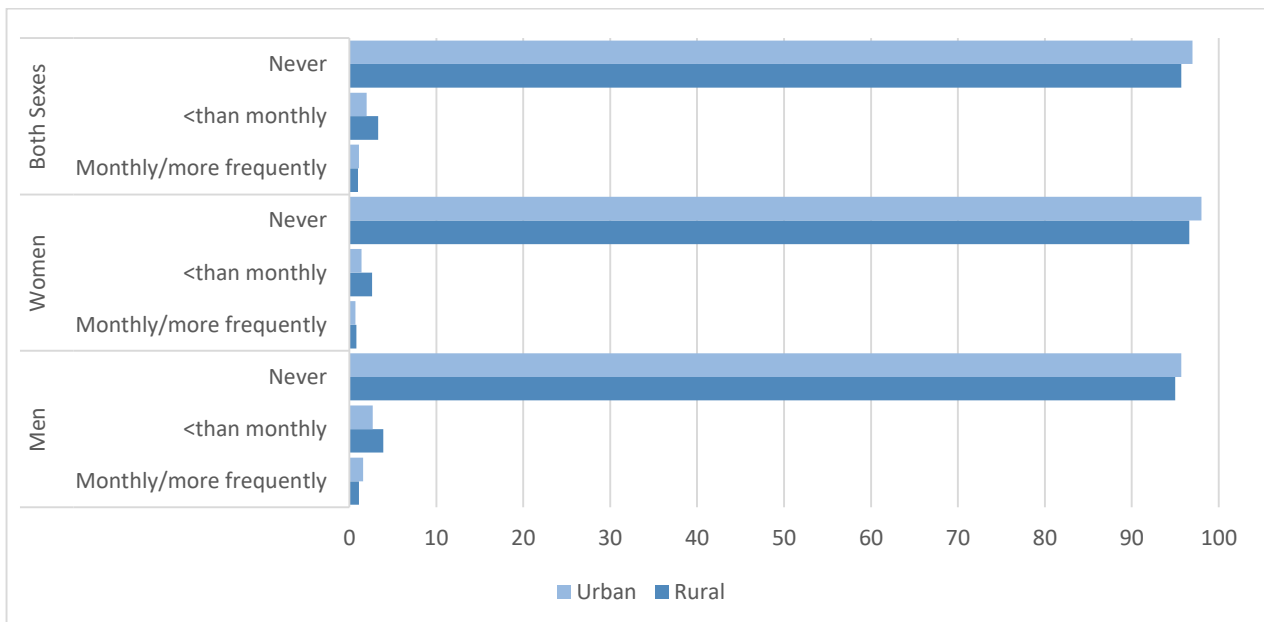


Figure 5. 14 Percentage of respondents who had family or partner problems due to someone else’s drinking during in the past 12 months among all respondents, by sex and place of residence, Ethiopia NCD STEPS, 2015.

Conclusion

1. The percentage of respondents who currently drink(drunk alcohol in the past 30 days) was about 41 percent
2. Among all respondents, 51 percent were lifetime abstainers. The prevalence of current drinkers of both sexes in urban areas was higher than their rural counterpart.
3. The proportion of men daily drinkers was more than twice higher than women
4. The mean number of drinking occasions was highest for age group 30-59 of both sexes. Moreover, it was higher among rural population than that of urban residents
5. About 9% of both sexes drank alcohol every day in the past 7 days among current (past 30 days) drinkers.
6. Among current (past 30 days) drinkers, nearly 4% of respondents were categorized in the high end and medium end-end level drinking.
7. The prevalence of problem related with someone drinking in the family was very low, 1% among all and both in rural and urban areas.
8. The percentage who engaged in heavy episodic drinking (6 or more drinks on any occasions) in the past 30 days was around 12 percent

6. Diet

6.1. Fruit and vegetable consumption

Consumption of fruit and vegetables was assessed in the survey participants by sex, age and place of residence. The average number of days per week on which fruit and vegetables were consumed was 0.9 (95% CI: 0.8-1.0) and 1.5 (95% CI: 1.3-1.6), respectively. Both fruit and vegetable consumption was almost similar by gender. Consumption of both fruit and vegetables was more frequent in younger age groups and urban population (Table 6. 1 and Table 6. 2).

Table 6. 1 Mean number of days on which fruits were consumed in a typical week by age and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
15-29	1440	1.0	0.8-1.2	2516	1.1	1.0-1.2	3956	1.1	0.9-1.2
30-44	1436	0.9	0.7-1.0	2060	0.9	0.7-1.0	3496	0.9	0.8-1.0
45-59	780	0.6	0.5-0.7	909	0.6	0.5-0.7	1689	0.6	0.5-0.7
60-69	317	0.6	0.4-0.8	335	0.5	0.4-0.6	652	0.6	0.4-0.7
Total	3973	0.9	0.8-1.0	5820	1.0	0.9-1.1	9793	0.9	0.8-1.0

Table 6. 2 Mean number of days on which vegetables consumed in a typical week, by age and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	N	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
15-29	1432	1.5	1.3-1.6	2510	1.6	1.5-1.8	3942	1.5	1.4-1.7
30-44	1432	1.4	1.2-1.6	2052	1.5	1.4-1.7	3484	1.5	1.3-1.6
45-59	778	1.3	1.1-1.5	904	1.2	1.0-1.4	1682	1.3	1.1-1.4
60-69	317	1.3	1.0-1.5	330	1.1	0.8-1.3	647	1.2	1.0-1.4
Total	3959	1.4	1.3-1.6	5796	1.5	1.4-1.7	9755	1.5	1.3-1.6

The frequency of fruit consumption was found to be low both in urban and rural survey respondents (1.1 days per week with a 95% CI of 1.0-1.3) and (0.9 days per week, 95% CI: 0.7-1.0) respectively. Similarly, the urban population consumed vegetables more frequently (1.7 days per week) than those in rural areas (1.4 days per week) (Figure 6.1).

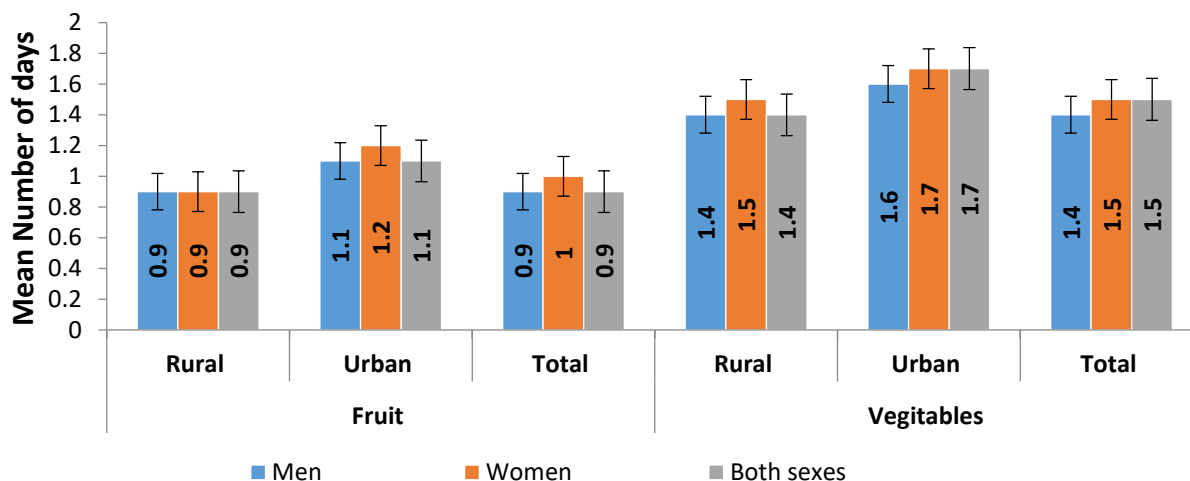


Figure 6.1 Mean number of day's fruits and vegetables were consumed in a typical week, by sex and place of residence, Ethiopia NCD STEPS, 2015

The average number of servings of both fruit and/or vegetables consumed per day was almost similar across age group, and it was the same for both sex 0.3 (95% CI: 0.3-0.4) (Table 6.3 and Table 6.4). Generally, the fruit and vegetables intake was extremely low.

Table 6.3 Mean number of servings of fruit on average per day by age and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	N	Mean number of servings	95% CI
15-29	1439	0.4	0.3-0.5	2510	0.4	0.3-0.4	3949	0.4	0.3-0.4
30-44	1435	0.3	0.2-0.4	2055	0.3	0.2-0.3	3490	0.3	0.2-0.4
45-59	779	0.2	0.1-0.3	907	0.2	0.1-0.2	1686	0.2	0.2-0.3
60-69	317	0.2	0.1-0.3	331	0.2	0.1-0.2	648	0.2	0.1-0.3
Total	3970	0.3	0.3-0.4	5803	0.3	0.3-0.4	9773	0.3	0.3-0.4

Table 6.4 Mean number of servings of vegetables on average per day, by age and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	N	Mean number of servings	95% CI
15-29	1432	0.5	0.4-0.6	2506	0.7	0.5-0.8	3938	0.6	0.5-0.7
30-44	1431	0.6	0.4-0.7	2051	0.7	0.6-0.9	3482	0.6	0.5-0.8
45-59	778	0.6	0.4-0.8	900	0.5	0.4-0.6	1678	0.6	0.4-0.7
60-69	317	0.4	0.3-0.6	327	0.4	0.3-0.6	644	0.4	0.3-0.6
Total	3958	0.5	0.4-0.6	5784	0.6	0.5-0.8	9742	0.6	0.5-0.7

The number of servings of fruit and vegetables consumed per day was found to be very similar among the urban and rural population. A very little difference was shown on the number of serving of fruits among urban population than rural; overall, there was no difference on serving of vegetables in urban and rural residents (Figure 6.2).

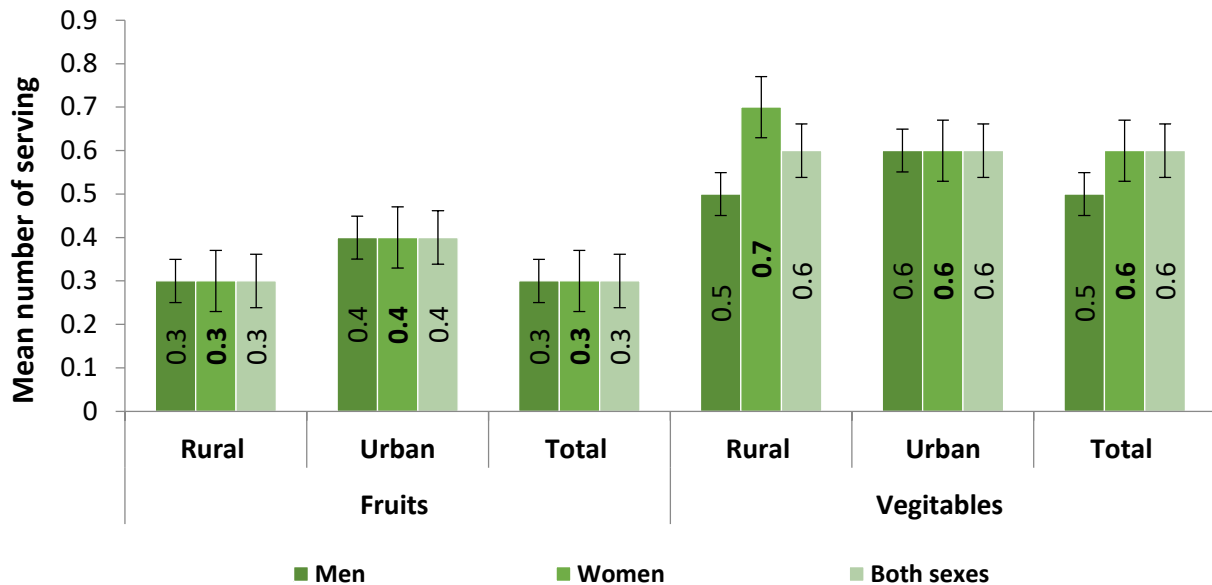


Figure 6. 2 Mean number of serving of fruits and vegetables on average per day, by sex and place of residence, Ethiopia NCD STEPS, 2015

Low percentage of respondents (7.2%) of both sexes consumed three or more servings of fruit and/or vegetables per day (6.8% of men and 7.7% of women). Majority of the study population (73.6%) reported not consuming fruit or vegetables at all (Figure 6.3).

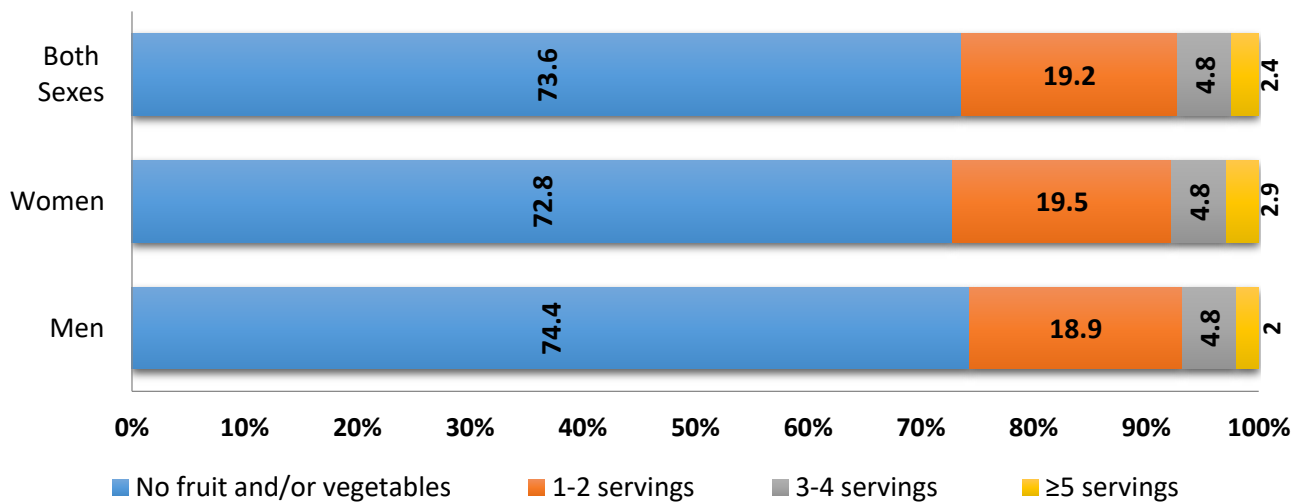


Figure 6. 3 Distribution of respondents, by number of servings of fruit and/or vegetables per day, Ethiopia NCD STEPS, 2015

The proportion of less than five servings of fruit and/or vegetables on average per day of respondents' consumption was lower in the study population. Similar proportions were observed across the age groups and a little difference was observed between the two sex categories. Relatively high percentage of men consumed less than five servicing fruits per day than women, 98 % (95% CI, 97.2-98.9) and 97.6(95% CI, 96.8-98.4) respectively (see annex 2).

6.2. Dietary salt

Consumption of salt was analysed in the study population by asking the individuals that were interviewed regarding the frequency, quantity and type of salt used in their household, their cooking habits, and their attitude towards dietary salt.

A total of 60.4% of respondents mentioned that, they added salt or salty sauce to their food before eating or as they are eating always or often. There was only slight difference between the sex on the percentage who added salt always or often to their meal (60.0%, 95% CI: 55.9–64.1 Vs 60.94%, 95% CI: 56.6-64.2) for men and women, respectively (Figure 6.4).

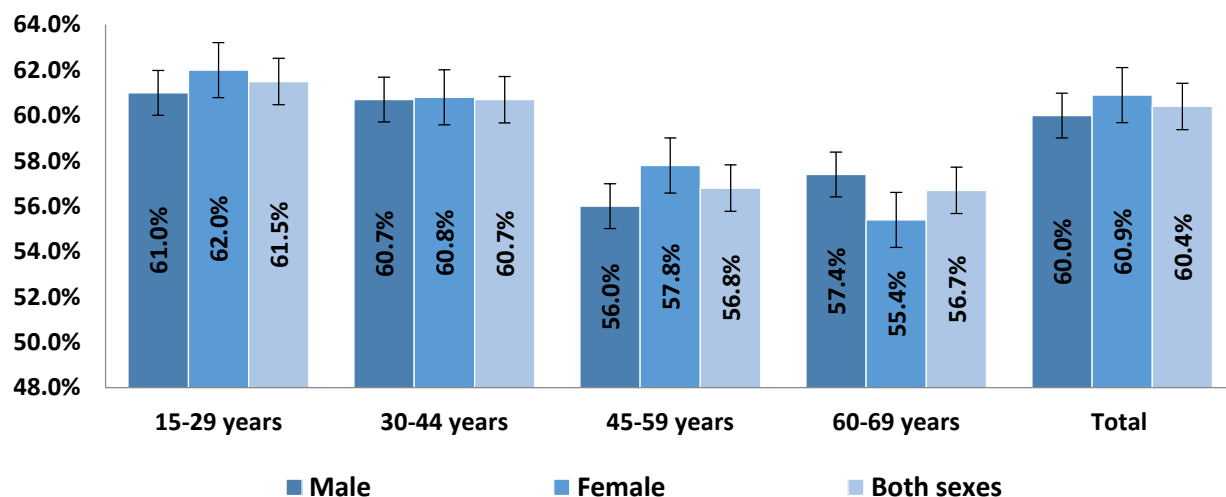


Figure 6. 4 Percentage of respondents who always or often add salt or salty sauce to their food before eating or as they are eating, by age and sex, Ethiopia NCD STEPS, 2015

A higher prevalence was identified among the urban population (64.5%, 95% CI: 56.2–72.8) than rural residents (59.5%, 95% CI: 55.1-63.8). Both sexes from the urban were more likely to use salt always or often before eating or when eating than rural respondents (Table 6. 5).

Table 6. 5 Percentage of all respondents who always or often add salt or salty sauce to their food before eating or as they are eating, by sex and place of residence, Ethiopia NCD STEPS, 2015

Place of Residence	Men			Women			Both Sexes		
	N	%	95% CI	N	%	95% CI	n	%	95% CI
Rural	3193	59.5	54.8-64.1	3911	59.4	55.0-63.9	7104	59.5	55.1-63.8
Urban	777	62.9	53.2-72.6	1908	65.8	57.5-74.1	2685	64.5	56.2-72.8
Total	3970	60.0	55.9-64.1	5819	60.9	57.0-64.8	9789	60.4	56.6-64.2

Percentage of salt use during cooking or preparing food at home was significantly higher among rural population than urban. A higher prevalence was found in salt consumption when cooking and preparing food at home in both rural and urban residents (Figure 6.5).

Table 6. 6 Percentage of respondents who always or often add salt to their food when cooking or preparing foods at home, by age and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	N	%	95% CI	N	%	95% CI	n	%	95% CI
15-29	1424	79.7	75.3-84.1	2511	82.7	79.0-86.4	3935	81.1	77.4-84.8
30-44	1431	78.1	73.3-82.9	2059	80.9	77.1-84.7	3490	79.5	75.6-83.3
45-59	772	71.7	65.8-77.6	908	78.3	73.6-83.0	1680	74.5	70.0-78.9
60-69	313	68.8	59.2-78.5	334	80.0	74.1-85.9	647	73.0	66.0-80.1
Total	3940	77.6	73.4-81.8	5812	81.5	78.4-84.7	9752	79.4	76.0-82.8

More than eight in ten (80.4%, 95% CI: 76.4-84.5) of the rural population add salt always or often when cooking or preparing food at home in comparison with 75.0% (95% CI: 69.1–80.9) the urban population. This difference was more entertained among women who reside in rural than urban which is 82.9% (95% CI: 79.2-86.7) and, 78.5% (95% CI: 73.8-83.2), respectively (Figure 6.5).

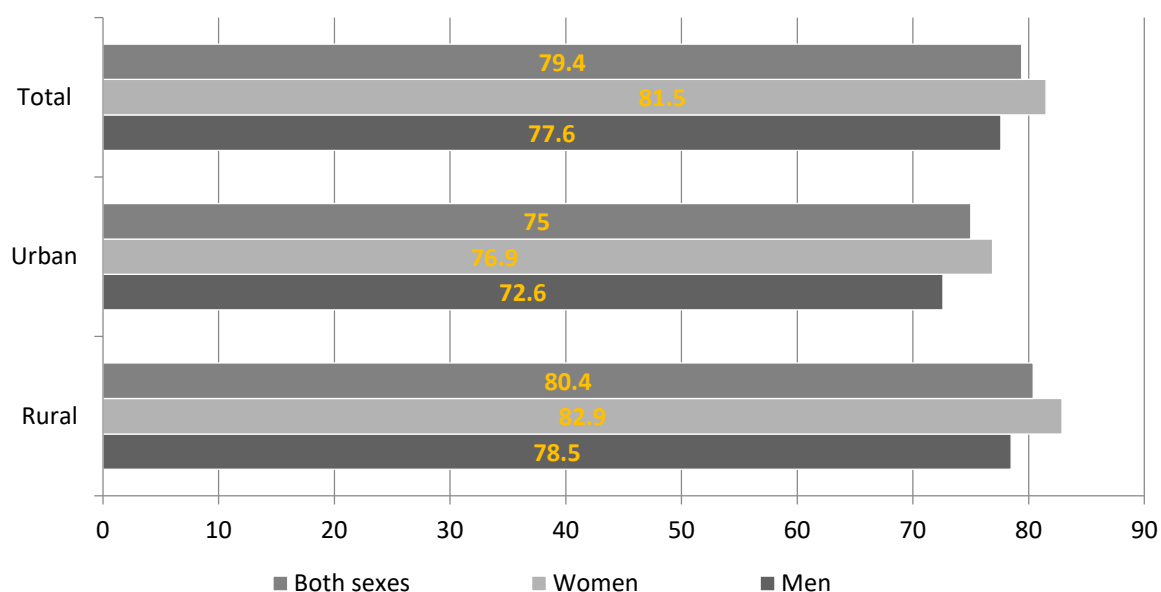


Figure 6.5 Percentage of respondents who always or often add salt to their food when cooking or preparing foods at home, by sex and place of residence, Ethiopia NCD STEPS, 2015

Salt consumption with processed food

Respondents were asked how often they consumed processed food high in salt. Among all survey participants, 9.1% (95% CI: 7.6-10.7) gave an affirmative answer. The percentage who reported eating processed food high in salt was relatively high among men respondents than women in all age categories. Nevertheless, the proportion of respondents eating such foods decreased with older age groups (45-69) (Figure 6.6). Furthermore, there was no significant difference between rural and urban residents, (9.2%, 95% CI: 7.3-11.0 Vs 9.0%, 95% CI: 6.6-11.4) respectively. However; there is slightly higher percentage of women who reside in urban and men who reside in rural areas consumed processed food high in salt (Table 6.7).

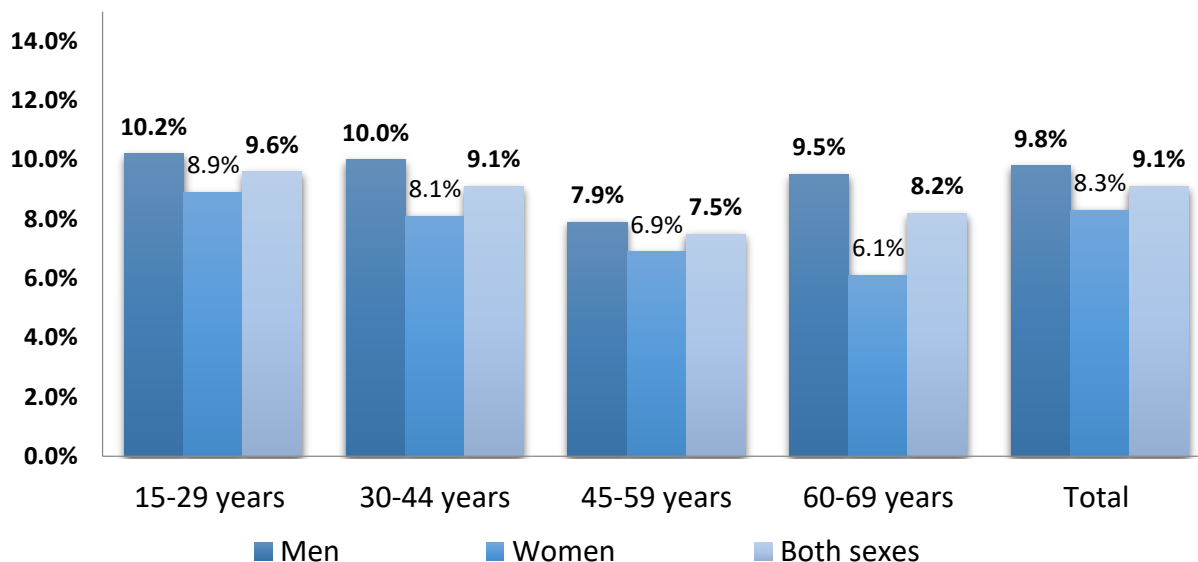


Figure 6.6 Percentage of respondents who always or often eat processed foods high in salt, by age and sex, Ethiopia NCD STEPS, 2015

Table 6.7 Percentage of respondents who always or often eat processed foods high in salt, by sex and area of residence, Ethiopia NCD STEP, 2015

Place of Residence	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	N	%	95% CI
Rural	3076	10.1	7.9-12.2	3741	8.0	6.1-9.8	6817	9.2	7.3-11.0
Urban	763	8.3	5.5-11.1	1879	9.6	6.4-12.8	2642	9.0	6.6-11.4
Total	3839	9.8	7.9-11.7	5620	8.3	6.7-10.0	9459	9.1	7.6-10.7

Only 11.0% of all respondents believed that they consume too much or far too much salt. There was no difference on the high salt consumption perception among different age group, sex category and residence type (see annex 2 and Table 6.8).

Table 6.8 Percentage of respondents who think they consume too much salt or far too much salt, by area of residence and sex, Ethiopia NCD STEPS, 2015

Place of Residence	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
Rural	3166	11.7	9.7-13.8	3887	10.3	8.6-11.9	7053	11.1	9.5-12.7
Urban	774	8.9	5.7-12.0	1901	12.2	9.5-14.8	2675	10.7	8.3-13.1
Total	3940	11.3	9.5-13.1	5788	10.7	9.3-12.1	9728	11.0	9.7-12.4

The proportion of respondents reported they consume too little or far too little salt were about 13% in the study population. The proportion of women (14.1%) who thought they consumed too little or far too little was higher than men (12.3%), while the percentages of those using (in their opinion) “just the right amount” is equal across the sexes (75.2% and 76.4%), respectively (Figure 6.7).

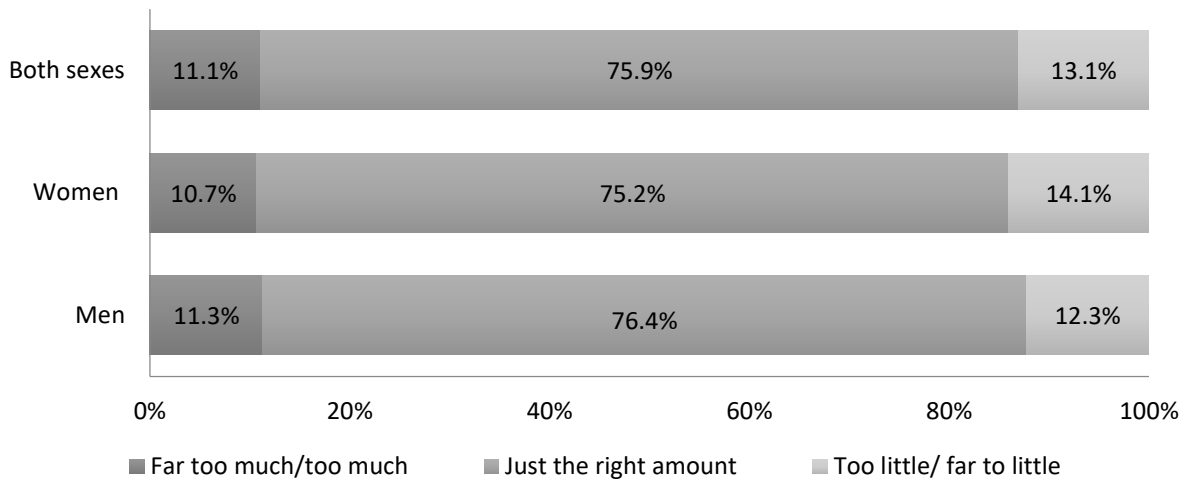


Figure 6. 7 Percentage of self-reported quantity of salt consumption, by sex, Ethiopia NCD STEPS, 2015

More than six in ten (61.2%, 95% CI: 58.1-64.4) of survey participants considered that lowering salt in diet is very important while 31.5% thought this was somewhat important; and 7.3% thought it was not at all important. The proportion of respondents who considered lowering salt in their diet is very or somewhat important was nearly similar across sex category (92.4% and 93%) for men and women respectively. No difference was identified across different age group (see Annex 2). There is statistically significant difference between rural and urban in percentage of respondents who think lowering salt in diet is very important. The percentage among urban (72.0%, 95% CI: 66.9-77.1) with this belief was higher than that of rural population (58.6%, 95% CI: 55.0-62.2). There was no significant difference by age and sex categories for this specific issue (Figure 6.8).

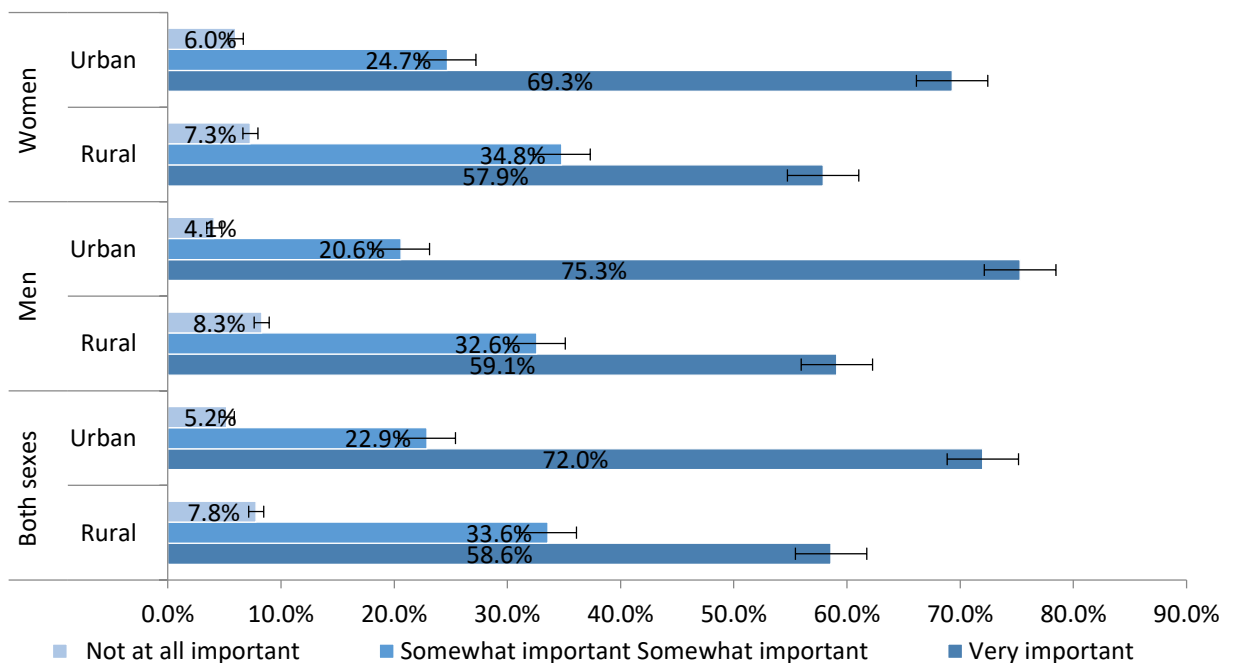


Figure 6. 8 Percentage of respondents who think lowering salt in diet is very, somewhat or not at all important, by sex and place of residence, Ethiopia NCD STEPS, 2015

About eight in ten of respondents believed that consuming too much salt could cause serious health problems. There was a little difference across the age groups and sex categories on their thinking of the health problem related with too much consumption of salt (Table 6. 9). In contrary, there was a significant

difference across the residence type. Urban population 85.8% (95% CI: 82.4-89.3) was more aware of that serious health problems could be cause due to too much consumption of salt than rural population 76.1% (95% CI: 73.1-79.1) (Figure 6.9).

Table 6. 9 Percentage of respondents who think consuming too much salt could cause a serious health problem, by age and sex, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	77.7	74.2-81.2	2516	80.1	77.0-83.2	3956	78.8	76.0-81.6
30-44	1436	77.3	73.1-81.5	2060	74.3	70.4-78.2	3496	75.8	72.3-79.4
45-59	780	78.0	73.5-82.6	908	78.8	74.4-83.2	1688	78.3	74.8-81.9
60-69	317	76.7	70.3-83.1	335	81.3	75.3-87.3	652	78.5	73.5-83.4
Total	3973	77.6	74.7-80.5	5819	78.4	75.6-81.1	9792	78.0	75.4-80.5

A total of 9.2% of respondents of both sexes (95% CI: 7.5-10.8) reported using salty products (such as, *mitmita*) other than salt when cooking (See Annex 2).

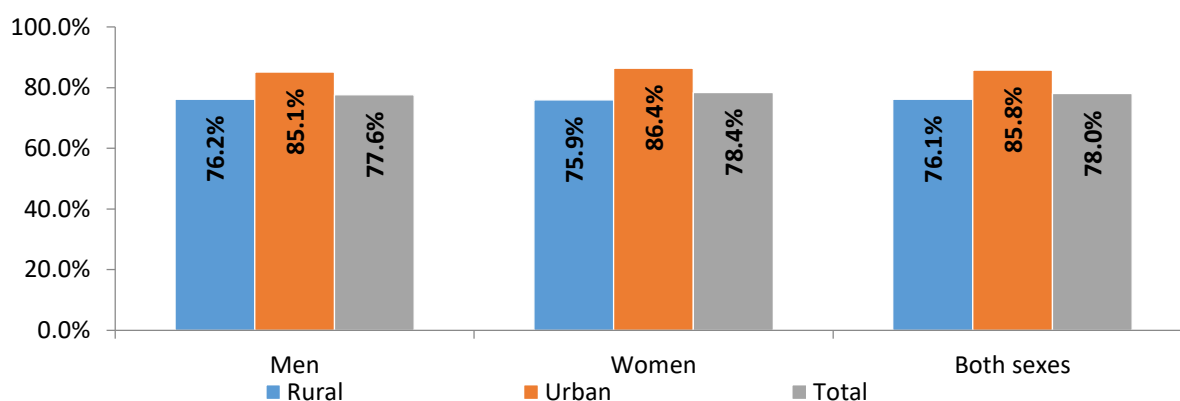


Figure 6. 9 Percentage of respondents who think consuming too much salt could cause a serious health problem, by sex and place of residence, Ethiopia NCD STEPS, 2015

Respondents were asked what actions they took to control salt intake on a regular basis. The findings showed that 12.6% of the study population undertook actions to limit their consumption of processed foods high in salt. A significant difference was observed between respondents by place of residence : 21.2% (95% CI: 16.6-25.8) for urban and 10.6% (95% CI: 8.4-12.7) for rural. Only 3.7% of respondents reported as they do other things to control specifically the salt intake while 9.4% of the respondents avoid eating foods prepared outside of home. Only 6.3% (95% CI: 4.6-8.1) of respondents mentioned that they looked at the salt or sodium content on food labels, and very few percent of respondents (2.8%, 95% CI: 1.9-3.8) of them reported that they bought low-salt/sodium alternatives (Figure 6.10).

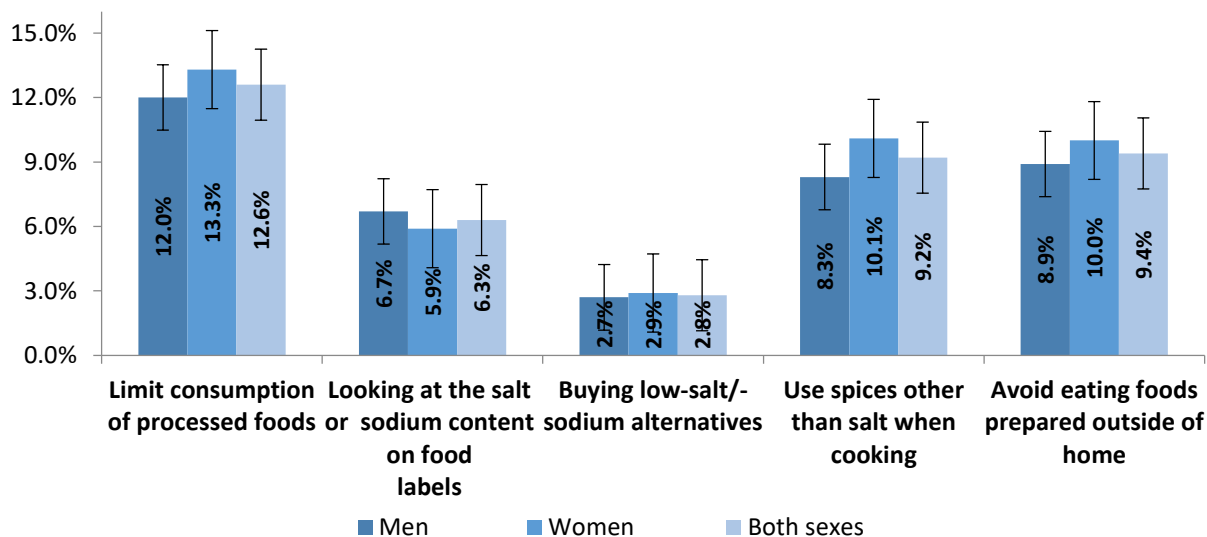


Figure 6.10 Percentage of respondents taking specific action to control salt intake, by sex, Ethiopia NCD STEPS, 2015

6.3. Oil and fat consumption

On this survey consumption of oils and fats most often used for meal preparation in households was analysed. Of the total number of households investigated, 65.7% (95% CI: 62.2-69.1) used vegetable oil, 5.2% (95% CI: (3.8-6.6) prepared meals using homemade oil product, 2.7 uses butter to prepare their food in household, 0.1% uses margarine, 0.4% used none in particular, (4.5%) did not state any preference or did not use any oils or fats and the rest 21.5% (95% CI: 18.3-24.7) respondents used other than the specified type Table 6. 10).

Table 6.10 Proportion of households with type of oil or fat most often used for meal preparation in households, Ethiopia NCD STEPS, 2015

	n (households)	% Vegetable oil	95% CI	% Homemade oil product	95% CI	% Butter	95% CI	% Margarine	95% CI	% none in particular	95% CI	% None used	95% CI	% Other	95% CI
Rural	7030	66.7	62.7-70.7	5.3	3.6-7.0	2.9	1.6-4.2	0.1	0.0-0.3	0.2	0.0-0.3	4.9	3.2-6.6	20.0	16.3-23.6
Urban	2674	61.5	54.6-68.5	4.8	3.1-6.5	1.9	0.0-4.4	0.0	0.0-0.1	1.3	0.1-2.6	2.6	1.1-4.1	27.8	21.4-34.3
Total	9704	65.7	62.2-69.1	5.2	3.8-6.6	2.7	1.5-3.8	0.1	0.0-0.2	0.4	0.1-0.7	4.5	3.1-5.9	21.5	18.3-24.7

Meal behaviour

The mean number of meals reported eaten outside the home per day was 0.5 for both sexes (95% CI: 0.4-0.6), with a significant difference between men and women: 0.7 meals (95% CI: 0.6-0.8) and 0.2 meals (95% CI: 0.2-0.2), respectively. Among all the respondents, men (0.8%) were found more likely to eat outside their home than women (0.2%). The age group 15-29 years (0.6) had eaten their meal outside of their home, more than the age group 60-69 years (0.2 (Figure 6.11)).

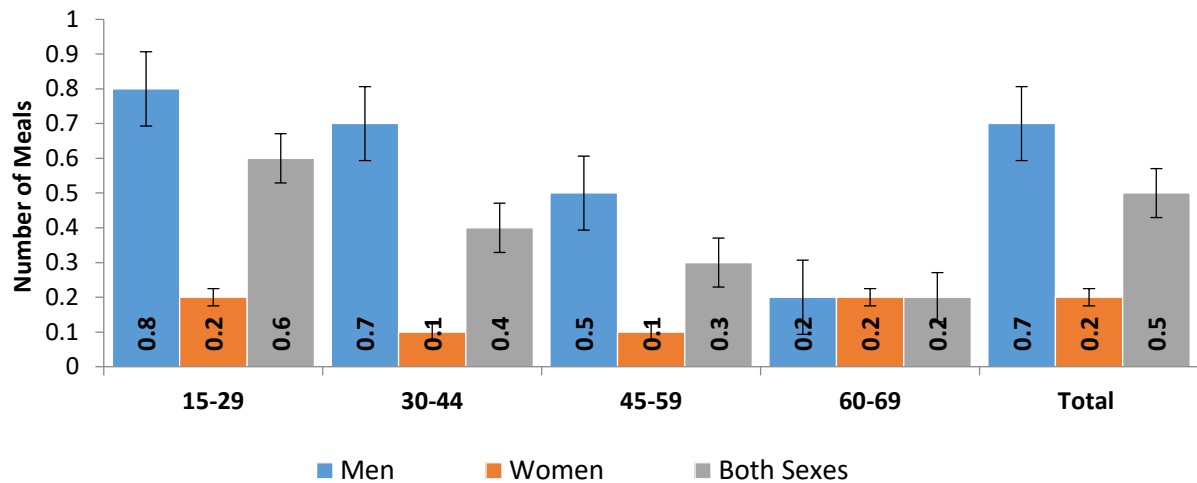


Figure 6. 11 Mean number of meals eaten outside the home, by age and sex, Ethiopia NCD STEPS, 2015

The frequency of eating outside home was also differed by area of residence. On average, urban population eats meals outside home two times more than rural population (0.8 Vs 0.4) (Figure 6.12).

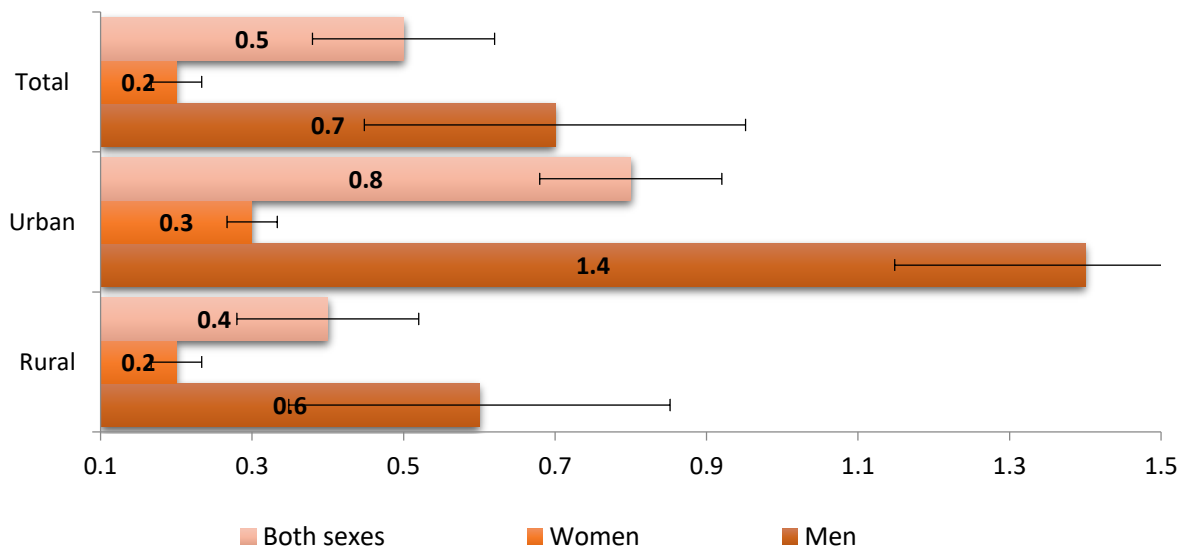


Figure 6. 12 Mean number of meals eaten outside the home, by sex and area of residence, Ethiopia NCD STEPS, 2015

Conclusions

1. Fruits and vegetables intake was generally extremely low
2. The average number of days per week on which fruit and vegetable consumed was 0.9 and 1.5, respectively.
3. The average daily intake of fruit and vegetables among the population was 0.3 and 0.6 servings, respectively.
4. The current study showed low frequency of fruit consumption among the study participants; 1.1 days per week and 0.9 days per week among urban and rural residents respectively.
5. More than ninety-eight percent of the population consumed fewer than five servings of fruit and vegetables daily.
6. The survey population (65.7%) used predominantly vegetable oil for cooking.
7. Every six in ten persons reported adding salt or salty sauce always or often before eating or when eating. A higher prevalence is identified among the urban population
8. Small percent of the population consumed processed food high in salt, among all survey participants, less than one in ten reports the consumption of processed food, which is high in salt.
9. The survey population (78.1%) was aware of the increased risk associated with high levels of salt consumption.
10. Younger age groups and urban residents reported to have frequent exposure to meals outside their home. The mean number of reported meals eaten outside the home in the population was less than one meal.

7. Physical activity

Physical activity in the study population was analysed using continuous indicators, such as time spent participating in different physical activities. The result of the survey data showed that, about 6% in the survey participants (or 5.8%, 95% CI: 5.0-6.6) did not meet WHO recommendations on physical activity for health; namely, performing 150 minutes of moderate-intensity physical activity per week (or equivalent)(13). Significant difference was observed between men (4.0%, 95% CI: 3.0-5.0) and women (7.9%, 95% CI: 6.7-9.1). The highest percentage of individuals not meeting the WHO recommendations were identified in the age group 60–69 years (21.2%) (Figure 7. 1).

Differences were also identified between the country's urban and rural populations, with a three time more prevalent in urban areas of not corresponding to WHO's physical activity recommendations than rural areas, 12.7% versus 4.2%, respectively (Table 7. 1).

Table 7. 1 Percentage of respondents not meeting WHO recommendations on physical activity for health¹, by sex and area of residence, Ethiopia NCD STEPS, 2015

Place of Residence	Men			Women			Both Sexes		
	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI
Rural	3140	2.5	1.6-3.3	3863	6.5	5.2-7.8	7003	4.2	3.4-5.0
Urban	763	12.6	8.2-17.0	1860	12.7	9.5-15.9	2623	12.7	9.6-15.7
Total	3903	4.0	3.0-5.0	5723	7.9	6.7-9.1	9626	5.8	5.0-6.6

¹ Respondents doing less than 150 minutes of moderate-intensity physical activity per week, or equivalent

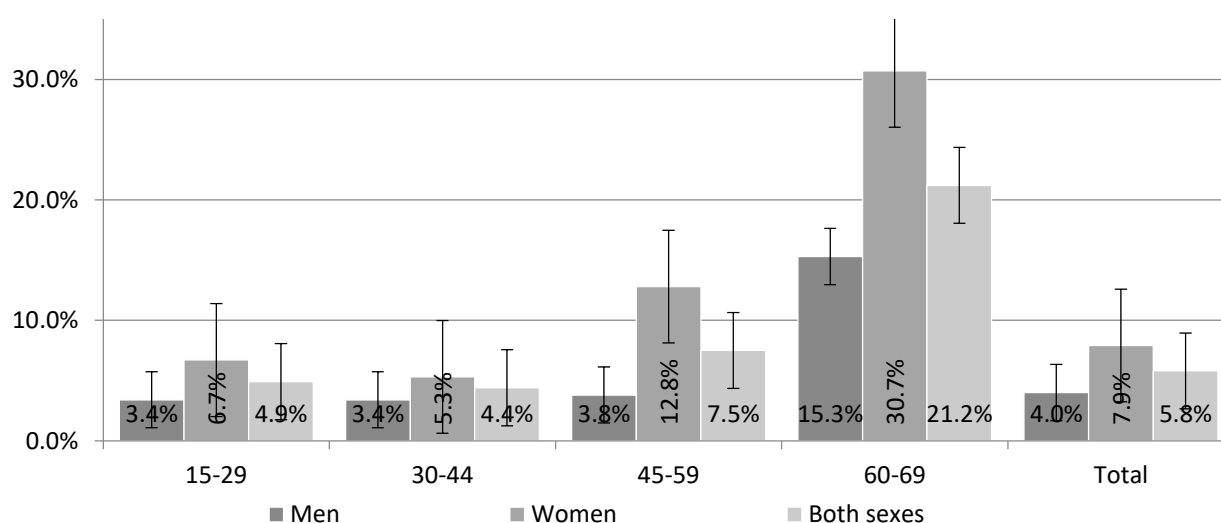


Figure 7. 1 Proportion of respondents not meeting who recommendations on physical activity for health, by age and sex, Ethiopia NCD STEPS, 2015

The three levels of physical activity suggested for classifying populations are low, moderate, and high.

High level

When a person exercises vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week or 7 or more days of any combination of walking, moderate or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week.

Moderate level

When a person exercises 3 or more days of vigorous-intensity activity for at least 20 minutes per day or 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day or 5 or more days of

any combination of walking, moderate or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.

Low

A person who does not meet any of the above-mentioned criteria falls in this category. Based on the above criteria, total physical activity per day was recorded, taking into account all domains (work, transport and recreation related activities). According to WHO recommendations (13), **70.6%** of the study population fell into the high level of physical activity category; **15.8%** were attributed to the moderate level activity group; and **13.6%** were in the low level of activity group. A significant difference was recorded between the sexes, with 81.0% of men (95% CI: 78.9-83.1) and 58.3% of women (95% CI: 55.3-61.3) in the high level activity group, 0.4 % of men (95% CI: 8.9-11.9) and 22.3% of women (95% CI: 20.1-24.5) were in the moderate level activity category, and 8.6% of men (95% CI: 7.1-10.2) and 19.4% of women (95% CI: 17.3-21.6) were in the low level activity category. There is also significance difference between urban and rural population across all levels of WHO recommendation (Figure 7. 2). There was no significant difference among the age group in terms of level of physical activity according to the WHO recommendation. There was significant difference in low level of physical activity in the age group, in which higher percentage of respondents in the age group 31.5, (95% CI:25.9-37.1) have low level of physical activity based on the WHO recommendation as compared to other age category (see Annex 2).

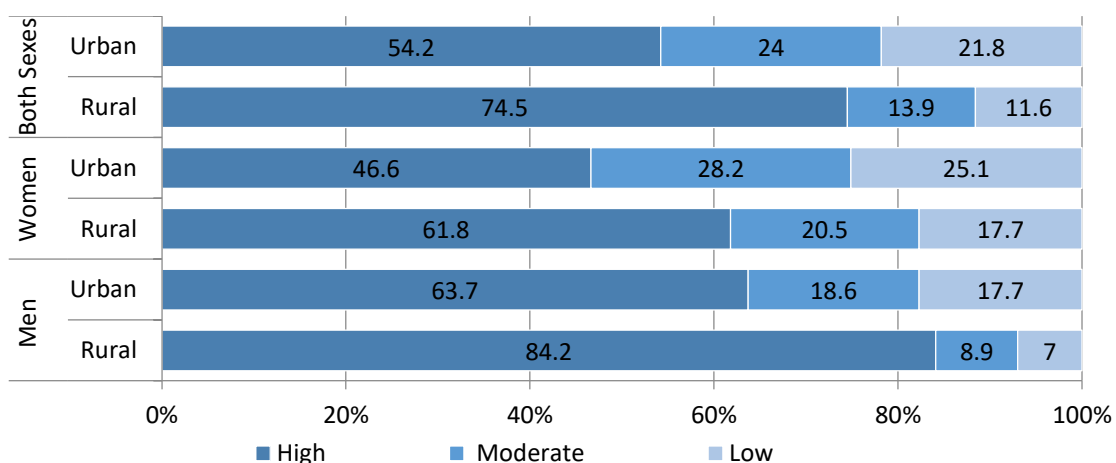


Figure 7. 2 Percentage of all respondents classified into three categories of total physical activity according to the recommendations by age and area of residence., Ethiopia NCD STEPS, 2015

Overall, the level of physical activity per day was recorded, including work related, transport related and recreation related activities. Altogether, respondents aged 15–69 years carried out an average of 280.8 minutes of physical activity per day, with a significant difference between men (318.2 minutes, 95% CI: 302.7-333.7) and women (236.2 minutes, 95% CI:223.1-249.3). No significant difference was recorded between age groups of the same sex (Figure 7. 3).

The survey showed that survey participants from rural residence had better exposure to physical activity, among both men and women. The highest mean difference is discovered in men, with an average of 327.0 minutes (95% CI: 309.8-344.2) among the rural population, compared with 271.0 minutes (95% CI: 233.2-308.7) among men in urban areas (Figure 7. 3).

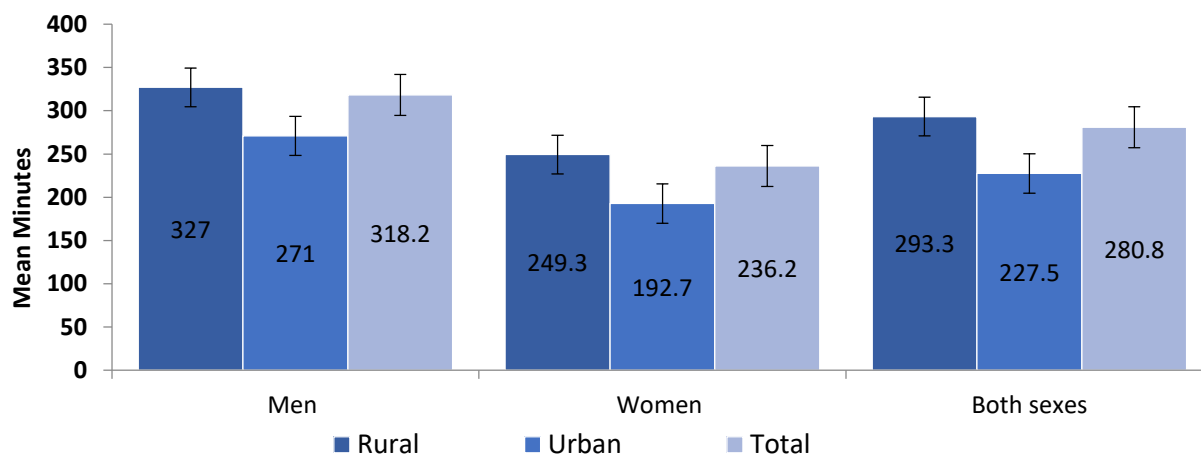


Figure 7.3 Mean minutes of total physical activity on average per day, by sex and place of residence, Ethiopia NCD STEPS, 2015.

Another measurement of the physical activity levels among the study population was the median time spent performing physical activity. Median duration of all physical activity carried-out daily reported by respondents of all ages was 257.1 minutes; 300 minutes for men (IQR: 154.2-450) and 188.6 minutes (IQR: 71.4 -360.0) for women (Table 7. 2). The median time spent carrying-out physical activity was lower than the meantime, especially for women, indicating slight variation in the distribution of the indicator among the population (see annex 2).

Table 7.2 Median minutes of total physical activity on average per day, by sex and place of residence, Ethiopia NCD STEPS, 2015

Place of Residence	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	N	Median minutes	Inter-quartile range (P25-P75)
Rural	3140	308.6	175.7-445.7	3863	214.3	85.7-385.7	7003	274.3	128.6-420
Urban	763	192.9	55.7-450.0	1860	115.7	42.9-308.6	2623	150	47.1-360
Total	3903	300	154.2-450	5723	188.6	71.4 -360.0	9626	257.1	102.9-411.4

Figure 7. 4 and 7.5 shows the distribution of the mean minutes of total physical activity and percentage of contribution by type of activity.

In terms of the amount of time spent on physical activity, the greatest difference between places of residence was observed for all types of physical activities including work related, transport related, and recreation related physical activities (Figure 7. 4).

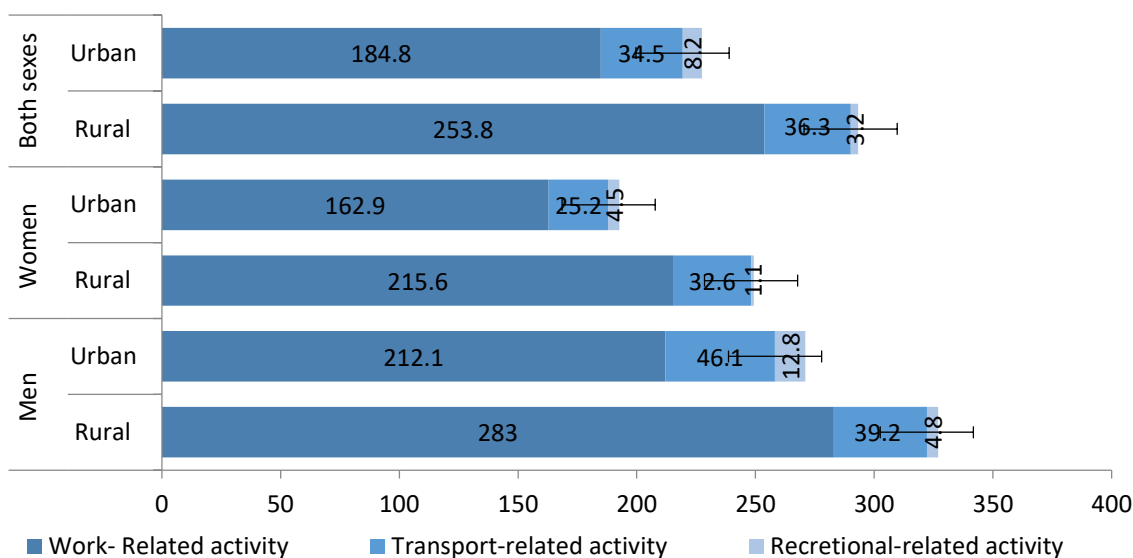


Figure 7.4 Mean minutes of physical activity per day, by type of activity, sex and place of residence, Ethiopia NCD STEPS, 2015

In terms of percentage of contribution among the total physical activity, the greatest was work related physical activity (79%) (Figure 7.5).

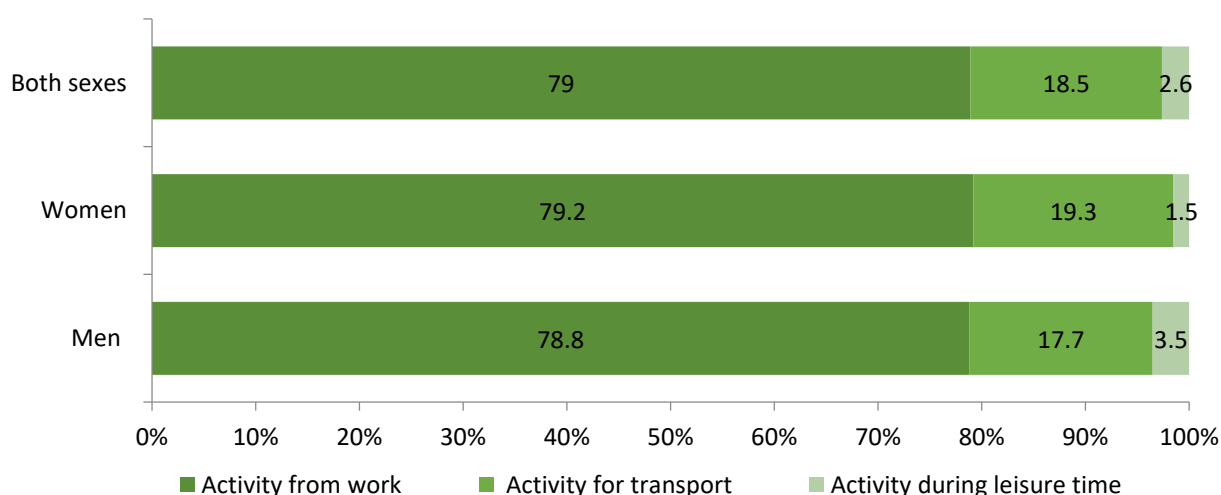


Figure 7.5 Percentage of work, transport and recreational activity contributing to total activity for all respondents, Ethiopia NCD STEPS, 2015

The percentage of not engaging in vigorous physical activity had significant difference by sex and area residence (Table 7.3).

Table 7.3 Percentage of respondents not engaged in vigorous physical activity, by sex and area of residence, Ethiopia NCD STEPS, 2015.

Place of Residence	Men			Women			Both Sexes		
	N	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI
Rural	3140	17.6	15.3-19.9	3863	63.7	60.3-67.2	7003	37.6	35.3-39.8
Urban	763	46.7	39.4-54.0	1860	76.5	71.1-81.9	2623	63.3	57.4-69.1
Total	3903	22.1	19.8-24.5	5723	66.7	63.8-69.6	9626	42.5	40.3-44.6

Percentage of respondents not engaged in vigorous physical activity was higher among women (66.7%) and in the higher within the age group 60-69(60.5%) (Figure 7. 6).

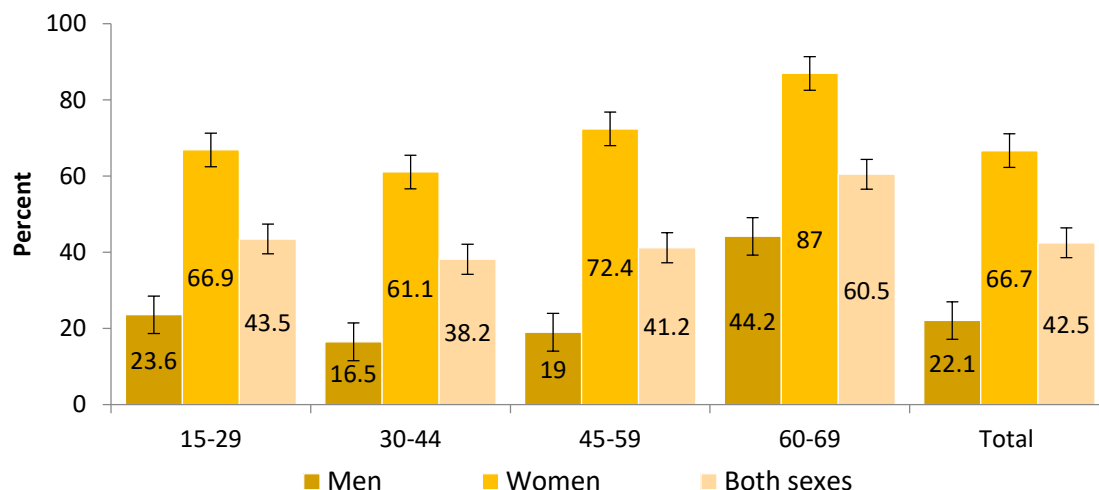


Figure 7. 6 Percentage of respondents not engaged in vigorous physical activity, by age and sex, Ethiopia NCD STEPS, 2015

Sedentary life

Table 7. 4 and Table 7. 5 show the mean and median time spend in sedentary activities of the respondents in a typical day. The mean time respondents spent for sedentary life was 160.3 minutes (95% CI: 153.9-166.8) for both sexes. There was significant difference between sexes, women (172.5 minutes, 95% CI: 165.3-179.8) were more likely to spend in sedentary life than men (150.1 minutes, 95% CI: 142.8-157.5).

Table 7. 4 Mean of minutes spent in sedentary activities on a typical day, by sex and place of residence, Ethiopia NCD STEPS, 2015

Place of Residence	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	N	Mean minutes	95% CI	n	Mean minutes	95% CI
Rural	3194	147.5	139.5-155.6	3911	167.7	159.2-176.3	7105	156.3	148.9-163.7
Urban	777	164.0	144.2-183.9	1908	188.4	174.1-202.7	2685	177.5	162.3-192.8
15-69	3971	150.1	142.8-157.5	5819	172.5	165.3-179.8	9790	160.3	153.9-166.8
Total									

The median minute spent in sedentary time was 120 minutes for all age groups except for the women age group between 60-69 (240, 95% CI, 120-360) of Inter-quartile range (P25-P75 (Table 7. 5).

Table 7. 5 Medians of minutes spent in sedentary activities on a typical day by sex and place of residence, Ethiopia 2015

Place of Residence	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	N	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
Rural	3194	120	60-180	3911	120	80-240	7105	120	60-210
Urban	777	120	60-240	1908	150	90-240	2685	120	60-240
15-69	3971	120.0	60-180.0	5819	120.0	90-240	9790	120.0	60-240.0
Total	3194	120	60-180	3911	120	80-240	7105	120	60-210

Conclusions

- About six percent of the study population did not meet WHO recommendations on physical activity for health
- The highest percentage of individuals not meeting the WHO recommendations was identified in the age group 60–69 years (21.2%)
- According to WHO recommendations, 54.2% of the study population fell into the high level of physical activity category; 24.0% are attributed to the moderate-level activity group; and 21.8% are in the low level of activity group.
- Median duration of all physical activity carried-out daily reported by respondents of all ages was 257.1 minutes
- The survey showed that individuals in rural areas were more exposed to physical activity, among both men and women.
- The mean time spent for sedentary life by respondents was high, which is 160.3.

8. Khat use

The survey participants were asked about their current *Khat* chewing status, previous chewing experience, frequency of *khat* chewing, the age they started chewing, duration of chewing, risk of *khat* chewing and utilization of alcohol and smoke while using *khat*. Among all respondents, the percentage of current khat chewer (daily and non-daily chewer) were 15.8% (95% CI: 13.1-18.5). This finding was comparable to the overall khat chewing prevalence of 15.3% (95% CI: 14.90–15.71) according to the national survey conducted in 2015 (14); while past chewers were 3.2% (95% CI: 2.6-3.8) (14). There was more men current khat chewer (21.1%) among the respondents than women (9.4%). Among current chewers, rural (16.8 %) respondents were more likely to chew *khat* than urban (11.5%) respondents. Majority of the respondents, 81.0 % (95% CI: 78.3-83.7), had never used khat (14) .

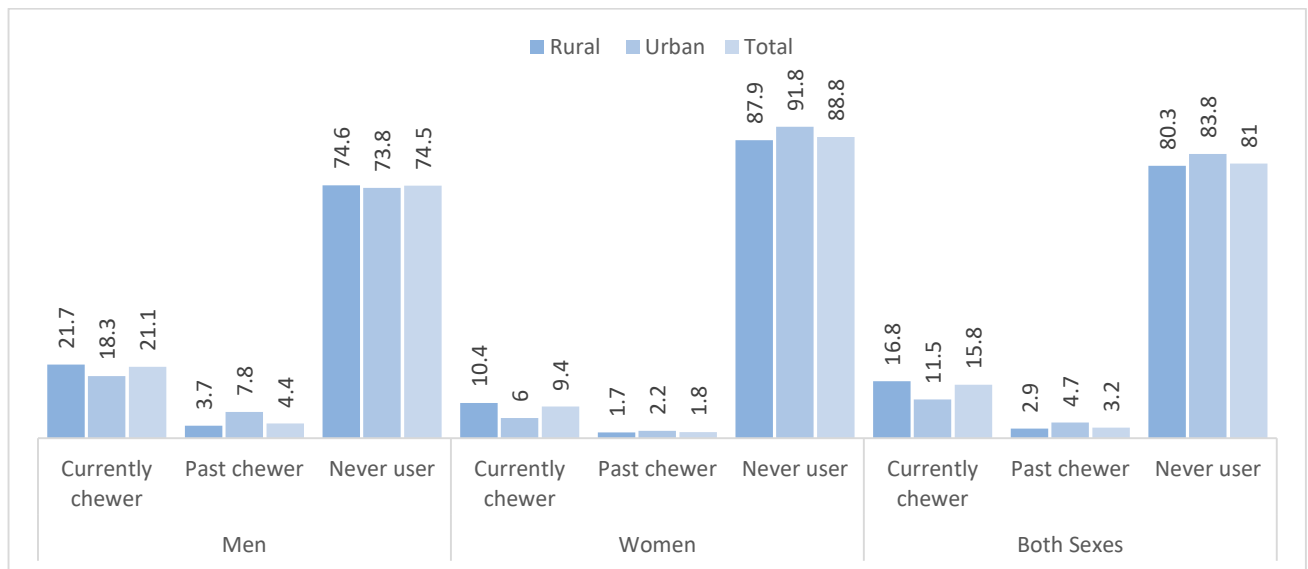


Figure 8. 1 Percentage of khat chewing status among respondents by sex and place of residence, Ethiopia NCD STEPS, 2015

Among current *khat* chewers, more than half of the respondents (58.4% 95% CI: 51.6-65.2) were daily chewers (annex). Men (61%) were more likely to chew *khat* in a daily basis than women (50.4%) were. Similarly, 59.8% of rural and 49.5% of urban respondents were chew *khat* in daily basis (Figure 8. 2)

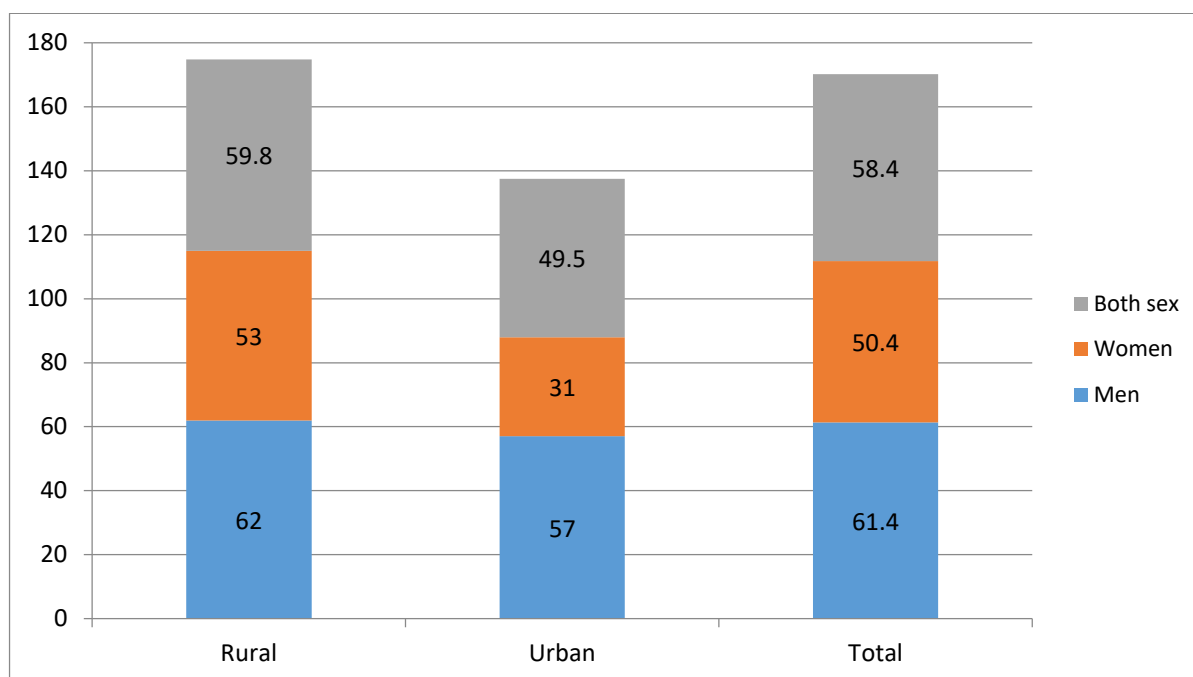


Figure 8. 2 Proportion of current khat chewers in daily basis by sex and place of residence, Ethiopia NCD STEPS, 2015

Results of the survey demonstrated that the mean *khat* chewing starting year of the respondents among current chewers was 19.6 years (95% CI: 19.1-20.2). Men started *khat* chewing earlier, 19.1 years (95% CI: 18.5-19.8) than women, (21.0 years (95% CI: 20.0-22.0). Similarly, rural dwellers were more likely to initiate *khat* chewing at earlier age, 19.3 years (95% 18.7-20.0) than urban counter parts, 21.4 years (95% CI: 20.3-22.6) (Table 8. 1).

Table 8. 1 Mean age of starting khat chewing among current khat chewers, by sex, age, and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	Mean age	95% CI	N	Mean age	95% CI	N	Mean age	95% CI
15-29	334	16.9	16.3-17.4	200	17.9	17.2-18.6	534	17.1	16.7-17.6
30-44	391	20.1	19.1-21.1	208	22.7	21.1-24.3	599	20.8	19.9-21.7
45-59	192	23.6	21.9-25.3	100	26.0	23.1-29.0	292	24.3	22.7-25.9
60-69	75	25.4	22.5-28.3	29	30.4	20.9-39.9	104	26.3	23.4-29.3
Place of Residence									
Rural	826	18.8	18.1-19.5	392	20.8	19.7-21.9	1218	19.3	18.7-20.0
Urban	166	21.1	19.5-22.6	145	22.4	20.6-24.2	311	21.4	20.3-22.6
Total	992	19.1	18.5-19.8	537	21.0	20.0-22.0	1529	19.6	19.1-20.2

About 24% (23.9 95% CI: 19.0-28.9) of current khat chewers tried to stop khat chewing in the 12 months preceding the survey. Compared with women (18.7%), men (25.9%) had better attempt to stop khat chewing in the past 12 months. On the other hand, only 8 percent (7.5percent, 95% CI: 5.2-9.7) of respondents among those khat chewers who had visited a doctor or other health worker in the past 12 months had been advised to stop khat chewing. Urban respondents had better attempt to stop khat chewing (34%) compared with their rural counterparts(22.3%), likewise urban respondents who got advice by a doctor or other health workers (9.7%) are more likely higher than rural respondents7.1% , (Figure 8. 3).

Table 8. 2 Proportion Current khat chewers who have tried to stop chewing by sex, age group, and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	Tried to stop using khat (%)	95% CI	n	Tried to stop using khat (%)	95% CI	n	Tried to stop using khat (%)	95% CI
15-29	334	28.9	21.2-36.6	201	16.1	8.5-23.6	535	25.5	19.0-32.0
30-44	393	25.5	19.0-32.0	212	19.4	11.0-27.9	605	23.8	18.2-29.4
45-59	193	17.3	9.1-25.6	105	21.2	9.7-32.7	298	18.5	11.6-25.3
60-69	76	20.2	7.1-33.3	32	41.9	11.9-72.0	108	24.1	11.5-36.7
Place of Residence									
Rural	830	24.1	18.0-30.3	404	17.3	10.3-24.3	1234	22.3	17.0-27.7
Urban	166	37.1	21.2-52.9	146	26.5	14.9-38.0	312	34.0	22.0-46.0
Total	996	25.9	20.1-31.7	550	18.7	12.5-24.8	1546	23.9	19.0-28.9

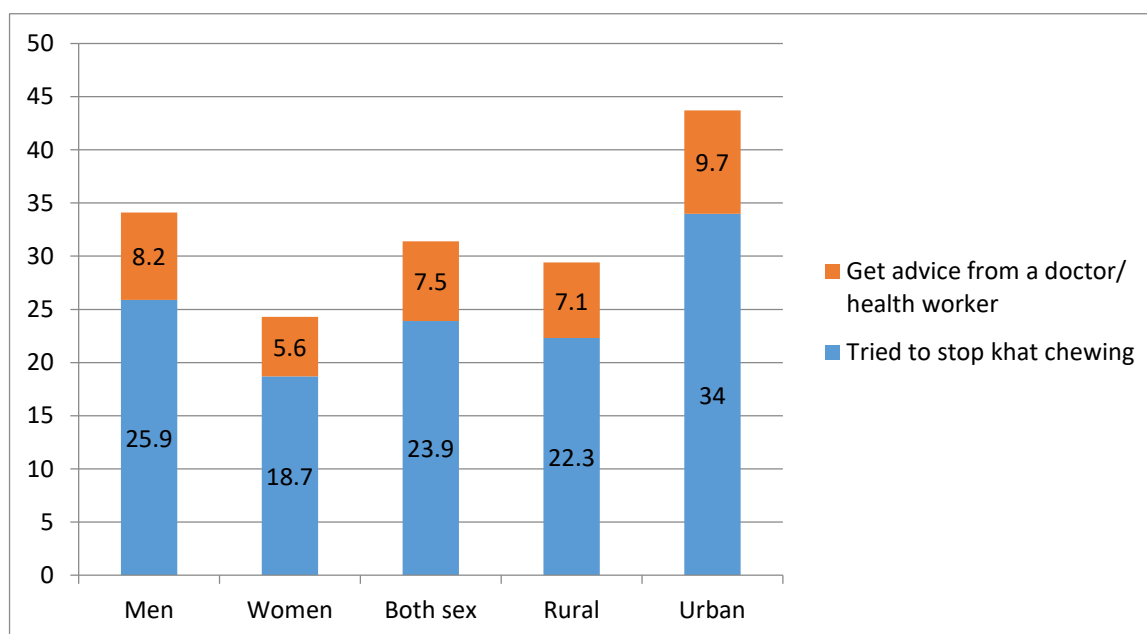


Figure 8. 3 Proportion of respondents who tried to stop or advised by a doctor /health worker/ to stop khat chewing, by sex and place of residence, Ethiopia NCD STEPS, 2015.

Overall 1.3% (95% CI: 1.0-1.7) of respondents had problems due to someone else’s *khat* chewing practices during the past 12 months. Greater proportion of urban respondents (2.2%) had faced problems due to someone else’s *khat* chewing than rural respondents (1.1%). Compared with women (1.1%), more men (1.5%) had problems because of someone else’s *khat* chewing. Moreover, more urban men respondents (3.4%) faced problems because of someone else’s *khat* chewing than rural men (1.2%) (Figure 8. 4).

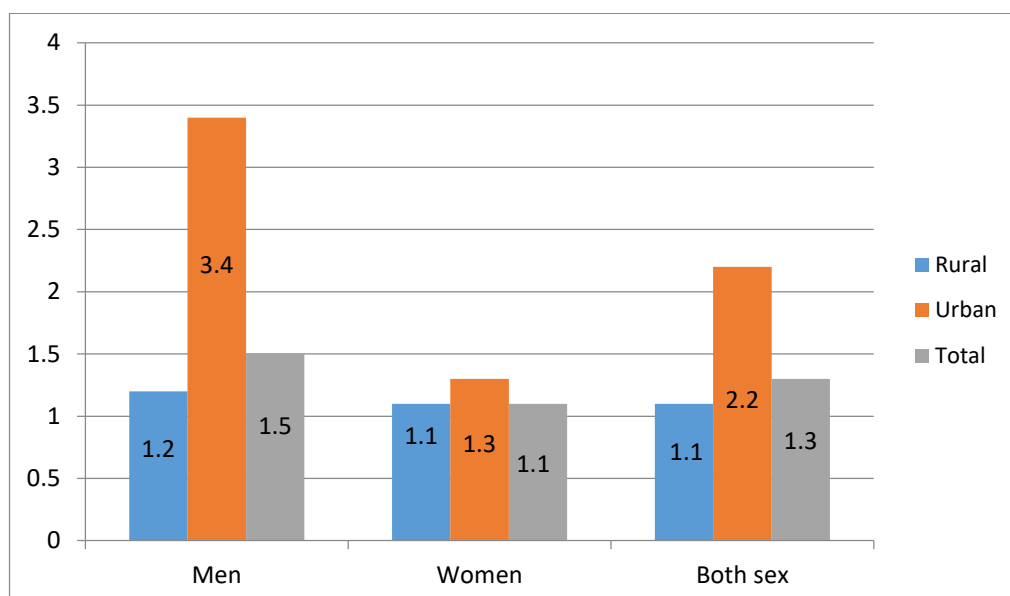


Figure 8. 4 Proportions of respondents who faced problems due to someone else's khat chewing practices, by sex and place of residence, Ethiopia NCD STEPS, 2015

The result of the survey showed that about 32.0 percent 95% CI: 25.6-38.5 of respondents in the study population had friend smokers while using khat. Men (39%) were three times more likely to have friend smokers while using khat than women (13.4%). Greater proportions of urban respondents (34.5%) had friend smokers while using khat than their rural counterparts (31.6%) (Table 8. 1).

Table 8. 3 Proportion of current khat chewers who have friend smoker while using khat, by age, sex, and area of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Friend smokes while using khat	95% CI	n	% friend smokes while using khat	95% CI	n	% friend smokes while using khat	95% CI
15-29	334	40.7	31.2-50.1	201	9.4	4.0-14.9	535	32.5	24.4-40.5
30-44	393	43.5	34.5-52.6	212	16.5	8.6-24.3	605	35.9	28.4-43.3
45-59	193	30.1	20.1-40.1	105	14.1	5.2-22.9	298	25.3	17.5-33.1
60-69	76	19.4	6.6-32.1	32	46.6	13.7-79.6	108	24.3	11.2-37.4
Place of residence									
Rural	830	38.6	30.1-47.2	404	12.6	6.7-18.4	1234	31.6	24.3-39.0
Urban	166	41.2	27.0-55.4	146	18.0	9.1-26.9	312	34.5	24.0-45.0
Total	996	39.0	31.3-46.6	550	13.4	8.2-18.5	1546	32.0	25.6-38.5

Among current khat chewers, about 7% of respondents (6.6 percent 95% CI: 4.4-8.8) had drunk alcohol after chewing khat. Younger age groups, 15-29 years, (8.1%) and urban respondents (12.6%) were more likely to drink alcohol after using Khat than their counterparts. Men (8.7%) were nearly 9 times more likely to drink alcohol after chewing khat than women (1.0%) (Figure 8. 5).

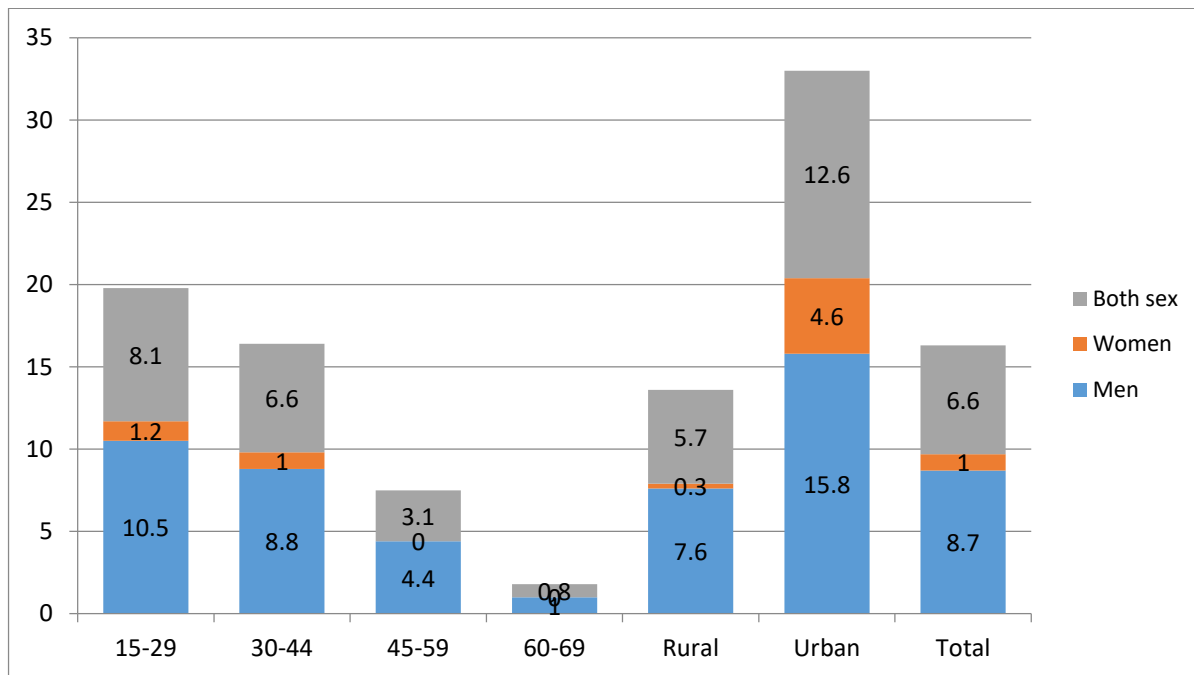


Figure 8. 5 Proportions of current khat chewer who drink alcohol after using khat, by age, sex, and place of residence, Ethiopia NCD STEPS, 2015

Conclusion

- About 16% of respondents were current *khat* chewers.
- More than half of current chewers are chewing *khat* on a daily basis.
- Men and rural dwellers started *khat* chewing earlier than their counter parts.
- About 24 % of current *khat* chewers tried to stop *khat* chewing in the last 12 months.
- Only 7.5% of respondents among those *khat* chewers who had visited a doctor or other health worker in the past 12 months had been advised to stop *khat* chewing.\
- About 1 in 3 or 32% respondents in the study population have friend smokers while using *khat*
- Among the current *khat* chewers, about 7% of respondents drank alcohol while using *khat*

¹*Khat* is a plant native to the Horn of Africa and the Arabian Peninsula. *Khat* chewing in Ethiopia is a social custom that dates back thousands of years. However, *Khat* is a strong stimulant that causes mild to moderate psychological dependence, although not as strong as that of alcohol and tobacco, and its consumption can have serious health and economic consequences.

9. Violence and injury

The survey participants were interviewed about their involvement in road traffic accident, non-road traffic injury, violent injury, causes of violent injury, relationship status between respondents and a person who cause injury, and previous adulthood sexual abuse experience.

About 3% (2.7%, 95% CI: 1.8-3.5) of respondents were involved in a road traffic crash as a passenger, driver, or pedestrian during the past 12 months. There were more men (3.3%) involved in road traffic crash than women (1.9%) did. There was also a slight difference in proportion of rural (2.6 %) and urban (2.8%) respondents in road traffic crash involvement

Table 9. 1 Percentage of respondents who involved in a road traffic crash during the past 12 months, by age, sex, and place of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	% Involved in road traffic crashes	95% CI	N	% Involved in road traffic crashes	95% CI	n	% Involved in road traffic crashes	95% CI
15-29	1429	3.2	1.9-4.6	2493	2.0	0.9-3.0	3922	2.7	1.7-3.6
30-44	1425	3.3	1.7-4.9	2038	1.6	0.7-2.6	3463	2.5	1.5-3.5
45-59	772	3.8	1.8-5.8	898	2.0	0.7-3.3	1670	3.1	1.7-4.4
60-69	315	2.8	0.5-5.0	331	1.2	0.0-2.5	646	2.2	0.7-3.7
Area of Residence									
Rural	3169	3.1	1.8-4.4	3876	1.9	1.0-2.8	7045	2.6	1.6-3.6
Urban	772	4.4	2.5-6.3	1884	1.5	0.6-2.5	2656	2.8	1.6-4.0
15-69	3941	3.3	2.2-4.4	5760	1.9	1.1-2.6	9701	2.7	1.8-3.5

From all respondents who experienced road traffic crash in the past 12 months, about 18% (CI: 11.4-24.9) of participants were seriously injured. Urban residents (35.6%) were more seriously injured than rural residents (13.7 %) due to road traffic crash. The proportion of men who had been injured in road traffic crash was increased from age groups 15-29 years to 45-59 years. Greater proportion of women who had been injured in road traffic crash constituted in the age group of 60-69 years.

Table 9. 2 Percentage of respondents seriously injured as a result of road traffic crash among those involved in a road traffic crash, by age, sex, and place of residence, Ethiopia NCD STEPS, 2015.

Age Group (years)	Men			Women			Both Sexes		
	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI
15-29	44	16.5	5.0-27.9	53	9.1	0.0-21.4	97	14.0	4.9-23.1
30-44	45	27.0	11.7-42.3	28	15.1	0.0-32.8	73	23.6	11.3-35.9
45-59	26	34.5	8.0-61.0	18	0.6	0.0-1.9	44	25.4	5.0-45.8
60-69	10	4.0	0.0-11.1	8	55.1	3.4-100.0	18	14.6	0.0-34.4

Area of residence									
Rural	86	15.7	7.3-24.1	67	9.1	0.0-19.8	153	13.7	6.7-20.6
Urban	39	44.6	24.3-64.8	40	14.9	1.2-28.7	79	35.6	17.9-53.2
Total	125	21.7	12.9-30.4	107	10.3	1.5-19.1	232	18.1	11.4-24.9

About 3% (2.6%, 95% CI: 1.9-3.3) of respondents had been seriously injured in a non-road traffic accident in the past 12 months. Urban residents were more likely to be seriously injured in a non-road traffic accident than their rural counter parts. The proportion of men respondents were two times higher in getting a serious injury of non-road traffic accidents than women. From all injuries other than road traffic accident, fall was the leading cause of non-road traffic injury for both men and women whereas cut accounted for 36% and 20.8 % of men and women respondents, respectively. On the other hand, compared with men, women were more exposed to animal bites than men were, 20.9 % versus 7.8 % .

Table 9. 3 Percentage of respondents seriously injured in a non-road traffic accident, by sex, age, and place of residents, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI
15-29	1432	3.0	1.6-4.5	2505	1.6	0.8-2.4	3937	2.4	1.4-3.4
30-44	1431	3.1	1.9-4.2	2053	1.9	1.1-2.7	3484	2.5	1.8-3.2
45-59	777	4.5	2.6-6.5	898	1.6	0.5-2.6	1675	3.3	2.1-4.5
60-69	314	3.7	1.1-6.3	331	1.9	0.1-3.8	645	3.0	1.3-4.8
Residence									
Rural	3184	3.0	2.1-3.9	3886	1.5	1.0-2.0	7070	2.3	1.8-2.9
Urban	770	5.0	0.8-9.1	1901	2.3	0.6-4.0	2671	3.5	0.7-6.2
TOTAL	3954	3.3	2.3-4.3	5787	1.7	1.1-2.2	9741	2.6	1.9-3.3

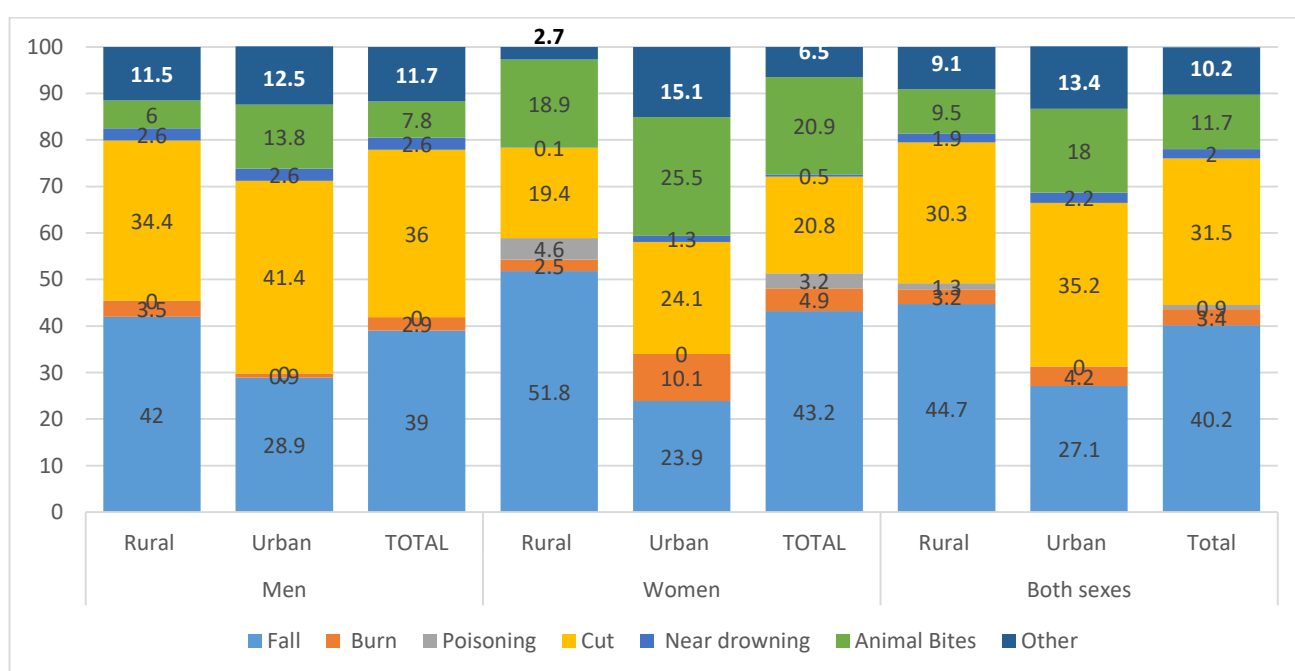


Figure 9. 1 Proportion of the causes of non-road traffic incident, by sex and place of residence, Ethiopia NCD STEPS, 2015

The survey result revealed that in the past 12 months, 1.5 % (95% CI: 0.8-2.1) of respondents were involved in violent injury which requires medical attention. Men (2%) were more likely to engage in violent injury than women (0.8 %). Greater proportion of violent injury was accounted for men with the age group 15-29 years. Urban men were more likely to be engaged in violent injury than rural counter parts (Table 9.3)

Table 9. 4 Proportion of respondents seriously injured from violent incident, by sex, age, and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	% Seriously injured from violent incidents	95% CI	n	% Seriously injured from violent incidents	95% CI	n	% Seriously injured from violent incidents	95% CI
15-29	1435	2.4	0.9-3.9	2510	0.9	0.2-1.5	3945	1.7	0.8-2.6
30-44	1431	1.6	0.6-2.5	2055	0.9	0.4-1.5	3486	1.3	0.7-1.9
45-59	776	1.8	0.4-3.3	907	0.0	0.0-0.0	1683	1.1	0.2-1.9
60-69	315	1.2	0.0-2.5	335	0.4	0.0-1.3	650	0.9	0.1-1.8
Place of residence									
Rural	3186	1.8	0.9-2.7	3902	0.9	0.3-1.5	7088	1.4	0.8-2.1
Urban	771	3.3	0.0-6.6	1905	0.2	0.0-0.3	2676	1.5	0.0-3.1
Total	3957	2.0	1.1-3.0	5807	0.8	0.3-1.2	9764	1.5	0.8-2.1

Over 50% (54.6 % 95% CI: 34.2-74.9) of respondents who had been involved in violent injury during the past 12 months were injured without a weapon. Urban (57.1%) dwellers were more likely to be injured by firearm than rural (7.6%) dwellers; on contrary, rural respondents were more likely to be injured by other weapon than urban residents. On the other hand, majority of rural respondents (60.1 %) had been injured without weapons. (Figure 9. 2).

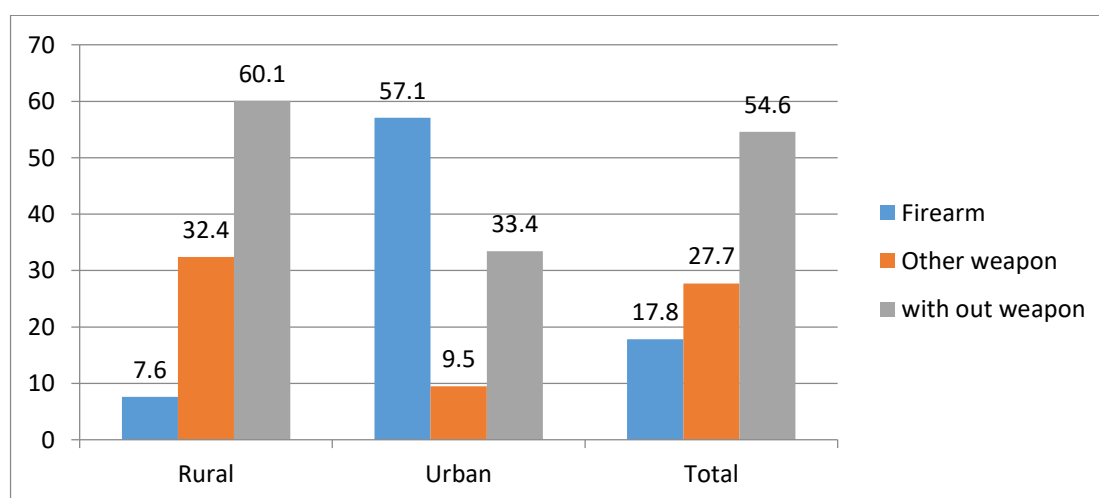


Figure 9. 2 Causes of injury from a violent incident among respondents involved in a violent incident by place of residence Ethiopian STEPS survey, 2015.

The result of the study showed that, from those who had received violent injury, the majority of injured respondents were by friend followed by intimate partners. Urban respondents were more likely to be injured by intimate partners than rural respondent (Figure 9.3). Women respondents were more likely to be injured by parents (11.5%) than men counterparts (7.6%), but women were less likely to be injured by intimate partner than men were. (Figure 9.4)

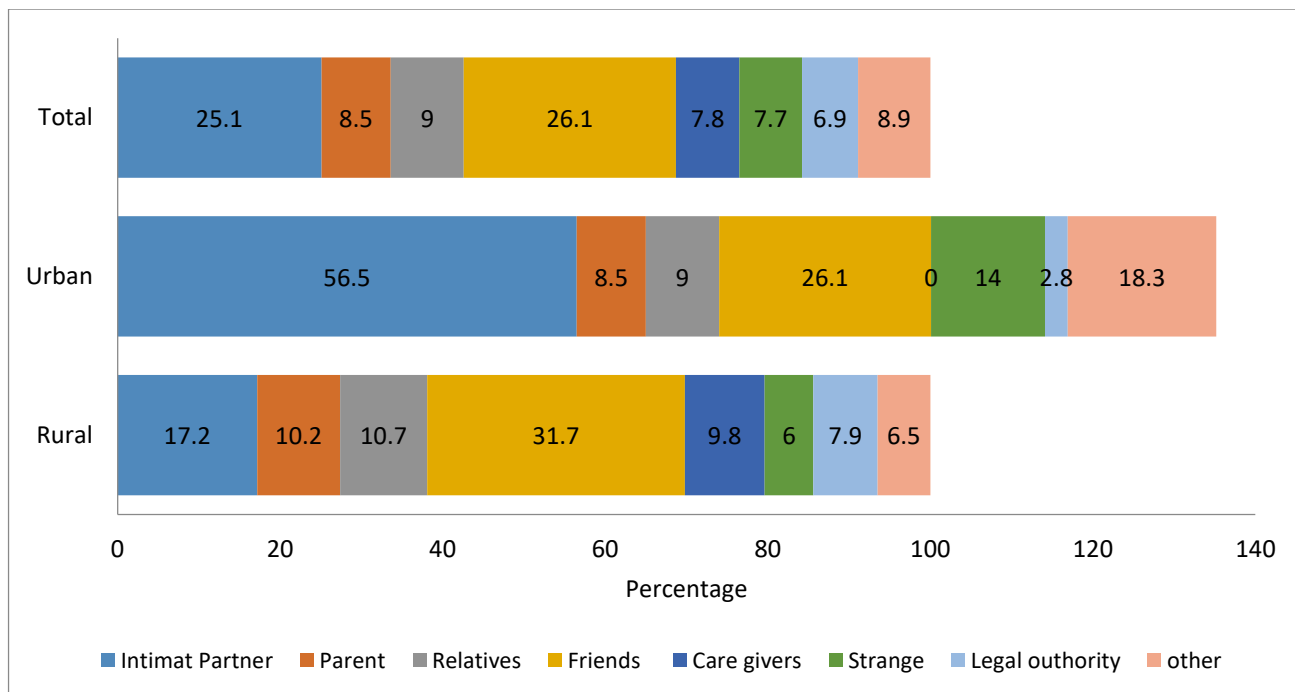


Figure 9. 3 Percentage of those receiving violent injuries in the past 12 months by relationship status of different persons, by place of residence, Ethiopia NCD STEPS, 2015.

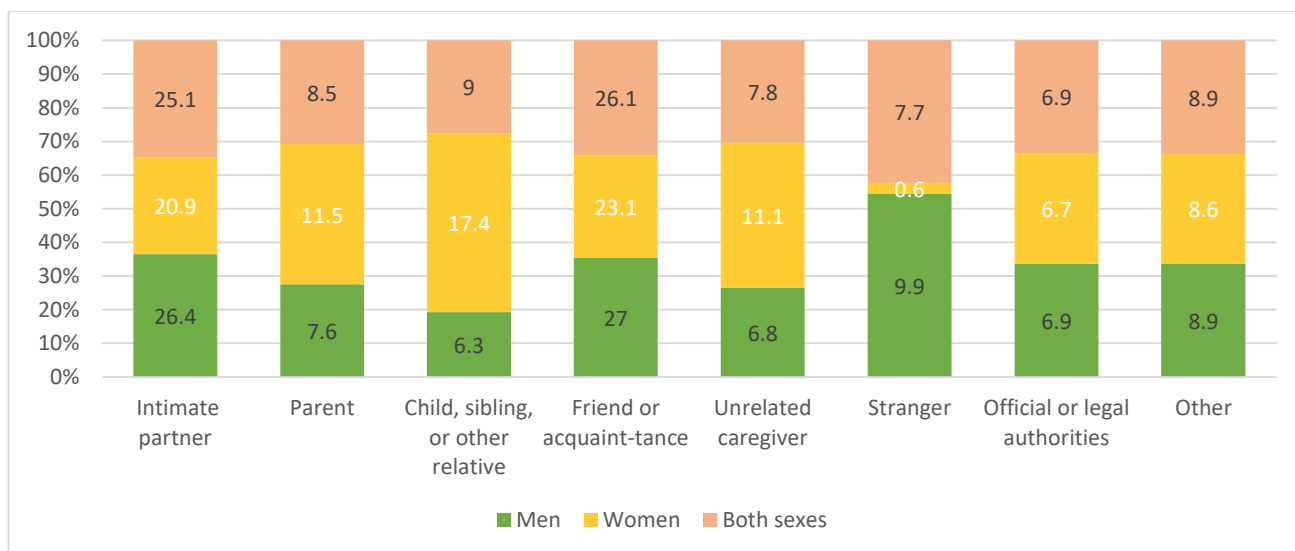


Figure 9. 4 Percentage of those receiving violent injuries in the past 12 months by relationship status of different persons, by sex, Ethiopia NCD STEPS, 2015

Less than two percent (1.5%, 95% CI: 0.9-2.0) of respondents were sexually abused during adulthood. About 2 percent of women experienced a sex act involving either: vaginal, oral, or anal penetration against their will since their 15th birthday. There were more urban respondents exposed to sexual act against their will than rural respondents. On the contrary, rural men were more likely to be sexually abused than urban men (Figure 9.5) were.

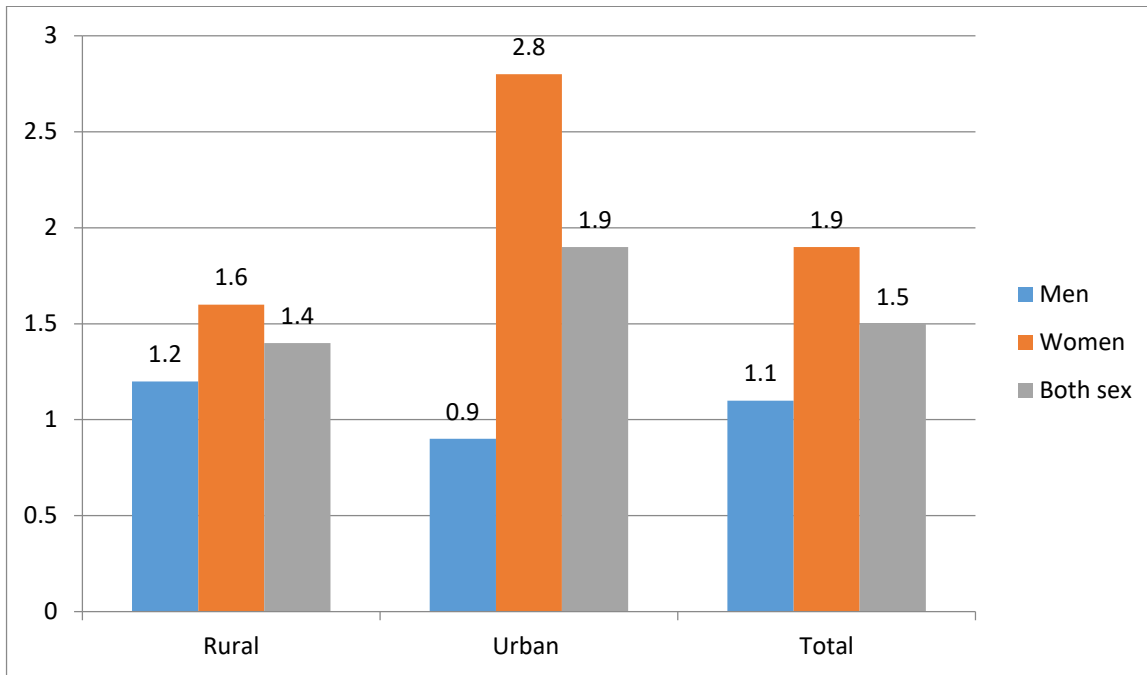


Figure 9. 5 Proportion of respondents who experienced sexual abutment, by sex and place of residence, Ethiopia NCD STEPS, 2015.

Conclusion

- About 3% of respondents involved in a road traffic crash as a passenger, driver, or pedestrian during the past 12 months preceding the survey
- Nearly 3% of the respondents had injury other than road traffic accident in the past 12 months preceding the survey
- From all injuries other than road traffic accident, fall is the leading cause, 40.2%, followed by cut, which was 31.5%.
- In the past 12 months preceding the survey, 1.5% of the respondents were involved in violent injury which requires medical attention
- In the past 12 months preceding the survey, their perpetrator injured over 50% of the respondents who involved in violent injury with no use of weapon.
- About 57% of urban respondents were injured by intimate partner while 32% of rural respondents were injured by friend or acquaintances
- Almost 2% of the respondents were sexually abused during adulthood
- Urban residents were more likely to be sexually abused than rural counterparts during their adulthood

10. History and life style advice for selected NCDS

10.1. History of raised blood pressure

Among all the respondents, 76.6 % (79.9 % rural, and 63.5 % urban residents) reported that their blood pressure was never measured. About 1 in 5 individuals (20.2 %) had undergone blood pressure measurement but had not been diagnosed with hypertension; 1.1 % had been diagnosed with high blood pressure more than a year before; and 2.1 % had been diagnosed with hypertension within 12 months prior to the interview. The percentage of urban respondents diagnosed with high blood pressure during the previous 12 months was 5.0 % (95% CI: 3.8-6.2) and that of rural was 1.4 % (95% CI: 1.0-1.8).

Table 10.1 Blood pressure measurement and diagnosis status by age, sex and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	3954	81.7	79.8-83.6	17.0	15.2-18.9	0.6	0.2-1.1	0.6	0.3-1.0
30-44	3496	73.1	70.7-75.5	23.1	20.8-25.4	1.4	0.9-1.9	2.4	1.8-3.1
45-59	1686	66.9	63.2-70.6	26.0	22.6-29.5	2.0	1.2-2.8	5.0	3.6-6.5
60-69	652	63.4	57.5-69.3	24.7	19.6-29.7	3.3	1.3-5.3	8.7	5.5-11.8
Place of Residence									
Rural	7104	79.7	77.9-81.6	18.0	16.3-19.7	0.9	0.6-1.3	1.4	1.0-1.8
Urban	2684	63.5	57.3-69.7	29.4	23.9-34.9	2.1	1.4-2.8	5.0	3.8-6.2
Total	9788	76.6	74.8-78.5	20.2	18.5-21.9	1.1	0.8-1.5	2.1	1.7-2.4

The prevalence of diagnosed hypertension in the 12 months preceding the survey or before increases with increasing age. Women respondents, i.e. 25.8 % (95% CI: 23.6-28.1) were more likely to have their blood pressure measured and not diagnosed with raised blood pressure than men, i.e. 15.4 % (95% CI: 13.6-17.3) (Figure 10.1).

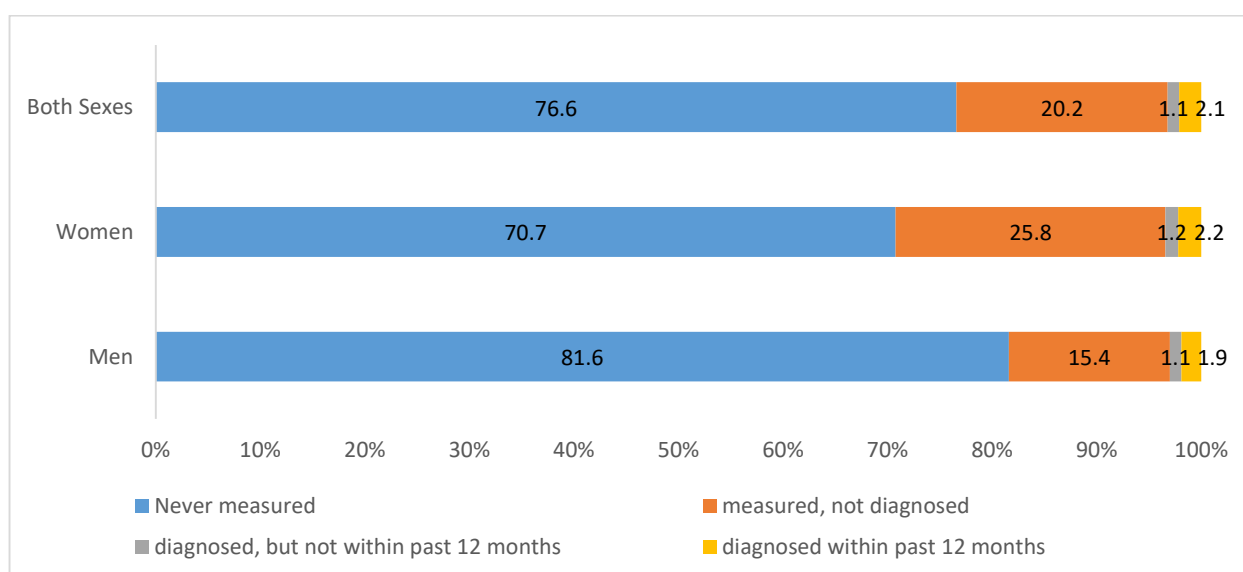


Figure 10.1 Blood pressure measurement and diagnosis, by sex, Ethiopia NCD STEPS, 2015

About three in ten (28.4%) of the population were currently taking medication for raised blood pressure prescribed by doctors or health workers among those diagnosed. One third (32.7%) of men were more likely to take medication than women (23.9%) were (Figure 10.2).

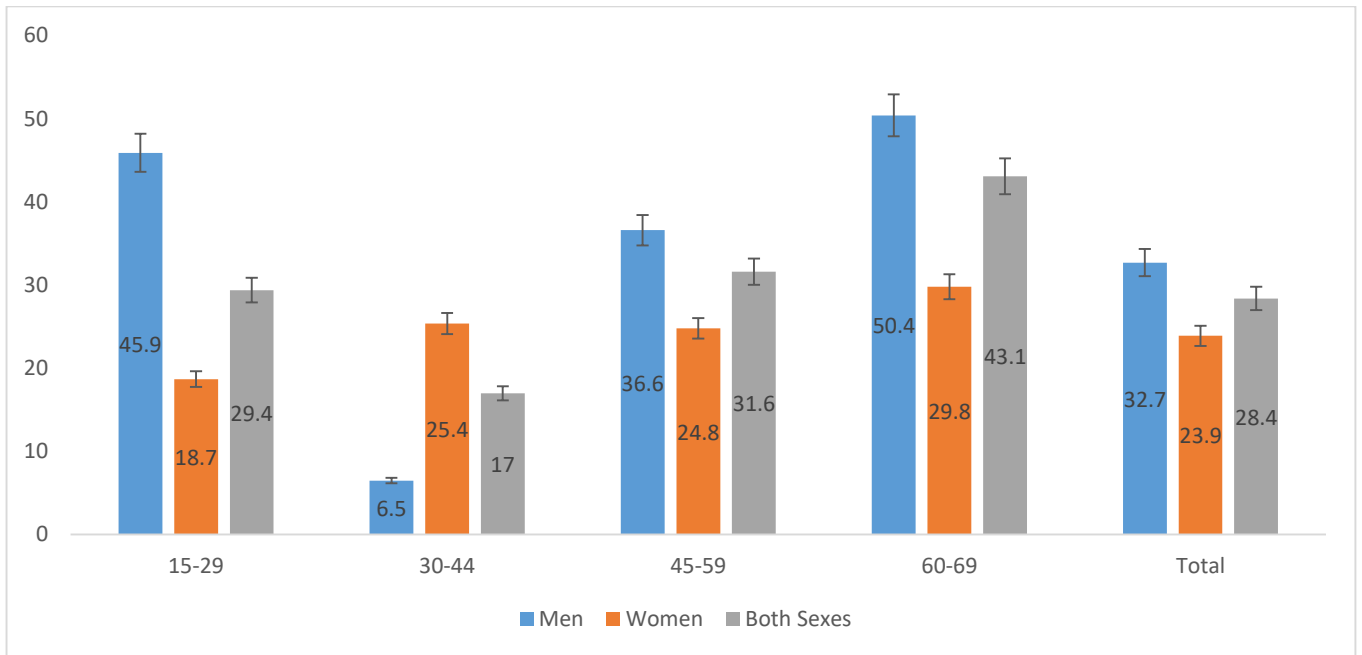


Figure 10.2 Currently taking drugs (medication) for raised blood pressure prescribed by doctor or health worker among those diagnosed, Ethiopia NCD STEPS, 2015

People living in rural area were more likely to see a traditional healer (18.7%), and currently taking herbal or traditional remedy for raised blood pressure (14.1%) than urban area (Figure 10.3).

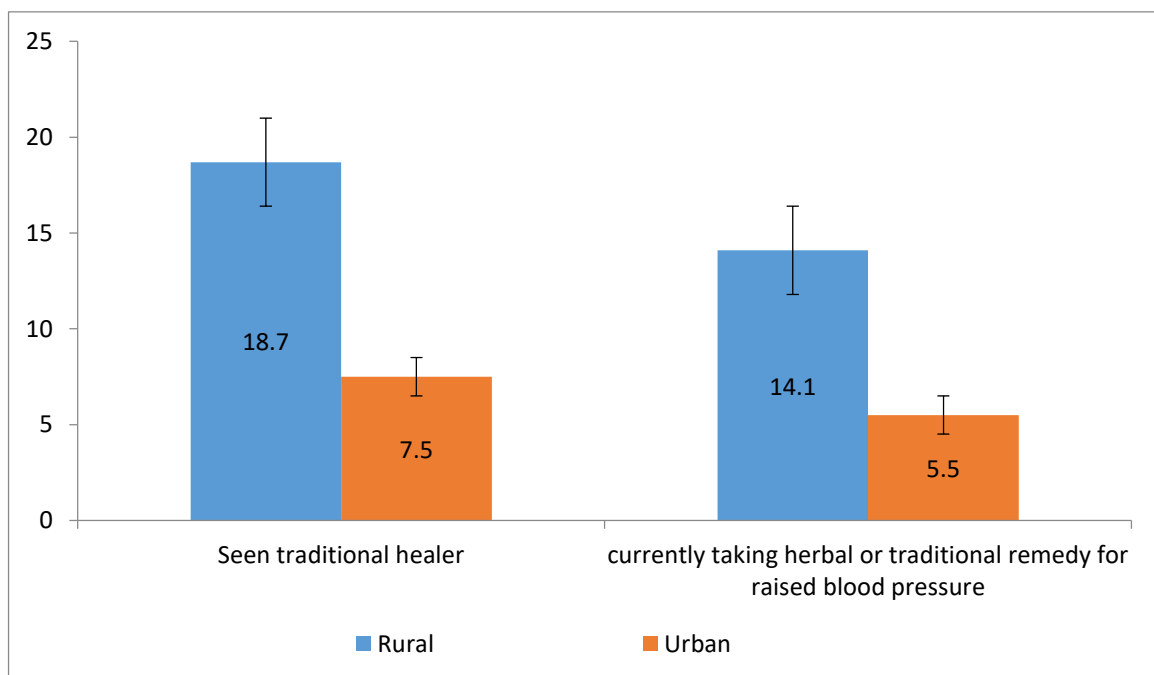


Figure 10.3 Percentage of participants who had seen traditional healer and currently taking herbal or traditional remedy for raised blood pressure, by place of residence, Ethiopia NCD STEPS, 2015

10.2. History of diabetes

Of all the respondents, 97% had never had their blood sugar measured. The rest 3 percent were tested (2.5% were not diagnosed with diabetes and 0.5 were found to be diabetic). Less than 1 percent (0.1%) of the respondents had been diagnosed with high blood glucose 12 months before the survey, 0.5% within the previous 12 months. The proportion of respondents that had never undergone a test for diabetes was higher in the younger age groups, varying from 98.3% (95% CI: 97.8-98.8) in the respondents age 15–29 years to 92.5% (95% CI: 89.9-95.2) in those aged 60–69 years. This trend is also characteristic for those

whose blood glucose level had been tested but who had not been diagnosed with high blood sugar. The percentage of people diagnosed both within the past 12 months and earlier was increasing with age, but with a positive relationship; namely, a higher proportion in the older age groups (Table 10.2).

Table 10.2 Blood sugar measurement and diagnosis by Sex, age group, and area of residence Ethiopia NCD STEPS, 2015

Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	3955	98.3	97.8-98.8	1.5	1.1-2.0	0.0	0.0-0.1	0.1	0.0-0.3
30-44	3496	96.4	95.5-97.2	3.2	2.4-3.9	0.1	0.0-0.3	0.3	0.1-0.6
45-59	1687	94.0	92.5-95.6	4.0	2.8-5.1	0.2	0.0-0.3	1.8	0.9-2.7
60-69	652	92.5	89.9-95.2	5.1	2.8-7.4	0.4	0.1-0.8	1.9	1.0-2.9
Place of Residence									
Rural	7105	98.5	98.1-98.9	1.3	0.9-1.7	0.0	0.0-0.0	0.2	0.1-0.3
Urban	2685	90.5	88.3-92.6	7.4	5.7-9.0	0.5	0.1-0.8	1.7	1.0-2.4
Total	9790	97.0	96.4-97.5	2.5	2.0-2.9	0.1	0.0-0.2	0.5	0.3-0.7

In terms of blood sugar testing, no differences between men and women were observed. : The percentage of men who had never had their blood glucose measured was 97.4% (95% CI: 96.7-98.1) and for women 96.4% (95% CI: 95.8-97.1). The proportion of those who had undergone blood sugar measurement but had not been diagnosed was 2.0% (95% CI: 1.4-2.6) in men and 3.0% (95% CI: 2.4-3.5) in women. (Figure 10.4).

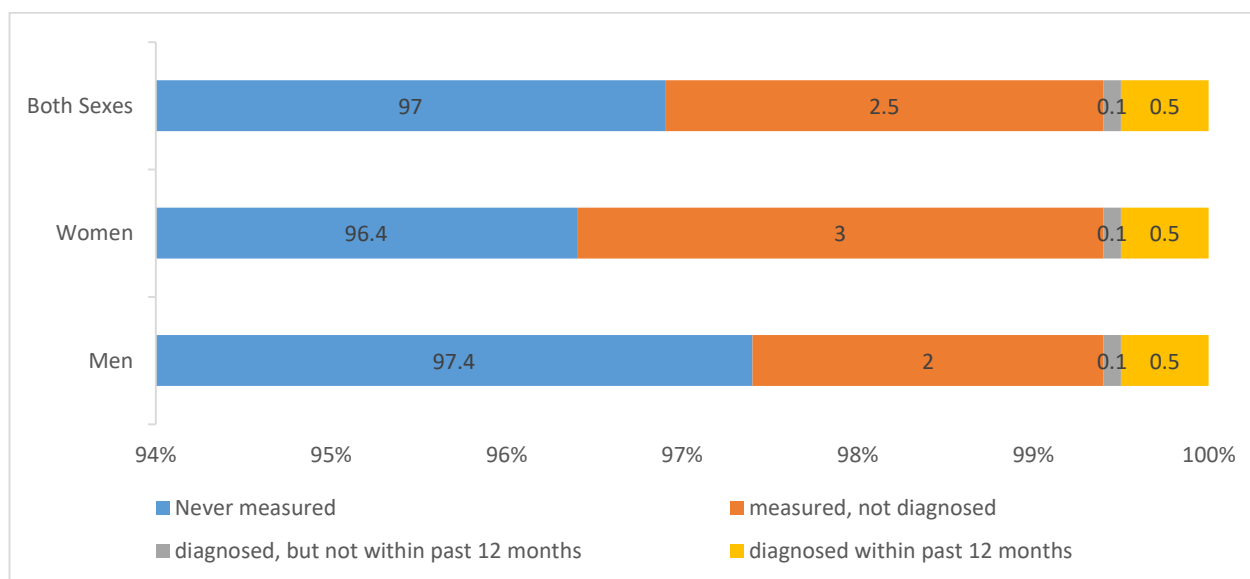


Figure 10.4 Blood sugar measurement and diagnosis, by sex Ethiopia Steps survey, 2015

Respondents previously diagnosed with raised blood sugar or diabetes were asked whether they had been prescribed any drug (medication) for diabetes by a health worker, or whether they were taking insulin for diabetes prescribed by a doctor or other health worker.

Differences in proportion were observed between the sexes, with 66.2% (95% CI: 45.8-86.6) of men and 73.6% (95% CI: 56.8-90.5) of women taking any medication for diabetes prescribed by a doctor or a health worker. A higher difference was detected for those taking insulin, with 22.2% (95% CI: 7.1-37.4) of men and 41.9% (95% CI: 20.1-63.7) of women taking insulin recommended by a doctor or a health worker (Figure 10.5).

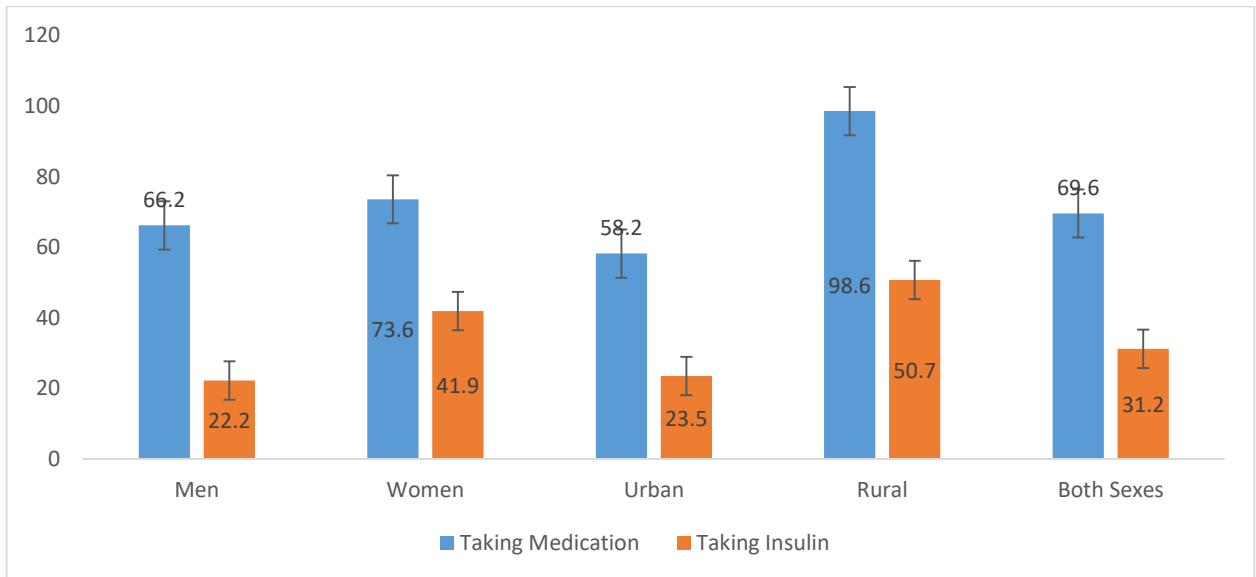


Figure 10.5 Currently taking any medication or insulin prescribed for diabetes among those previously diagnosed by sex, and residence area, Ethiopia NCD STEPS, 2015

Among those previously diagnosed, the highest, about two third (64.5%) of currently taking insulin was observed among women participants' age 45-59 (Figure 10.6).

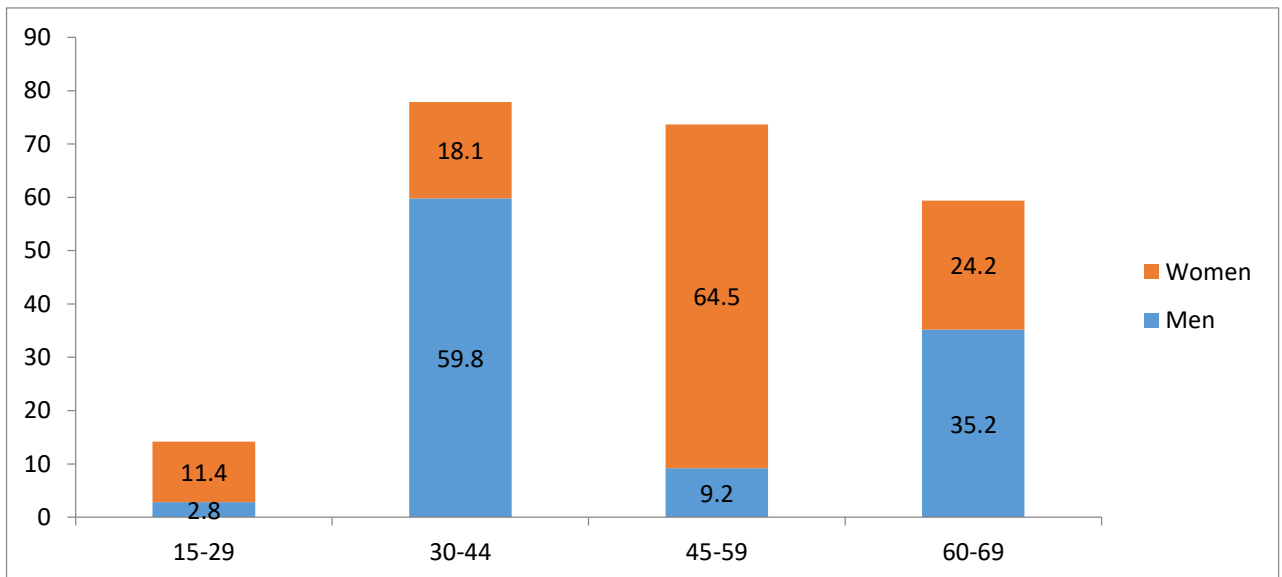


Figure 10.6 Currently taking insulin prescribed for diabetes among those previously diagnosed by sex, Ethiopia NCD STEPS, 2015

Conclusions

1. A total of 97% of respondents had never undergone blood sugar measurement/testing.
2. Of all the respondents, 0.5% had been diagnosed with high blood sugar more than 12 months prior to the interview and 4.3% within the previous year.

10.3. History of raised cholesterol

A total of 99.5% (95% CI: 99.3-99.6) of respondents declared that they never had their blood cholesterol measured, while 0.4% had undergone a test for blood cholesterol level but had not been diagnosed with raised cholesterol. Entirely, only 0.1% of the study population had been diagnosed with a high level of cholesterol more than 12 months before the interview, and 0.1% of them had been diagnosed within the past year. The proportion of people who had never undergone a test for cholesterol was almost 100% in rural areas (Table 10.3).

Table 10.3 Total cholesterol measurement and diagnosis by sex, age group and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	3955	99.8	99.6-99.9	0.2	0.0-0.4	0.0	0.0-0.0	0.0	0.0-0.0
30-44	3496	99.4	99.0-99.7	0.5	0.2-0.7	0.1	0.0-0.3	0.0	0.0-0.1
45-59	1687	98.6	97.8-99.4	1.0	0.3-1.6	0.1	0.0-0.3	0.3	0.1-0.5
60-69	652	99.0	98.2-99.7	0.8	0.1-1.4	0.1	0.0-0.2	0.2	0.0-0.4
Place of Residence									
Rural	7105	99.9	99.7-100.0	0.1	0.0-0.3	0.0	0.0-0.0	0.0	0.0-0.0
Urban	2685	97.8	97.0-98.6	1.5	0.9-2.1	0.3	0.1-0.6	0.3	0.1-0.5
Total	9790	99.5	99.3-99.6	0.4	0.3-0.6	0.1	0.0-0.1	0.1	0.0-0.1

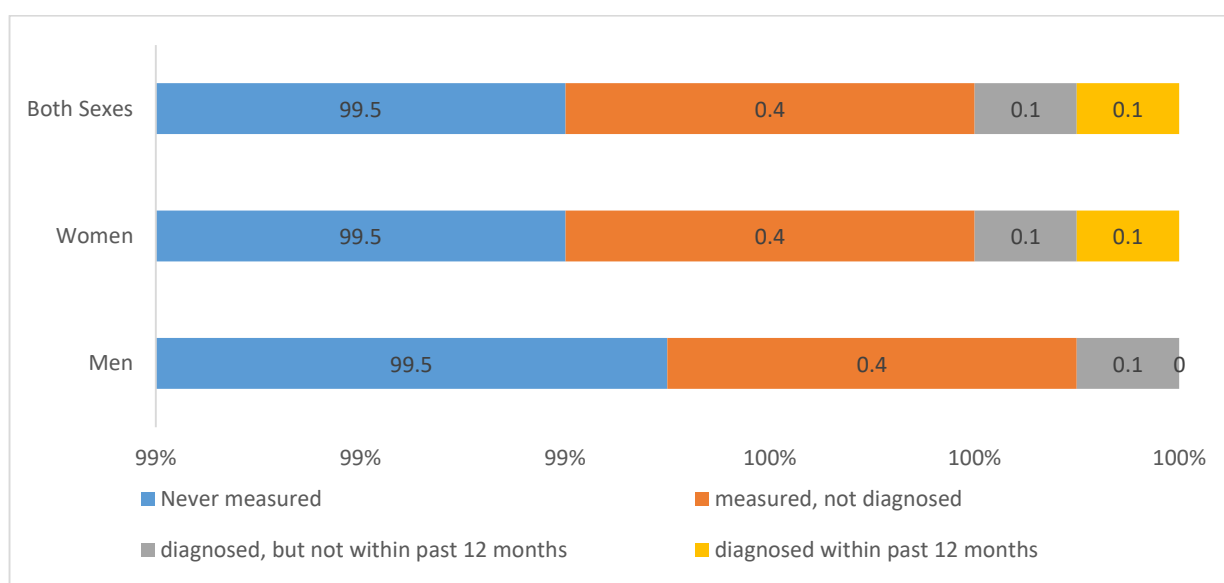


Figure 10.7 Total cholesterol measurement and diagnosis, by sex, Ethiopia NCD STEPS, 2015

Among those diagnosed with a high level of total blood cholesterol, 21.2% had taken oral medication during the previous two weeks. Out of these, 22.2% (95% CI: 1.5-38.0) were women and 19.8% (95% CI: 6.2-38.1) were men.

Table 10.4 Currently taking oral treatment (medication) prescribed for raised total cholesterol among those previously diagnosed by sex, age group and area of residence, Ethiopia NCD STEPS, 2015

Currently taking oral treatment (medication) prescribed for raised total cholesterol among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
15-29	0	0	0.0-0.0	4	0.0	0.0-0.0	4	0.0	0.0-0.0
30-44	3	27.7	0.0-83.2	5	0.0	0.0-0.0	8	20.8	0.0-44.9
45-59	4	8.3	0.0-33.1	17	31.7	6.4-57.1	21	23.7	4.9-42.5
60-69	1	0.0	0.0-0.0	8	34.7	6.5-62.9	9	31.7	0.0-69.9
Place of Residence									
Rural	0	0	0.0-0.0	1	0.0	0.0-0.0	1	0.0	0.0-0.0
Urban	8	19.8	1.5-38.0	33	23.5	6.5-40.5	41	21.9	7.2-36.5
Total	8	19.8	1.5-38.0	34	22.2	6.2-38.1	42	21.2	7.1-35.2

10.4. History of cardiovascular diseases

Among all respondents, 3.4% reported having had a heart attack or chest pain from heart disease (angina) or stroke. The highest prevalence was found to be 5.6% (95% CI: 2.9-8.4) in the age group of 60–69 years. Women (4.3% with 95% CI: 3.3-5.3) were more likely to have a heart attack or chest pain from heart disease (angina) or stroke than men (2.6% with 95% CI: 1.8-3.3).

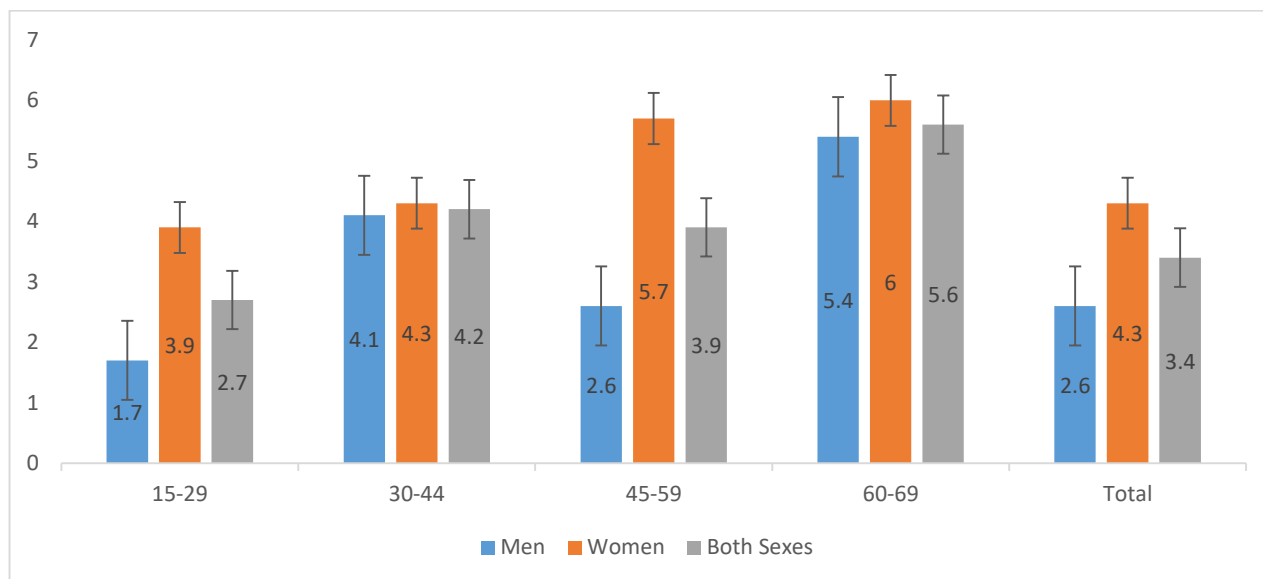


Figure 10.8 Percentage of respondents having ever had a heart attack or chest pain from heart disease or a stroke, by age and sex, Ethiopia NCD STEPS, 2015

Among respondents who were asked if they were taking aspirin or statins regularly for prevention or treatment of heart disease, only 0.3 % (95% CI: 0.1-0.4) reported taking aspirin and 0.2 % (95% CI: 0.1-0.3) reported to have taken statins to prevent or treat heart disease. In general, 0.3 % (95% CI: 0.1-0.6) of men respondents and 0.2 % (95% CI: 0.1-0.4) of women respondents were taking aspirin for prevention or treatment of cardiovascular disease (Figure 10.9).

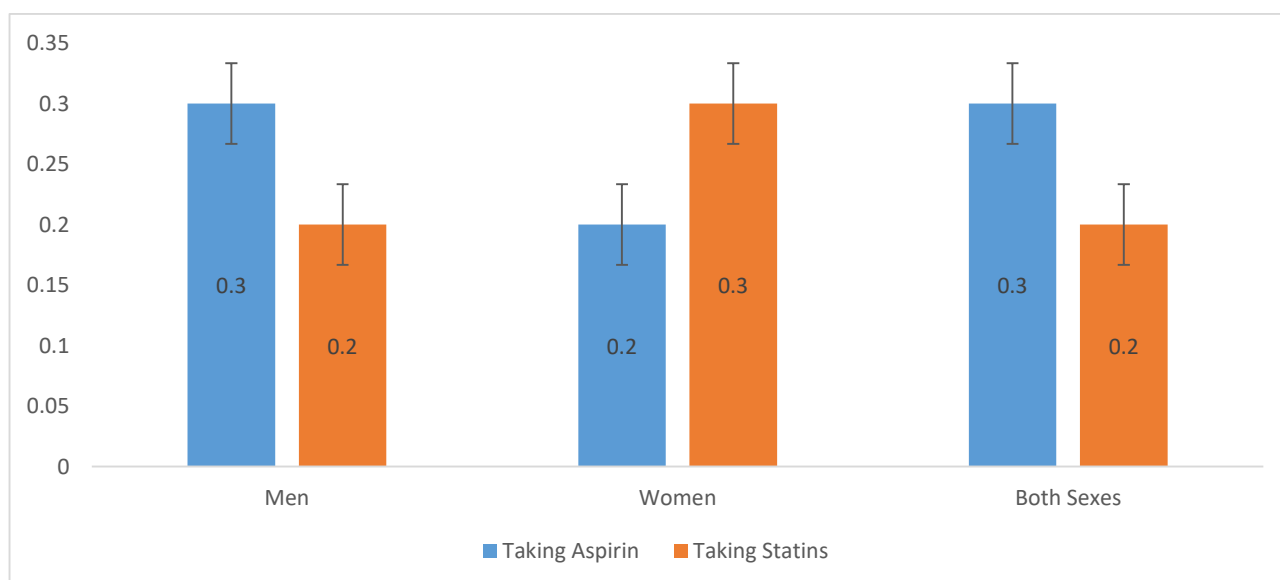


Figure 10.9 percentage of respondents currently taking regularly aspirin or/and statins to prevent or treat heart disease by sex, Ethiopia NCD STEPS, 2015

Conclusions

1. Among all respondents, 3.4% reported ever having had a heart attack or chest pain from heart disease (angina) or a stroke.

2. A total of 0.3% of all respondents reported taking aspirin regularly and 0.2% of them took statins to prevent or treat heart disease. The proportion of individuals who reported using aspirin for prevention or treatment of CVDs showed no difference by sex.

10.5. Lifestyle advice

Figure 10.10 shows the proportion of respondents who reported receiving different types of lifestyle advice from a doctor or a health worker during the past three years. In general, 6.9% (95% 5.7, 8.1) of the respondents were advised by a doctor or health worker to stop smoking or not to start: which was 7.7 % among men (95% CI: 6.1-9.3), and 5.8 % among women (95% CI: 4.7-7.0). Among the advices given, 13.3 % of respondents had been advised to reduce salt in their diet, 11.7 % of respondents had been advised to eat at least five servings of fruit and/or vegetables each day, 9.7 % of respondents had been advised to reduce fat in their diet, 7.1 % of respondents had been advised to start or to do more physical activity, and 4.9 % of respondents had been advised to maintain a healthy body weight or to lose weight.

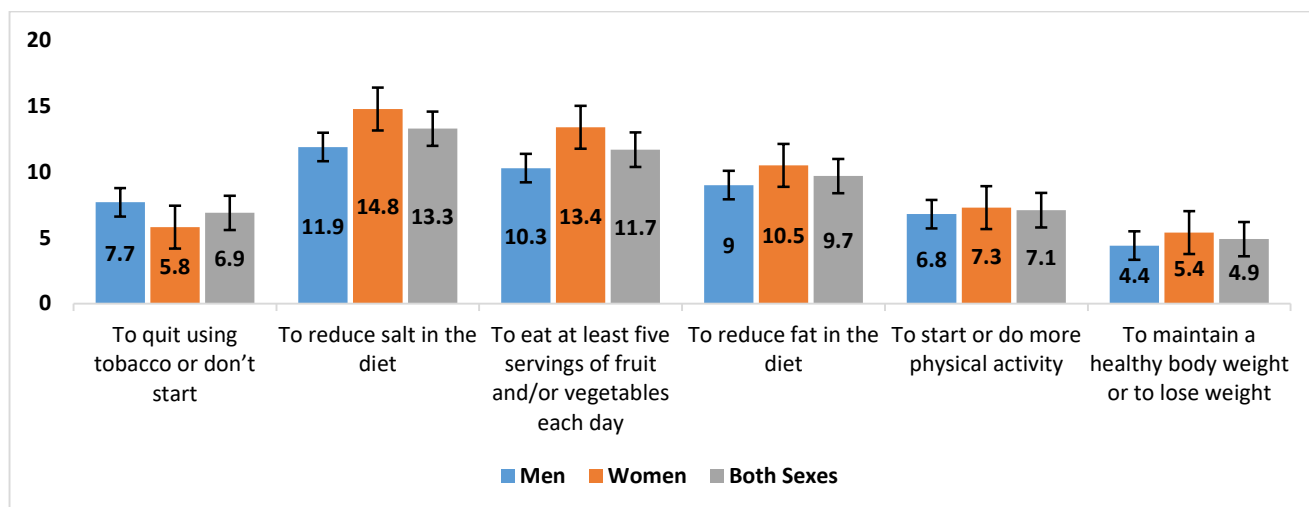


Figure 10.10 percentage of respondents reporting having received lifestyle advice from a doctor or health worker during the past three years, by sex, Ethiopia NCD STEPS, 2015

Conclusions

1. Fruit and vegetable consumption, alongside reduction of fat and salt in the diet were the most frequent health advice topics addressed by a doctor or health worker to the survey respondents. Women reported receiving such advice more frequently than men did.
2. All advices were provided in less than 15 % of the population.

10.6. Cervical cancer screening

Women respondents were asked whether they had ever had a screening test for cervical cancer. Of all the women age 15–69 years participating in the study, only 1.9 % (95% CI: 1.4-2.3) reported ever having undergone a screening test for cervical cancer. The highest proportion of testing among women was in the age group 30-44 years, with 2.7 % (95% CI: 1.5-3.8). Women in urban areas (5 %) were more likely to have undergone cervical cancer screening than the rural (0.9) women population (Figure 10.11).

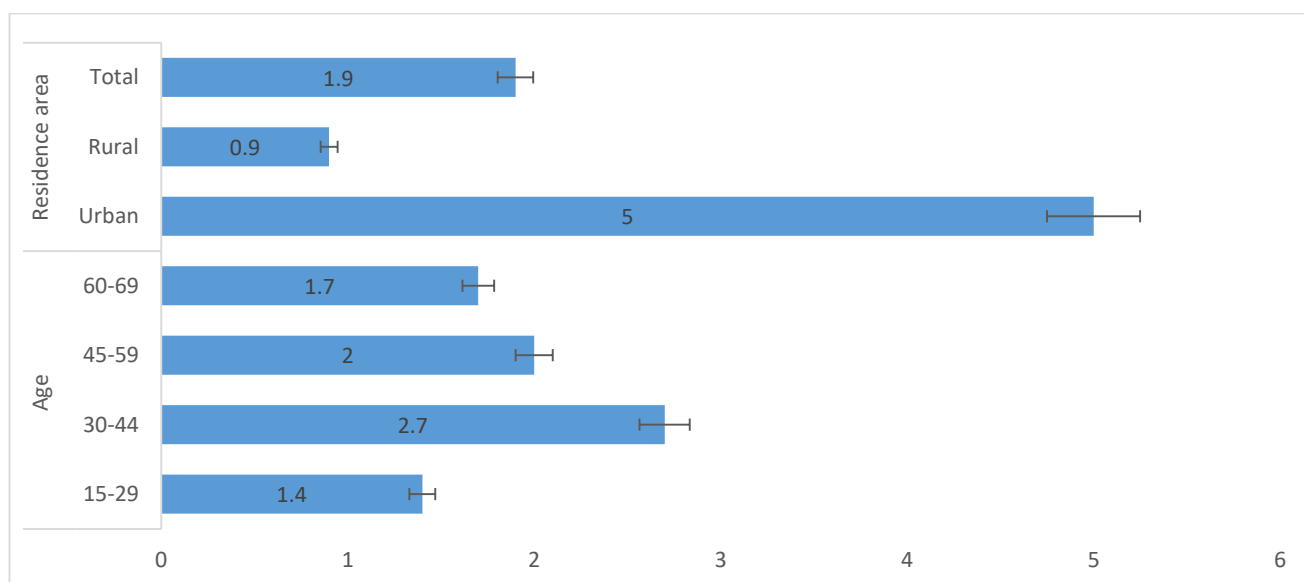


Figure 10.11 Percentage of women screened for cervical cancer by age and area of residence, Ethiopia NCD STEPS, 2015

The percentage of women respondents age 30–49 years that had ever undergone screening for cervical cancer was 2.65% (95% CI: 1.61-3.69) (Table 10.5).

Table 10.5 Percentage of women respondents age 30-49 years who have ever had a screening test for cervical cancer by area of residence and age, Ethiopia NCD STEPS, 2015

Age Group (years)	Women		
	n	% ever tested	95% CI
Place of Residence			
Rural	1518	1.0	0.4-1.6
Urban	755	7.9	4.4-11.4
30-49	2273	2.65	1.61-3.69

11. Physical measurements

11.1. Blood pressure

Hypertension as a risk factor for NCD was assessed by means of blood pressure measurement. Mean systolic blood pressure (SBP) in the study population was 119.5 mmHg (95% CI: 118.8-120.2); 120.2 mmHg for men (95% CI: 119.2-121.1), and 118.7 mmHg (95% CI: 117.9-119.5) for women. Mean diastolic blood pressure (DBP) was 77.5 mmHg (95% CI: 77.0-78.1) in the study population; 76.5 mmHg (95% CI: 75.8-77.2) in men, and 78.8 mmHg (95% CI: 78.3-79.3) in women (Figure 11.1). Both SBP and DBP were found to increase with age. The SBP in the age group 60–69 years was approximately 14 % higher than in the age group 15–29 years, and the difference in DBP between the same age groups was about 5 %.

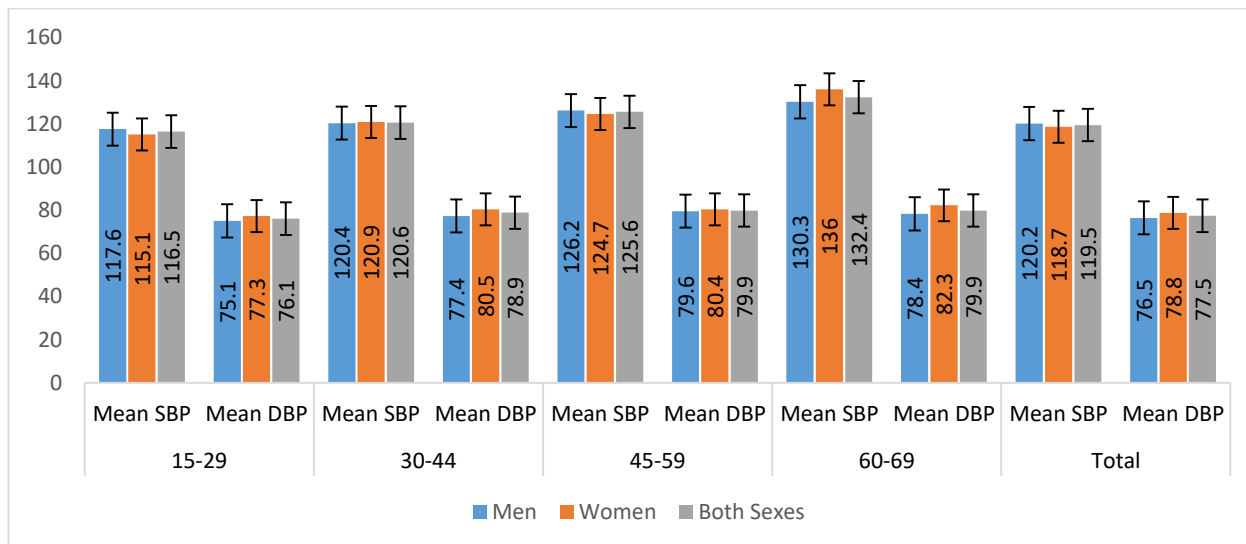


Figure 11.1 Mean SBP and DBP (mmHg), by sex and age, Ethiopia NCD STEPS, 2015

In general, the prevalence of raised blood pressure (SBP \geq 140 and/or DBP \geq 90 mmHg) was 16 % (95% CI: 14.8-17.3), 15.7% (95% CI: 13.9-17.5) for men, and 16.5% (95% CI: 15.0-17.9) for women. There was an observed difference between ages, with an increase in prevalence from 10.8% (95% CI: 9.2-12.5) in the younger age group, to 38.8% (95% CI: 32.9-44.7) in the older age group (Annex 2). The percentage of those with an SBP of \geq 160 mmHg and/or a DBP of \geq 100 mmHg, or taking medication for raised blood pressure was 4.8% (95% CI: 4.2-5.5); 4.3% (95% CI: 3.5-5.2) for men, and 5.4% (95% CI: 4.6-6.3) for women. (Figure 11.2)

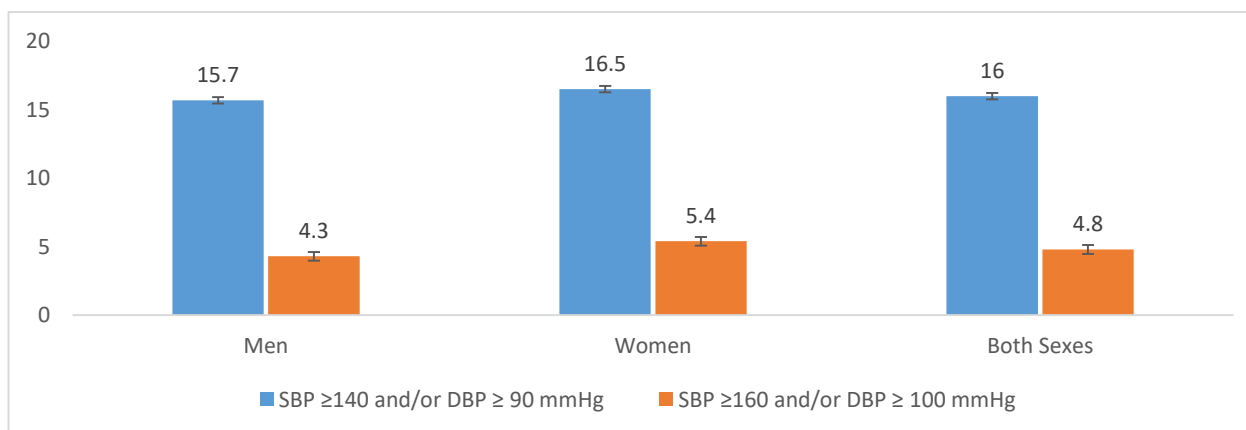


Figure 11.2 Percentage of respondents with raised blood pressure, or currently taking medication for raised blood pressure, by sex, Ethiopia NCD STEPS, 2015

Among all the respondents not currently taking medication for raised blood pressure, 15.6% (95% CI: 14.4-16.9) had a SBP of \geq 140 mmHg and/or a DBP of \geq 90 mmHg. The proportion of men in this category was 15.3% (95% CI: 13.5-17.1), and that of women was 16.0% (95% CI: 14.6-17.5).

The percentage of those with SBP of \geq 160 mmHg and/or a DBP of \geq 100 mmHg, excluding those on medication for raised blood pressure was 4.4% (95% CI: 3.8-5.0); 3.9% (95% CI: 3.1-4.8) for men and 4.9% (95% CI: 4.1-5.8) for women (Figure 11.3).

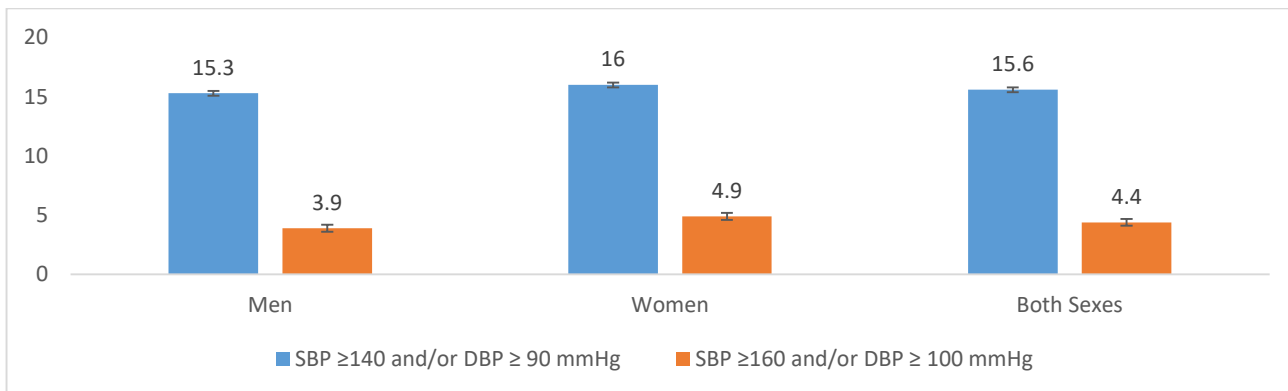


Figure 11.3 Percentage of respondents with raised blood pressure, excluding those taking medication for raised blood pressure, by sex, Ethiopia NCD STEPS, 2015

Respondents with treated and/or controlled raised blood pressure among those with raised blood pressure (SBP \geq 140 mmHg and/or DBP \geq 90 mmHg) or currently on medication for raised blood pressure were analysed: 1.5% (95% CI: 0.6-2.4) of them were taking medication for high blood pressure but their blood pressure was low (SPB <140 mmHg and DBP <90 mmHg) during the survey. Only 1.3% (95% CI: 0.6-2.0) were taking medication but still had increased blood pressure (SBP \geq 140 mmHg and/or DBP \geq 90 mmHg). The remaining 97.1% (95% CI: 96.0-98.3) were not taking medication but had increased blood pressure (Figure 11.4).

The percentage of respondents with controlled blood pressure was higher among the urban population than among those in rural areas. Also, the urban population comprised a higher proportion of individuals with hypertension and taking medication.(Annex 2)

There was no observed difference between men and women in terms of the distribution of controlled blood pressure: 1.6% of women (95% CI: 0.5-2.7) were taking medication with SPB <140 mmHg and DBP <90 mmHg, in comparison with 1.4% among men (95% CI: 0.3–2.6). A total of 97.3% (95% CI: 95.7-98.9) of men and 96.9% (95% CI: 95.6–98.2) of women were not taking medication but had raised blood pressure (SBP \geq 140 mmHg and/or DBP \geq 90 mmHg) (Figure 11.4).

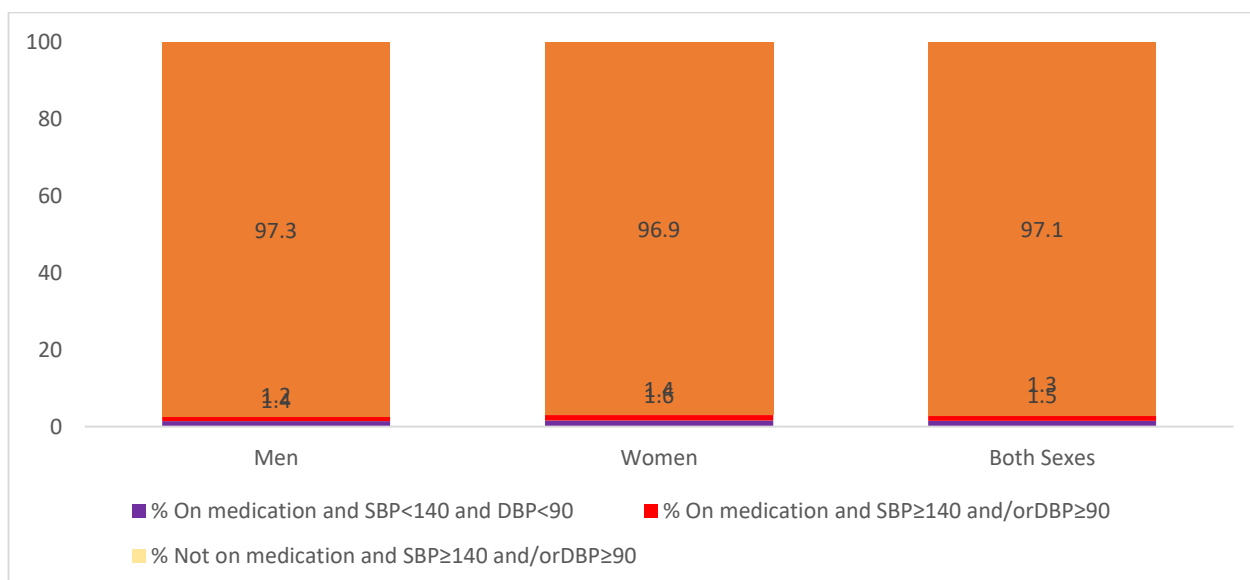


Figure 11.4 Respondents with treated and/or controlled blood pressure among those with raised blood pressure or currently taking medication, by sex and area of residence, Ethiopia NCD STEPS, 2015

11.2. Heart rate

On average, the heart rate for the survey population was 77 (95% CI: 76.4-77.5) beats per minute. The mean heart rate per minute for men and women was 73.9 (95% CI: 73.1-74.6) and 80.7 (95% CI: 80.1-81.3), respectively. (Table 11.1)

Table 11.1 Mean heart rate (beats per minute) by sex, age group and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Mean heart rate (beats per minute)								
	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
15-29	1423	73.8	72.8-74.7	2487	81.6	80.8-82.4	3910	77.3	76.7-78.0
30-44	1413	73.5	72.6-74.5	2039	79.5	78.7-80.4	3452	76.5	75.8-77.2
45-59	768	74.0	72.8-75.2	897	79.2	78.0-80.3	1665	76.1	75.2-77.1
60-69	313	76.2	74.2-78.2	334	80.0	78.2-81.9	647	77.6	76.1-79.1
Place of Residence									
Rural	3157	73.4	72.5-74.2	3878	80.3	79.6-80.9	7035	76.3	75.7-76.9
Urban	760	76.5	75.2-77.8	1879	82.0	80.9-83.2	2639	79.6	78.5-80.6
15-69	3917	73.9	73.1-74.6	5757	80.7	80.1-81.3	9674	77.0	76.4-77.5

11.3. Anthropometric measurements

Anthropometric measurements such as height, weight, and waist and hip circumference were used to calculate Body Mass Index (BMI), and mean Waist Hip Ratio (WHR) in order to estimate the prevalence of overweight and obesity in the study population (excluding pregnant women) by sex, age group, and area of residence.

Men respondents were on average 167.6 cm tall (95% CI: 167.2-168.1), and weighed on average 56.4 kg (95% CI: 55.9-56.9), and women were on average 158.1 cm tall (95% CI: 157.8-158.5) and weighed on average 51.8 kg (95% CI: 51.3-52.2) (Annexed). The weight and height data were used to compute BMI. Mean BMI for the survey population (both sexes) was 20.4 (95% CI: 20.2-20.5); 20.1 (95% CI: 19.9-20.2) for men, and 20.7 (95% CI: 20.6-20.9) for women. The gradual increase in BMI that was found to occur with age is represented in Figure 11.5. No substantial difference between sexes, and area of residence was observed for this indicator.

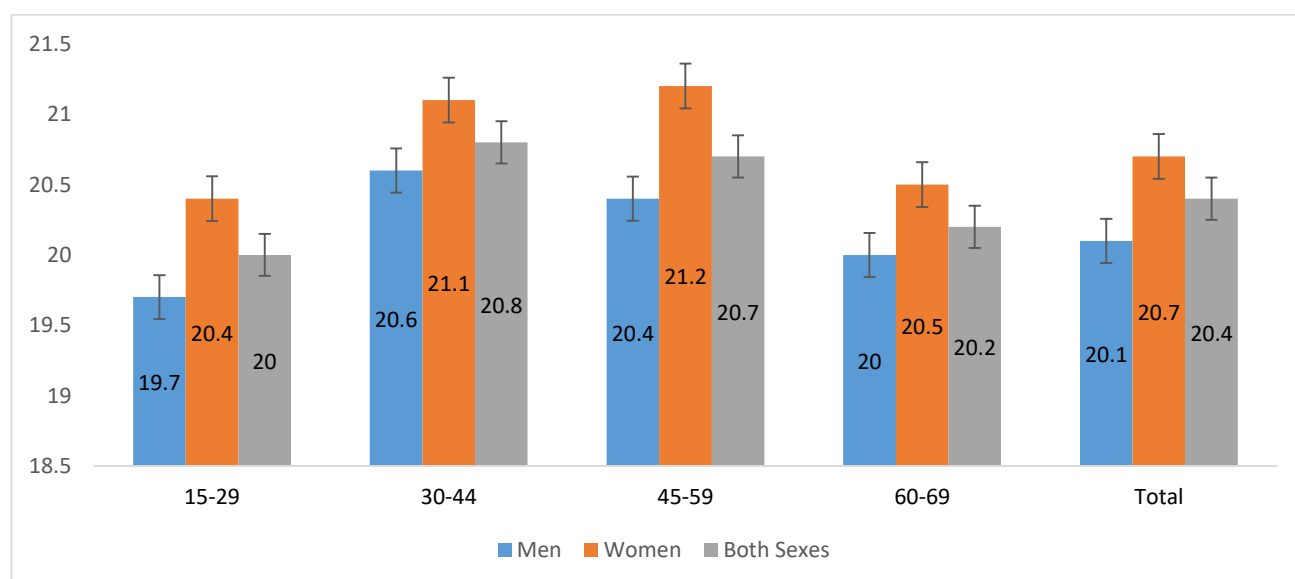


Figure 11.5 Mean BMI (kg/m) by sex and age group, Ethiopia NCD STEPS, 2015

The study population was grouped into four BMI categories: underweight (BMI <18.5), normal weight (BMI 18.5–24.9), overweight (BMI 25.0–29.9), and obese (BMI ≥30.0). A total of 6.4% (95% CI: 5.4-7.3) of all respondents (both sexes) had a BMI greater than 25 and thus fell into the overweight or obese categories; 72.1% (95% CI: 70.4-73.7) were grouped in the normal weight category, and 21.6% (95% CI: 19.9-23.2) in the underweight category (Figure 11.6). Women had a higher proportion of BMI ≥30.0 (2.0%, 95% CI: 1.5-2.4) than men (0.5%, 95% CI: 0.2-0.8), also a higher proportion of women in the overweight category was recorded. The proportion of overweight was higher in urban areas 12.7 (95% CI: 9.9-15.5) in comparison with rural settings 3.4% (95% CI: 2.7-4.1). (Annex 2)

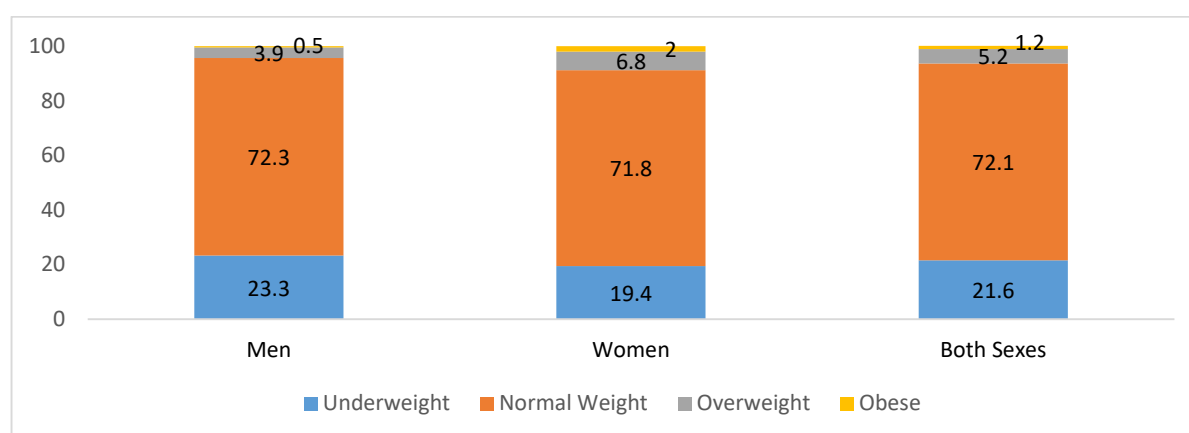


Figure 11.6 Distribution of BMI category by sex, Ethiopia NCD STEPS, 2015

Waist hip ratio (WHR) was computed for all respondents (excluding pregnant women), using measurements of waist and hip circumferences. Results showed a WHR of 0.9 for men, and 0.8 for women (Table 11.2). WHO defines obesity as having a WHR above 0.90 for men, and above 0.86 for women? No differences were found between the various age groups, and place of residence in terms of mean WHR.

Table 11.2 Mean waist-to-hip ratio (excluding pregnant women) by sex, age and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Mean waist / hip ratio					
	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
15-29	1422	0.9	0.8-0.9	2241	0.8	0.8-0.8
30-44	1409	0.9	0.9-0.9	1912	0.8	0.8-0.8
45-59	767	0.9	0.9-0.9	887	0.8	0.8-0.9
60-69	313	0.9	0.9-0.9	333	0.9	0.8-0.9
Place of Residence						
Rural	3152	0.9	0.9-0.9	3585	0.8	0.8-0.8
Urban	759	0.9	0.9-0.9	1788	0.8	0.8-0.8
15-69	3911	0.9	0.9-0.9	5373	0.8	0.8-0.8

Conclusions

1. Mean SBP among the Ethiopian population was 119.5 mmHg, and mean DBP was 77.5 mmHg, with almost no differences between the sexes.

2. Prevalence of raised blood pressure (SBP > 140 and/or DBP > 90 mmHg) among Ethiopian adult population was 15.6%, with no difference between the sexes.
3. Few of the population (1.5%) were taking medication for high blood pressure but their blood pressure was low (SPB <140 mmHg and DBP <90 mmHg). A total of 1.3% (95% CI: 0.6-2.0) were taking medication but still had increased blood pressure (SBP \geq 140 mmHg and/or DBP \geq 90 mmHg). The remaining 97.1% (95% CI: 96.0-98.3) were not taking medication but had increased blood pressure
4. Mean heart rate for Ethiopian population was 77 beats per minute.
5. Mean body weight and height for men was 56.4 kg and 167 cm, respectively. For women, mean body weight was 51.8 kg and height was 158.1 cm.
5. Mean BMI was 20.4; 20.1 for men and 20.7 for women.
6. Few individuals (6.3%) were overweight or obese, with a higher prevalence of overweight in urban areas.
7. The populations of both sexes were found to be at the lower limits of the obesity category, according to their WHRs.

12. Biochemical measurements

12.1. Blood glucose level

Mean fasting blood glucose level was found to be 79.5 mg/dl (95% CI: 78.3-80.7) in the total population, including those currently taking medication for diabetes (excluding pregnant women). The mean fasting blood glucose was lower in the rural than in urban areas (78.0 versus 81.8 mg/dl) (Annex 2). Figure 12.1 shows that fasting blood glucose level were lowest in the age group 15-29 years (78.5 mg/dl, 95% CI: 77.1-79.9) and the highest in the age group 60-69 years (83.7 mg/dl, 95% CI: 81.1-86.2).

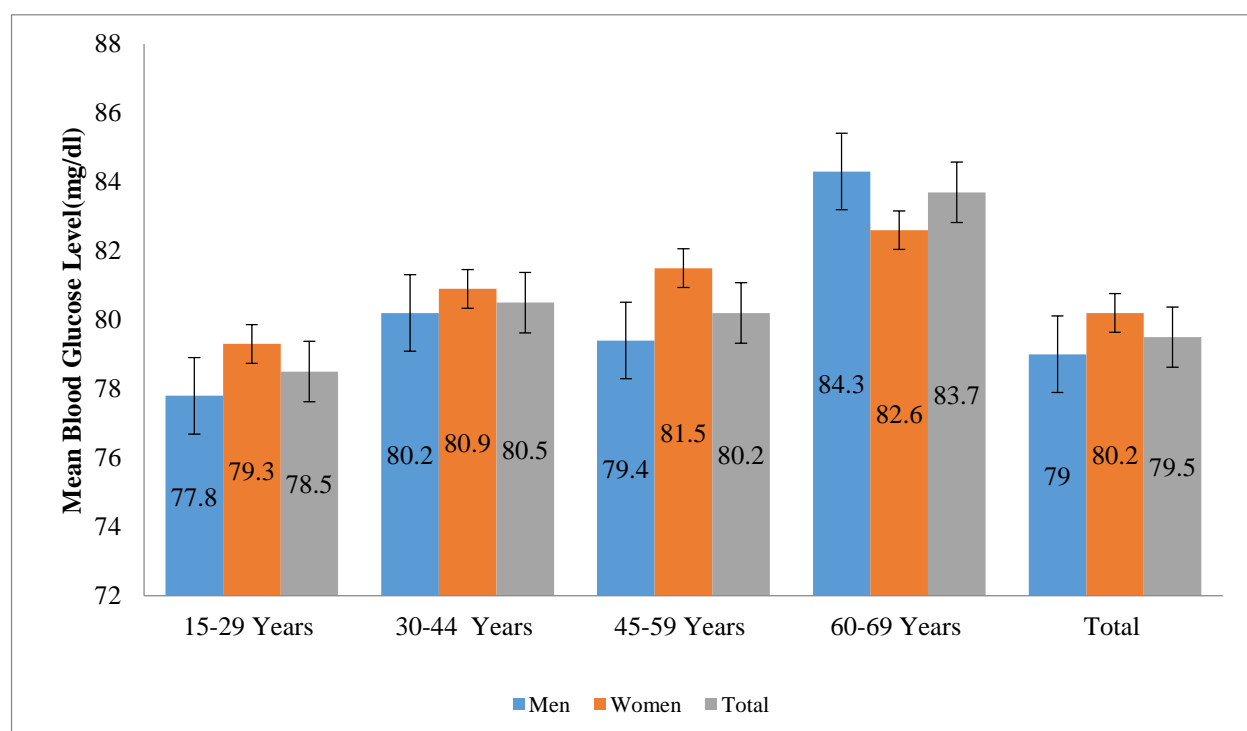
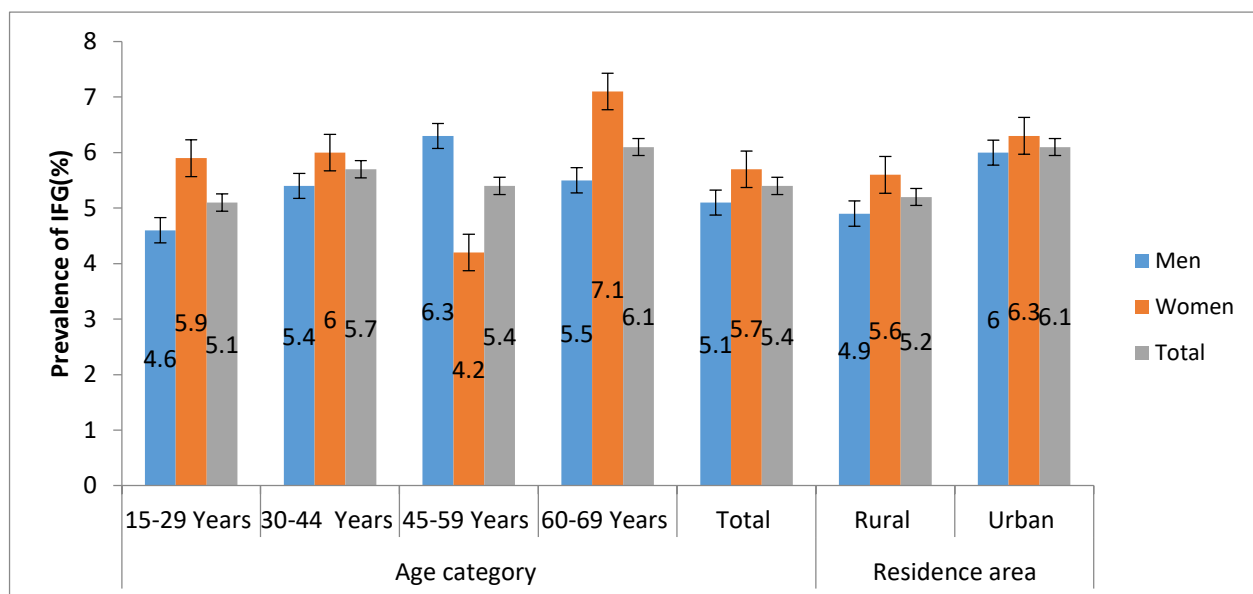


Figure 12.1 Mean fasting blood glucose level (mg/dl), by sex and age group, Ethiopia NCD STEPS, 2015

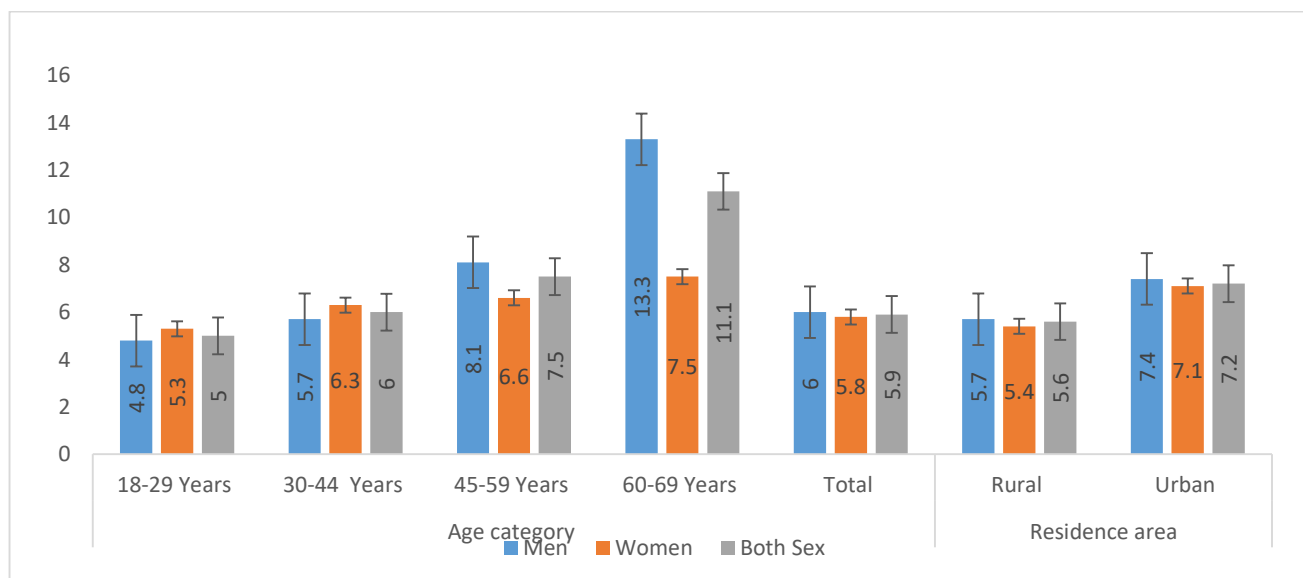
The percentage of participants with IFG was analysed based on the fasting blood glucose limits (Impaired fasting glycaemia is defined as either plasma venous value: \geq 6.1mmol/L (110mg/dl) and <7.0mmol/L

(126mg/dl) or capillary whole blood value: ≥ 5.6 mmol/L (100mg/dl) and < 6.1 mmol/L (110mg/dl)). Non-fasting subjects and pregnant women were excluded due to physiological changes. 5.4 % of the study population was found to have IFG: it was detected 5.1 % in men (95% CI: 3.9-6.3), and 5.7 % in women (95%CI: 4.6–6.8). This indicated that the prevalence was higher among women. Levels of IFG were found to differ among age groups, with higher prevalence among people age 60–69 years. In addition, more urban respondents had IFG compared to their rural counter parts (6.1% versus 5.2%) (Figure 12.2).



* Impaired fasting glycaemia is defined as capillary whole blood value: ≥ 100 mg/dl and < 110 mg/dl
 Figure 12.2 Prevalence of IFG, by sex, age group, and area of residence, Ethiopia NCD STEPS, 2015

A total of 5.9 % of the study population had a blood glucose level of greater than 110 mg/dl, with 6% (95% CI: 4.7-7.2) in men, and 5.8 % (95% CI: 4.6-7.0) in women. The proportion of the study population with raised blood glucose values was found to increase from 4.8% (95% CI: 3.1-6.6) in the age group 15–29 years to 13.3 % (95% CI: 8.2-18.4) in those age group 60–69 years men (Figure 12.3).



** Raised blood glucose is defined as capillary whole blood value ≥ 110 mg/dl

Figure 12.3 Prevalence of raised blood glucose or currently taking medication for diabetes, by sex age group, and residence area, Ethiopia NCD STEPS, 2015

Table 12.1 Shows that in general from 5.9 % with raised blood glucose, 0.5% were currently on medication for diabetics either insulin or other medications.

Table 12.1 Currently on medication for diabetes, by sex, age group, and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes			
	n	%	95% CI	n	%	95% CI	n	%	95% CI	
15-29	1441	0.1	0.0-0.4	2278	0.3	0.0-0.6	15-29	3719	0.2	
30-44	1438	0.5	0.1-1.0	1937	0.2	0.0-0.5	30-44	3375	0.4	
45-59	781	1.2	0.3-2.2	905	2.0	0.7-3.2	45-59	1686	1.5	
60-69	317	1.3	0.3-2.3	334	1.9	0.6-3.3	60-69	651	1.5	
Place of Residence										
Rural	3200	0.2	0.0-0.4	3631	0.4	0.1-0.7	Rural	6831	0.3	0.1-0.5
Urban	777	1.7	0.6-2.7	1823	1.2	0.6-1.8	Urban	2600	1.4	0.8-2.0
Total	3977	0.4	0.2-0.7	5454	0.6	0.3-0.8	Total	9431	0.5	0.3-0.7

12.2. Total cholesterol

The mean total cholesterol level among all study participants including those currently taking medications for increased total cholesterol was 130.9 mg/dl (95% CI: 129.3-132.6). Table 10.2 shows that, mean total cholesterol was higher in women 139.2mg/dl (95% CI: 137.0-141.3) compared to men 124.4 mg/dl (95% CI: 122.6 - 126.1), urban area 143.3mg/dl (95% CI: 139.8-146.8) versus rural area 128.1 mg/dl (95% CI: 126.5-129.7), and 45-59 age group 144.0 mg/dl (95% CI: 141.1-147.0). In general mean total blood cholesterol levels tended to increase with age in both sexes. (Table 12.2)

Table 12.2 Mean total cholesterol (mg/dL), by sex, age, and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes			
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI	
15-29	1292	117.2	115.3-119.1	2057	132.0	129.4-134.7	3349	123.7	122.0-125.5	
30-44	1305	130.6	128.2-133.1	1790	142.8	140.2-145.4	3095	136.4	134.3-138.6	
45-59	729	136.1	132.6-139.6	834	155.6	152.1-159.1	1563	144.0	141.1-147.0	
60-69	301	135.8	130.7-140.9	315	156.8	151.6-162.0	616	143.6	139.5-147.8	
Place of Residence										
Rural	2943	122.8	121.0-124.5	3377	135.5	133.4-137.6	Rural	6320	128.1	126.5-129.7
Urban	684	133.5	128.1-138.8	1619	151.5	146.7-156.3	Urban	2303	143.3	139.8-146.8
Total	3627	124.4	122.6-126.1	4996	139.2	137.0-141.3	Total	8623	130.9	129.3-132.6

Raised Total Cholesterol

Figure 12.4 shows, both the percentage of respondents that had raised total cholesterol level of ≥ 190 mg/dl, and those with a blood cholesterol level of ≥ 240 mg/dl. Respondents that were currently taking medication for raised cholesterol were also included in these categories. A total of 5.6 % of the study population had a blood cholesterol level of ≥ 190 mg/dl (95% CI: 4.8-6.4). This was 2.4 fold higher in women than in men. Figure 12.4 also indicated that 0.8 % had a blood cholesterol level of ≥ 240 mg/dl (95% CI: 0.6-1.1). This was also higher in women with 3.3 fold compared to men.

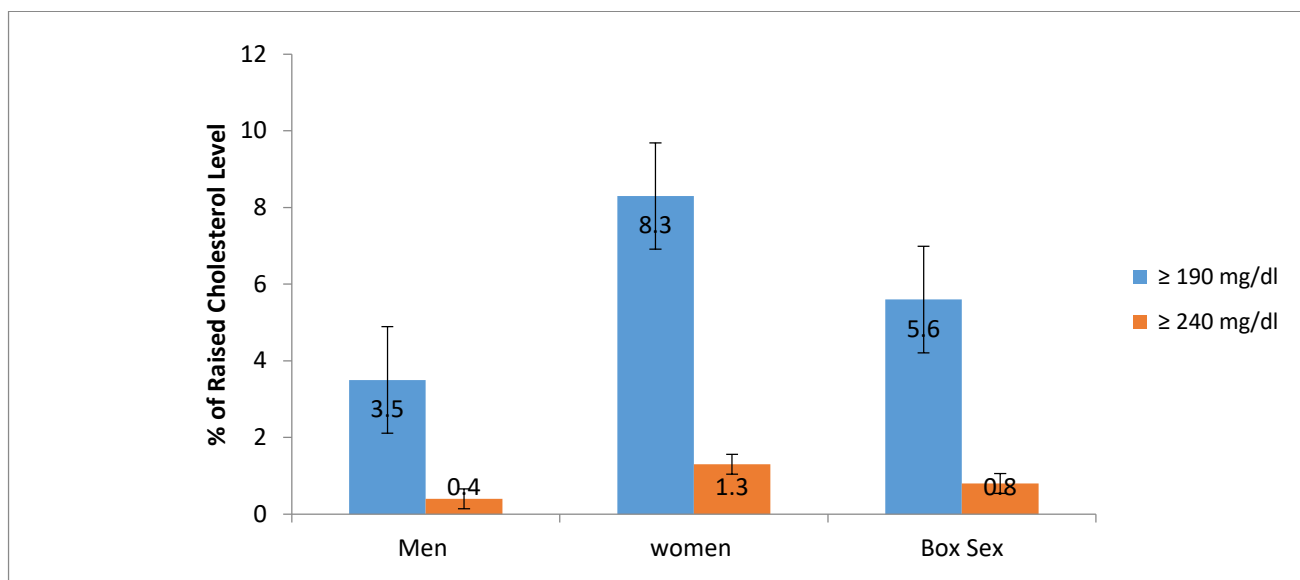


Figure 12.4 Percentage of respondents with a total cholesterol level of ≥ 190 mg/dl and ≥ 240 mmol/L, or currently taking medication for raised cholesterol by sex, Ethiopia NCD STEPS, 2015

12.3. HDL cholesterol

The mean level of HDL cholesterol in all respondents blood was 40.1mg/dl (95% CI: 39.4-40.8), with a higher level found in women (42.9 mg/dl, 95% CI: 42.2- 43.7) than in men (37.9 mg/dl, 95% CI: 37.1-38.7), and also higher in urban residents when compared to rural residents with mean HDL cholesterol level 42.0 mg/dl versus 39.7mg/dl (Table 12.3).

Table 12.3 Mean HDL cholesterol, by sex, age, and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1283	36.4	35.5-37.4	2057	42.4	41.4-43.4	3340	39.1	38.3-39.9
30-44	1299	39.0	37.9-40.1	1782	44.4	43.5-45.4	3081	41.6	40.7-42.5
45-59	723	41.0	39.6-42.3	832	42.1	40.9-43.4	1555	41.4	40.4-42.5
60-69	299	39.1	37.3-40.9	314	42.1	40.0-44.2	613	40.2	38.8-41.6
Place of Residence									
Rural	2922	37.8	36.8-38.7	3369	42.4	41.5-43.2	6291	39.7	38.9-40.5
Urban	682	38.7	37.3-40.1	1616	44.7	43.1-46.3	2298	42.0	40.7-43.3
Total	3604	37.9	37.1-38.7	4985	42.9	42.2-43.7	8589	40.1	39.4-40.8

Percentage of HDL cholesterol level under 40 mg/dl for men respondents were 64.8 % (95% CI: 61.8-67.8), and 73.5 % (95% CI: 71.4-75.6) under HDL cholesterol level of 50 mg/dl for women respondents. Differences between age groups were found both for men and women respondents. (Figure 12.5).

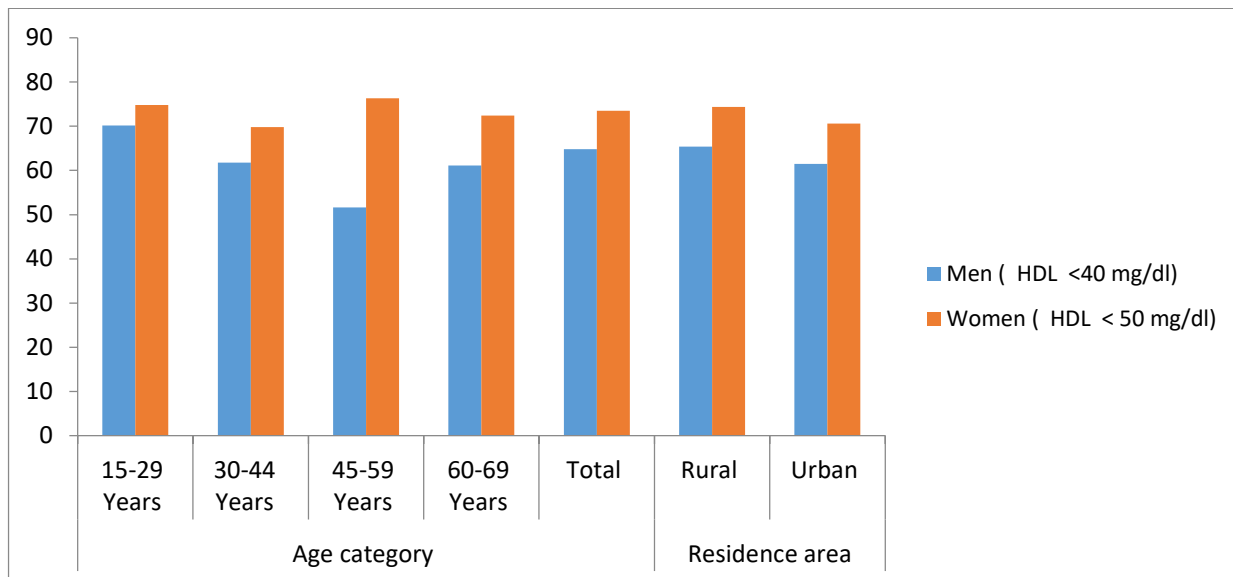


Figure 12.5 Proportion of population with decreased HDL cholesterol, by sex and age, Ethiopia NCD STEPS, 2015

12.4. Fasting triglycerides

The mean fasting triglycerides levels of all respondents were 117.9 mg/dl (95% CI: 114.9-120.8). The mean fasting triglycerides level for men and women was 120.7 mg/dl (95% CI: 116.6-124.7) and 114.3mg/dl (95% CI: 111.5-117.2), respectively. High level of triglycerides was found among age group 45-59, with mean value of 140.1 mg/dl (95% CI: 130.7-149.4) both for women and men. In addition to this, the level of triglycerides of rural residents was lower compared to urban residents (Figure 12.6)

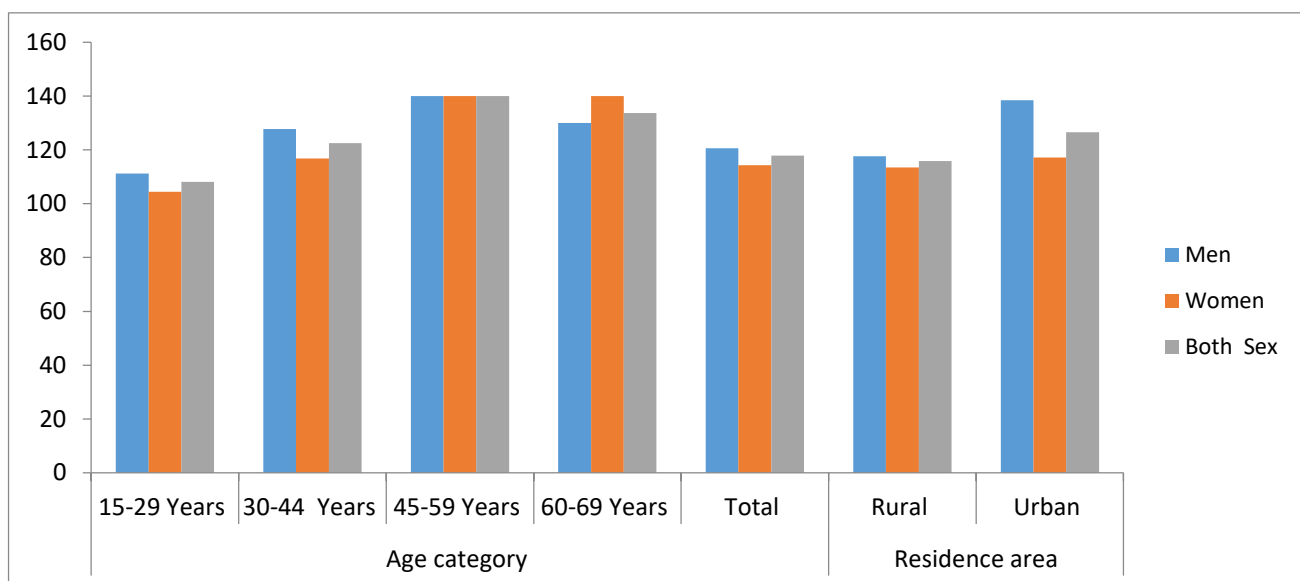


Figure 12.6 Mean fasting triglycerides (mg/dl), by sex, age group, and area of residence, Ethiopia NCD STEPS, 2015

A total of 20.5 % (95% CI: 18.8-22.2) and 11.8 % (95% CI: 10.6-13.1) of the study respondent had a fasting blood triglycerides level of ≥ 150 mg/dl and ≥ 180 mg/dl, respectively. The proportion of triglycerides level in both categories were higher in men than that of women (Figure 12.7 and Figure 12.8).

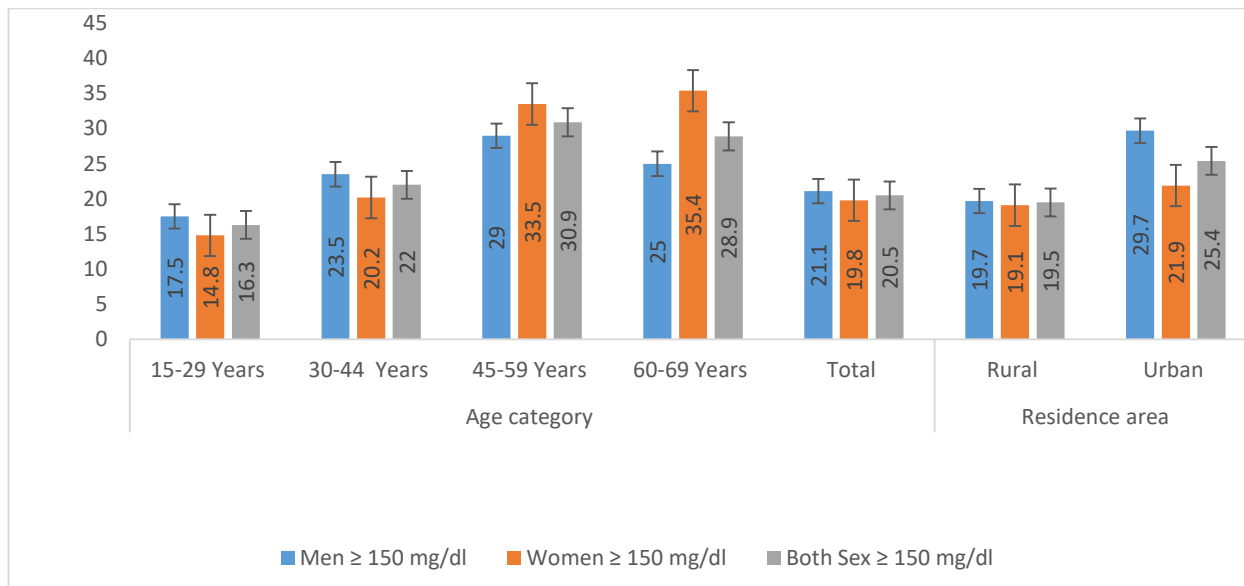


Figure 12.7 Percentage of respondents with fasting triglycerides ≥ 150 mg/dl, by sex, age group, and area of residence, Ethiopia NCD STEPS, 2015

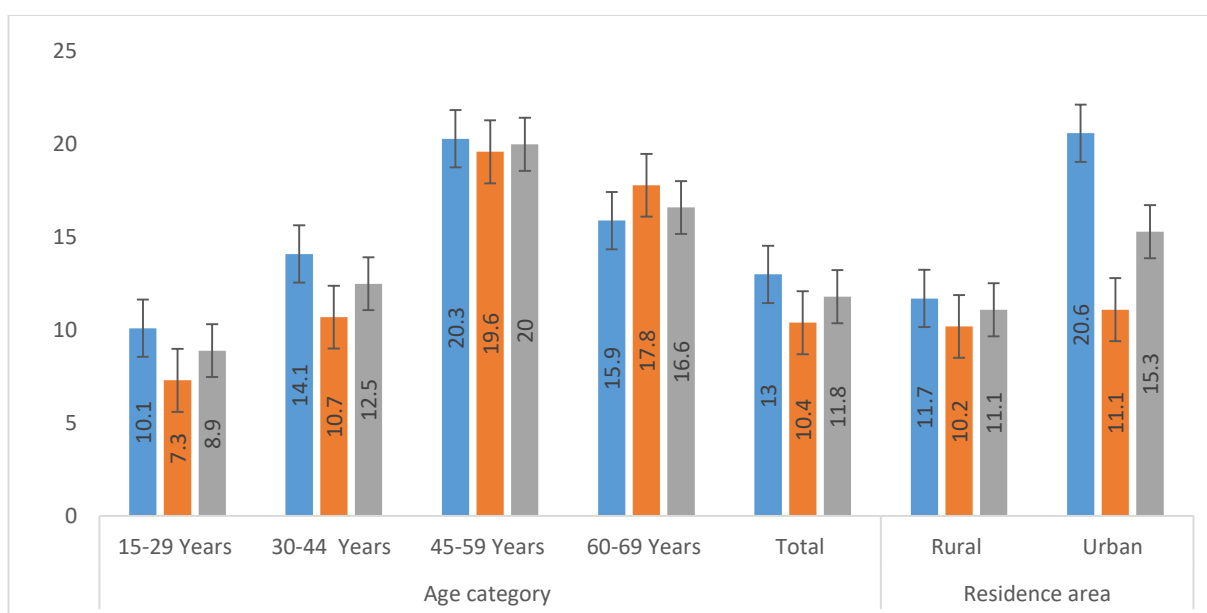


Figure 12.8 Percentage of respondents with fasting triglycerides ≥ 180 mg/dl, by sex, age group, and area of residence, Ethiopia NCD STEPS, 2015

12.5. Salt intake

Sodium is an essential nutrient to maintain physiological homeostasis. However, excessive sodium intake is associated with elevation of blood pressure and greater risk of cardiovascular disease and stroke. Salt provides our body with the vital mineral sodium, that works together with potassium, (a mineral naturally contained in our body cells) to maintain normal blood pressure and normal function of muscles and nerves. The WHO recommendation on sodium consumption is <2 g/day (5g of salt per day). This is because sodium is associated with fluid retention in the body cells, resulting to high-risk onset of increased blood pressure leading to hypertension and cardiovascular diseases. Reducing salt intake has been identified as one of the most cost effective measures a country can take to improve population health outcomes. Sodium intake can be estimated indirectly either from questionnaire or food consumption data, or directly by the measurement of urinary excretion. Dietary survey methods are used to obtain data on food consumption as reported on questionnaire or at interview, which are then converted into nutrient intakes estimated from standardized food tables. Such methods are prone to numerous errors including reporting errors, inaccurate

or incomplete food composition tables, coding errors, and sampling bias (15). Because of the problems of underestimation of sodium intakes based on dietary surveys in most studies (notwithstanding the notable exceptions above), and given that chemical analysis of duplicate diets is not a viable option for studies with more than a few individuals, 24-hour urinary sodium excretion has become the “gold standard” method of obtaining data on sodium intakes in population surveys(15). Nevertheless, because of the logistic complexity, excessive respondent burden, and high cost of conducting 24-h urine collections in a national survey, alternative strategies to monitor sodium intake at the population level was recommended by different studies. Walker et al. (1979) reported significant correlations between Na+:Cr ratios in spot urine and 24-hour urine collections (16). More recently, in an analysis of the 10, 079 men and women from 52 population samples of the INTERSALT Study, Elliott et al. (1992) found the ratio of sodium to creatinine assessed by spot urine to be positively correlated with sodium excretion from an independent 24-hour collection ($r = 0.82$ between population samples and $r = 0.37$ between individuals) (17). Khaw et al. (2004) reported similar estimates of mean sodium excretion based on spot urines and repeated 24-hour urine collections (18). Levels of sodium and creatinine in spot urine samples were used in STEPS to estimate population 24 hour salt intake, using the INTERSALT equation, The 24 hour sodium values in mmol are divided by 17.1 in order to get grams of salt.

Overall, average daily salt intake was 8.3 grams (95% CI 8.2-8.4) per person per day. Salt intake was higher in men (9.0 grams daily, 95% CI 8.9-9.1) vs. women (7.4 grams daily, 95% CI 7.3-7.4) respondents. There is no difference in the average salt intake among urban (8.0 g/day) and rural (8.3 g/day) residents (Table 12.4).

Table 12.4 Mean salt intake (g/day), by sex, age, and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Mean salt intake (g/day)								
	Men ¹			Women ²			Both Sexes		
n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI	
15-29	1020	8.8	8.6-8.9	1633	7.3	7.2-7.4	2653	8.1	8.0-8.2
30-44	1019	9.2	9.1-9.4	1412	7.6	7.4-7.7	2431	8.4	8.3-8.5
45-59	559	9.2	9.0-9.4	650	7.4	7.2-7.5	1209	8.5	8.3-8.6
60-69	226	9.5	9.2-9.8	242	6.5	6.2-6.7	468	8.4	8.1-8.7
Place of Residence									
Rural	2272	9.0	8.9-9.2	2665	7.4	7.3-7.5	4937	8.3	8.2-8.4
Urban	552	8.7	8.4-9.0	1272	7.3	7.2-7.5	1824	8.0	7.8-8.1
Total	2824	9.0	8.9-9.1	3937	7.4	7.3-7.4	6761	8.3	8.2-8.4

¹ Estimated 24 hour sodium (Na) intake in mmol for males: $23.51+0.45*\text{spot Na concentration (mmol/L)} -3.09*\text{spot creatinine concentration (mmol/L)}+4.16*\text{BMI}+0.22*\text{Age}$

² Estimated 24 hour sodium (Na) intake in mmol for females: $3.74+0.33*\text{spot Na concentration (mmol/L)}-2.44*\text{spot creatinine concentration (mmol/L)}+2.42*\text{BMI}+2.34*\text{Age} -0.03*\text{Age}^2$

Conclusions

1. Mean fasting blood glucose level was 79.5mg/dl and was found to increase with age for both sexes.
2. One in 19 individuals (5.4 %) were categorized as having IFG, with a higher prevalence in women than in men, and thus a higher risk for CVD.
3. Almost 6% of study participants had raised blood glucose and diabetes.
4. Mean blood cholesterol level was 130.9 mg/dl and tended to increase with age for both sexes. In addition to this, the mean level of cholesterol was higher in urban than rural area.

5. Mean fasting triglycerides level of the study participants were 117.9 mg/dl and found to increase in men than women
6. 64.8 % of men had a decreased level of HDL cholesterol level and 73.5 % of women had a decreased level of HDL
7. Daily salt intake was 8.3 grams per person with men using on average 1.6 more grams of salt compared to their women counterparts.

13. Summary of risk factors

13.1 Cardiovascular disease (CVD) risk

Respondents in the age group 40–69 years were assessed to establish those with a 10-year CVD risk of $\geq 30\%$, and those with existing CVD. A 10-year CVD risk of $\geq 30\%$ is defined according to age, sex, blood pressure, smoking status (current smokers or individuals who stopped smoking less than one year before the assessment), total cholesterol, and diabetes (previously diagnosed or with a fasting plasma glucose concentration of >126 mg/dl). The percentage of respondents in the age group 40–69 years falling within the category of 10-year CVD risk of $\geq 30\%$ or with existing CVD was 4.7% (95% CI: 3.5–5.8). Prevalence of this was higher among women at 6.0% (95% CI: 4.3–7.7) than among men at 3.7% (95% CI: 2.4–5.0). Among respondents in the age group 40–54 years, 5.0% (95% CI: 3.6–6.4) are more likely to have a 10-year CVD risk of $\geq 30\%$ or existing CVD, compared with 3.9% (95% CI: 2.3–5.4) for this indicator in the age group 55–69 years (Table 13.1).

Table 13.1 Percentage of respondents with a 10-year CVD risk $\geq 30\%$ or with existing CVD by sex, age group and area of residence, Ethiopia NCD STEPS, 2015

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	N	%	95% CI
40-54	882	4.3	2.6-5.9	1091	6.0	3.9-8.1	1973	5.0	3.6-6.4
55-69	463	2.6	1.0-4.2	507	5.9	3.4-8.4	970	3.9	2.3-5.4
Place of Residence									
Rural	1080	3.5	2.1-5.0	1035	6.0	3.9-8.1	2115	4.5	3.2-5.8
Urban	265	4.6	1.2-8.0	563	5.9	3.0-8.7	828	5.3	2.9-7.6
40-69	1345	3.7	2.4-5.0	1598	6.0	4.3-7.7	2943	4.7	3.5-5.8

¹ A 10-year CVD risk of $\geq 30\%$ is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0 mmol/l (126 mg/dl)).

Of the aforementioned group of respondents (40–69 years old, with a 10-year CVD risk of $\geq 30\%$, including those with existing CVD), 11.5% (95% CI: 5.3–17.7) were receiving drug therapy (taking statins (Lovastatin/Simvastatin/Atorvastatin or any other statin) and counselling to prevent heart attacks and strokes. Counselling was defined as receiving advice from a doctor or other health worker to stop smoking or not to start; reduce salt in diet; eat at least five servings of fruit and/or vegetables per day; reduce fat in diet; start or do more physical activity; maintain a healthy body weight; or to lose weight. There was an observed difference between the various age groups and place of residence (Figure 13.1).

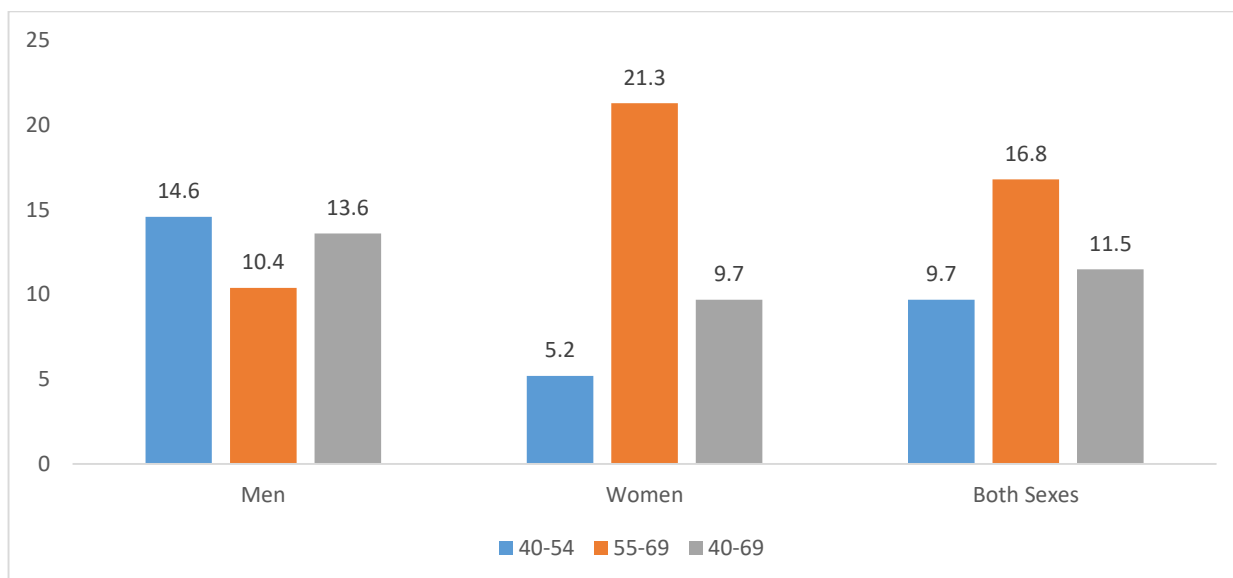


Figure 13.1 Percentage of eligible individuals receiving drug therapy and counselling to prevent heart attacks and strokes by sex, , Ethiopia NCD STEPS, 2015

Conclusions

1. The prevalence of individuals aged 40–69 years with a 10-year CVD risk of ≥ 30 percentage or with existing CVD constituted 4.7%. Of these, 11.5% were receiving drug therapy and counselling to prevent heart attack and stroke.

13.2 Summary of combined risk factors

Combined CVD risk factors were analysed in the study population. Based on the interview results, and physical and biochemical measurements, the following risk factors were used:

- Current daily smoking;
- Fewer than five servings of fruit and/or vegetables per day;
- Not meeting WHO recommendations on physical activity for health (<150 minutes of moderate activity per week, or equivalent);
- Overweight or obese (BMI ≥ 25 kg/m²);
- Raised blood pressure (SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg, or currently taking medication for raised blood pressure).

The percentage of respondents with 0, 1–2 or 3–5 risk factors by sex and age group were presented in Figure 13.2. Only 1.6% (95% CI: 0.9-2.3) of the study population was found to be totally free of established NCD risk factors. Hence, 94.0% (95% CI: 93.0-94.9) of the respondents had 1–2 risk factors; and 4.4% (95% CI: 3.7-5.1) had 3–5 of the risk factors listed. Prevalence of 3–5 combined risk factors was higher in the age group 45–69 years (9.4%, 95% CI: 7.6-11.1), while prevalence of 1–2 risk factors was higher in the age group 15–44 years (95%, 95% CI: 94.0-95.9). A higher proportion of individuals in urban areas had 3–5 risk factors (11.3%, 95% CI: 8.9-13.6) than rural areas (2.8%, 95% CI: 2.2-3.4). (Annex 2). None of the above-mentioned risk factors were identified in 1.2% of men (95% CI: 0.5-1.9), and the percentage of women with none of the risk factors was 2.1% (95% CI: 1.3-2.9).

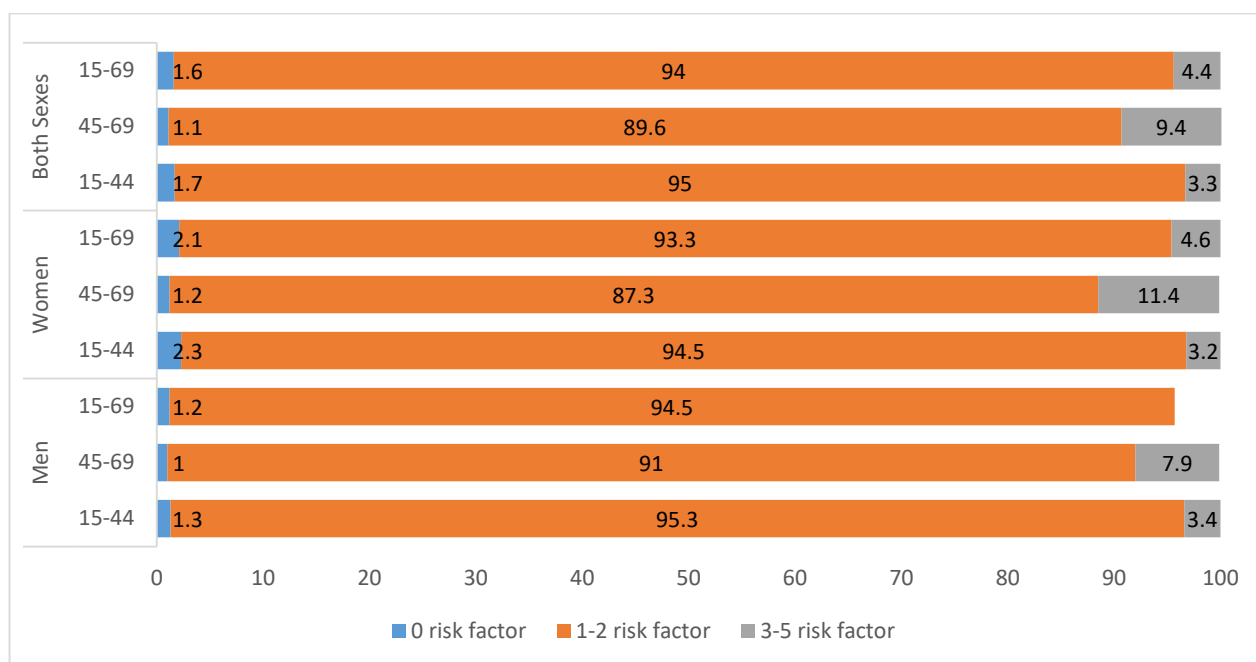


Figure 13.2 Summary of combined risk factors, by sex and age group, Ethiopia NCD STEPS, 2015

14. Factors associated with raised blood pressure and glucose

To identify the association of raised blood pressure (SBP \geq 140 and/or DBP \geq 90), and raised blood glucose (a capillary whole blood value \geq 110mg/dl or currently on medication for DM) with demographic, and behavioural risk factors, bi-variate and multivariate logistic regression analysis was conducted. After performing bi-variate analysis, based on the significance levels and categories of risk factors (modifiable and non-modifiable risk factors) of each independent variable multivariate analysis was conducted). Among the non-modifiable factors, age and sex of respondent were associated with hypertension. Based on the finding, the risk of developing raised BP (SBP \geq 140 and/or DBP \geq 90) is significantly associated with being woman (OR=1.31, 95% CI: 1.17-1.46), and being older (OR=1.7, 95% CI: 1.64-1.83). Women were 1.3 times more likely to have raised blood pressure than men were.

Among modifiable risk factors, place of residence and vigorous physical activities were significantly associated ($p\leq 0.001$) with raised blood pressure (SBP \geq 140 and/or DBP \geq 90); while other demographic and behavioural risk factors like ; ever consumed alcohol, not doing vigorous physical activities, and adding salt to food were also significantly associated ($p<0.05$) in bivariate analysis. Among the modifiable risk factors living in rural areas(41%), those who didn't consume alcohol(13%), and those who add salt sometime or never in their diet(13%) had a decreased risk of developing raised BP (SBP \geq 140 and/or DBP \geq 90). (

Table 14. 1).

Table 14. 1 Bi-variate and multivariate analyses of demographic and behavioural risk factors associated with raised blood pressure¹, Ethiopia NCD STEPS, 2015

Variables		No. Cases	Bivariate		Multivariate	
			χ^2	P-value	Adj. OR	95% CI
Sex	Men (Ref.)	3977	11.7	0.001*	1	1
	Women	5454			1.31	(1.17 1.46)**
Age group	15-29(Ref.)	3719	401.1	0.0001*	1	1
	30-44	3375			2.023	(1.77, 2.32) **
	45-59	1686			3.142	(2.7, 3.66) **
	60-69	651			5.561	(4.59, 6.74) **
Place of residence	Urban(Ref.)	2655	108.1	0.0001*	1	1
	Rural	7005			0.59	(0.52 0.66)**
Ever consumed Alcohol	Yes	4226	7.9	0.005*	1	1
	No	5200			0.87	(0.78 0.97)**
Do vigorous physical activities	Yes	4278	28.5	0.0001*	1	1
	No	5144			1.20	(1.05 1.31)**
Do vigorous Recreational activities	Yes	415	3.7	0.047*	1	1
	No	9006			1.36	(1.03 1.79)**
Frequency of adding salt to food	Always (Ref.)	5763	3.9	0.047*	1	1
	Sometime or Never	3660			0.87	(0.79 0.97)**
Current smoker	Yes	641	1.1	0.303	1.03	(0.82 1.29)
	No	8786				
Ever chewed Khat	Yes	1837	0.1	0.750	1	1
	No	7584				

*Statistically significant at 0.05 for bivariate

** Statistically significant if CI doesn't contain 1 for multivariate

¹ raised blood pressure is SBP \geq 140 and/or DBP \geq 90) or currently on medication

Raised blood glucose (a capillary whole blood value \geq 110mg/dl or currently on medication for DM) was also associated with modifiable and non-modifiable risk factors in bivariate and multivariate analysis.

Based on the finding, among the non-modifiable risk factors the risk of developing raised blood glucose (a capillary whole blood value \geq 110mg/dl or currently on medication for DM) was significantly associated with being older (OR=1.34, 95% CI: 0.84-1.16).

Among the modifiable risk factors, place of residence, consuming alcohol, adding salt to food, and raised BP were significantly associated ($p\leq 0.001$) with raised blood glucose (a capillary whole blood value \geq 110mg/dl or currently on medication for DM); while other demographic and behavioural risk factors such as; not doing vigorous physical activities, and chewing chat were also significantly associated ($p<0.05$) in the bi-variate analysis. Based on the findings in multivariate logistic regression analysis, living

in rural areas (30%), those who didn't consume alcohol (60%), and those who add salt sometime or never in their diet (41%), those who didn't chew khat (24%), and those who don't have raised blood pressure (40%) had a decreased risk of developing raised blood glucose (a capillary whole blood value ≥ 110 mg/dl or currently on medication for DM).(Table 14. 2)

Table 14. 2 Bi-variate and multivariate analyses of demographic and behavioural risk factors associated with raised blood glucose¹, Ethiopia NCD STEPS, 2015

Variables		No. Cases	Bi-variate		Multivariate	
			χ^2	P-value	Adj. OR	95% CI
Sex	Men (Ref.)	3575	0.03	0.850	0.99	(0.84 1.16)
	Women	4949				
Age group	15-29(Ref.)	3325	54.79	0.0001*	1.34	(1.24 1.46)**
	30-44	3062			1.28	(1.05 1.56)**
	45-59	1532			1.79	(1.43 2.24)**
	60-69	605			2.38	(1.79 3.56)**
Place of residence	Urban(Ref.)	2250	12.53	0.0001*	0.70	(0.59, 0.84)**
	Rural	6276				
Ever consumed Alcohol	Yes	3821	33.2	0.0001*	1.60	(1.35, 1.89)**
	No	4701				
Do Vigorous physical activities	Yes	3897	6.7	0.009*	1.11	(0.93, 1.31)
	No	4724				
Do Vigorous Recreational activities	Yes	374	1.07	0.299	1.22	(0.80, 1.87)
	No	8147				
Frequency of adding salt to food	Always (Ref.)	5201	41.7	0.0001*	0.59	(0.50, 0.69)**
	Sometime or Never	3321				
Current smoker	Yes	556	2.9	0.087	0.77	(0.57, 1.06)
	No	7967				
Ever Chewed Chat	Yes	1641	9.13	0.003*	0.76	(0.65, 0.95)**
	No	6880				
Family History of DM	Yes	254	0.54	0.460	0.99	(0.63, 1.54)
	No	8267				
Raised BP or Currently on Medication	Yes	1626	15.7	0.0001*	1.40	(1.15, 1.68)**
	No	6900				

*Statistically significant at 0.05 for bivariate

** Statistically significant if CI doesn't contain 1 for multivariate

¹ raised blood glucose is a capillary whole blood value ≥ 110 mg/dl or currently on medication for DM

15.Recommendations and conclusion

15.1. Conclusion

This national survey has found the magnitude of the major NCD risk factors like behavioural risk factors (tobacco use, alcohol consumption, low fruit and vegetable consumption, khat consumption, and physical inactivity) and biological risk factors (overweight, obesity, raised blood pressure, raised blood glucose and abnormal lipids). Most of the behavioural risk factors, such as tobacco use, alcohol consumption, khat

consumption, were more prevalent among men than women. However, the biological risk factors, such as obesity, impaired fasting glycaemia, and raised total cholesterol were more prevalent among women than men were. The percentage of current tobacco users (daily, and non-daily) tobacco in either smoke or smokeless were 4.2% with a significant gender difference, more men population (7.3%) was found to be consuming tobacco than women (0.4%). Furthermore, four in ten (47% men versus 34% women) of the population was found to consume alcohol currently (drank alcohol in the past 30 days) prior to the survey. Among all respondents, the percentage of current khat chewer (daily and non-daily chewer) was 15.8 percent (more than half of them were daily chewers) with more men current khat chewer (21.1 %) than the than women (9.4 %). Although fruit and/or vegetable consumption is extremely low, (2.4% consumed five or more serving of fruits and vegetable) in the population, fruit and vegetable consumption (11.7 %), alongside reduction of fat and salt in the diet (13.3%) were the most frequent health advice topics addressed by a doctor or health worker to the survey respondents. As observed from their perceptions, eight in ten of the survey respondents perceived that consumption of high levels of salt poses serious health risks and more than six in ten perceived it is very impotent to lower salt in diet. The percentage of respondents not meeting WHO recommendations on physical activity for health (respondents doing less than 150 minutes of moderate-intensity physical activity per week, or equivalent) were low (5.8%). More than three percent of the population ever has a heart attack or chest pain from heart disease (angina) or a stroke. Majority of the respondents had never measured or diagnosed for their, blood pressure, blood sugar, and blood cholesterol, and women were also never screened for cervical cancer.

Sixteen percent of population has raised blood pressure; of these 1.3% were taking medication but still has increased blood pressure. A total of 5.4 % of the population had impaired fasting glycaemia and 5.6 % of the population has a blood cholesterol level of ≥ 190 mg/dl.

Only 1.6% of the study population was found to be totally free of established NCD risk factors. Hence, a massive 98.4% has at least one risk factor. This indicates that the burden of NCDs is likely to become unbearable in future if the Ethiopian government does not address the issue in time. Based on a number of risk factors (age, sex, smoking status, raised blood pressure, raised blood glucose and raised total cholesterol), the proportion of 40–69 year old adults with a 10-year risk of cardiovascular disease $\geq 30\%$ was also substantial at 4.7%.

Among the demographic and behavioural risk factors sex of respondent, age group, area of residence, not engaged in vigorous physical activity, alcohol consumption, vigorous recreational activities, and adding salt to food have significant association with raised blood pressure. Risk of developing raised BP was higher among elders and women, whereas, living in rural areas, avoiding consumption of alcohol and salt in the diet have a decreased risk of developing raised BP.

Among the demographic and behavioural factors (age group, area of residence, alcohol consumption, adding salt to food, not engaged in vigorous physical activity, chewing chat) and biological risk factors (raised BP or currently on medication) were significantly associated ($p < 0.001$) with raised blood glucose. Overall, modifiable behaviours like, living in rural areas, avoiding consumption of alcohol, limiting salt intake, avoid chewing khat, having decreased blood pressure have decreased risk of developing raised

blood glucose.

15.2. Recommendation

This national NCD risk factor survey provides information on key indicators of NCD risk factors. The findings will be useful to policy makers, programme managers and researchers in the design and implementation of interventions for the prevention and control of NCD risk factors. In order to reduce the risks associated with NCDs, as well as to promote interventions to prevent and control them, a comprehensive approach is needed that involves all sectors. This includes ministries of health, education, agriculture, youth, women and children affair, sport commission, Ministry of Urban Development , Housing and Construction , Ministry of Trade, Revenue and Customs Authority, Road and Transport , office of the Prime Minister, standards agency, FMHACA, Ethiopian Broadcasting Agency, among others. The attention of other development partners is also required in this fight against NCDs in Ethiopia. In the present survey 95% of the study participants with 1-2 NCD risk factors and a forecast of the disease burden prevailing in urban population. Modifying the lifestyle like avoiding consumption of alcohol, limiting salt intake, avoid chewing khat are highly recommended to decrease the risk of developing raised blood pressure and glucose.

Based on the findings, the following specific recommendations are made:

Policy makers

- Revise and implement the existing NCD prevention and control strategy immediately to address the burden of NCD risk factors in Ethiopia.
- In actions under this prevention and control strategy, coordinate and collaborate with non-health sectors such as education, agriculture, broadcasting agency and involve other development partners.
- The upcoming new health sector transformation plan should address the issue of NCDs and their risk factors, including ensuring access to primary health care services for the early detection of biological risk factors and the promotion of healthy behaviours.
- Planners involved in developing Ethiopia's new health sector transformation plan should incorporate a strong mechanism to promote healthy behaviour in order to reduce behavioural risk factors, as well as provisions for early diagnosis and the management of biological risk factors for NCDs.
- Effectively implement the Framework Convention on Tobacco Control (FCTC) as well as the Tobacco Control Act and policy together with strong monitoring mechanisms.
- Adopt a national response to restrict distribution and use of selected NCD risk factors such as khat, alcohol and processed foods and fats and to promote fruit and vegetable consumption from lessons learned of the FCTC
- There should be an enhanced supportive mechanism from external development partners to tackle the current burden of NCD risk factors.

Programme managers

- Re-orientate the primary health care system towards the early detection and treatment of

hypertension and diabetes.

- Design and implement special and innovative behaviour change communication strategies tailored to different demographic groups in order to create public awareness to promote healthy behaviours and reduce risk factors.
- Integrate NCD prevention programmes in primary health care units with other health care programmes and ensure access to this by community people.
- Strengthen behavioural change and communication to inform the public about NCDs and their risk factors, bring awareness on the health risks associated with smoking and smoke cessation, drinking, benefits of eating fruits and/or vegetables, physical exercise, avoiding chewing khat, and regular visit for normal medical check.
- Formulate strategies to promote the accessibility, availability and consumption of fruit and vegetables by all people.
- Strengthen and support programs preventing youths from engaging in substance use and abuse, including alcohol.

Researchers

- Assess interventions to promote healthy behaviours and reduce the burden of NCD risk factors in order to provide evidence generated locally for the implementation of NCD prevention and control activities by policy makers and programme managers.
- Evaluate the effectiveness of programmes implemented to prevent and control NCDs and NCD risk factors.
- Disseminate and utilize findings of survey to inform non-communicable disease related program planning and actions.
- Strengthening community-based risk factor surveillance system and utilizing collected morbidity and mortality data through the existing system that lead to in depth analysis for follow up and future action.
- Conduct further analyses of the data, such as exploring relation of different characteristic of the population with determinant factors like socio-demographic, behavioural, and bi-chemical measurements.
- Related surveillance and pocket size studies are highly recommended to see the overall risk behaviours of younger age groups, including institution and areas where these age groups gather and get the exposure exercising risky behaviour.
- Strengthening the capacity of health facilities enable them to offer the services related to NCDs and ensure that the health system adequately monitors compliance with national standards.

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Annexes

Annex 1: Regional analysis for selected variables

Table 1. Distribution of current (past 30 days) alcohol drinkers' status, by sex and region,, Ethiopia NCD STEPS, 2015.

Region	Men			Women			Both sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Addis Ababa	158	46.0	33.4-58.6	656	30.6	23.8-37.3	814	35.3	28.5-42.1
Afar	176	3.2	0.0-7.2	208	0.9	0.0-2.3	384	2.2	0.0-4.9
Amhara	827	75.4	69.8-81.1	1039	66.0	59.6-72.3	1866	71.3	65.8-76.8
Benishangul Gumuz	184	36.2	21.6-50.8	199	34.6	18.3-50.9	383	35.5	22.1-48.8
Dire Dawa	96	14.4	0.0-32.7	161	35.6	9.0-62.2	257	26.6	0.8-52.4
Gambela	147	54.2	35.4-73.0	148	17.4	11.1-23.7	295	35.1	25.2-45.0
Harari	88	0.5	0.0-1.6	126	2.2	0.5-4.0	214	1.3	0.0-2.6
Oromiya	995	29.4	23.3-35.6	1313	15.9	11.1-20.7	2308	23.3	18.1-28.6
SNNPR	730	26.8	21.0-32.6	975	9.9	6.7-13.1	1705	19.3	15.2-23.5
Somali	215	4.4	0.0-9.4	400	5.7	0.1-11.3	615	5.1	0.4-9.8
Tigray	595	71.4	64.8-77.9	595	71.4	64.8-77.9	954	80.0	74.4-85.5
TOTAL	5820	33.5	30.3-36.7	5820	33.5	30.3-36.7	9795	40.7	37.4-43.9

Table 2. Percentage of respondents who always or often add salt to their food when cooking or preparing foods at home, by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Addis Ababa	146	56.6	39.9-73.3	652	53.2	41.1-65.2	798	54.2	41.7-66.6
Afar	176	44.6	21.6-67.5	206	50.2	26.1-74.2	382	46.9	25.2-68.5
Amhara	823	77.8	70.0-85.6	1038	76.3	69.0-83.7	1861	77.1	69.9-84.4
Benishangul Gumuz	184	89.8	82.4-97.2	199	93.4	89.4-97.5	383	91.4	86.0-96.9
Dire Dawa	96	97.8	94.7-100.0	161	99.2	97.8-100.0	257	98.6	96.9-100.0
Gambela	146	85.1	71.6-98.6	148	86.1	75.7-96.6	294	85.7	75.4-95.9
Harari	86	89.4	75.1-100.0	126	64.4	42.9-85.9	212	77.1	68.8-85.3
Oromiya	991	76.4	68.3-84.6	1313	90.5	85.6-95.3	2304	82.8	76.6-88.9
SNNPR	726	82.6	75.1-90.2	975	83.8	77.7-89.9	1701	83.2	76.5-89.8
Somali	213	61.8	45.5-78.2	399	71.5	61.5-81.4	612	67.3	56.7-77.8
Tigray	353	73.5	62.1-84.9	595	71.5	60.7-82.4	948	72.5	62.3-82.7
TOTAL	3940	77.6	73.4-81.8	5812	81.5	78.4-84.7	9752	79.4	76.0-82.8

Table 3. Mean number of days on which vegetables consumed in a typical week, by age and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
Addis Ababa	158	1.0	0.8-1.3	656	0.9	0.8-1.1	656	0.9	0.8-1.1
Afar	176	0.6	0.1-1.0	208	0.5	0.0-1.1	208	0.5	0.0-1.1
Amhara	826	0.3	0.2-0.4	1039	0.5	0.4-0.6	1039	0.5	0.4-0.6
Benishangul Gumuz	184	1.5	1.0-1.9	199	1.2	0.9-1.5	199	1.2	0.9-1.5
Dire Dawa	96	0.5	0.4-0.7	161	1.0	0.5-1.4	161	1.0	0.5-1.4
Gambela	146	1.1	0.8-1.5	148	1.4	0.4-2.5	148	1.4	0.4-2.5
Harari	88	0.5	0.0-1.0	126	1.4	0.7-2.0	126	1.4	0.7-2.0
Oromiya	995	0.8	0.7-1.0	1313	0.8	0.6-0.9	1313	0.8	0.6-0.9
SNNPR	730	2.0	1.6-2.5	975	2.0	1.7-2.4	975	2.0	1.7-2.4
Somali	215	1.1	0.5-1.6	400	1.2	0.6-1.8	400	1.2	0.6-1.8
Tigray	359	0.4	0.3-0.6	595	0.5	0.4-0.7	595	0.5	0.4-0.7
TOTAL	3973	0.9	0.8-1.0	5820	1.0	0.9-1.1	5820	1.0	0.9-1.1

Table 4. Percentage of those eating less than five servings of fruit and/or vegetables on average per day by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI
Addis Ababa	158	97.7	95.4-100.0	655	96.7	94.2-99.2	813	97.0	95.2-98.8
Afar	176	99.0	97.1-100.0	208	100.0	100.0-100.0	384	99.4	98.3-100.0
Amhara	826	100.0	100.0-100.0	1038	99.9	99.6-100.0	1864	99.9	99.8-100.0
Benishangul Gumuz	184	97.0	93.0-100.0	199	99.1	97.9-100.0	383	97.9	95.8-100.0
Dire Dawa	96	99.8	99.4-100.0	161	96.4	90.8-100.0	257	97.9	95.1-100.0
Gambela	145	96.3	88.7-100.0	148	99.7	99.2-100.0	293	98.0	94.4-100.0
Harari	88	100.0	100.0-100.0	122	100.0	100.0-100.0	210	100.0	100.0-100.0
Oromiya	995	99.1	98.3-99.8	1313	99.6	99.2-100.0	2308	99.3	98.8-99.8
SNNPR	730	93.0	89.3-96.7	975	87.6	82.8-92.5	1705	90.6	86.8-94.5
Somali	215	99.6	98.9-100.0	400	97.4	94.7-100.0	615	98.4	96.7-100.0
Tigray	359	99.7	99.2-100.0	595	99.7	99.2-100.0	954	99.7	99.4-100.0
TOTAL	3972	98.0	97.2-98.9	5814	97.1	96.1-98.1	9786	97.6	96.8-98.4

Table 5. Proportion of households with type of oil or fat most often used for meal preparation in households by region for both sexes, Ethiopia NCD STEPS, 2015

Type of oil or fat most often used for meal preparation in household								
Region	% Vegetable oil	95% CI	% Lard	95% CI	% Butter	95% CI	% Margarine	95% CI
Addis Ababa	53.0	41.9-64.0	10.7	6.0-15.5	0.5	0.0-1.2	0.0	0.0-0.0
Afar	94.9	90.2-99.5	0.2	0.0-0.5	0.0	0.0-0.0	0.0	0.0-0.0

Amhara	56.7	49.7-63.6	9.3	5.8-12.8	1.7	0.0-3.4	0.0	0.0-0.0
Benishangul Gumuz	59.9	39.2-80.6	0.4	0.0-1.1	4.0	0.1-7.9	0.0	0.0-0.0
Dire Dawa	30.7	17.0-44.3	0.0	0.0-0.0	0.0	0.0-0.0	0.0	0.0-0.0
Gambela	80.5	66.8-94.1	0.7	0.0-1.6	3.6	0.0-10.7	0.0	0.0-0.0
Harari	96.2	92.6-99.8	1.0	0.0-2.2	0.0	0.0-0.0	0.7	0.0-1.9
Oromiya	80.0	73.8-86.2	4.3	1.7-6.9	1.8	0.4-3.2	0.0	0.0-0.0
SNNPR	43.2	36.1-50.3	2.7	1.4-4.0	6.9	2.7-11.0	0.4	0.0-1.0
Somali	74.7	62.5-86.9	1.3	0.2-2.3	0.1	0.0-0.4	0.0	0.0-0.1
Tigray	96.9	95.3-98.6	1.4	0.0-2.8	0.2	0.0-0.4	0.0	0.0-0.0
Total	65.7	62.2-69.1	5.2	3.8-6.6	2.7	1.5-3.8	0.1	0.0-0.2

Table 5. Blood pressure measurement and diagnosis status by region, Ethiopia NCD STEPS, 2015

Region	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
Addis Ababa	814	40.2	35.1-45.3	47.2	43.0-51.5	4.3	2.6-5.9	8.3	6.1-10.5
Afar	384	90.5	82.8-98.2	7.1	0.2-14.0	0.1	0.0-0.2	2.3	0.3-4.3
Amhara	1864	79.7	75.8-83.7	18.6	14.8-22.5	0.5	0.2-0.8	1.1	0.5-1.8
Benishangul Gumuz	383	77.6	70.6-84.6	20.1	14.2-26.1	1.4	0.0-3.5	0.9	0.0-1.8
Dire Dawa	257	83.3	77.3-89.3	12.7	5.9-19.5	1.3	0.0-3.3	2.7	0.4-5.0
Gambela	293	85.4	75.9-95.0	9.5	3.2-15.7	0.3	0.0-0.7	4.8	0.0-12.0
Harari	214	91.7	85.8-97.6	4.1	0.0-8.4	2.0	0.0-4.8	2.2	0.0-4.7
Oromiya	2307	73.7	70.6-76.8	22.7	20.0-25.5	1.3	0.8-1.8	2.3	1.5-3.0
SNNPR	1705	81.4	77.8-85.1	14.8	11.8-17.8	1.5	0.3-2.6	2.3	1.4-3.3
Somali	613	79.6	71.8-87.4	17.1	10.4-23.8	0.8	0.0-1.5	2.5	0.9-4.1
Tigray	954	73.6	69.3-77.9	24.3	20.3-28.2	1.0	0.4-1.6	1.1	0.3-2.0
Total	9788	76.6	74.8-78.5	20.2	18.5-21.9	1.1	0.8-1.5	2.1	1.7-2.4

Table 6. Proportion of Respondents Raised blood pressure treatment results among those previously diagnosed with raised blood pressure by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
Addis Ababa	23	27.5	6.9-48.1	111	21.5	12.0-31.0	134	22.7	13.7-31.7
Afar	5	24.5	0.0-74.8	3	0.0	0.0-0.0	8	16.6	0.0-50.5
Amhara	17	9.4	0.0-24.3	37	21.7	7.0-36.5	54	15.7	4.6-26.8
Benishangul Gumuz	6	28.5	0.0-58.5	5	0.0	0.0-0.0	11	16.4	0.0-37.2
Dire Dawa	5	62.0	6.0-100.0	5	24.0	0.0-56.4	10	31.1	0.0-62.7
Gambela	4	90.7	68.1-100.0	4	54.0	42.5-65.5	8	82.5	52.4-100.0
Harari*				7	34.9	0.0-70.3	7	34.9	0.0-70.2
Oromiya	57	28.1	12.0-44.2	65	26.4	13.2-39.6	122	27.4	16.1-38.6
SNNPR	31	54.0	27.7-80.2	50	21.9	1.5-42.2	81	39.3	20.1-58.6
Somali	7	46.9	0.0-100.0	27	44.8	18.2-71.4	34	45.2	22.0-68.3
Tigray	9	6.6	0.0-20.7	12	21.9	0.0-47.1	21	13.3	0.0-29.5
Total	164	32.7	20.4-45.0	326	23.9	16.7-31.2	490	28.4	20.9-35.8

Harari* No one among men respondents in Harari took medication

Table 7. Percentage of female respondents aged 30-49 years who have ever had a screening test for cervical cancer among all female respondents aged 30-49 years by region, Ethiopia NCD STEPS, 2015

Region	n	1) has been screened	95% CI	2) has not been screened	95% CI
Addis Ababa	654	9.2	6.9-11.4	90.8	88.6-93.1
Afar	202	0.0	0.0-0.0	100.0	100.0-100.0
Amhara	866	2.3	1.0-3.6	97.7	96.4-99.0
Benishangul Gumuz	199	1.2	0.0-2.5	98.8	97.6-100.0
Dire Dawa	159	14.2	0.3-28.2	85.8	71.8-99.7
Gambela	145	1.1	0.0-3.3	98.9	96.7-100.0
Harari	77	3.8	0.0-7.8	96.2	92.2-100.0
Oromiya	1301	1.3	0.5-2.0	98.7	98.0-99.5
SNNPR	952	0.7	0.1-1.3	99.3	98.7-99.9
Somali	381	7.1	3.0-11.1	92.9	88.9-97.0
Tigray	585	0.8	0.0-1.7	99.2	98.3-100.0
TOTAL	5521	1.9	1.4-2.3	98.1	97.7-98.6

Table 8: Percentage of female respondents aged 30-49 years who have ever had a screening test for cervical cancer among all female respondents aged 30-49 years by region, Ethiopia NCD STEPS, 2015 (use Total Line)

Region	n	1) has been screened	95% CI	2) has not been screened	95% CI
Addis Ababa	268	13.8	9.4-18.3	86.2	81.7-90.6
Afar	92	0.0	0.0-0.0	100.0	100.0-100.0
Amhara	363	3.3	0.4-6.2	96.7	93.8-99.6
Benishangul Gumuz	85	0.0	0.0-0.0	100.0	100.0-100.0
Dire Dawa	67	3.0	0.0-7.1	97.0	92.9-100.0
Gambela	48	0.8	0.0-2.4	99.2	97.6-100.0
Harari	32	11.4	5.2-17.6	88.6	82.4-94.8

Oromiya	484	2.1	0.3-3.9	97.9	96.1-99.7
SNNPR	407	0.6	0.0-1.3	99.4	98.7-100.0
Somali	184	4.6	1.4-7.9	95.4	92.1-98.6
Tigray	243	2.3	0.0-5.0	97.7	95.0-100.0
TOTAL	2273	2.7	1.6-3.7	97.3	96.3-98.4

Table 9: Total cholesterol measurement and diagnosis among all respondents, by region, Ethiopia NCD STEPS, 2015

Region	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
Addis Ababa	814	94.8	93.1-96.4	2.9	1.7-4.1	1.1	0.4-1.8	1.3	0.5-2.0
Afar	384	99.6	98.9-100.0	0.4	0.0-1.1	0.0	0.0-0.0	0.0	0.0-0.0
Amhara	1865	99.7	99.4-99.9	0.3	0.0-0.6	0.0	0.0-0.0	0.0	0.0-0.0
Benishangul Gumuz	383	99.7	99.2-100.0	0.3	0.0-0.8	0.0	0.0-0.0	0.0	0.0-0.0
Dire Dawa	257	99.4	98.6-100.0	0.3	0.0-0.8	0.0	0.0-0.0	0.3	0.0-0.9
Gambela	293	99.4	98.7-100.0	0.6	0.0-1.3	0.0	0.0-0.0	0.0	0.0-0.0
Harari	214	100.0	100.0-100.0	0.0	0.0-0.0	0.0	0.0-0.0	0.0	0.0-0.0
Oromiya	2308	99.6	99.2-99.9	0.3	0.1-0.5	0.1	0.0-0.2	0.0	0.0-0.1
SNNPR	1705	99.5	99.1-100.0	0.4	0.0-0.8	0.0	0.0-0.0	0.0	0.0-0.1
Somali	613	98.4	97.1-99.8	1.3	0.1-2.6	0.1	0.0-0.2	0.2	0.0-0.4
Tigray	954	99.8	99.6-100.0	0.1	0.0-0.3	0.1	0.0-0.2	0.0	0.0-0.0
TOTAL	9790	99.5	99.3-99.6	0.4	0.3-0.6	0.1	0.0-0.1	0.1	0.0-0.1

Table 10: Proportion of men respondents who had heart attack/chest pain by region, Ethiopia NCD STEPS, 2015

Region	n	% had heart attack/chest pain	95% CI	% did not have heart attack/chest pain	95% CI
Addis Ababa	158	1.3	0.0-3.3	98.7	96.7-100.0
Afar	176	0.0	0.0-0.0	100.0	100.0-100.0
Amhara	826	1.5	0.5-2.6	98.5	97.4-99.5
Benishangul Gumuz	184	0.0	0.0-0.0	100.0	100.0-100.0
Dire Dawa	96	5.2	0.0-10.7	94.8	89.3-100.0
Gambela	145	2.8	0.0-7.4	97.2	92.6-100.0
Harari	88	0.9	0.0-3.0	99.1	97.0-100.0
Oromiya	995	3.5	2.0-5.1	96.5	94.9-98.1
SNNPR	730	3.5	1.7-5.2	96.5	94.8-98.3
Somali	214	1.4	0.0-2.8	98.6	97.2-100.0
Tigray	359	0.4	0.0-0.9	99.6	99.1-100.0
TOTAL	3971	2.6	1.8-3.3	97.4	96.7-98.2

Table 11: Proportion of women respondents who had heart attack/chest pain by region, Ethiopia NCD STEPS, 2015

Region	n	% had heart attack/chest pain	95% CI	% did not have heart attack/chest pain	95% CI
Addis Ababa	656	4.3	2.6-6.0	95.7	94.0-97.4
Afar	208	2.1	0.0-5.9	97.9	94.1-100.0
Amhara	1039	3.1	1.5-4.8	96.9	95.2-98.5
Benishangul Gumuz	199	0.5	0.0-1.6	99.5	98.4-100.0
Dire Dawa	161	4.0	0.7-7.3	96.0	92.7-99.3
Gambela	148	2.3	0.0-5.0	97.7	95.0-100.0
Harari	126	1.7	0.0-4.5	98.3	95.5-100.0
Oromiya	1313	6.5	4.3-8.8	93.5	91.2-95.7
SNNPR	975	3.6	1.6-5.6	96.4	94.4-98.4
Somali	399	7.0	0.4-13.6	93.0	86.4-99.6
Tigray	595	1.3	0.2-2.4	98.7	97.6-99.8
TOTAL	5819	4.3	3.3-5.3	95.7	94.7-96.7

Table 12: Proportion of both sexes respondents who had heart attack/chest pain by region, Ethiopia NCD STEPS, 2015

Region	n	% had heart attack/chest pain	95% CI	% did not have heart attack/chest pain	95% CI
Addis Ababa	814	3.4	1.9-4.9	96.6	95.1-98.1
Afar	384	0.9	0.0-2.5	99.1	97.5-100.0
Amhara	1865	2.2	1.3-3.2	97.8	96.8-98.7
Benishangul Gumuz	383	0.2	0.0-0.7	99.8	99.3-100.0
Dire Dawa	257	4.5	1.0-8.0	95.5	92.0-99.0
Gambela	293	2.6	0.0-5.7	97.4	94.3-100.0
Harari	214	1.3	0.0-3.4	98.7	96.6-100.0
Oromiya	2308	4.9	3.2-6.6	95.1	93.4-96.8
SNNPR	1705	3.5	1.9-5.2	96.5	94.8-98.1
Somali	613	4.5	0.5-8.6	95.5	91.4-99.5
Tigray	954	0.8	0.2-1.5	99.2	98.5-99.8
TOTAL	9790	3.4	2.6-4.1	96.6	95.9-97.4

Table 13: Proportion of men respondents with Blood sugar measurement and diagnosis among men respondents by region, Ethiopia NCD STEPS, 2015 (Optional)

Blood sugar measurement and diagnosis									
Region	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
Addis Ababa	158	86.0	80.7-91.3	9.9	5.6-14.3	0.7	0.0-1.6	3.4	0.4-6.4
Afar	176	99.0	97.2-100.0	0.3	0.0-0.9	0.0	0.0-0.0	0.6	0.0-1.9
Amhara	826	98.0	96.7-99.2	1.8	0.6-3.0	0.0	0.0-0.1	0.2	0.0-0.4
Benishangul Gumuz	184	97.6	93.9-100.0	1.5	0.0-3.9	0.9	0.0-2.3	0.0	0.0-0.0
Dire Dawa	96	98.5	96.3-100.0	0.7	0.0-2.3	0.0	0.0-0.0	0.7	0.0-2.2

Gambela	145	100.0	100.0-100.0	0.0	0.0-0.0	0.0	0.0-0.0	0.0	0.0-0.0
Harari	88	98.7	96.4-100.0	0.0	0.0-0.0	0.0	0.0-0.0	1.3	0.0-3.6
Oromiyaa	995	97.4	96.3-98.6	2.2	1.2-3.1	0.0	0.0-0.0	0.4	0.0-0.8
SNNPR	730	97.2	95.4-98.9	1.6	0.6-2.7	0.2	0.0-0.6	1.0	0.0-2.1
Somali	214	92.5	87.2-97.9	6.6	1.4-11.7	0.0	0.0-0.0	0.9	0.0-2.3
Tigray	359	98.3	97.1-99.6	1.5	0.4-2.5	0.2	0.0-0.6	0.0	0.0-0.0
TOTAL	3971	97.4	96.7-98.1	2.0	1.4-2.6	0.1	0.0-0.2	0.5	0.2-0.8

Table 15: Proportion of respondents currently taking drugs (medication) prescribed for diabetes among those previously diagnosed, by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
Addis Ababa	10	60.0	26.2-93.9	22	52.2	20.7-83.8	32	55.0	31.8-78.1
Afar	1	0.0	0.0-0.0	1	100.0	100.0-100.0	2	18.4	0.0-78.2
Amhara	4	56.7	0.0-100.0	7	86.4	65.5-100.0	11	75.8	51.3-100.0
Benishangul Gumuz	2	0.0	0.0-0.0				2	0.0	0.0-0.0
Dire Dawa	1	0.0	0.0-0.0	1	100.0	100.0-100.0	2	55.7	0.0-100.0
Gambela				1	100.0	100.0-100.0	1	100.0	100.0-100.0
Harari	2	100.0	100.0-100.0	2	9.1	0.0-42.6	4	52.0	0.0-100.0
Oromiya	7	95.5	84.8-100.0	8	94.7	84.9-100.0	15	95.1	86.3-100.0
SNNPR	12	60.8	22.4-99.2	4	74.7	22.5-100.0	16	62.0	26.3-97.7
Somali	4	51.0	5.5-96.4	5	78.6	35.4-100.0	9	65.6	38.0-93.3
Tigray	1	0.0	0.0-0.0	4	44.8	0.0-100.0	5	37.7	0.0-91.1
Total	44	66.2	45.8-86.6	55	73.6	56.8-90.5	99	69.6	56.0-83.1

Table 16: Currently taking insulin prescribed for diabetes among those previously diagnosed, by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% taking insulin	95% CI	n	% taking insulin	95% CI	n	% taking insulin	95% CI
Addis Ababa	10	58.7	30.0-87.3	22	32.3	0.0-65.6	32	41.6	18.7-64.5
Afar	1	0.0	0.0-0.0	1	100.0	100.0-100.0	2	18.4	0.0-78.2
Amhara	4	40.7	0.0-100.0	7	72.5	30.6-100.0	11	61.2	24.6-97.8
Benishangul Gumuz	2	0.0	0.0-0.0				2	0.0	0.0-0.0
Dire Dawa	1	0.0	0.0-0.0	1	0.0	0.0-0.0	2	0.0	0.0-0.0
Gambela				1	100.0	100.0-100.0	1	100.0	100.0-100.0

Harari	2	62.1	0.0-100.0	2	9.1	0.0-42.6	4	34.1	0.0-94.6
Oromiya	7	0.0	0.0-0.0	8	33.3	0.0-80.4	15	16.1	0.0-41.0
SNNPR	12	23.4	0.0-48.3	4	0.0	0.0-0.0	16	21.5	0.0-43.6
Somali	4	29.3	0.0-94.8	5	47.3	0.0-99.6	9	38.8	0.0-93.2
Tigray	1	0.0	0.0-0.0	4	36.6	0.0-99.4	5	30.8	0.0-80.2
Total	44	22.2	7.1-37.4	55	41.9	20.1-63.7	99	31.2	18.1-44.3

Table 17: Distribution of BMI category of men respondents by region, Ethiopia NCD STEPS, 2015(Optional)

Region	Men								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
Addis Ababa	158	9.7	4.7-14.6	69.5	59.2-79.7	17.2	9.0-25.4	3.7	0.5-6.9
Afar	168	36.7	25.5-48.0	56.1	46.9-65.2	7.2	3.5-10.9	0.0	0.0-0.0
Amhara	811	24.0	19.7-28.2	72.7	68.5-76.8	3.2	1.6-4.9	0.1	0.0-0.3
Benishangul Gumuz	180	12.4	6.0-18.7	80.0	72.3-87.7	6.4	1.8-10.9	1.3	0.0-3.0
Dire Dawa	93	26.4	4.0-48.7	71.4	47.8-95.1	2.2	0.0-4.9	0.0	0.0-0.0
Gambela	145	11.6	3.1-20.1	67.4	46.1-88.7	20.9	0.0-44.2	0.0	0.0-0.0
Harari	88	10.7	0.0-22.7	84.9	68.4-100.0	3.4	0.0-8.7	1.0	0.0-3.2
Oromiya	988	21.3	17.7-24.9	74.4	70.8-78.1	3.6	1.9-5.3	0.7	0.1-1.3
SNNPR	714	23.6	18.5-28.7	71.7	66.4-77.1	3.9	1.9-5.8	0.8	0.1-1.5
Somali	210	29.9	17.3-42.5	65.6	53.4-77.8	3.6	1.0-6.3	0.9	0.0-2.4
Tigray	158	9.7	4.7-14.6	69.5	59.2-79.7	17.2	9.0-25.4	3.7	0.5-6.9
Total	168	36.7	25.5-48.0	56.1	46.9-65.2	7.2	3.5-10.9	0.0	0.0-0.0

Table 17: Distribution of BMI category of women respondents by region, Ethiopia NCD STEPS, 2015(Optional)

Region	Women								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
Addis Ababa	626	9.9	6.6-13.1	58.6	53.6-63.6	17.4	14.3-20.5	14.2	10.1-18.2
Afar	171	29.2	18.0-40.5	61.7	51.8-71.5	6.3	2.8-9.8	2.8	0.0-6.8
Amhara	982	20.1	15.7-24.4	73.3	68.9-77.8	5.6	3.2-8.0	1.0	0.2-1.8
Benishangul Gumuz	177	19.6	9.2-30.1	73.6	62.5-84.6	6.0	2.3-9.7	0.8	0.0-2.1
Dire Dawa	140	8.4	4.7-12.1	73.6	67.7-79.6	16.3	12.3-20.3	1.7	0.0-4.3
Gambela	142	36.7	2.3-71.1	58.2	25.9-90.6	5.1	0.9-9.3	0.0	0.0-0.0
Harari	117	12.6	3.0-22.3	64.0	48.1-79.8	15.7	6.8-24.6	7.7	2.7-12.7
Oromiya	1206	18.4	15.2-21.7	73.2	70.1-76.4	6.9	5.1-8.7	1.5	0.7-2.3

SNNPR	880	18.4	14.6-22.2	73.4	69.7-77.0	6.5	4.2-8.8	1.7	0.7-2.7
Somali	358	23.4	15.6-31.3	58.4	50.5-66.3	13.6	9.2-18.1	4.5	1.7-7.3
Tigray	546	26.4	21.4-31.3	67.9	62.6-73.2	4.5	2.0-7.0	1.2	0.3-2.1
Total	5345	19.4	17.4-21.4	71.8	69.8-73.7	6.8	5.8-7.9	2.0	1.5-2.4

Table 19: Distribution of BMI category of both sexes respondents by region, Ethiopia NCD STEPS, 2015(Optional)

Region	Both sexes								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
Addis Ababa	784	9.8	6.8-12.7	62.0	56.9-67.1	17.3	14.4-20.3	10.9	7.9-13.8
Afar	339	33.9	24.9-42.9	58.2	51.5-64.9	6.8	3.9-9.8	1.1	0.0-2.7
Amhara	1793	22.3	18.9-25.8	73.0	69.6-76.3	4.2	2.5-6.0	0.5	0.1-0.8
Benishangul Gumuz	357	15.5	8.9-22.1	77.2	69.7-84.7	6.2	3.0-9.4	1.1	0.1-2.1
Dire Dawa	233	16.0	6.2-25.7	72.7	63.4-82.1	10.3	6.7-13.9	1.0	0.0-2.2
Gambela	287	24.6	2.9-46.4	62.7	43.7-81.6	12.7	1.4-24.1	0.0	0.0-0.0
Harari	205	11.5	1.8-21.2	76.0	56.8-95.2	8.6	0.7-16.6	3.9	0.0-7.9
Oromiya	2194	20.1	17.3-22.8	73.9	71.2-76.6	5.0	3.6-6.4	1.0	0.5-1.5
SNNPR	1594	21.4	17.5-25.3	72.4	68.6-76.3	5.0	3.4-6.6	1.2	0.6-1.8
Somali	568	26.4	18.4-34.4	61.7	53.8-69.7	9.0	5.8-12.3	2.9	1.1-4.7
Tigray	892	30.3	25.8-34.8	65.9	61.6-70.2	3.3	1.5-5.1	0.6	0.1-1.0
Total	9246	21.6	19.9-23.2	72.1	70.4-73.7	5.2	4.4-6.0	1.2	0.9-1.4

Table 20: Percentage of respondents (excluding pregnant women) classified as overweight (BMI≥25) by region and sex, Ethiopia NCD STEPS, 2015

Region	Men		Women		Both Sexes	
	% BMI≥25	95% CI	% BMI≥25	95% CI	% BMI≥25	95% CI
Addis Ababa	20.9	12.4-29.4	31.6	27.8-35.4	28.2	24.2-32.2
Afar	7.2	3.5-10.9	9.1	4.6-13.5	7.9	4.4-11.4
Amhara	3.3	1.7-4.9	6.6	3.8-9.4	4.7	2.8-6.7
Benishangul Gumuz	7.7	3.3-12.1	6.8	2.7-10.9	7.3	4.2-10.4
Dire Dawa	2.2	0.0-4.9	18.0	12.6-23.3	11.3	8.1-14.5
Gambela	20.9	0.0-44.2	5.1	0.9-9.3	12.7	1.4-24.1
Harari	4.4	0.0-11.8	23.4	9.6-37.2	12.5	0.5-24.5
Oromiya	4.3	2.5-6.1	8.4	6.3-10.4	6.0	4.5-7.6
SNNPR	4.7	2.5-6.8	8.2	5.7-10.7	6.2	4.3-8.0
Somali	4.6	1.6-7.5	18.1	12.3-24.0	11.9	7.8-16.0
Tigray	2.2	0.5-3.8	5.7	2.8-8.7	3.8	1.8-5.9
Total	4.4	3.4-5.4	8.8	7.6-10.0	6.3	5.4-7.3

Table 21: Proportion of respondents with SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Addis Ababa	156	23.2	14.2-32.2	638	22.3	18.4-26.1	794	22.6	18.1-27.0
Afar	167	4.5	1.0-8.0	206	12.6	3.9-21.3	373	8.0	4.0-11.9
Amhara	810	13.2	10.1-16.3	1018	16.3	13.0-19.5	1828	14.5	12.0-17.0
Benishangul Gumuz	180	24.4	6.0-42.7	195	10.5	5.9-15.1	375	18.0	6.9-29.1
Dire Dawa	93	9.5	5.2-13.7	158	17.3	10.8-23.9	251	14.1	8.9-19.4
Gambela	145	38.6	13.9-63.3	146	11.7	5.2-18.1	291	24.6	12.3-36.8
Harari	88	17.5	2.9-32.1	123	23.3	2.1-44.5	211	20.0	12.5-27.6
Oromiya	979	12.6	9.9-15.4	1295	14.7	12.7-16.8	2274	13.6	11.8-15.4
SNNPR	715	23.7	19.0-28.3	953	19.9	16.0-23.8	1668	22.0	18.6-25.4
Somali	212	11.5	6.0-17.0	390	12.2	8.1-16.3	602	11.9	8.2-15.6
Tigray	349	8.3	5.1-11.4	583	9.5	6.7-12.3	932	8.9	6.7-11.0
Total	3894	15.3	13.5-17.1	5705	16.0	14.6-17.5	9599	15.6	14.4-16.9

Table 22: Percentage of respondents with SBP ≥ 160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Addis Ababa	156	8.0	3.5-12.4	638	7.2	4.7-9.7	794	22.6	18.1-27.0
Afar	167	2.9	0.0-6.0	206	3.4	0.0-7.9	373	8.0	4.0-11.9
Amhara	810	3.2	1.7-4.7	1018	5.6	3.6-7.5	1828	14.5	12.0-17.0
Benishangul Gumuz	180	14.9	0.0-34.8	195	5.3	2.3-8.2	375	18.0	6.9-29.1
Dire Dawa	93	1.1	0.0-2.5	158	1.6	0.0-3.5	251	14.1	8.9-19.4
Gambela	145	7.9	0.0-22.4	146	0.6	0.0-1.6	291	24.6	12.3-36.8
Harari	88	14.5	0.0-30.8	123	5.4	2.5-8.3	211	20.0	12.5-27.6
Oromiya	979	3.7	2.4-5.0	1295	3.8	2.8-4.9	2274	13.6	11.8-15.4
SNNPR	715	5.4	3.3-7.4	953	6.5	4.2-8.8	1668	22.0	18.6-25.4
Somali	212	2.0	0.0-4.0	390	4.2	2.2-6.2	602	11.9	8.2-15.6
Tigray	349	0.7	0.0-1.5	583	3.5	2.0-5.0	932	8.9	6.7-11.0
Total	3894	3.9	3.1-4.8	5705	4.9	4.1-5.8	9599	15.6	14.4-16.9

Table 23: Percentage of respondents with SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Addis Ababa	158	8.9	4.3-13.6	653	9.0	6.2-11.9	811	9.0	6.5-11.5
Afar	168	3.6	0.5-6.7	206	3.4	0.0-7.9	374	3.5	1.0-6.0
Amhara	813	3.5	2.0-5.1	1025	6.1	4.2-8.0	1838	4.7	3.3-6.0
Benishangul Gumuz	180	14.9	0.0-34.8	195	5.3	2.3-8.2	375	10.5	0.0-21.9
Dire Dawa	95	1.8	0.0-3.8	160	2.4	0.0-5.2	255	2.1	0.6-3.7
Gambela	145	7.9	0.0-22.4	146	0.6	0.0-1.6	291	4.1	0.0-11.3
Harari	88	14.5	0.0-30.8	126	8.5	4.0-13.1	214	11.9	2.6-21.2
Oromiya	991	4.4	3.0-5.8	1306	4.4	3.2-5.6	2297	4.4	3.4-5.4
SNNPR	716	5.4	3.4-7.5	955	6.6	4.3-8.9	1671	6.0	4.4-7.5
Somali	214	2.3	0.3-4.4	398	5.2	2.9-7.6	612	4.0	2.2-5.8
Tigray	349	0.7	0.0-1.5	583	3.5	2.0-5.0	932	2.1	1.2-2.9
Total	3917	4.3	3.5-5.2	5753	5.4	4.6-6.3	9670	4.8	4.2-5.5

Table 24: Percentage of respondents not meeting WHO recommendations on physical activity for health by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI
Addis Ababa	149	19.0	9.0-29.0	616	33.1	23.4-42.7	765	28.8	20.4-37.1
Afar	176	4.7	1.1-8.4	208	4.7	0.0-9.5	384	4.7	2.0-7.5
Amhara	804	2.9	1.3-4.5	1025	5.9	3.5-8.3	1829	4.2	2.8-5.7
Benishangul Gumuz	184	13.2	0.0-32.9	199	14.0	1.2-26.8	383	13.6	1.1-26.1
Dire Dawa	96	14.7	0.0-30.4	160	23.5	11.9-35.1	256	19.7	8.9-30.6
Gambela	145	2.8	0.0-6.0	147	8.0	1.2-14.8	292	5.5	1.8-9.2
Harari	63	11.4	0.0-25.2	98	46.0	31.1-60.9	161	26.6	5.3-48.0
Oromiya	984	3.7	2.0-5.5	1306	6.9	4.9-8.9	2290	5.2	3.8-6.6
SNNPR	730	4.0	1.7-6.4	973	5.6	3.8-7.3	1703	4.7	3.1-6.3
Somali	213	13.2	4.8-21.6	398	14.0	6.7-21.2	611	13.6	6.8-20.4
Tigray	359	3.8	1.2-6.4	593	9.3	5.6-13.1	952	6.5	4.0-9.0
Total	3903	4.0	3.0-5.0	5723	7.9	6.7-9.1	9626	5.8	5.0-6.6

Table 25: Percentage of current daily smokers by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% Current daily smoker	95% CI	n	% Current daily smoker	95% CI	n	% Current daily smoker	95% CI
Addis Ababa	23	61.8	33.7-89.9	5	62.5	9.9-100.0	28	61.9	36.6-87.2
Afar	36	100.0	100.0-100.0				36	100.0	100.0-100.0
Amhara	29	93.2	80.8-100.0	5	66.1	2.9-100.0	34	91.0	78.5-100.0
Benishangul Gumuz	17	90.1	75.8-100.0	3	100.0	100.0-100.0	20	91.2	78.4-100.0
Dire Dawa	27	95.4	89.1-100.0	5	100.0	100.0-100.0	32	95.6	89.7-100.0
Gambela	48	100.0	100.0-100.0	17	92.5	75.6-100.0	65	98.8	96.4-100.0
Harari	29	100.0	100.0-100.0	6	36.2	26.8-45.7	35	87.1	62.9-100.0
Oromiya	125	82.4	73.8-91.0	5	7.5	0.0-23.5	130	81.2	72.4-89.9
SNNPR	56	80.8	67.4-94.1	6	61.2	4.9-100.0	62	79.9	67.5-92.3
Somali	64	95.1	89.3-100.0	25	80.5	46.1-100.0	89	92.1	85.2-99.1
Tigray				2	0.0	0.0-0.0	2	0.0	0.0-0.0
Total	454	84.2	78.5-89.9	79	54.6	34.5-74.7	533	82.8	77.2-88.5

Table 26: Percentage of Current daily smokers among smokers by region and sex, Ethiopia NCD STEPS, 2015

Region	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
Addis Ababa	158	13.7	7.2-20.2	656	0.7	0.0-1.3	19	2.9	1.2-4.5
Afar	176	18.9	6.6-31.1	208	0.0	0.0-0.0	2	11.0	4.2-17.8
Amhara	827	2.3	0.8-3.9	1039	0.3	0.0-0.6	12	1.3	0.5-2.1
Benishangul Gumuz	184	7.0	2.5-11.6	199	1.1	0.0-2.7	10	3.9	1.1-6.7
Dire Dawa	96	23.8	0.0-47.9	161	0.8	0.0-2.2	6	10.1	2.2-18.1
Gambela	147	23.3	10.1-36.5	148	3.9	0.0-7.8	5	13.1	4.8-21.4
Harari	88	24.6	12.7-36.4	126	8.0	0.0-16.5	9	15.1	4.9-25.2
Oromiya	995	11.8	9.1-14.5	1313	0.2	0.0-0.5	68	5.4	3.9-6.8
SNNPR	730	6.6	4.3-8.9	975	0.4	0.0-0.8	37	3.1	2.0-4.2
Somali	215	21.7	12.9-30.4	400	4.3	1.1-7.6	11	11.0	6.8-15.2

Tigray	360	0.0	0.0-0.0	594	0.3	0.0-0.7	7	0.0	0.0-0.0
Total	3976	7.3	6.1-8.6	5819	0.4	0.3-0.6	186	3.5	2.8-4.1

Table 27: Percentage of manufactured cigarette smokers among daily smokers by region and sex Ethiopia NCD STEPS, 2015

Region	Men			Women*			Both Sexes		
	n	% Manu- factured cigarette smoker	95% CI	n	% Manu- factured cigarette smoker	95% CI	n	% Manu- factured cigarette smoker	95% CI
Addis Ababa	23	75.0	47.4-100.0				28	69.9	46.0- 93.9
Afar	36	95.1	84.7-100.0				36	95.1	84.7- 100.0
Amhara	29	90.5	76.6-100.0				34	86.3	71.6- 100.0
Benishangul Gumuz	17	82.7	54.8-100.0				20	84.7	59.7- 100.0
Dire Dawa	27	95.2	88.1-100.0				32	91.4	80.8- 100.0
Gambela	48	92.6	83.0-100.0				65	87.2	74.7- 99.7
Harari	29	100.0	100.0-100.0				35	81.3	45.3- 100.0
Oromiya	125	93.2	88.3-98.1				130	92.6	87.6- 97.6
SNNPR	56	84.4	70.9-97.9				62	84.4	71.3- 97.4
Somali	64	100.0	100.0-100.0				89	84.4	69.8- 99.1
Tigray**							2	35.7	0.0- 100.0
Total	454	90.9	86.7-95.1				533	89.0	84.7- 93.2

*Has no result for women respondents

** has no result for men Tigray region's respondents

Annex 2. The Master Data Book
Demographic Information Results

Age group by sex Description: Summary information by age group and sex of the respondents.

Instrument question:

- Sex
- What is your date of birth?

Age group and sex of respondents							
Age Group (years)	Men		Women		Both Sexes		
	n	%	n	%	n		
15-29	1441	36.4	2518	63.6	3959		
30-44	1438	41.1	2061	58.9	3499		
45-59	781	46.2	909	53.8	1690		
60-69	317	48.6	335	51.4	652		
15-69	3977	40.6	5823	59.4	9800		

Education Description: Mean number of years of education among respondents.

Instrument question:

- In total, how many years have you spent at school or in full-time study (excluding pre-school)?

Mean number of years of education							
Age Group (years)	Men		Women		Both Sexes		
	n	Mean	n	Mean	n	Mean	
15-29	1441	6.322	2518	4.8876	3959	5.4097	
30-44	1437	4.1545	2061	2.4202	3498	3.1326	
45-59	781	2.9513	909	1.4455	1690	2.1414	
60-69	317	1.9306	335	0.6657	652	1.2807	
15-69	3976	4.5264	5823	3.2341	9799	3.7584	

Highest level of education Description: Highest level of education achieved by the survey respondents.

Instrument question:

- What is the highest level of education you have completed?

Highest level of education								
Age Group (years)	Men							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
15-29	1441	19.1	42.7	17.7	11.4	9.0	0.2	1441
30-44	1438	41.4	37.7	8.9	4.8	6.9	0.3	1438
45-59	781	57.0	29.2	4.4	5.0	4.4	0.1	781
60-69	317	72.2	17.4	4.7	2.2	3.2	0.3	317
15-69	3977	38.8	36.2	10.9	7.0	6.8	0.2	3977

Highest level of education

Age Group (years)	Women							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
15-29	2518	35.1	34.5	15.5	9.1	5.8	0.0	2518
30-44	2061	67.3	18.7	5.6	5.5	2.9	0.1	2061
45-59	909	80.4	10.7	3.5	2.9	2.5	0.0	909
60-69	335	88.4	8.4	1.5	1.8	0.0	0.0	335
15-69	5823	56.6	23.7	9.3	6.4	3.9	0.1	5823

Highest level of education								
Age Group (years)	Both Sexes							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
15-29	3959	29.3	37.5	16.3	9.9	6.9	0.1	3959
30-44	3499	56.7	26.5	6.9	5.2	4.5	0.2	3499
45-59	1690	69.6	19.2	3.9	3.8	3.4	0.1	1690
60-69	652	80.5	12.7	3.1	2.0	1.5	0.2	652
15-69	9800	49.4	28.8	9.9	6.7	5.1	0.1	9800

Ethnicity Description: Summary results for the ethnicity of the respondents.

Instrument Question:

- What is your (insert relevant ethnic group/racial group/cultural subgroup/others) background?

Ethnic group of respondents												
Age Group (years)	Both Sexes											
	n	% Oromo	% Amhara	% Tigray	% Somali	% Wolayta	% Sidama	% Guragie	% Hadiya	% Afar	% Gamo	% Other ethnic group
15-29	3956	30.6	24.9	10.2	4.3	2.3	3.9	3.3	1.7	3.5	1.4	13.9
30-44	3499	27.1	26.8	10.3	6.9	2.7	3.5	3.0	1.7	3.7	1.8	12.6
45-59	1689	25.6	32.0	12.6	7.5	1.8	2.5	3.7	1.4	2.7	1.9	8.2
60-69	652	28.2	31.3	12.3	9.2	0.9	2.9	2.9	1.2	2.8	1.4	6.9
15-69	9796	28.3	27.2	10.8	6.1	2.3	3.5	3.2	1.6	3.4	1.6	12

Marital status Description: Marital status of survey respondents.

Instrument question:

- What is your marital status?

Marital status

Age Group (years)	Men						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-29	1440	53.3	43.8	1.9	0.8	0.1	0.1
30-44	1438	6.0	88.7	2.2	1.9	1.2	0.1
45-59	781	1.7	90.3	3.2	1.5	3.3	0.0
60-69	316	1.3	85.1	1.9	3.5	7.9	0.3
15-69	3975	21.9	72.5	2.3	1.5	1.8	0.1

Marital status							
Age Group (years)	Women						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-29	2516	29.1	64.1	3.3	2.7	0.6	0.3
30-44	2061	4.0	72.7	7.1	7.0	8.2	0.9
45-59	909	2.0	54.9	5.5	9.7	27.2	0.8
60-69	335	0.9	30.7	5.4	12.2	49.6	1.2
15-69	5821	14.3	63.8	5.1	5.9	10.3	0.6

Marital status							
Age Group (years)	Both Sexes						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-29	3956	37.9	56.7	2.8	2.0	0.5	0.2
30-44	3499	4.8	79.3	5.1	4.9	5.3	0.6
45-59	1690	1.8	71.2	4.4	5.9	16.2	0.4
60-69	651	1.1	57.1	3.7	8.0	29.3	0.8
15-69	9796	17.4	67.3	3.9	4.1	6.8	0.4

Employment status Description: Proportion of respondents in paid employment and those who are unpaid. Unpaid includes persons who are non-paid, students, homemakers, retired, and unemployed.

Instrument question:

- Which of the following best describes your main work status over the past 12 months?

Employment status					
Age Group (years)	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-29	1409	9.8	1.0	3.3	85.9
30-44	1409	8.9	1.7	3.8	85.7
45-59	771	6.2	1.4	3.0	89.4
60-69	306	4.6	1.3	3.3	90.8
15-69	3895	8.3	1.4	3.4	86.9

Employment status

Women					
Age Group (years)	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-29	2499	5.0	0.9	3.4	90.7
30-44	2043	4.5	0.7	2.5	92.3
45-59	900	3.1	0.1	2.2	94.6
60-69	329	0.3	0.3	1.2	98.2
15-69	5771	4.3	0.7	2.8	92.3

Employment status					
Both Sexes					
Age Group (years)	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-29	3908	6.8	0.9	3.4	89.0
30-44	3452	6.3	1.1	3.0	89.6
45-59	1671	4.5	0.7	2.6	92.2
60-69	635	2.4	0.8	2.2	94.6
15-69	9666	5.9	1.0	3.0	90.1

Unpaid work and unemployed Description: Proportion of respondents in unpaid work.

Instrument question:

- Which of the following best describes your main work status over the past 12 months?

Unpaid work and unemployed									
Men									
Age Group (years)	n	% Private skilled worker	% Farmer	% Trader	% Student	% Home-maker	% Retired	Unemployed	
								% Able to work	% Not able to work
15-29	1211	4.3	53.7	6.1	32.3	0.6	0	2.8	0.2
30-44	1207	2.9	85.6	9.5	0.3	0.5	0.1	1.1	0
45-59	689	3.5	88	4.9	0.1	0.6	1.2	1.5	0.3
60-69	278	1.1	78.1	4.7	0	0.7	9.4	1.4	4.7
15-69	3385	3.4	74	7	11.7	0.6	1	1.8	0.5

Unpaid work and unemployed									
Women									
Age Group (years)	n	% Private skilled worker	% Farmer	% Trader	% Student	% Home-maker	% Retired	Unemployed	
								% Able to work	% Not able to work
15-29	2266	2.4	23.1	8	19	42.3	0.4	4.4	0.4
30-44	1885	3.6	35.9	8.6	0.3	47.7	0.6	2.8	0.5
45-59	851	2.7	42	4.7	0.4	45.4	1.3	2.5	1.2
60-69	323	2.5	39.6	2.8	0.9	41.8	6.5	2.8	3.1
15-69	5325	2.9	31.7	7.4	8.3	44.7	1	3.4	0.7

Unpaid work and unemployed

Age Group (years)	Both Sexes							Unemployed	
	n	% Private skilled worker	% Farmer	% Trader	% Student	% Home-maker	% Retired	% Able to work	% Not able to work
15-29	3477	3	33.8	7.3	23.6	27.8	0.3	3.9	0.3
30-44	3092	3.3	55.3	9	0.3	29.3	0.4	2.1	0.3
45-59	1540	3.1	62.5	4.8	0.3	25.3	1.2	2	0.8
60-69	601	1.8	57.4	3.7	0.5	22.8	7.8	2.2	3.8
15-69	8710	3.1	48.1	7.2	9.6	27.5	1	2.8	0.7

Per capita annual income Description: Mean reported per capita annual income of respondents in local currency.

Instrument questions:

- How many people older than 18 years, including yourself, live in your household?
- Taking the past year, can you tell me what the average earning of the household has been?

Mean annual per capita income	
n	Mean
9798	1500.7903

Analysis Information:

- Questions used: C9, C10a-c
- Epi Info program name: Cmeanincome (unweighted)

Estimated household earnings Description: summary of participant household earnings by quintile (only those who didn't know their exact per capital income excluding those under 18 years old).

Instrument question:

- If you don't know the amount, can you give an estimate of the annual household income if I read some options to you?

Estimated household earnings					
n	% Quintile 1: ≤ 12,000 Birr	% Quintile 2: More than 12,000 ≤ 18,000 Birr	% Quintile 3: More than 18,000 ≤23,300birr	% Quintile 4: More than 23,300 ≤ 30,000birr	% Quintile 5: More than 30,000birr
1481	71.1%	17.35%	5.3%	2.7%	3.44%

Tobacco Use

Current smoking Description: Current smokers among all respondents.

Instrument question:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?

Percentage of current smokers

Age Group (years)	Men			Women			Both Sexes		
	n	% Current smoker	95% CI	n	% Current smoker	95% CI	n	% Current smoker	95% CI
15-29	1441	5.3	3.9-6.7	2516	0.4	0.2-0.6	3957	3.1	2.3-3.8
30-44	1437	10.1	7.7-12.5	2059	0.2	0.1-0.3	3496	5.3	4.0-6.5
45-59	781	10.4	7.5-13.3	909	1.0	0.3-1.8	1690	6.5	4.8-8.2
60-69	317	7.8	4.0-11.7	335	0.5	0.0-1.2	652	5.1	2.7-7.5
15-69	3976	7.3	6.1-8.6	5819	0.4	0.3-0.6	9795	4.2	3.5-4.9

Smoking Status Description: Smoking status of all respondents.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?
- In the past, did you ever smoke any tobacco products?

Smoking status									
Men									
Age Group (years)	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Former smoker	95% CI	% Never smoker	95% CI
15-29	1441	4.3	3.1-5.6	1.0	0.4-1.5	1.7	0.9-2.4	93.0	91.4-94.6
30-44	1437	8.8	6.4-11.1	1.3	0.5-2.2	3.8	2.5-5.1	86.1	83.3-89.0
45-59	781	8.8	6.1-11.4	1.6	0.4-2.9	6.3	4.2-8.4	83.3	79.9-86.8
60-69	317	6.5	3.2-9.9	1.3	0.0-3.2	6.3	2.9-9.8	85.8	80.8-90.9
15-69	3976	6.2	5.0-7.4	1.2	0.7-1.6	3.1	2.4-3.8	89.5	88.0-91.1

Smoking status									
Women									
Age Group (years)	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Former smoker	95% CI	% Never smoker	95% CI
15-29	2516	0.3	0.1-0.5	0.1	0.0-0.3	0.2	0.0-0.3	99.4	99.2-99.7
30-44	2059	0.1	0.0-0.2	0.1	0.0-0.2	0.2	0.0-0.3	99.7	99.4-99.9
45-59	909	0.3	0.1-0.5	0.7	0.1-1.4	0.2	0.0-0.5	98.8	98.0-99.6
60-69	335	0.5	0.0-1.1	0.0	0.0-0.1	0.8	0.0-2.3	98.7	97.0-100
15-69	5819	0.2	0.1-0.4	0.2	0.1-0.3	0.2	0.1-0.3	99.4	99.2-99.6

Smoking status									
Both Sexes									
Age Group (years)	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Former smoker	95% CI	% Never smoker	95% CI
15-29	3957	2.5	1.8-3.2	0.6	0.3-0.9	1.0	0.6-1.4	96.0	95.1-96.8
30-44	3496	4.6	3.3-5.8	0.7	0.3-1.2	2.0	1.4-2.7	92.7	91.2-94.2
45-59	1690	5.2	3.7-6.8	1.3	0.5-2.0	3.8	2.5-5.0	89.7	87.7-91.8
60-69	652	4.3	2.2-6.4	0.8	0.0-2.0	4.2	2.0-6.5	90.7	87.5-93.8
15-69	9795	3.5	2.8-4.1	0.7	0.5-1.0	1.8	1.4-2.2	94.0	93.2-94.9

Daily smoking Description: Percentage of current daily smokers among smokers.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?

Current daily smokers among smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
15-29	111	82.0	71.8-92.2	29	65.5	36.4-94.5	140	81.0	71.4-90.7
30-44	186	86.9	78.6-95.1	23	62.6	29.3-95.8	209	86.4	78.3-94.6
45-59	113	84.3	73.4-95.3	20	27.5	3.6-51.5	133	80.6	69.7-91.5
60-69	44	83.6	62.2-100	7	93.5	78.5-100	51	84.0	63.3-100
15-69	454	84.2	78.5-89.9	79	54.6	34.5-74.7	533	82.8	77.2-88.5

Initiation and duration of smoking Description: Mean age of initiation and mean duration of smoking, in years, among smokers (no total age group for mean duration of smoking as age influences these values).

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- How old were you when you first started smoking?
- Do you remember how long ago it was?

Mean age started smoking									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean age	95% CI	n	Mean age	95% CI	n	Mean age	95% CI
15-29	96	17.9	8.0-0.0	22	19.1	10.0-0.0	118	18.0	8.0-0.0
30-44	169	21.7	8.0-0.0	20	22.6	14.0-0.0	189	21.8	8.0-0.0
45-59	101	24.4	10.0-0.0	13	29.5	20.0-0.0	114	24.5	10.0-0.0
60-69	35	23.6	10.0-0.0	6	40.6	20.0-0.0	41	24.4	10.0-0.0
15-69	401	20.9	8.0-0.0	61	22.8	10.0-0.0	462	21.0	8.0-0.0

Mean duration of smoking									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean duration	95% CI	n	Mean duration	95% CI	n	Mean duration	95% CI
15-29	96	6.0	0.0-0.0	22	5.0	1.0-0.0	118	5.9	0.0-0.0
30-44	169	14.1	1.0-0.0	20	13.3	2.0-0.0	189	14.1	1.0-0.0
45-59	101	24.9	3.0-0.0	13	19.4	5.0-0.0	114	24.7	3.0-0.0
60-69	35	39.6	8.0-0.0	6	23.8	15.0-0.0	41	38.9	8.0-0.0
15-69	401	14.5	0.0-0.0	61	9.9	1.0-0.0	462	14.4	0.0-0.0

Manufactured cigarette smokers Description: Percentage of smokers who use manufactured cigarettes among daily smokers and among current smokers.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?
- On average, how many of the following products do you smoke each day?

Manufactured cigarette smokers among daily smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI
15-29	96	99.1	98.0-100.0	23	62.0	28.1-95.9	119	97.3	95.3-99.2
30-44	170	95.3	91.1-99.6	20	29.0	0.0-60.6	190	94.5	90.3-98.7
45-59	101	86.9	75.4-98.5	13	53.2	12.8-93.6	114	86.2	74.8-97.5
60-69	35	85.4	69.7-100.0	6	14.0	0.0-40.4	41	82.3	66.3-98.4
15-69	402	94.5	91.2-97.7	62	52.4	27.5-77.2	464	93.2	89.9-96.5

Manufactured cigarette smokers among current smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI
15-29	111	96.8	93.3-100.0	29	53.1	23.5-82.8	140	94.2	90.2-98.2
30-44	186	92.8	87.6-98.0	23	18.1	0.0-41.1	209	91.5	86.2-96.7
45-59	111	82.8	70.6-95.1	20	56.6	22.8-90.4	131	81.0	69.4-92.6
60-69	44	75.8	52.5-99.0	7	19.6	0.0-50.2	51	73.6	51.1-96.1
15-69	452	91.5	87.4-95.5	79	48.4	26.5-70.3	531	89.4	85.3-93.6

Amount of tobacco used among daily smokers by type

Description: Mean amount of tobacco used by daily smokers per day, by type.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?
- On average, how many of the following products do you smoke each day?

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Men								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
15-29	96	6.9	4.6-9.1	96	1.3	0.4-2.3	96	1.9	0.0-4.5
30-44	169	7.6	6.6-8.5	170	0.8	0.1-1.6	170	0.3	0.0-0.6
45-59	101	7.9	5.9-9.9	101	0.7	0.1-1.2	101	0.3	0.0-0.7
60-69	35	5.6	3.2-8.0	35	2.2	0.0-4.6	35	0.0	-
15-69	401	7.3	6.2-8.3	402	1.1	0.5-1.6	402	0.9	0.0-1.9

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Men								
	n	Mean # of cigars, gaya	95% CI	n	Mean # of shisha sessions	95% CI	n	Mean # of other type of tobacco	95% CI
15-29	96	1.9	0.0-4.4	95	1.8	0.0-4.3	93	2.3	0.0-5.1
30-44	170	0.2	0.0-0.5	170	0.1	0.0-0.2	165	1.0	0.0-2.7
45-59	100	0.3	0.0-0.5	100	0.1	0.0-0.3	99	1.2	0.0-3.6
60-69	35	0.8	0.0-2.1	35	0.0	0.0-0.0	35	0.0	0.0-0.0
15-69	401	0.9	0.0-1.9	400	0.8	0.0-1.8	392	1.5	0.2-2.8

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Women								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
15-29	23	2.4	0.9-3.9	23	0.1	0.0-0.1	23	0.2	0.0-0.4
30-44	20	2.6	0.0-6.4	20	2.5	1.0-4.0	20	0.4	0.0-0.9
45-59	13	3.2	0.0-6.9	13	2.1	0.5-3.7	13	0.0	#VALUE!
60-69	6	0.3	0.0-1.0	6	0.2	0.0-0.6	6	0.0	#VALUE!
15-69	62	2.4	1.1-3.7	62	0.7	0.2-1.3	62	0.2	0.0-0.3

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Women								
	n	Mean # of cigars, gaya cigarillos	95% CI	n	Mean # of shisha sessions	95% CI	n	Mean # of other type of tobacco	95% CI
15-29	23	3.6	0.0-9.5	23	0.5	0.0-1.1	22	4.6	0.0-12.3
30-44	20	1.8	0.4-3.2	20	5.6	0.0-14.5	20	7.0	0.0-20.4
45-59	13	1.3	0.0-2.5	13	0.2	0.0-0.6	13	0.0	-
60-69	6	1.6	0.9-2.2	6	0.2	0.0-0.8	6	0.0	-
15-69	62	2.8	0.0-6.5	62	1.2	0.0-2.6	61	3.9	0.0-8.8

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Both Sexes								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
15-29	119	6.6	4.5-8.8	119	1.3	0.4-2.2	119	1.8	0.0-4.3
30-44	189	7.5	6.5-8.5	190	0.9	0.1-1.6	190	0.3	0.0-0.6
45-59	114	7.8	5.8-9.8	114	0.7	0.2-1.3	114	0.3	0.0-0.7
60-69	41	5.4	3.1-7.7	41	2.1	0.0-4.4	41	0.0	-
15-69	463	7.1	6.1-8.1	464	1.1	0.5-1.6	464	0.9	0.0-1.9

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Both Sexes								
	n	Mean # of cigars, gaya, cigarillos	95% CI	n	Mean # of shisha sessions	95% CI	n	Mean # of other type of tobacco	95% CI
15-29	119	2.0	0.0-4.4	118	1.8	0.0-4.2	115	2.4	0.0-5.1
30-44	190	0.3	0.0-0.5	190	0.1	0.0-0.3	185	1.1	0.0-2.8
45-59	113	0.3	0.0-0.6	113	0.1	0.0-0.3	112	1.2	0.0-3.5
60-69	41	0.9	0.0-2.0	41	0.0	0.0-0.0	41	0.0	0.0-0.0
15-69	463	1.0	0.0-2.0	462	0.8	0.0-1.7	453	1.6	0.3-2.9

Smoked tobacco consumption

Description: Percentage of current smokers who smoke each of the following products.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?
- On average, how many of the following products do you smoke each day/week?

Percentage of current smokers smoking each of the following products							
Age Group (years)	Men						
	n	% Manuf. cigs.	95% CI	% Hand-rolled cigs.	95% CI	% Pipes of tobacco	95% CI
15-29	111	96.8	93.3-100.0	15.5	6.5-24.5	5.1	0.0-10.2
30-44	186	92.8	87.6-98.0	12.4	4.6-20.2	6.8	0.4-13.1
45-59	113	80.6	68.1-93.1	17.1	6.3-27.8	10.8	1.5-20.1
60-69	44	75.8	52.6-99.0	28.6	6.1-51.0	4.1	0.0-10.1
15-69	454	90.9	86.7-95.1	15.5	9.9-21.0	6.8	3.0-10.6

Percentage of current smokers smoking each of the following products							
Age Group (years)	Men						
	n	% Cigars, gaya,	95% CI	% Shisha	95% CI	% Other	95% CI
15-29	111	7.7	0.5-15.0	10.4	2.7-18.1	4.5	0.0-8.9
30-44	186	5.9	0.0-12.0	3.8	0.1-7.6	2.7	0.0-5.7
45-59	113	11.2	1.4-21.1	1.6	0.0-4.8	2.9	0.0-6.8
60-69	44	24.6	0.2-49.0	2.7	0.0-7.4	0.7	0.0-2.0
15-69	454	8.7	4.0-13.5	5.9	2.4-9.5	3.3	1.1-5.5

Percentage of current smokers smoking each of the following products							
Age Group (years)	Women						
	n	% Manuf. cigs.	95% CI	% Hand-rolled cigs.	95% CI	% Pipes of tobacco	95% CI
15-29	29	53.1	23.5-82.8	3.8	0.0-8.0	18.7	0.9-36.5
30-44	23	18.1	0.0-41.1	31.7	8.6-54.9	12.1	0.0-29.8
45-59	20	56.6	22.8-90.4	18.0	0.0-38.0	6.7	0.0-19.3
60-69	7	19.6	0.0-50.2	9.0	0.0-28.9	0.0	0.0-0.0
15-69	79	48.4	26.5-70.3	11.9	4.2-19.7	13.4	3.3-23.5

Percentage of current smokers smoking each of the following products							
Age Group (years)	Women						
	n	% Cigars, gaya	95% CI	% Shisha	95% CI	% Other	95% CI
15-29	29	8.9	0.0-19.7	52.8	19.6-86.1	5.9	0.0-15.0
30-44	23	33.8	7.8-59.7	65.0	39.6-90.4	12.1	0.0-29.8
45-59	20	33.0	0.8-65.1	6.8	0.0-16.7	23.2	0.0-63.2
60-69	7	80.4	49.8-100.0	10.8	0.0-34.5	0.0	0.0-0.0
15-69	79	22.5	7.8-37.2	38.4	17.7-59.0	11.8	0.0-26.3

Percentage of current smokers smoking each of the following products							
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Age Group (years)	Both Sexes						
	n	% Manuf. cigs.	95% CI	% Hand-rolled cigs.	95% CI	% Pipes of tobacco	95% CI
15-29	140	94.2	90.2-98.2	14.8	6.3-23.3	5.9	1.0-10.8
30-44	209	91.5	86.2-96.7	12.8	5.1-20.4	6.9	0.6-13.1
45-59	133	79.0	67.1-90.9	17.1	7.0-27.3	10.6	1.8-19.3
60-69	51	73.6	51.1-96.1	27.8	6.2-49.4	4.0	0.0-9.7
15-69	533	89.0	84.7-93.2	15.3	10.0-20.6	7.1	3.5-10.8

Percentage of current smokers smoking each of the following products							
Age Group (years)	Both Sexes						
	n	% Cigars, gaya	95% CI	% Shisha	95% CI	% Other	95% CI
15-29	140	7.8	1.0-14.7	13.0	5.3-20.6	4.6	0.3-8.8
30-44	209	6.4	0.4-12.4	4.9	1.1-8.7	2.8	0.0-5.8
45-59	133	12.7	3.2-22.1	2.0	0.0-5.0	4.2	0.0-9.0
60-69	51	26.8	3.3-50.3	3.0	0.0-7.6	0.6	0.0-1.9
15-69	533	9.4	4.8-14.0	7.4	3.8-11.1	3.7	1.5-5.9

Frequency of daily cigarette smoking Description: Percentage of daily cigarette smokers smoking given quantities of manufactured or hand-rolled cigarettes per day.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?
- On average, how many of the following products do you smoke each day?

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day											
Age Group (years)	Men										
	n	% <5 Cigs.	95% CI	% 5-9 Cigs.	95% CI	% 10-14 Cigs.	95% CI	% 15-24 Cigs.	95% CI	% ≥ 25 Cigs.	95% CI
15-29	94	41.7	27.8-55.6	30.4	19.3-41.5	15.1	4.4-25.8	10.0	1.2-18.8	2.8	0.0-7.4
30-44	164	25.1	15.4-34.9	36.3	26.6-46.0	20.1	9.4-30.8	18.1	9.2-27.0	0.4	0.0-0.7
45-59	94	27.6	12.2-43.0	16.8	4.7-28.9	32.0	16.2-47.8	21.5	7.1-35.9	2.1	0.0-6.4
60-69	32	33.5	7.1-60.0	28.4	4.2-52.5	25.1	0.8-49.3	11.9	0.0-28.7	1.2	0.0-3.5
15-69	384	32.7	24.6-40.9	29.6	23.4-35.9	20.7	14.0-27.3	15.2	9.2-21.2	1.7	0.0-3.8

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day											
Age Group (years)	Women										
	n	% <5 Cigs.	95% CI	% 5-9 Cigs.	95% CI	% 10-14 Cigs.	95% CI	% 15-24 Cigs.	95% CI	% ≥ 25 Cigs.	95% CI
15-29	11	50.4	2.7-98.0	44.1	1.5-86.7	5.5	0.0-15.4	0.0	0.0-0.0	0.0	0.0-0.0
30-44	9	34.4	5.1-63.8	49.1	2.5-95.6	0.0	0.0-0.0	0.0	0.0-0.0	16.5	0.0-49.0
45-59	5	59.0	2.3-100.0	0.0	0.0-0.0	3.7	0.0-14.0	37.3	0.0-98.2	0.0	0.0-0.0
60-69	2	30.9	0.0-97.5	69.1	2.5-100.0	0.0	0.0-0.0	0.0	0.0-0.0	0.0	0.0-0.0
15-69	27	49.4	23.1-75.7	37.4	15.4-59.3	4.4	0.0-10.7	6.6	0.0-20.8	2.3	0.0-7.2

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day											
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Age Group (years)	Both Sexes										
	n	% <5 Cigs.	95% CI	% 5-9 Cigs.	95% CI	% 10-14 Cigs.	95% CI	% 15-24 Cigs.	95% CI	% ≥ 25 Cigs.	95% CI
15-29	105	42.0	28.5-55.5	30.8	20.0-41.7	14.8	4.4-25.2	9.7	1.2-18.3	2.7	0.0-7.1
30-44	173	25.2	15.5-34.9	36.4	26.8-46.0	20.0	9.3-30.6	18.0	9.2-26.8	0.5	0.0-1.0
45-59	99	28.1	13.0-43.2	16.5	4.6-28.4	31.5	16.0-47.0	21.8	7.6-35.9	2.1	0.0-6.2
60-69	34	33.5	7.2-59.8	28.6	4.6-52.6	24.9	0.8-49.0	11.8	0.0-28.6	1.2	0.0-3.5
15-69	411	33.0	25.0-41.1	29.8	23.7-35.9	20.4	13.8-26.9	15.1	9.2-21.0	1.7	0.0-3.7

Former daily smokers and former smokers Description: Percentage of former daily smokers among all respondents and among ever daily smokers, and the mean duration, in years, since former smokers quit smoking.

Instrument questions:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?
- In the past did you ever smoke any tobacco products?
- In the past, did you ever smoke daily?
- How old were you when you stopped smoking?

Former daily smokers among all respondents									
Age Group (years)	Men			Women			Both Sexes		
	n	% Former daily smokers	95% CI	n	% Former daily smokers	95% CI	n	% Former daily smokers	95% CI
15-29	1441	0.7	0.2-1.2	2516	0.2	0.0-0.3	3957	0.5	0.2-0.7
30-44	1437	3.3	2.1-4.5	2059	0.2	0.0-0.3	3496	1.8	1.1-2.4
45-59	781	6.1	3.9-8.4	909	0.1	0.0-0.1	1690	3.6	2.3-5.0
60-69	317	5.5	2.3-8.7	335	0.8	0.0-2.3	652	3.7	1.7-5.8
15-69	3976	2.4	1.8-3.0	5819	0.2	0.1-0.3	9795	1.4	1.0-1.7

Former daily smokers among ever daily smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Former daily smokers	95% CI	n	% Former daily smokers	95% CI	n	% Former daily smokers	95% CI
15-29	111	14.6	5.7-23.5	32	38.1	11.0-65.2	143	16.1	7.6-24.7
30-44	220	27.3	18.8-35.8	26	55.7	23.6-87.7	246	27.9	19.4-36.3
45-59	152	41.3	28.7-53.8	15	15.5	0.0-40.6	167	40.9	28.5-53.2
60-69	53	45.6	26.0-65.2	7	61.5	4.5-100.0	60	46.6	27.6-65.5
15-69	536	28.0	21.9-34.1	80	41.6	23.9-59.3	616	28.5	22.5-34.5

Mean years since cessation									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean years	95% CI	n	Mean years	95% CI	n	Mean years	95% CI
15-29	28	2.4	1.7-3.0	10	1.4	0.6-2.2	38	2.3	1.7-2.9
30-44	63	10.2	7.5-12.9	6	8.7	4.3-13.1	69	10.1	7.5-12.8
45-59	56	15.9	12.6-19.1	3	11.7	4.2-19.2	59	15.8	12.6-19.0
60-69	19	19.0	14.0-24.0	1	20.0	-	20	19.1	14.5-23.7
15-69	166	10.4	8.4-12.4	20	7.2	2.6-11.9	186	10.3	8.4-12.2

Alcohol Consumption

Alcohol consumption status Description: Alcohol consumption status of all respondents.

Instrument questions:

- Have you ever consumed any alcohol such as ...?
- Have you consumed any alcohol in the past 12 months?
- Have you consumed any alcohol in the past 30 days?

Alcohol consumption status									
Men									
Age Group (years)	n	% Current drinker (past 30 days)	95% CI	% Drank in past 12 months, not current	95% CI	% Past 12 months abstainer	95% CI	% Lifetime abstainer	95% CI
15-29	1441	42.6	38.2-47.0	3.8	2.5-5.2	3.6	2.2-5.0	49.9	45.4-54.5
30-44	1436	47.6	43.1-52.1	2.3	1.2-3.3	7.4	5.3-9.5	42.8	38.3-47.3
45-59	781	58.0	52.7-63.3	2.8	1.4-4.2	6.0	3.7-8.3	33.2	28.2-38.3
60-69	317	52.6	44.0-61.1	1.0	0.0-2.3	8.0	4.1-11.9	38.4	29.7-47.1
15-69	3975	46.6	43.0-50.2	3.2	2.3-4.0	5.1	3.9-6.3	45.1	41.4-48.8

Alcohol consumption status									
Women									
Age Group (years)	n	% Current drinker (past 30 days)	95% CI	% Drank in past 12 months, not current	95% CI	% Past 12 months abstainer	95% CI	% Lifetime abstainer	95% CI
15-29	2516	29.5	25.8-33.2	3.5	2.5-4.5	3.8	2.8-4.9	63.1	59.1-67.2
30-44	2060	38.0	34.0-42.0	4.4	3.1-5.7	5.5	3.6-7.4	52.1	47.6-56.7
45-59	909	39.8	34.7-44.9	4.7	2.8-6.5	9.1	5.4-12.8	46.5	41.0-51.9
60-69	335	39.0	30.8-47.3	6.2	2.4-10.0	10.0	4.4-15.6	44.8	36.4-53.3
15-69	5820	33.5	30.3-36.7	4.0	3.2-4.8	5.2	3.9-6.5	57.3	53.8-60.9

Alcohol consumption status									
Both Sexes									
Age Group (years)	n	% Current drinker (past 30 days)	95% CI	% Drank in past 12 months, not current	95% CI	% Past 12 months abstainer	95% CI	% Lifetime abstainer	95% CI
15-29	3957	36.6	32.9-40.4	3.7	2.8-4.6	3.7	2.7-4.7	56.0	52.1-59.8
30-44	3496	42.9	39.3-46.6	3.3	2.4-4.2	6.4	4.7-8.2	47.3	43.4-51.3
45-59	1690	50.5	46.1-54.8	3.6	2.4-4.7	7.3	4.9-9.6	38.7	34.5-43.0
60-69	652	47.5	40.8-54.2	3.0	1.3-4.6	8.7	5.4-12.0	40.8	34.1-47.5
15-69	9795	40.7	37.4-43.9	3.5	2.9-4.1	5.1	4.0-6.2	50.7	47.3-54.0

Stopping drinking due to health reasons Description: Percentage of former drinkers (those who did not drink during the past 12 months) who stopped drinking due to health reasons, such as a negative impact of drinking on your health or as per advice of a doctor or other health worker among those respondents who drank in their lifetime, but not in the last 12 months.

Instrument questions:

- Have you consumed any alcohol in the past 12 months?
- Did you stop drinking due to health reasons, such as a negative impact of drinking on your health or as per advice of your doctor or other health worker?

Stopping drinking due to health reasons									
Age Group (years)	Men			Women			Both Sexes		
	n	% stopping due to health reasons	95% CI	n	% stopping due to health reasons	95% CI	n	% stopping due to health reasons	95% CI
15-29	42	36.6	18.7-54.5	91	14.1	5.2-23.0	133	26.0	14.5-37.4
30-44	83	27.6	15.0-40.1	90	40.6	24.9-56.3	173	33.0	21.5-44.5
45-59	45	19.3	5.7-32.9	66	31.7	16.1-47.4	111	25.7	15.4-36.0
60-69	24	36.2	13.0-59.4	26	23.7	5.7-41.7	50	30.8	15.2-46.5
15-69	194	30.3	19.9-40.7	273	26.5	18.7-34.3	467	28.5	21.1-36.0

Frequency of alcohol consumption

Description: Frequency of alcohol consumption in the past 12 months among those respondents who drank in the last 12 months.

Instrument question:

- During the past 12 months, how frequently have you had at least one alcoholic drink?

Frequency of alcohol consumption in the past 12 months													
Age Group (years)	Men												95% CI
	n	% Daily	95% CI	% 5-6 days/week	95% CI	% 3-4 days/week	95% CI	% 1-2 days/week	95% CI	% 1-3 days/month	95% CI	% < once a month	
15-29	615	4.7	2.5-6.8	5.4	2.6-8.1	12.9	9.5-16.3	37.6	32.3-43.0	22.2	17.4-26.9	17.3	13.3-21.3
30-44	647	14.0	10.1-17.8	7.2	4.3-10.2	16.8	13.3-20.4	36.7	31.8-41.6	15.4	11.8-19.0	9.8	7.1-12.6
45-59	406	12.7	8.4-17.0	6.9	4.1-9.7	16.2	11.6-20.8	35.1	29.3-40.9	18.5	13.6-23.3	10.6	6.8-14.4
60-69	147	10.9	3.6-18.2	3.9	0.6-7.2	16.9	8.3-25.6	36.2	26.1-46.3	16.6	9.5-23.7	15.4	8.0-22.9
15-69	1815	8.7	6.7-10.8	6.0	4.3-7.8	14.7	12.2-17.2	36.9	33.4-40.3	19.5	16.3-22.8	14.2	11.6-16.7

Frequency of alcohol consumption in the past 12 months													
Age Group (years)	Women												95% CI
	n	% Daily	95% CI	% 5-6 days/week	95% CI	% 3-4 days/week	95% CI	% 1-2 days/week	95% CI	% 1-3 days/month	95% CI	% < once a month	
15-29	772	3.1	1.5-4.6	1.0	0.1-1.8	6.0	3.4-8.6	29.0	24.6-33.3	26.6	22.1-31.1	34.4	28.6-40.2
30-44	745	5.0	2.5-7.5	2.6	0.8-4.5	6.5	4.1-8.8	27.9	23.2-32.6	31.6	26.5-36.7	26.4	21.4-31.4
45-59	375	2.7	0.7-4.8	1.7	0.2-3.1	7.4	2.4-12.4	28.2	21.9-34.4	27.4	21.1-33.8	32.6	25.9-39.3
60-69	138	0.0	0.0-0.0	0.0	0.0-0.0	2.8	0.3-5.3	19.7	10.8-28.5	40.2	27.9-52.6	37.2	23.6-50.9
15-69	2030	3.5	2.1-4.9	1.5	0.7-2.4	6.2	4.3-8.1	28.1	24.9-31.3	28.8	25.3-32.4	31.8	27.5-36.0

Frequency of alcohol consumption in the past 12 months

Age Group (years)	Both Sexes												
	n	% Daily	95% CI	% 5-6 days/week	95% CI	% 3-4 days/week	95% CI	% 1-2 days/week	95% CI	% 1-3 days/month	95% CI	% < once a month	95% CI
15-29	1387	4.1	2.5-5.7	3.7	1.9-5.5	10.3	7.8-12.9	34.4	30.3-38.5	23.8	20.1-27.5	23.7	19.8-27.6
30-44	1392	10.0	7.3-12.7	5.2	3.4-7.0	12.2	9.9-14.5	32.8	29.6-36.0	22.6	19.6-25.6	17.2	14.1-20.3
45-59	781	9.3	6.3-12.3	5.1	3.2-7.0	13.2	9.7-16.7	32.7	28.2-37.3	21.5	17.2-25.8	18.1	14.4-21.8
60-69	285	7.3	2.5-12.1	2.6	0.4-4.8	12.3	6.3-18.2	30.8	22.9-38.6	24.4	17.3-31.6	22.7	16.0-29.4
15-69	1387	4.1	2.5-5.7	3.7	1.9-5.5	10.3	7.8-12.9	34.4	30.3-38.5	23.8	20.1-27.5	23.7	19.8-27.6

Drinking occasions in the past 30 days

Description: Mean number of occasions with at least one drink in the past 30 days among current (past 30 days) drinkers.

Instrument question:

- During the past 30 days, on how many occasions did you have at least one alcoholic drink?

Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers										
Age Group (years)	Men			Women			Both Sexes			
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI	
15-29	552	5.2	-	676	3.8	3.2-4.3	1228	4.7	4.0-5.3	
30-44	605	7.5	-	658	5.1	4.2-6.0	1263	6.4	5.5-7.3	
45-59	370	7.5	-	318	4.6	3.7-5.5	688	6.5	5.5-7.5	
60-69	135	7.3	-	121	3.5	2.8-4.2	256	6.1	4.8-7.4	
15-69	1662	6.3	-	1773	4.3	3.7-4.9	3435	5.5	4.9-6.2	

Standard drinks per drinking occasion

Description: Mean number of standard drinks consumed on a drinking occasion among current (past 30 days) drinkers.

Instrument question:

- During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one occasion?

Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers										
Age Group (years)	Men			Women			Both Sexes			
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI	
15-29	559	3.8	-	680	2.2	1.9-2.4	1239	3.2	3.0-3.5	
30-44	613	4.7	-	659	2.4	2.2-2.6	1272	3.7	3.5-4.0	
45-59	383	5.0	-	321	2.2	2.0-2.3	704	4.1	3.8-4.4	
60-69	137	4.9	-	120	2.1	1.8-2.4	257	4.0	3.4-4.5	
15-69	1692	4.3	-	1780	2.3	2.1-2.4	3472	3.5	3.4-3.7	

Average volume drinking levels among all respondents

Description: Percentage of respondents with different drinking levels. A standard drink contains approximately 10g of pure alcohol.

Instrument questions:

- During the past 30 days, on how many occasions did you have at least one alcoholic drink?
- During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one occasion?

Drinking at high-end level among all respondents ($\geq 60g$ of pure alcohol on average per occasion among men and $\geq 40g$ of pure alcohol on average per occasion among women)

Age Group (years)	Men			Women			Both Sexes		
	n	% ≥60g	95% CI	n	% ≥40g	95% CI	n	% high-end level	95% CI
15-29	1433	0.4	0.1-0.6	2509	0.1	0.0-0.2	3942	0.2	0.1-0.4
30-44	1419	1.5	0.5-2.5	2052	0.3	0.0-0.6	3471	0.9	0.3-1.4
45-59	765	1.9	0.5-3.2	899	0.0	0.0-0.0	1664	1.1	0.3-1.9
60-69	307	2.9	0.0-5.9	332	0.0	0.0-0.0	639	1.8	0.0-3.6
15-69	3924	1.0	0.6-1.4	5792	0.1	0.0-0.2	9716	0.6	0.3-0.8

Drinking at intermediate level among all respondents (40-59.9g of pure alcohol on average per occasion among men and 20-39.9g of pure alcohol on average per occasion among women)

Age Group (years)	Men			Women			Both Sexes		
	n	% 40-59.9g	95% CI	n	% 20-39.9g	95% CI	n	% intermediate level	95% CI
15-29	1433	1.5	0.6-2.3	2509	0.6	0.2-0.9	3942	1.0	0.6-1.5
30-44	1419	2.3	1.1-3.5	2052	1.8	0.5-3.0	3471	2.0	1.1-2.9
45-59	765	2.0	0.8-3.2	899	1.5	0.5-2.5	1664	1.8	1.0-2.6
60-69	307	2.6	0.6-4.7	332	0.3	0.0-1.0	639	1.8	0.5-3.0
15-69	3924	1.8	1.1-2.5	5792	1.0	0.5-1.5	9716	1.4	0.9-1.9

Drinking at lower-end level among all respondents (<40g of pure alcohol on average per occasion among men and <20g of pure alcohol on average per occasion among women)

Age Group (years)	Men			Women			Both Sexes		
	n	% <40g	95% CI	n	% <20g	95% CI	n	% lower-end level	95% CI
15-29	1433	40.4	36.0-44.8	2509	28.6	24.8-32.3	3942	35.0	31.2-38.7
30-44	1419	43.2	38.8-47.5	2052	35.7	31.9-39.6	3471	39.5	36.1-43.0
45-59	765	52.8	47.3-58.3	899	37.4	32.3-42.6	1664	46.4	42.0-50.8
60-69	307	44.9	36.5-53.4	332	38.1	30.0-46.2	639	42.3	35.8-48.9
15-69	3924	43.1	39.5-46.7	5792	32.0	28.9-35.2	9716	38.0	34.9-41.2

Description: Percentage of current (past 30 days) drinkers with different drinking levels.

A standard drink contains approximately 10g of pure alcohol.

Instrument questions:

- During the past 30 days, on how many occasions did you have at least one alcoholic drink?
- During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one occasion?

Average volume drinking levels among current (past 30 days) drinkers

High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers							
Age Group (years)	Men						
	n	% high-end (≥60g)	95% CI	% intermediate (40-59.9g)	95% CI	% lower-end (<40g)	95% CI
15-29	552	0.8	0.2-1.5	3.4	1.4-5.5	95.7	93.6-97.8
30-44	603	3.2	1.2-5.2	4.8	2.3-7.4	92.0	88.8-95.2
45-59	370	3.3	1.0-5.7	3.6	1.4-5.7	93.1	89.9-96.3
60-69	133	5.8	0.0-11.5	5.2	1.2-9.2	89.0	82.3-95.7
15-69	1658	2.1	1.3-3.0	3.9	2.4-5.4	94.0	92.1-95.9

High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers

Age Group (years)	Women						
	n	% high-end (≥40g)	95% CI	% intermediate (20-39.9g)	95% CI	% lower-end (<20g)	95% CI
15-29	675	0.2	0.0-0.5	1.9	0.6-3.2	97.9	96.5-99.2
30-44	656	0.7	0.0-1.5	4.6	1.5-7.8	94.7	91.4-97.9
45-59	315	0.0	0.0-0.0	3.8	1.2-6.4	96.2	93.6-98.8
60-69	119	0.0	0.0-0.0	0.9	0.0-2.6	99.1	97.4-100.0
15-69	1765	0.3	0.0-0.6	3.0	1.5-4.5	96.7	95.1-98.3

High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers							
Age Group (years)	Both sexes						
	n	% high-end	95% CI	% intermediate	95% CI	% lower-end	95% CI
15-29	1227	0.6	0.1-1.0	2.9	1.5-4.3	96.5	95.1-98.0
30-44	1259	2.1	0.8-3.4	4.8	2.7-6.8	93.2	90.7-95.6
45-59	685	2.2	0.6-3.8	3.6	1.9-5.4	94.1	91.7-96.5
60-69	252	3.9	0.0-7.9	3.8	1.1-6.6	92.3	87.6-96.9
15-69	3423	1.4	0.9-2.0	3.6	2.3-4.8	95.0	93.4-96.5

Diet

Mean number of days of fruit and vegetable consumption

Description: mean number of days fruit and vegetables consumed.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- In a typical week, on how many days do you eat vegetables?

Mean number of days fruit consumed in a typical week									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
15-29	1440	1.0	0.8-1.2	2516	1.1	1.0-1.2	3956	1.1	0.9-1.2
30-44	1436	0.9	0.7-1.0	2060	0.9	0.7-1.0	3496	0.9	0.8-1.0
45-59	780	0.6	0.5-0.7	909	0.6	0.5-0.7	1689	0.6	0.5-0.7
60-69	317	0.6	0.4-0.8	335	0.5	0.4-0.6	652	0.6	0.4-0.7
15-69	3973	0.9	0.8-1.0	5820	1.0	0.9-1.1	9793	0.9	0.8-1.0

Mean number of days vegetables consumed in a typical week									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
15-29	1432	1.5	1.3-1.6	2510	1.6	1.5-1.8	3942	1.5	1.4-1.7
30-44	1432	1.4	1.2-1.6	2052	1.5	1.4-1.7	3484	1.5	1.3-1.6
45-59	778	1.3	1.1-1.5	904	1.2	1.0-1.4	1682	1.3	1.1-1.4
60-69	317	1.3	1.0-1.5	330	1.1	0.8-1.3	647	1.2	1.0-1.4
15-69	3959	1.4	1.3-1.6	5796	1.5	1.4-1.7	9755	1.5	1.3-1.6

Mean number of servings of fruit and vegetable consumption

Description: mean number of fruit, vegetable, and combined fruit and vegetable servings on average per day.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- How many servings of fruit do you eat on one of those days?
- In a typical week, on how many days do you eat vegetables?
- How many servings of vegetables do you eat on one of those days?

Mean number of servings of fruit on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI
15-29	1439	0.4	0.3-0.5	2510	0.4	0.3-0.4	3949	0.4	0.3-0.4
30-44	1435	0.3	0.2-0.4	2055	0.3	0.2-0.3	3490	0.3	0.2-0.4
45-59	779	0.2	0.1-0.3	907	0.2	0.1-0.2	1686	0.2	0.2-0.3
60-69	317	0.2	0.1-0.3	331	0.2	0.1-0.2	648	0.2	0.1-0.3
15-69	3970	0.3	0.3-0.4	5803	0.3	0.3-0.4	9773	0.3	0.3-0.4

Mean number of servings of vegetables on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI
15-29	1432	0.5	0.4-0.6	2506	0.7	0.5-0.8	3938	0.6	0.5-0.7
30-44	1431	0.6	0.4-0.7	2051	0.7	0.6-0.9	3482	0.6	0.5-0.8
45-59	778	0.6	0.4-0.8	900	0.5	0.4-0.6	1678	0.6	0.4-0.7
60-69	317	0.4	0.3-0.6	327	0.4	0.3-0.6	644	0.4	0.3-0.6
15-69	3958	0.5	0.4-0.6	5784	0.6	0.5-0.8	9742	0.6	0.5-0.7

Mean number of servings of fruit and/or vegetables on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI
15-29	1440	0.9	0.7-1.0	2513	1.0	0.9-1.2	3953	1.0	0.8-1.1
30-44	1435	0.9	0.7-1.1	2059	1.0	0.8-1.2	3494	0.9	0.8-1.1
45-59	780	0.8	0.6-1.1	909	0.7	0.5-0.8	1689	0.8	0.6-0.9
60-69	317	0.6	0.4-0.9	333	0.6	0.4-0.8	650	0.6	0.4-0.8
15-69	3972	0.9	0.7-1.0	5814	1.0	0.8-1.1	9786	0.9	0.8-1.0

Fruit and vegetable consumption per day

Description: Frequency of fruit and/or vegetable consumption.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- How many servings of fruit do you eat on one of those days?
- In a typical week, on how many days do you eat vegetables?
- How many servings of vegetables do you eat on one of those days?

Number of servings of fruit and/or vegetables on average per day

Age Group (years)	Men								
	n	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
15-29	1440	72.6	68.4-76.8	20.5	17.1-23.9	5.3	3.0-7.7	1.6	0.8-2.4
30-44	1435	74.3	70.8-77.9	18.9	15.8-21.9	4.3	2.7-5.9	2.5	1.0-4.0
45-59	780	78.6	73.7-83.5	14.6	10.6-18.5	4.3	2.5-6.1	2.5	1.0-4.0
60-69	317	81.3	74.6-88.0	15.1	9.1-21.2	2.2	0.5-3.9	1.3	0.0-2.7
15-69	3972	74.4	71.1-77.6	18.9	16.3-21.6	4.8	3.2-6.3	2.0	1.1-2.8

Number of servings of fruit and/or vegetables on average per day									
Age Group (years)	Women								
	n	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
15-29	2513	69.7	66.5-72.9	21.7	19.1-24.2	5.6	4.0-7.2	3.0	1.9-4.1
30-44	2059	73.2	69.4-77.1	19.3	16.2-22.4	4.2	2.7-5.6	3.3	1.9-4.8
45-59	909	81.6	78.0-85.2	13.1	10.1-16.2	3.1	1.7-4.5	2.2	1.1-3.3
60-69	333	85.8	80.3-91.2	10.0	5.3-14.6	3.2	0.1-6.3	1.1	0.0-2.2
15-69	5814	72.8	70.0-75.5	19.5	17.4-21.6	4.8	3.6-6.0	2.9	1.9-3.9

Number of servings of fruit and/or vegetables on average per day									
Age Group (years)	Both Sexes								
	n	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
15-29	3953	71.3	67.9-74.6	21.0	18.4-23.6	5.5	3.7-7.2	2.2	1.5-3.0
30-44	3494	73.8	70.6-77.0	19.1	16.6-21.5	4.2	2.9-5.5	2.9	1.7-4.1
45-59	1689	79.9	76.4-83.3	14.0	11.3-16.7	3.8	2.5-5.0	2.4	1.2-3.6
60-69	650	83.0	78.1-87.8	13.2	9.0-17.4	2.6	1.0-4.2	1.2	0.1-2.4
15-69	9786	73.6	70.8-76.4	19.2	17.1-21.3	4.8	3.5-6.1	2.4	1.6-3.2

Fruit and vegetable consumption per day

Description: Percentage of those eating less than five servings of fruit and/or vegetables on average per day.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- How many servings of fruit do you eat on one of those days?
- In a typical week, on how many days do you eat vegetables?
- How many servings of vegetables do you eat on one of those days?

Less than five servings of fruit and/or vegetables on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI
15-29	1440	98.4	97.6-99.2	2513	97.0	95.9-98.1	3953	97.8	97.0-98.5
30-44	1435	97.5	96.0-99.0	2059	96.7	95.2-98.1	3494	97.1	95.9-98.3
45-59	780	97.5	96.0-99.0	909	97.8	96.7-98.9	1689	97.6	96.4-98.8
60-69	317	98.7	97.3-100.0	333	99.0	97.8-100.0	650	98.8	97.6-99.9
15-69	3972	98.0	97.2-98.9	5814	97.1	96.1-98.1	9786	97.6	96.8-98.4

Adding salt at meal

Description: Percentage of all respondents who always or often add salt or salty sauce to their food before eating or as they are eating.

Instrument question:

- How often do you add salt or a salty sauce such as soya sauce to your food right before you eat it or as you are eating it?

Add salt always or often before eating or when eating									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1439	61.0	56.1-65.9	2516	62.0	57.6-66.5	3955	61.5	57.3-65.7
30-44	1434	60.7	55.8-65.6	2060	60.8	56.3-65.3	3494	60.7	56.5-64.9
45-59	780	56.0	50.0-62.1	908	57.8	52.0-63.6	1688	56.8	51.8-61.7
60-69	317	57.4	49.1-65.7	335	55.4	46.7-64.1	652	56.7	49.8-63.5
15-69	3970	60.0	55.9-64.1	5819	60.9	57.0-64.8	9789	60.4	56.6-64.2

Adding salt when cooking

Description: Percentage of all respondents who always or often add salt to their food when cooking or preparing foods at home.

Instrument question:

- How often is salt, salty seasoning or a salty sauce added in cooking or preparing foods in your household?

Add salt always or often when cooking or preparing food at home									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1424	79.7	75.3-84.1	2511	82.7	79.0-86.4	3935	81.1	77.4-84.8
30-44	1431	78.1	73.3-82.9	2059	80.9	77.1-84.7	3490	79.5	75.6-83.3
45-59	772	71.7	65.8-77.6	908	78.3	73.6-83.0	1680	74.5	70.0-78.9
60-69	313	68.8	59.2-78.5	334	80.0	74.1-85.9	647	73.0	66.0-80.1
15-69	3940	77.6	73.4-81.8	5812	81.5	78.4-84.7	9752	79.4	76.0-82.8

Salty processed food consumption

Description: Percentage of all respondents who always or often eat processed foods high in salt.

Instrument question:

- How often do you eat processed food high in salt?

Always or often consume processed food high in salt									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1386	10.2	7.8-12.6	2428	8.9	6.9-11.0	3814	9.6	7.8-11.5
30-44	1397	10.0	7.6-12.4	1984	8.1	6.2-10.1	3381	9.1	7.2-11.0
45-59	751	7.9	5.2-10.7	882	6.9	4.6-9.2	1633	7.5	5.5-9.5
60-69	305	9.5	5.4-13.6	326	6.1	3.0-9.2	631	8.2	5.4-11.1
15-69	3839	9.8	7.9-11.7	5620	8.3	6.7-10.0	9459	9.1	7.6-10.7

Salt consumption

Description: Percentage of all respondents who think they consume far too much or too much salt.

Instrument question:

- How much salt or salty sauce do you think you consume?

Think they consume far too much or too much salt										
Age Group (years)	Men			Women			Both Sexes			
	n	%	95% CI	n	%	95% CI	n	%	95% CI	
15-29	1431	10.3	7.7-12.9	2503	9.6	8.0-11.3	3934	10.0	8.3-11.7	
30-44	1422	13.1	10.4-15.7	2053	11.6	9.6-13.6	3475	12.4	10.5-14.2	
45-59	774	12.8	9.5-16.1	903	13.2	9.8-16.6	1677	13.0	10.4-15.5	
60-69	313	8.7	4.6-12.8	329	11.8	7.0-16.6	642	9.9	6.7-13.0	
15-69	3940	11.3	9.5-13.1	5788	10.7	9.3-12.1	9728	11.0	9.7-12.4	

Self-reported quantity of salt consumed											
Men											
Age Group (years)	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amount	95% CI	% Too little	95% CI	% Far too little	95% CI
15-29	1431	1.4	0.3-2.5	8.9	6.5-11.3	79.4	76.0-82.8	8.9	6.9-10.8	1.4	0.4-2.5
30-44	1422	1.6	0.7-2.5	11.5	9.1-13.9	74.3	70.4-78.2	11.2	8.8-13.7	1.4	0.4-2.3
45-59	774	1.6	0.5-2.6	11.2	8.1-14.3	72.4	68.1-76.7	13.3	10.2-16.4	1.5	0.3-2.8
60-69	313	1.1	0.0-2.3	7.6	3.7-11.6	64.8	57.5-72.0	22.8	15.8-29.8	3.8	0.8-6.7
15-69	3940	1.5	0.7-2.2	9.8	8.2-11.5	76.4	73.7-79.1	10.8	9.2-12.4	1.5	0.7-2.4

Self-reported quantity of salt consumed											
Women											
Age Group (years)	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amount	95% CI	% Too little	95% CI	% Far too little	95% CI
15-29	2503	1.7	0.8-2.6	7.9	6.5-9.3	78.5	75.8-81.2	11.4	9.6-13.3	0.4	0.1-0.7
30-44	2053	1.2	0.6-1.8	10.4	8.4-12.4	74.5	71.5-77.5	12.6	10.5-14.7	1.3	0.5-2.1
45-59	903	0.7	0.0-1.4	12.5	9.3-15.7	66.3	61.6-70.9	18.4	14.4-22.3	2.2	0.7-3.6
60-69	329	1.3	0.0-3.1	10.5	5.9-15.0	60.3	53.4-67.3	24.9	19.0-30.9	3.0	0.8-5.2
15-69	5788	1.4	0.8-2.0	9.3	8.0-10.5	75.2	73.0-77.4	13.1	11.6-14.6	1.0	0.6-1.4

Self-reported quantity of salt consumed											
Both Sexes											
Age Group (years)	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amount	95% CI	% Too little	95% CI	% Far too little	95% CI
15-29	3934	1.6	0.7-2.4	8.5	6.9-10.0	79.0	76.5-81.5	10.0	8.6-11.5	1.0	0.4-1.6
30-44	3475	1.4	0.8-2.0	11.0	9.3-12.7	74.4	71.6-77.2	11.9	10.1-13.7	1.3	0.7-2.0
45-59	1677	1.2	0.5-1.9	11.8	9.3-14.2	69.9	66.5-73.2	15.4	13.0-17.8	1.8	0.7-2.8
60-69	642	1.2	0.1-2.2	8.7	5.7-11.7	63.1	57.9-68.3	23.6	18.7-28.5	3.5	1.4-5.5
15-69	9728	1.5	0.9-2.0	9.6	8.4-10.8	75.9	73.7-78.0	11.8	10.6-13.1	1.3	0.7-1.8

Lowering salt Description: Percentage of respondents who think lowering salt in diet is very, somewhat or not at all important.

Instrument question:

- How important to you is lowering the salt in your diet?

Importance of lowering salt in diet							
Age Group (years)	n	Men					
		% Very important	95% CI	% Somewhat important	95% CI	% Not at all important	95% CI
15-29	1291	63.5	59.2-67.9	28.4	24.4-32.3	8.1	6.0-10.2
30-44	1281	58.7	53.9-63.4	34.5	30.2-38.8	6.8	4.6-9.1
45-59	698	59.8	54.2-65.5	32.2	26.8-37.5	8.0	5.0-11.0
60-69	275	63.3	54.6-72.0	33.1	24.4-41.8	3.6	1.4-5.9
15-69	3545	61.8	58.1-65.4	30.6	27.3-34.0	7.6	6.0-9.1

Importance of lowering salt in diet							
Age Group (years)	n	Women					
		% Very important	95% CI	% Somewhat important	95% CI	% Not at all important	95% CI
15-29	2285	60.7	56.8-64.5	32.6	28.8-36.3	6.8	5.1-8.4
30-44	1869	59.2	54.8-63.6	33.2	29.1-37.3	7.6	5.4-9.8
45-59	822	63.1	57.8-68.4	29.5	24.8-34.3	7.3	4.4-10.2
60-69	295	62.0	53.7-70.4	33.5	25.3-41.6	4.5	1.3-7.7
15-69	5271	60.6	57.4-63.9	32.4	29.3-35.5	7.0	5.6-8.4

Importance of lowering salt in diet							
Age Group (years)	n	Both Sexes					
		% Very important	95% CI	% Somewhat important	95% CI	% Not at all important	95% CI
15-29	3576	62.2	58.7-65.7	30.3	27.0-33.7	7.5	6.1-8.9
30-44	3150	58.9	55.1-62.8	33.9	30.3-37.4	7.2	5.4-9.0
45-59	1520	61.2	56.9-65.5	31.1	27.2-35.0	7.7	5.5-9.9
60-69	570	62.8	56.2-69.4	33.3	26.7-39.8	3.9	2.1-5.8
15-69	8816	61.2	58.1-64.4	31.5	28.5-34.4	7.3	6.1-8.5

Salt knowledge Description: Percentage of respondents who think consuming too much salt could cause a serious health problem.

Instrument question:

- Do you think that too much salt or salty sauce in your diet could cause a health problem?

Think consuming too much salt could cause serious health problem

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	77.7	74.2-81.2	2516	80.1	77.0-83.2	3956	78.8	76.0-81.6
30-44	1436	77.3	73.1-81.5	2060	74.3	70.4-78.2	3496	75.8	72.3-79.4
45-59	780	78.0	73.5-82.6	908	78.8	74.4-83.2	1688	78.3	74.8-81.9
60-69	317	76.7	70.3-83.1	335	81.3	75.3-87.3	652	78.5	73.5-83.4
15-69	3973	77.6	74.7-80.5	5819	78.4	75.6-81.1	9792	78.0	75.4-80.5

Controlling salt intake Description: Percentage of respondents who take specific action on a regular basis to control salt intake.

Instrument question:

- Do you do any of the following on a regular basis to control your salt intake?

Limit consumption of processed foods									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	13.0	9.7-16.3	2516	12.6	10.3-14.9	3956	12.8	10.3-15.3
30-44	1436	10.8	8.1-13.5	2060	15.3	12.2-18.3	3496	13.0	10.6-15.3
45-59	780	10.9	7.7-14.2	908	12.6	9.1-16.0	1688	11.6	9.0-14.2
60-69	317	9.4	4.7-14.0	335	11.5	6.1-17.0	652	10.2	6.2-14.2
15-69	3973	12.0	9.6-14.4	5819	13.3	11.2-15.4	9792	12.6	10.6-14.6

Look at the salt or sodium content on food labels									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	8.3	5.3-11.3	2516	6.3	4.3-8.4	3956	7.4	5.1-9.7
30-44	1436	5.9	3.8-8.1	2060	5.2	3.1-7.2	3496	5.5	3.8-7.3
45-59	780	3.1	1.6-4.6	908	5.8	2.9-8.6	1688	4.2	2.6-5.9
60-69	317	4.1	0.9-7.3	335	4.5	0.5-8.6	652	4.3	1.3-7.2
15-69	3973	6.7	4.7-8.8	5819	5.9	4.1-7.6	9792	6.3	4.6-8.1

Buy low salt/sodium alternatives									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	2.8	1.4-4.2	2516	2.3	1.4-3.1	3956	2.6	1.6-3.5
30-44	1436	2.8	1.5-4.1	2060	4.0	2.2-5.8	3496	3.4	2.1-4.7
45-59	780	1.8	0.6-3.1	908	3.1	0.7-5.4	1688	2.3	0.9-3.8
60-69	317	4.4	0.7-8.1	335	3.8	0.0-7.6	652	4.2	1.0-7.3
15-69	3973	2.7	1.7-3.8	5819	2.9	1.8-4.0	9792	2.8	1.9-3.8

Use spices other than salt when cooking									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	8.5	5.9-11.0	2516	9.1	7.1-11.0	3956	8.7	6.8-10.7
30-44	1436	9.1	6.7-11.4	2060	12.2	8.9-15.4	3496	10.6	8.3-12.9
45-59	780	7.3	4.4-10.1	908	10.2	7.2-13.3	1688	8.5	6.2-10.8
60-69	317	6.3	2.5-10.1	335	10.9	5.4-16.3	652	8.0	4.4-11.6
15-69	3973	8.3	6.4-10.2	5819	10.1	8.2-12.0	9792	9.2	7.5-10.8

Avoid eating foods prepared outside of a home									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	9.3	6.5-12.2	2516	9.1	7.2-10.9	3956	9.2	7.1-11.3
30-44	1436	8.0	5.4-10.6	2060	11.7	9.0-14.3	3496	9.8	7.7-11.9
45-59	780	8.4	5.4-11.5	908	10.5	7.0-14.0	1688	9.3	6.6-12.0
60-69	317	9.7	4.9-14.5	335	9.0	4.0-14.1	652	9.4	5.5-13.4
15-69	3973	8.9	6.8-11.0	5819	10.0	8.2-11.8	9792	9.4	7.6-11.1

Do other things specifically to control your salt intake									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1440	4.3	2.2-6.3	2516	3.4	1.8-5.0	3956	3.9	2.2-5.5
30-44	1436	3.2	1.6-4.9	2060	3.4	1.8-5.0	3496	3.3	1.9-4.7
45-59	780	3.8	1.8-5.8	908	4.3	2.0-6.6	1688	4.0	2.3-5.7
60-69	317	3.3	0.6-6.1	335	4.8	1.2-8.4	652	3.9	1.4-6.4
15-69	3973	3.9	2.2-5.6	5819	3.6	2.2-5.0	9792	3.7	2.3-5.2

oil used most frequently Description: Type of oil or fat most often used for meal preparation in households (presented only for both sexes because results are for the household not individuals).

Instrument question:

- What type of oil or fat is most often used for meal preparation in your household?

Type of oil or fat most often used for meal preparation in household								
n (households)	% Vegetable oil	95% CI	% Lard	95% CI	% Butter	95% CI	% Margarine	95% CI
9704	65.7	62.2-69.1	5.2	3.8-6.6	2.7	1.5-3.8	0.1	0.0-0.2

Type of oil or fat most often used for meal preparation in household						
n (households)	% none in particular	95% CI	% None used	95% CI	% Other	95% CI
9704	0.4	0.1-0.7	4.5	3.1-5.9	21.5	18.3-24.7

Eating outside home Description: Mean number of meals per week eaten outside a home.

Instrument question:

- On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.

Mean number of meals eaten outside a home									
Age Group (years)	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
15-29	1437	0.8	0.7-1.0	2511	0.2	0.2-0.3	3948	0.6	0.5-0.7
30-44	1435	0.7	0.6-0.8	2055	0.1	0.1-0.2	3490	0.4	0.4-0.5
45-59	779	0.5	0.4-0.6	908	0.1	0.1-0.2	1687	0.3	0.3-0.4
60-69	316	0.2	0.1-0.3	334	0.2	0.1-0.3	650	0.2	0.1-0.3
15-69	3967	0.7	0.6-0.8	5808	0.2	0.2-0.2	9775	0.5	0.4-0.5

Physical Activity

Introduction A population's physical activity (or inactivity) can be described in different ways. The two most common ways are

- (1) to estimate a population's mean or median physical activity using a continuous indicator such as MET-minutes per week or time spent in physical activity, and
- (2) to classify certain percentages of a population in specific groups by setting up cut-points for a specific amount of physical activity.

When analyzing GPAQ data, both continuous as well as categorical indicators are used.

Metabolic Equivalent (MET) METs (Metabolic Equivalents) are commonly used to express the intensity of physical activities, and are also used for the analysis of GPAQ data.

Applying MET values to activity levels allows us to calculate total physical activity. MET is the ratio of a person's working metabolic rate relative to the resting metabolic rate. One MET is defined as the energy cost of sitting quietly, and is equivalent to a caloric consumption of 1 kcal/kg/hour. For the analysis of GPAQ data, existing guidelines have been adopted: It is estimated that, compared to sitting quietly, a person's caloric consumption is four times as high when being moderately active, and eight times as high when being vigorously active.

Therefore, for the calculation of a person's total physical activity using GPAQ data, the following MET values are used:

Domain	MET value
Work	<ul style="list-style-type: none">• Moderate MET value = 4.0• Vigorous MET value = 8.0
Transport	Cycling and walking MET value = 4.0
Recreation	<ul style="list-style-type: none">• Moderate MET value = 4.0• Vigorous MET value = 8.0

WHO global recommendations on physical activity for health For the calculation of the categorical indicator on the recommended amount of physical activity for health, the total time spent in physical activity during a typical week and the intensity of the physical activity are taken into account.

Throughout a week, including activity for work, during transport and leisure time, adults should do at least

- 150 minutes of moderate-intensity physical activity OR
- 75 minutes of vigorous-intensity physical activity OR
- An equivalent combination of moderate- and vigorous-intensity physical activity achieving at least 600 MET-minutes.

Former recommendations for comparison purposes For comparison purposes, tables presenting cut-offs from former recommendations are also included in GPAQ data analysis.

The three levels of physical activity suggested for classifying populations were low, moderate, and high. The criteria for these levels are shown below.

- **High**

A person reaching any of the following criteria is classified in this category:

- Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR
- 7 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week.

- **Moderate**

A person not meeting the criteria for the "high" category, but meeting any of the following criteria is classified in this category:

- 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR
- 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR
- 5 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.

- **Low**

A person not meeting any of the above mentioned criteria falls in this category.

Not meeting WHO recommendations on physical activity for health Description: Percentage of respondents not meeting WHO recommendations on physical activity for health (respondents doing less than 150 minutes of moderate-intensity physical activity per week, or equivalent).

Instrument questions

- activity at work
- travel to and from places
- recreational activities

Not meeting WHO recommendations on physical activity for health									
Age Group (years)	Men			Women			Both Sexes		
	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI
15-29	1418	3.4	2.2-4.6	2492	6.7	5.3-8.1	3910	4.9	4.0-5.9
30-44	1415	3.4	2.2-4.7	2017	5.3	4.1-6.5	3432	4.4	3.4-5.3
45-59	762	3.8	2.3-5.4	885	12.8	9.6-15.9	1647	7.5	5.9-9.2
60-69	308	15.3	9.6-21.0	329	30.7	23.4-38.1	637	21.2	16.4-25.9
15-69	3903	4.0	3.0-5.0	5723	7.9	6.7-9.1	9626	5.8	5.0-6.6

Level of total physical activity according to former recommendations Description: Percentage of respondents classified into three categories of total physical activity according to former recommendations.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

Level of total physical activity according to former recommendations

Age Group (years)	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
15-29	1418	8.3	6.2-10.4	12.6	10.3-14.9	79.1	76.1-82.2
30-44	1415	6.9	5.1-8.6	6.2	4.5-7.9	87.0	84.5-89.4
45-59	762	8.2	5.9-10.6	8.3	5.7-10.9	83.5	80.2-86.8
60-69	308	23.5	16.9-30.2	12.9	7.4-18.4	63.6	55.9-71.3
15-69	3903	8.6	7.1-10.2	10.4	8.9-11.9	81.0	78.9-83.1

Level of total physical activity according to former recommendations							
Age Group (years)	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
15-29	2492	19.5	16.8-22.2	23.6	20.7-26.4	57.0	53.2-60.7
30-44	2017	14.9	12.6-17.3	19.9	17.1-22.7	65.2	61.7-68.7
45-59	885	22.3	18.0-26.6	22.2	18.2-26.3	55.4	50.4-60.5
60-69	329	44.5	36.5-52.4	20.9	14.7-27.0	34.6	26.5-42.8
15-69	5723	19.4	17.3-21.6	22.3	20.1-24.5	58.3	55.3-61.3

Level of total physical activity according to former recommendations							
Age Group (years)	Both Sexes						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
15-29	3910	13.4	11.5-15.3	17.6	15.6-19.6	69.0	66.3-71.6
30-44	3432	10.8	9.2-12.4	12.8	11.0-14.6	76.4	74.0-78.8
45-59	1647	14.1	11.6-16.6	14.1	11.8-16.4	71.8	68.8-74.9
60-69	637	31.5	25.9-37.1	15.9	11.8-20.0	52.6	46.6-58.6
15-69	9626	13.6	12.1-15.1	15.8	14.3-17.3	70.6	68.5-72.7

Total physical activity- mean Description: Mean minutes of total physical activity on average per day.
Instrument questions

- activity at work
- travel to and from places
- recreational activities

Mean minutes of total physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
15-29	1418	288.2	270.1-306.3	2492	221.6	207.2-236.0	3910	257.7	243.8-271.6
30-44	1415	376.7	354.0-399.5	2017	276.5	258.2-294.7	3432	328.0	310.3-345.8
45-59	762	350.9	331.0-370.7	885	238.9	219.5-258.3	1647	304.4	287.7-321.1
60-69	308	267.6	231.9-303.3	329	141.1	112.8-169.3	637	219.5	192.5-246.4
15-69	3903	318.2	302.7-333.7	5723	236.2	223.1-249.3	9626	280.8	267.8-293.8

Total physical activity-median Description: Median minutes of total physical activity on average per day.
Instrument questions

- activity at work
- travel to and from places
- recreational activities

Median minutes of total physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
15-29	1418	265.7	128.6-407.1	2492	171.4	68.6-334.2	3910	222.8	377.1-92.8
30-44	1415	360	212.9-505.7	2017	248.6	100.7-411.4	3432	308.5	462.9-154.3
45-59	762	351.4	205.7-471.4	885	192.9	60-381.4	1647	300	440-128.6
60-69	308	257.1	81.4-402.8	329	68.6	8.6-214.2	637	171.4	360-30
15-69	3903	300	154.2-450	5723	188.6	71.4 -360.0	9626	257.1	102.9-411.4

Domain-specific physical activity-mean Description: Mean minutes spent in work-, transport- and recreation-related physical activity on average per day.

- Instrument questions:
- activity at work
 - travel to and from places
 - recreational activities

Mean minutes of work-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
15-29	1418	238.6	222.5-254.7	2492	187.9	174.3-201.6	3910	215.4	202.8-227.9
30-44	1415	331.4	309.9-352.8	2017	244.4	226.8-262.1	3432	289.1	272.4-305.9
45-59	762	310.6	292.2-328.9	885	205.7	187.6-223.8	1647	267.0	251.6-282.5
60-69	308	236.9	202.6-271.1	329	118.9	92.8-145.0	637	192.0	166.2-217.8
15-69	3903	271.9	258.2-285.7	5723	203.4	190.9-215.9	9626	240.7	228.8-252.6

Mean minutes of transport-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
15-29	1418	40.3	35.0-45.5	2492	31.3	27.1-35.6	3910	36.2	32.3-40.1
30-44	1415	43.2	37.8-48.6	2017	31.0	27.2-34.8	3432	37.3	33.4-41.2
45-59	762	38.6	33.1-44.1	885	30.9	25.1-36.7	1647	35.4	31.0-39.8
60-69	308	30.3	22.6-38.0	329	21.9	14.7-29.2	637	27.1	21.2-33.0
15-69	3903	40.3	36.0-44.6	5723	30.9	27.5-34.2	9626	36.0	32.6-39.3

Mean minutes of recreation-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI

15-29	1418	9.4	6.8-11.9	2492	2.4	1.6-3.1	3910	6.2	4.7-7.6
30-44	1415	2.2	0.9-3.4	2017	1.0	0.4-1.5	3432	1.6	0.8-2.3
45-59	762	1.7	0.0-3.7	885	2.4	0.6-4.1	1647	2.0	0.6-3.4
60-69	308	0.4	0.0-1.0	329	0.3	0.0-0.7	637	0.4	0.0-0.7
15-69	3903	6.0	4.5-7.6	5723	1.9	1.4-2.4	9626	4.2	3.2-5.1

Domain-specific physical activity - median

Description: Median minutes spent on average per day in work-, transport- and recreation-related physical activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

Median minutes of work-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
15-29	1418	214.3	85.7-351.4	2492	137.1	42.9-300	3910	180	60-330
30-44	1415	317.1	171.4-462.9	2017	210	72.9-364.3	3432	265.7	111.4-428.6
45-59	762	317.1	171.4-428.6	885	154.3	38.6-342.9	1647	257.1	102.9-411.4
60-69	308	222.9	40-367.9	329	51.4	0-192.9	637	137.1	4.3-334.3
15-69	3903	257.1	120.0-398.6	5723	154.3	50.0-321.4	9626	214.3	68.6-360.0

Median minutes of transport-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
15-29	1418	25.7	5.7-51.4	2492	17.1	0-34.2	3910	21.4	0-42.9
30-44	1415	25.7	0-60	2017	17.1	0-38.6	3432	21.4	0-51.4
45-59	762	25	0-51.4	885	12.9	0-34.3	1647	19.3	0-45
60-69	308	12.9	0-42.9	329	5.7	0-25.7	637	8.6	0-30
15-69	3903	25.7	0-51.4	5723	17.1	0-34.3	9626	21.4	0-42.9

Median minutes of recreation-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
15-29	1418	0	(0-0)	2492	0	(0-0)	3910	0	(0-0)
30-44	1415	0	(0-0)	2017	0	(0-0)	3432	0	(0-0)
45-59	762	0	(0-0)	885	0	(0-0)	1647	0	(0-0)
60-69	308	0	(0-0)	329	0	(0-0)	637	0	(0-0)
15-69	3903	0	(0-0)	5723	0	(0-0)	9626	0	(0-0)

No physical activity by domain Description: Percentage of respondents classified as doing no work-, transport- or recreational-related physical activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

No work-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity at work	95% CI	n	% no activity at work	95% CI	n	% no activity at work	95% CI
15-29	1418	7.7	6.0-9.5	2492	9.0	7.0-11.1	3910	8.3	6.9-9.8
30-44	1415	4.9	3.4-6.4	2017	7.1	5.4-8.7	3432	6.0	4.8-7.1
45-59	762	7.3	5.2-9.4	885	15.2	11.8-18.6	1647	10.6	8.5-12.6
60-69	308	20.9	14.7-27.0	329	31.2	24.2-38.3	637	24.8	19.9-29.7
15-69	3903	7.6	6.3-8.9	5723	10.0	8.5-11.6	9626	8.7	7.6-9.8

No transport-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity for transport	95% CI	n	% no activity for transport	95% CI	n	% no activity for transport	95% CI
15-29	1418	22.4	18.4-26.4	2492	31.7	27.5-35.9	3910	26.7	22.9-30.4
30-44	1415	26.1	21.6-30.6	2017	33.2	28.6-37.9	3432	29.6	25.4-33.7
45-59	762	29.6	24.3-34.9	885	37.4	32.1-42.7	1647	32.8	28.3-37.3
60-69	308	38.3	29.4-47.2	329	45.5	37.5-53.5	637	41.0	34.5-47.6
15-69	3903	25.1	21.5-28.7	5723	33.3	29.6-37.1	9626	28.9	25.4-32.3

No recreation-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity at recreation	95% CI	n	% no activity at recreation	95% CI	n	% no activity at recreation	95% CI
15-29	1418	76.2	72.5-79.9	2492	91.4	89.6-93.3	3910	83.2	80.7-85.6
30-44	1415	96.5	95.3-97.7	2017	98.9	98.5-99.3	3432	97.7	97.0-98.3
45-59	762	96.4	94.6-98.2	885	97.6	96.1-99.1	1647	96.9	95.6-98.2
60-69	308	98.8	97.0-100.0	329	99.5	99.0-100	637	99.1	98.0-100
15-69	3903	85.3	83.0-87.5	5723	94.5	93.5-95.6	9626	89.5	88.0-91.0

Composition of total physical activity

Description: Percentage of work, transport and recreational activity contributing to total activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

Composition of total physical activity							
Men							
Age Group (years)	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
15-29	1376	75.1	72.9-77.3	19.2	17.3-21.1	5.7	4.1-7.3
30-44	1372	84.4	82.8-86.1	14.9	13.2-16.5	0.7	0.4-1.0
45-59	727	84.1	82.0-86.2	15.2	13.2-17.2	0.7	0.1-1.3
60-69	273	77.3	71.4-83.3	22.6	16.6-28.5	0.1	0.0-0.3
15-69	3748	78.8	77.3-80.3	17.7	16.3-19.1	3.5	2.6-4.4

Composition of total physical activity							
Women							
Age Group (years)	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
15-29	2344	77.8	75.6-79.9	20.2	18.1-22.2	2.1	1.5-2.6
30-44	1882	83.4	81.4-85.4	16.1	14.1-18.0	0.5	0.3-0.7
45-59	790	78.1	75.1-81.1	20.4	17.6-23.3	1.4	0.2-2.6
60-69	258	70.2	63.5-76.9	29.5	22.7-36.2	0.4	0.0-0.8
15-69	5274	79.2	77.4-80.9	19.3	17.6-21.1	1.5	1.1-1.9

Composition of total physical activity							
Both Sexes							
Age Group (years)	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
15-29	3720	76.3	74.6-78.0	19.7	18.1-21.3	4.0	3.1-5.0
30-44	3254	83.9	82.5-85.4	15.5	14.0-16.9	0.6	0.4-0.8
45-59	1517	81.7	79.8-83.5	17.3	15.6-19.1	1.0	0.4-1.6
60-69	531	74.8	70.1-79.5	25.0	20.3-29.7	0.2	0.0-0.4
15-69	9022	79.0	77.6-80.3	18.5	17.1-19.8	2.6	2.0-3.2

No Description: Percentage of respondents not engaging in vigorous physical activity.
vigorous
physical
activity

- Instrument questions:
- activity at work
 - recreational activities

No vigorous physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI
15-29	1418	23.6	20.2-27.0	2492	66.9	63.4-70.5	3910	43.5	40.7-46.2
30-44	1415	16.5	13.4-19.7	2017	61.1	56.8-65.4	3432	38.2	34.9-41.4
45-59	762	19.0	15.3-22.6	885	72.4	68.1-76.8	1647	41.2	37.6-44.7
60-69	308	44.2	36.0-52.3	329	87.0	81.6-92.4	637	60.5	54.5-66.4
15-69	3903	22.1	19.8-24.5	5723	66.7	63.8-69.6	9626	42.5	40.3-44.6

Sedentary Description: Minutes spent in sedentary activities on a typical day.

- Instrument question:
- sedentary behaviour

Minutes spent in sedentary activities on average per day					
Age Group (years)	Men				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
15-29	1439	150.2	140.3-160.0	120	(60-210)
30-44	1436	140.4	130.0-150.8	120	(60-180)
45-59	779	149.1	138.0-160.2	120	(60-180)
60-69	317	202.6	178.3-226.9	180	(120-240)
15-69	3971	150.1	142.8-157.5	120.0	(60-180.0)

Minutes spent in sedentary activities on average per day					
Age Group (years)	Women				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
15-29	2516	172.1	163.1-181.1	120	(90-240)
30-44	2060	156.1	146.3-165.9	120	960-180)
45-59	908	186.2	174.8-197.6	180	(105-240)
60-69	335	261.9	235.5-288.3	240	(120-360)
15-69	5819	172.5	165.3-179.8	120.0	(90-240.)

Minutes spent in sedentary activities on average per day					
Age Group (years)	Both Sexes				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
15-29	3955	160.2	152.3-168.1	120	(60-240)
30-44	3496	148.0	139.6-156.5	120	(60-180)
45-59	1687	164.5	155.9-173.1	120	(90-210)
60-69	652	224.8	206.5-243.2	180	(120-300)
15-69	9790	160.3	153.9-166.8	120.0	(60-240.0)

History of Raised Blood Pressure

Blood pressure measurement and diagnosis Description: Blood pressure measurement and diagnosis among all respondents.

Instrument questions:

- Have you ever had your blood pressure measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Have you been told in the past 12 months?

Blood pressure measurement and diagnosis									
Age Group (years)	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	1439	87.7	85.5-89.9	11.4	9.3-13.4	0.5	0.0-1.2	0.4	0.0-0.9
30-44	1436	78.9	76.1-81.7	17.7	15.1-20.4	1.3	0.5-2.0	2.1	1.2-3.0
45-59	779	68.9	64.0-73.7	24.2	19.9-28.5	1.6	0.5-2.8	5.3	3.1-7.5
60-69	317	64.0	56.4-71.7	23.6	17.0-30.1	4.1	1.0-7.2	8.3	3.7-12.9
15-69	3971	81.6	79.6-83.6	15.4	13.6-17.3	1.1	0.6-1.5	1.9	1.3-2.5

Blood pressure measurement and diagnosis									
Age Group (years)	Women								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	2515	74.6	71.9-77.2	23.7	21.1-26.3	0.8	0.3-1.2	0.9	0.5-1.4
30-44	2060	66.9	63.5-70.2	28.8	25.5-32.0	1.5	0.9-2.2	2.8	1.8-3.8
45-59	907	64.2	59.5-68.8	28.5	24.0-33.0	2.6	1.5-3.7	4.7	3.1-6.4
60-69	335	62.3	53.8-70.7	26.5	18.8-34.2	1.9	0.6-3.3	9.3	5.5-13.1
15-69	5817	70.7	68.4-73.0	25.8	23.6-28.1	1.2	0.9-1.6	2.2	1.7-2.7

Blood pressure measurement and diagnosis									
Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	3954	81.7	79.8-83.6	17.0	15.2-18.9	0.6	0.2-1.1	0.6	0.3-1.0
30-44	3496	73.1	70.7-75.5	23.1	20.8-25.4	1.4	0.9-1.9	2.4	1.8-3.1
45-59	1686	66.9	63.2-70.6	26.0	22.6-29.5	2.0	1.2-2.8	5.0	3.6-6.5
60-69	652	63.4	57.5-69.3	24.7	19.6-29.7	3.3	1.3-5.3	8.7	5.5-11.8
15-69	9788	76.6	74.8-78.5	20.2	18.5-21.9	1.1	0.8-1.5	2.1	1.7-2.4

Blood pressure treatment among those diagnosed Description: Raised blood pressure treatment results among those previously diagnosed with raised blood pressure.

Instrument questions:

- Have you ever had your blood pressure measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- In the past two weeks, have you taken any drugs (medication) for raised blood pressure prescribed by a doctor or other health worker?

Currently taking drugs (medication) for raised blood pressure prescribed by doctor or health worker among those diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
15-29	10	45.9	0.0-93.4	53	18.7	4.8-32.6	63	29.4	6.1-52.6
30-44	50	6.5	0.0-14.0	109	25.4	11.6-39.3	159	17.0	7.9-26.0
45-59	62	36.6	20.4-52.8	105	24.8	15.6-34.1	167	31.6	21.1-42.0
60-69	42	50.4	27.2-73.5	59	29.8	15.2-44.4	101	43.1	26.3-60.0
15-69	164	32.7	20.4-45.0	326	23.9	16.7-31.2	490	28.4	20.9-35.8

Blood pressure advice by a traditional healer Description: Percentage of respondents who have sought advice or received treatment from a traditional healer for raised blood pressure among those previously diagnosed with raised blood pressure.

Instrument questions:

- Have you ever had your blood pressure measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Have you ever seen a traditional healer for raised blood pressure?
- Are you currently taking any herbal or traditional remedy for your high blood pressure?

Seen a traditional healer among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
15-29	10	35.8	0.0-86.0	53	3.6	0.0-9.1	63	16.2	0.0-40.2
30-44	50	4.4	0.0-11.5	109	12.9	4.3-21.4	159	9.1	3.3-14.8
45-59	62	29.5	12.0-46.9	105	5.5	1.5-9.6	167	19.2	8.4-30.0
60-69	42	10.6	0.0-21.2	59	8.4	0.0-17.1	101	9.8	2.3-17.4
15-69	164	19.9	7.6-32.2	326	7.9	4.2-11.5	490	13.9	7.0-20.8

Currently taking herbal or traditional remedy for raised blood pressure among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI
15-29	10	35.8	0.0-86.0	53	9.0	0.0-21.6	63	19.6	0.0-43.5
30-44	50	2.5	0.0-7.5	109	5.4	0.0-11.3	159	4.1	0.1-8.1
45-59	62	17.5	2.2-32.8	105	3.1	0.3-6.0	167	11.3	1.9-20.7
60-69	42	10.5	0.0-21.1	59	4.1	0.0-9.9	101	8.3	0.9-15.6
15-69	164	15.2	3.0-27.3	326	5.6	1.5-9.8	490	10.5	3.8-17.1

History of Diabetes

Blood sugar measurement and diagnosis Description: Blood sugar measurement and diagnosis among all respondents.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- Have you been told in the past 12 months?

Blood sugar measurement and diagnosis									
Age Group (years)	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	1439	99.0	98.3-99.6	0.9	0.3-1.4	0.1	0.0-0.2	0.1	0.0-0.4
30-44	1436	96.7	95.6-97.8	2.9	1.8-3.9	0.0	0.0-0.0	0.4	0.1-0.8
45-59	779	94.4	92.2-96.5	3.9	2.1-5.6	0.3	0.0-0.6	1.5	0.3-2.7
60-69	317	92.9	89.3-96.5	5.0	1.7-8.3	0.3	0.0-0.7	1.8	0.5-3.2
15-69	3971	97.4	96.7-98.1	2.0	1.4-2.6	0.1	0.0-0.2	0.5	0.2-0.8

Blood sugar measurement and diagnosis									
Age Group (years)	Women								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	2516	97.5	96.9-98.2	2.4	1.7-3.0	0.0	0.0-0.0	0.1	0.0-0.3
30-44	2060	96.0	95.0-97.1	3.5	2.5-4.4	0.2	0.0-0.6	0.2	0.0-0.5
45-59	908	93.6	91.7-95.5	4.1	2.6-5.6	0.0	0.0-0.1	2.2	1.0-3.5
60-69	335	91.9	88.8-95.0	5.3	2.7-7.8	0.7	0.1-1.2	2.1	0.8-3.5
15-69	5819	96.4	95.8-97.1	3.0	2.4-3.5	0.1	0.0-0.2	0.5	0.3-0.7

Blood sugar measurement and diagnosis									
Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	3955	98.3	97.8-98.8	1.5	1.1-2.0	0.0	0.0-0.1	0.1	0.0-0.3
30-44	3496	96.4	95.5-97.2	3.2	2.4-3.9	0.1	0.0-0.3	0.3	0.1-0.6
45-59	1687	94.0	92.5-95.6	4.0	2.8-5.1	0.2	0.0-0.3	1.8	0.9-2.7
60-69	652	92.5	89.9-95.2	5.1	2.8-7.4	0.4	0.1-0.8	1.9	1.0-2.9
15-69	9790	97.0	96.4-97.5	2.5	2.0-2.9	0.1	0.0-0.2	0.5	0.3-0.7

Diabetes treatment among those diagnosed

Description: Diabetes treatment results among those previously diagnosed with raised blood sugar or diabetes.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker?
- Are you currently taking insulin for diabetes prescribed by a doctor or other health worker?

Currently taking drugs (medication) prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
15-29	4	69.2	6.7-100.0	2	100.0	100.0-100.0	6	79.2	39.8-100
30-44	8	82.2	63.6-100.0	12	44.0	0.0-90.9	20	63.3	33.0-93.5
45-59	18	59.8	28.4-91.1	22	83.2	67.4-98.9	40	70.9	50.9-91.0
60-69	14	62.5	36.5-88.4	19	69.0	46.1-91.8	33	65.4	46.9-83.8
15-69	44	66.2	45.8-86.6	55	73.6	56.8-90.5	99	69.6	56.0-83.1

Currently taking insulin prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking insulin	95% CI	n	% taking insulin	95% CI	n	% taking insulin	95% CI
15-29	4	2.8	0.0-9.6	2	11.4	0.0-31.8	6	5.6	0.0-12.6
30-44	8	59.8	16.6-100.0	12	18.1	0.0-51.0	20	39.2	7.9-70.4
45-59	18	9.2	0.0-19.5	22	64.5	39.5-89.6	40	35.6	14.2-57.0
60-69	14	35.2	5.1-65.4	19	24.2	1.1-47.4	33	30.3	10.1-50.5
15-69	44	22.2	7.1-37.4	55	41.9	20.1-63.7	99	31.2	18.1-44.3

Diabetes advice by traditional healer

Description: Percentage of respondents who have sought advice or treatment from a traditional healer for diabetes among those previously diagnosed.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- Have you ever seen a traditional healer for diabetes or raised blood sugar?
- Are you currently taking any herbal or traditional remedy for your diabetes?

Seen a traditional healer for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
15-29	4	0.0	0.0-0.0	2	0.0	0.0-0.0	6	0.0	0.0-0.0
30-44	8	0.0	0.0-0.0	12	2.6	0.0-8.2	20	1.3	0.0-4.0
45-59	18	11.4	0.1-22.7	22	10.4	0.0-25.6	40	11.0	1.6-20.3
60-69	14	0.7	0.0-2.3	19	10.0	0.0-23.1	33	4.9	0.0-11.0
15-69	44	5.4	0.0-11.2	55	7.5	0.0-15.9	99	6.4	1.7-11.0

Currently taking herbal or traditional treatment for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI
15-29	4	0.0	0.0-0.0	2	0.0	0.0-0.0	6	0.0	0.0-0.0
30-44	8	22.4	0.0-63.7	12	2.6	0.0-8.1	20	12.6	0.0-33.9
45-59	18	11.4	0.1-22.7	22	7.2	0.0-21.4	40	9.4	0.0-18.7
60-69	14	0.0	0.0-0.0	19	8.5	0.0-21.1	33	3.8	0.0-9.5
15-69	44	9.6	0.0-19.6	55	5.6	0.0-13.5	99	7.8	1.4-14.2

1. Traditional Healer: includes all non-qualified people who give treatment.
2. Herbal or traditional: medications that are not scientifically proven as treatment

History of Raised Total Cholesterol

Cholesterol measurement and diagnosis

Description: Total cholesterol measurement and diagnosis among all respondents.

Instrument questions:

- Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised cholesterol?
- Have you been told in the past 12 months?

Total cholesterol measurement and diagnosis									
Men									
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	1439	99.8	99.6-100.0	0.2	0.0-0.4	0.0	0.0-0.0	0.0	0.0-0.0
30-44	1436	99.2	98.6-99.8	0.6	0.1-1.0	0.2	0.0-0.6	0.1	0.0-0.2
45-59	779	98.7	97.4-100.0	1.0	0.0-2.1	0.1	0.0-0.2	0.2	0.0-0.5
60-69	317	99.1	98.1-100.0	0.9	0.0-1.8	0.0	0.0-0.0	0.0	0.0-0.1
15-69	3971	99.5	99.2-99.8	0.4	0.2-0.7	0.1	0.0-0.2	0.0	0.0-0.1

Total cholesterol measurement and diagnosis									
Women									
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	2516	99.7	99.5-99.9	0.2	0.0-0.5	0.0	0.0-0.1	0.0	0.0-0.0
30-44	2060	99.5	99.3-99.8	0.4	0.1-0.6	0.1	0.0-0.2	0.0	0.0-0.0
45-59	908	98.4	97.6-99.2	0.9	0.2-1.5	0.2	0.0-0.5	0.5	0.2-0.8
60-69	335	98.7	97.7-99.7	0.6	0.0-1.3	0.2	0.0-0.4	0.6	0.1-1.1
15-69	5819	99.5	99.3-99.6	0.4	0.2-0.5	0.1	0.0-0.1	0.1	0.0-0.1

Total cholesterol measurement and diagnosis									
Both sexes									
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
15-29	3955	99.8	99.6-99.9	0.2	0.0-0.4	0.0	0.0-0.0	0.0	0.0-0.0
30-44	3496	99.4	99.0-99.7	0.5	0.2-0.7	0.1	0.0-0.3	0.0	0.0-0.1
45-59	1687	98.6	97.8-99.4	1.0	0.3-1.6	0.1	0.0-0.3	0.3	0.1-0.5
60-69	652	99.0	98.2-99.7	0.8	0.1-1.4	0.1	0.0-0.2	0.2	0.0-0.4
15-69	9790	99.5	99.3-99.6	0.4	0.3-0.6	0.1	0.0-0.1	0.1	0.0-0.1

Cholesterol treatment among those diagnosed

Description: Cholesterol treatment results among those previously diagnosed with raised cholesterol.

Instrument questions:

- Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised cholesterol?
- In the past two weeks, have you taken oral treatment (medication) for raised total cholesterol prescribed by a doctor or other health worker?

Currently taking oral treatment (medication) prescribed for raised total cholesterol among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
15-29	3	27.7	0.0-83.2	4	0.0	0.0-0.0	4	0.0	0.0-0.0
30-44	4	8.3	0.0-33.1	5	0.0	0.0-0.0	8	20.8	0.0-44.9
45-59	1	0.0	0.0-0.0	17	31.7	6.4-57.1	21	23.7	4.9-42.5
60-69	8	19.8	1.5-38.0	8	34.7	6.5-62.9	9	31.7	0.0-69.9
15-69	3	27.7	0.0-83.2	34	22.2	6.2-38.1	42	21.2	7.1-35.2

History of Cardiovascular Diseases

History of cardiovascular diseases

Description: Percentage of respondents who have ever had a heart attack or chest pain from heart disease (angina) or a stroke among all respondents.

Instrument questions:

- Have you ever had a heart attack or chest pain from heart disease (angina) or a stroke (cerebrovascular accident or incident)?

Having ever had a heart attack or chest pain from heart disease or a stroke									
Age Group (years)	Men			Women			Both Sexes		
	n	% CVD history	95% CI	n	% CVD history	95% CI	n	% CVD history	95% CI
15-29	1439	1.7	0.9-2.5	2516	3.9	2.6-5.2	3955	2.7	1.9-3.5
30-44	1436	4.1	2.7-5.5	2060	4.3	2.8-5.7	3496	4.2	3.0-5.4
45-59	779	2.6	1.2-4.0	908	5.7	3.8-7.6	1687	3.9	2.7-5.1
60-69	317	5.4	1.6-9.3	335	6.0	2.6-9.4	652	5.6	2.9-8.4
15-69	3971	2.6	1.8-3.3	5819	4.3	3.3-5.3	9790	3.4	2.6-4.1

Lifestyle Advice

Lifestyle advice Description: Percentage of respondents who received lifestyle advice from a doctor or health worker during the past three years among all respondents.

Instrument question:

- During the past three years, has a doctor or other health worker advised you to do any of the following?

Advised by doctor or health worker to quit using tobacco or don't start									
Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
15-29	1439	6.3	4.5-8.1	2516	5.7	4.3-7.1	3955	6.0	4.7-7.4
30-44	1436	9.9	7.2-12.7	2060	6.4	4.7-8.0	3496	8.2	6.5-9.9
45-59	779	9.0	6.4-11.7	908	5.1	3.4-6.8	1687	7.4	5.6-9.2
60-69	317	8.9	4.4-13.3	335	7.1	2.9-11.3	652	8.2	4.9-11.5
15-69	3971	7.7	6.1-9.3	5819	5.8	4.7-7.0	9790	6.9	5.7-8.1

Advised by doctor or health worker to reduce salt in the diet									
Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
15-29	1439	8.9	6.7-11.2	2516	12.1	10.0-14.1	3955	10.4	8.6-12.1
30-44	1436	15.8	12.8-18.9	2060	16.6	14.1-19.2	3496	16.2	14.0-18.4
45-59	779	15.5	12.1-18.9	908	21.3	17.3-25.2	1687	17.9	15.1-20.7
60-69	317	15.6	9.5-21.7	335	21.4	15.4-27.4	652	17.8	13.3-22.2
15-69	3971	11.9	10.0-13.8	5819	14.8	13.1-16.6	9790	13.3	11.6-14.9

Advised by doctor or health worker to eat at least five servings of fruit and/or vegetables each day									
Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
15-29	1439	9.0	6.7-11.3	2516	12.6	10.4-14.8	3955	10.7	8.8-12.5
30-44	1436	12.1	9.4-14.7	2060	14.7	12.4-17.0	3496	13.4	11.4-15.3
45-59	779	11.7	8.8-14.6	908	13.1	10.5-15.8	1687	12.3	10.2-14.4
60-69	317	11.4	6.4-16.5	335	16.8	11.0-22.6	652	13.4	9.5-17.4
15-69	3971	10.3	8.5-12.0	5819	13.4	11.7-15.1	9790	11.7	10.2-13.2

Advised by doctor or health worker to reduce fat in the diet									
Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
15-29	1439	7.3	5.3-9.3	2516	9.4	7.5-11.3	3955	8.3	6.7-9.8
30-44	1436	11.7	8.9-14.6	2060	10.8	8.8-12.8	3496	11.3	9.3-13.2
45-59	779	10.3	7.3-13.3	908	13.4	10.5-16.2	1687	11.6	9.4-13.7
60-69	317	11.2	6.0-16.5	335	14.4	9.1-19.6	652	12.4	8.6-16.2
15-69	3971	9.0	7.3-10.7	5819	10.5	9.0-11.9	9790	9.7	8.3-11.1

Advised by doctor or health worker to start or do more physical activity									
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Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
15-29	1439	6.0	4.3-7.6	2516	7.1	5.5-8.6	3955	6.5	5.2-7.7
30-44	1436	7.4	5.3-9.5	2060	7.7	5.8-9.5	3496	7.5	5.9-9.2
45-59	779	8.4	5.9-10.9	908	7.3	5.4-9.2	1687	8.0	6.2-9.7
60-69	317	9.3	4.6-14.0	335	8.5	4.8-12.2	652	9.0	5.8-12.3
15-69	3971	6.8	5.6-8.1	5819	7.3	6.1-8.5	9790	7.1	6.0-8.1

Advised by doctor or health worker to maintain a healthy body weight or to lose weight									
Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
15-29	1439	3.6	2.3-4.9	2516	5.0	3.7-6.2	3955	4.2	3.3-5.2
30-44	1436	5.4	3.6-7.2	2060	6.2	4.5-7.9	3496	5.8	4.4-7.2
45-59	779	5.3	3.3-7.3	908	5.4	3.7-7.1	1687	5.3	3.9-6.8
60-69	317	6.5	2.9-10.2	335	5.8	3.1-8.5	652	6.3	3.7-8.8
15-69	3971	4.4	3.5-5.4	5819	5.4	4.4-6.4	9790	4.9	4.1-5.7

Cervical Cancer Screening

Cervical cancer screening Description: Percentage of female respondents who have ever had a screening test for cervical cancer among all female respondents.

Instrument question:

- Have you ever had a screening test for cervical cancer, using any of these methods described above?

Age Group (years)	Women		
	n	% ever tested	95% CI
15-29	2396	1.4	0.8-2.0
30-44	1947	2.7	1.5-3.8
45-59	858	2.0	1.0-3.0
60-69	320	1.7	0.6-2.8
15-69	5521	1.9	1.4-2.3

Analysis Information:

- Question used: CX1
- Epi Info program name: Hcervcancer (unweighted); HcervcancerWT (weighted)

Cervical cancer screening among women aged 30-49 years Description: Percentage of female respondents aged 30-49 years who have ever had a screening test for cervical cancer among all female respondents aged 30-49 years.

Instrument question:

- Have you ever had a screening test for cervical cancer, using any of these methods described above?

Age Group (years)	Women		
	n	% ever tested	95% CI
30-49	2273	2.65	1.61-3.69

Analysis Information:

- Question used: CX1
- Epi Info program name: Hcervcancer (unweighted); HcervcancerWT (weighted)

Physical Measurements

Blood pressure Description: Mean blood pressure among all respondents, including those currently on medication for raised blood pressure.

Instrument question:

- Reading 1-3 systolic and diastolic blood pressure

Mean systolic blood pressure (mmHg)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	15-29	1423	117.6	2487	115.1	114.2-116.1	3910	116.5	115.6-117.4
30-44	30-44	1413	120.4	2038	120.9	119.6-122.2	3451	120.6	119.7-121.6
45-59	45-59	768	126.2	894	124.7	123.0-126.4	1662	125.6	124.1-127.0
60-69	60-69	313	130.3	334	136.0	131.8-140.2	647	132.4	129.3-135.6
15-69	TOTAL	3917	120.2	5753	118.7	117.9-119.5	9670	119.5	118.8-120.2

Mean diastolic blood pressure (mmHg)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1423	75.1	74.1-76.1	2487	77.3	76.7-78.0	3910	76.1	75.4-76.8
30-44	1413	77.4	76.6-78.3	2038	80.5	79.7-81.3	3451	78.9	78.3-79.6
45-59	768	79.6	78.3-80.9	894	80.4	79.4-81.3	1662	79.9	79.1-80.8
60-69	313	78.4	76.3-80.4	334	82.3	80.0-84.7	647	79.9	78.2-81.5
15-69	3917	76.5	75.8-77.2	5753	78.8	78.3-79.3	9670	77.5	77.0-78.1

Raised blood pressure Description: Percentage of respondents with raised blood pressure.

Instrument question:

- Reading 1-3 systolic and diastolic blood pressure
- During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?

SBP \geq 140 and/or DBP \geq 90 mmHg, excluding those on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1418	11.0	8.5-13.5	2480	10.0	8.3-11.8	3898	10.6	8.9-12.2
30-44	1408	16.6	13.9-19.3	2024	21.1	18.4-23.8	3432	18.8	16.7-20.8
45-59	761	23.3	19.6-27.1	874	24.3	20.8-27.8	1635	23.7	21.0-26.4
60-69	307	33.9	25.9-41.8	327	43.8	36.0-51.6	634	37.6	31.8-43.5
15-69	3894	15.3	13.5-17.1	5705	16.0	14.6-17.5	9599	15.6	14.4-16.9

SBP \geq 140 and/or DBP \geq 90 mmHg or currently on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1423	11.3	8.8-13.8	2487	10.3	8.5-12.0	3910	10.8	9.2-12.5
30-44	1413	16.8	14.1-19.5	2038	21.5	18.8-24.2	3451	19.1	17.1-21.1
45-59	768	23.7	19.9-27.4	894	25.3	21.7-28.8	1662	24.3	21.6-27.1
60-69	313	35.4	27.3-43.5	334	44.4	36.6-52.1	647	38.8	32.9-44.7
15-69	3917	15.7	13.9-17.5	5753	16.5	15.0-17.9	9670	16.0	14.8-17.3

SBP \geq 160 and/or DBP \geq 100 mmHg, excluding those on medication for raised blood pressure

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1418	2.2	1.1-3.2	2480	2.4	1.5-3.4	3898	2.3	1.6-3.0
30-44	1408	3.8	2.5-5.0	2024	6.9	5.2-8.6	3432	5.3	4.2-6.4
45-59	761	8.9	6.2-11.6	874	8.4	6.1-10.7	1635	8.7	6.8-10.5
60-69	307	9.8	5.5-14.1	327	17.3	12.0-22.5	634	12.6	9.1-16.1
15-69	3894	3.9	3.1-4.8	5705	4.9	4.1-5.8	9599	4.4	3.8-5.0

SBP \geq 160 and/or DBP \geq 100 mmHg or currently on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1423	2.5	1.4-3.6	2487	2.7	1.8-3.7	3910	2.6	1.9-3.3
30-44	1413	4.0	2.7-5.3	2038	7.4	5.7-9.2	3451	5.7	4.5-6.8
45-59	768	9.3	6.6-12.0	894	9.6	7.2-11.9	1662	9.4	7.6-11.3
60-69	313	11.9	6.7-17.1	334	18.1	12.8-23.4	647	14.2	10.3-18.2
15-69	3917	4.3	3.5-5.2	5753	5.4	4.6-6.3	9670	4.8	4.2-5.5

1. SBP: systolic blood pressure
2. DBP: diastolic blood pressure

Treatment and control of raised blood pressure

Description: Percentage of respondents with treated and/or controlled of raised blood pressure among those with raised blood pressure (SBP \geq 140 and/or DBP \geq 90 mmHg) or currently on medication for raised blood pressure.

Instrument questions:

- During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?
- Reading 1-3 systolic and diastolic blood pressure

Respondents with treated and/or controlled raised blood pressure							
Age Group (years)	Men						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP \geq 140 and/or DBP \geq 90	95% CI	% Not on medication and SBP \geq 140 and/or DBP \geq 90	95% CI
15-29	162	2.9	0.2-5.6	0.0	0.0-0.0	97.1	94.4-99.8
30-44	228	0.9	0.0-2.3	0.4	0.0-0.9	98.7	97.2-100.0
45-59	183	0.0	0.0-0.0	1.9	0.0-3.8	98.1	96.2-100.0
60-69	100	0.3	0.0-0.7	6.4	0.0-16.1	93.4	83.7-100.0
15-69	673	1.4	0.3-2.6	1.2	0.1-2.4	97.3	95.7-98.9

Respondents with treated and/or controlled raised blood pressure							
Women							
Age Group (years)	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/or DBP≥90	95% CI	% Not on medication and SBP≥140 and/or DBP≥90	95% CI
15-29	253	1.7	0.0-3.7	1.0	0.0-2.3	97.4	94.9-99.8
30-44	423	1.5	0.0-3.6	1.0	0.0-2.2	97.4	95.1-99.7
45-59	262	2.3	0.0-4.5	2.8	1.0-4.7	94.9	92.1-97.7
60-69	156	0.5	0.0-1.5	1.8	0.0-3.8	97.7	95.5-100.0
15-69	1094	1.6	0.5-2.7	1.4	0.7-2.2	96.9	95.6-98.2

Respondents with treated and/or controlled raised blood pressure							
Both Sexes							
Age Group (years)	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/or DBP≥90	95% CI	% Not on medication and SBP≥140 and/or DBP≥90	95% CI
15-29	415	2.4	0.3-4.4	0.4	0.0-1.0	97.2	95.1-99.4
30-44	651	1.3	0.0-2.5	0.7	0.1-1.4	98.0	96.6-99.4
45-59	445	1.0	0.0-2.0	2.3	1.0-3.7	96.7	95.0-98.3
60-69	256	0.4	0.0-0.8	4.4	0.0-10.1	95.3	89.6-100.0
15-69	1767	1.5	0.6-2.4	1.3	0.6-2.0	97.1	96.0-98.3

Mean heart rate Description: Mean heart rate (beats per minute).

Instrument question:
 • Reading 1-3 heart rate

Mean heart rate (beats per minute)									
Age Group (years)	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
15-29	1423	73.8	72.8-74.7	2487	81.6	80.8-82.4	3910	77.3	76.7-78.0
30-44	1413	73.5	72.6-74.5	2039	79.5	78.7-80.4	3452	76.5	75.8-77.2
45-59	768	74.0	72.8-75.2	897	79.2	78.0-80.3	1665	76.1	75.2-77.1
60-69	313	76.2	74.2-78.2	334	80.0	78.2-81.9	647	77.6	76.1-79.1
15-69	3917	73.9	73.1-74.6	5757	80.7	80.1-81.3	9674	77.0	76.4-77.5

Height, weight and BMI Description: Mean height, weight, and body mass index among all respondents (excluding pregnant women).

Instrument questions:
 • For women: Are you pregnant?
 • Height
 • Weight

Mean height (cm)

Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
15-29	1422	167.1	166.4-167.7	2239	158.5	158.0-159.0
30-44	1410	168.6	168.0-169.2	1912	158.1	157.7-158.5
45-59	767	168.6	167.9-169.4	887	157.2	156.4-158.1
60-69	313	166.3	165.2-167.4	333	155.9	154.8-157.0
15-69	3912	167.6	167.2-168.1	5371	158.1	157.8-158.5

Mean weight (kg)						
Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
15-29	1422	55.2	54.5-55.8	2240	51.3	50.8-51.8
30-44	1410	58.5	57.8-59.1	1912	52.7	52.0-53.4
45-59	767	58.2	57.2-59.3	887	52.2	51.3-53.0
60-69	313	55.3	53.8-56.9	333	49.7	48.4-51.0
15-69	3912	56.4	55.9-56.9	5372	51.8	51.3-52.2

Mean BMI (kg/m ²)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1417	19.7	19.5-19.9	2232	20.4	20.3-20.6	3649	20.0	19.9-20.2
30-44	1406	20.6	20.4-20.8	1902	21.1	20.8-21.3	3308	20.8	20.6-21.0
45-59	766	20.4	20.1-20.7	881	21.2	20.8-21.6	1647	20.7	20.5-21.0
60-69	312	20.0	19.6-20.5	330	20.5	20.0-20.9	642	20.2	19.8-20.6
15-69	3901	20.1	19.9-20.2	5345	20.7	20.6-20.9	9246	20.4	20.2-20.5

BMI Description: Percentage of respondents (excluding pregnant women) in each BMI category.
categories

Instrument questions:

- For women: Are you pregnant?
- Height
- Weight

BMI classifications									
Age Group (years)	Men								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
15-29	1417	22.7	19.5-25.8	74.6	71.4-77.8	2.3	1.3-3.4	0.4	0.1-0.8
30-44	1406	20.7	17.2-24.2	73.4	69.8-77.0	5.4	3.7-7.1	0.5	0.1-0.9
45-59	766	26.9	22.4-31.4	65.7	61.1-70.4	6.5	4.3-8.6	0.9	0.0-1.9
60-69	312	31.8	24.9-38.7	61.4	54.1-68.7	6.2	1.9-10.5	0.6	0.0-1.3
15-69	3901	23.3	21.1-25.5	72.3	70.1-74.6	3.9	2.9-4.8	0.5	0.2-0.8

BMI classifications									
Age Group (years)	Women								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
15-29	2232	18.0	15.6-20.3	75.3	72.8-77.7	5.7	4.3-7.0	1.1	0.7-1.6
30-44	1902	20.2	17.1-23.4	68.5	65.4-71.7	8.5	6.7-10.4	2.7	1.8-3.7
45-59	881	21.9	17.9-25.8	66.0	61.7-70.4	8.2	5.7-10.6	4.0	2.6-5.4
60-69	330	25.6	18.5-32.7	66.1	59.1-73.1	6.9	3.4-10.4	1.4	0.6-2.2
15-69	5345	19.4	17.4-21.4	71.8	69.8-73.7	6.8	5.8-7.9	2.0	1.5-2.4

BMI classifications									
Age Group (years)	Both Sexes								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
15-29	3649	20.6	18.5-22.8	74.9	72.8-77.0	3.8	2.9-4.7	0.7	0.4-1.0
30-44	3308	20.5	17.9-23.0	71.1	68.6-73.6	6.9	5.4-8.3	1.6	1.0-2.1
45-59	1647	24.8	21.4-28.2	65.9	62.3-69.4	7.2	5.4-9.0	2.2	1.4-3.0
60-69	642	29.5	24.4-34.6	63.2	57.7-68.6	6.5	3.4-9.5	0.9	0.4-1.4
15-69	9246	21.6	19.9-23.2	72.1	70.4-73.7	5.2	4.4-6.0	1.2	0.9-1.4

Biochemical Measurements

Mean fasting blood glucose Description: mean fasting blood glucose results including those currently on medication for diabetes (non-fasting recipients excluded).

Instrument questions:

- During the last 12 hours have you had anything to eat or drink, other than water?
- Blood glucose measurement

Mean fasting blood glucose (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1267	77.8	76.2-79.5	2229	78.5	77.1-80.0	3496	78.2	76.8-79.5
30-44	1281	80.2	78.2-82.1	1863	80.5	79.0-82.0	3144	80.3	78.9-81.8
45-59	704	79.4	76.9-81.9	822	81.4	79.6-83.3	1526	80.2	78.5-82.0
60-69	293	84.3	80.7-87.9	311	82.6	79.7-85.5	604	83.7	81.1-86.2
15-69	3545	79.0	77.6-80.4	5225	79.6	78.4-80.8	8770	79.3	78.1-80.5

Raised blood glucose Description: Categorization of respondents into blood glucose level categories and percentage of respondents currently on medication for raised blood glucose (non-fasting recipients excluded).

Instrument questions:

- In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker?
- Are you currently taking insulin for diabetes prescribed by a doctor or other health worker?
- During the last 12 hours have you had anything to eat or drink, other than water?
- Blood glucose measurement
- Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker?

Impaired Fasting Glycaemia*									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1267	4.6	3.0-6.2	2229	5.6	4.3-6.8	3496	5.0	3.9-6.2
30-44	1281	5.4	3.6-7.2	1863	5.9	4.2-7.6	3144	5.6	4.3-7.0
45-59	704	6.3	3.5-9.1	822	4.3	2.5-6.0	1526	5.4	3.6-7.3
60-69	293	5.5	2.4-8.5	311	7.1	3.1-11.1	604	6.1	3.7-8.4
15-69	3545	5.1	3.9-6.3	5225	5.5	4.5-6.6	8770	5.3	4.4-6.2

Raised blood glucose or currently on medication for diabetes**									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1267	4.8	3.1-6.6	2229	4.9	3.4-6.4	3496	4.9	3.6-6.2
30-44	1281	5.7	3.9-7.5	1863	6.1	4.4-7.7	3144	5.9	4.6-7.2
45-59	704	8.1	5.6-10.6	822	6.6	4.6-8.6	1526	7.5	5.8-9.2
60-69	293	13.3	8.2-18.4	311	7.5	3.3-11.7	604	11.1	7.6-14.7
15-69	3545	6.0	4.7-7.2	5225	5.6	4.4-6.7	8770	5.8	4.8-6.8

Currently on medication for diabetes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1441	0.1	0.0-0.4	2518	0.3	0.0-0.6	3959	0.2	0.0-0.4
30-44	1438	0.5	0.1-1.0	2061	0.2	0.0-0.5	3499	0.4	0.1-0.6
45-59	781	1.2	0.3-2.2	909	1.9	0.7-3.2	1690	1.5	0.8-2.3
60-69	317	1.3	0.3-2.3	335	1.9	0.6-3.3	652	1.5	0.7-2.4
15-69	3977	0.4	0.2-0.7	5823	0.6	0.3-0.8	9800	0.5	0.3-0.7

* Impaired fasting glycaemia is defined as either

- plasma venous value: ≥ 6.1 mmol/L (110mg/dl) and < 7.0 mmol/L (126mg/dl)

** Raised blood glucose is defined as either

- capillary whole blood value; ≥ 5.6 mmol/L (100mg/dl) and < 6.1 mmol/L (110mg/dl)
- plasma venous value: ≥ 7.0 mmol/L (126 mg/dl)
- capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl)

Total cholesterol Description: Mean total cholesterol among all respondents including those currently on medication for raised cholesterol.

Instrument question:

- Total cholesterol measurement

Mean total cholesterol (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1292	117.2	115.3-119.1	2258	134.5	131.7-137.3	3550	125.2	123.4-127.0
30-44	1305	130.6	128.2-133.1	1897	143.4	141.0-145.9	3202	136.9	134.8-139.0
45-59	729	136.1	132.6-139.6	837	155.7	152.2-159.3	1566	144.1	141.2-147.0
60-69	301	135.8	130.7-140.9	315	156.8	151.6-162.0	616	143.6	139.5-147.8
15-69	3627	124.4	122.6-126.1	5307	140.5	138.4-142.6	8934	131.8	130.1-133.4

total cholesterol **Raised** Description: Percentage of respondents with raised total cholesterol and percentage of respondents currently on medication for raised cholesterol.

Instrument questions:

- Total cholesterol measurement
- During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?

Total cholesterol ≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1292	1.2	0.4-1.9	2258	6.9	5.5-8.3	3550	3.8	3.0-4.6
30-44	1305	5.6	3.9-7.4	1897	9.1	7.2-11.1	3202	7.3	5.9-8.8
45-59	729	8.1	5.0-11.2	837	17.4	14.1-20.7	1566	11.9	9.4-14.4
60-69	301	3.8	1.4-6.1	315	18.1	13.1-23.0	616	9.1	6.6-11.6
15-69	3627	3.5	2.7-4.3	5307	9.2	8.0-10.4	8934	6.1	5.3-6.9

Total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or currently on medication for raised cholesterol									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1292	0.3	0.0-0.6	2258	1.4	0.6-2.1	3550	0.8	0.4-1.2
30-44	1305	0.6	0.1-1.1	1897	0.7	0.4-1.0	3202	0.6	0.3-1.0
45-59	729	0.6	0.0-1.2	837	3.0	1.7-4.3	1566	1.6	0.9-2.2
60-69	301	0.7	0.0-1.5	315	1.8	0.2-3.3	616	1.1	0.3-1.9
15-69	3627	0.4	0.2-0.7	5307	1.4	0.9-1.8	8934	0.9	0.6-1.1

High density lipoprotein (HDL) Description: Mean HDL among all respondents and percentage of respondents with low HDL.
 Instrument question:
 • HDL cholesterol measurement

Age Group (years)	Mean HDL (mg/dl)								
	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1283	36.4	35.5-37.4	2256	43.1	42.1-44.2	3539	39.5	38.7-40.4
30-44	1299	39.0	37.9-40.1	1887	44.6	43.6-45.5	3186	41.7	40.8-42.6
45-59	723	41.0	39.6-42.3	835	42.2	40.9-43.4	1558	41.5	40.4-42.5
60-69	299	39.1	37.3-40.9	314	42.1	40.0-44.2	613	40.2	38.8-41.6
15-69	3604	37.9	37.1-38.7	5292	43.4	42.6-44.2	8896	40.4	39.7-41.1

Percentage of respondents with HDL <1.03mmol/L or <40 mg/dl			
Age Group (years)	Men		
	n	%	95% CI
15-29	1283	70.2	66.5-73.9
30-44	1299	61.8	57.6-66.0
45-59	723	51.6	45.8-57.4
60-69	299	61.1	53.6-68.5
15-69	3604	64.8	61.8-67.8

Percentage of respondents with HDL <1.29mmol/L or <50 mg/dl			
Age Group (years)	Women		
	n	%	95% CI
15-29	2256	72.7	69.7-75.6
30-44	1887	69.5	66.5-72.6
45-59	835	76.1	72.1-80.1
60-69	314	72.4	65.5-79.3
15-69	5292	72.2	70.0-74.4

Triglycerides Description: Mean fasting triglycerides among all respondents and percentage of respondents with raised fasting triglycerides (non-fasting recipients excluded).

Instrument questions:

- During the last 12 hours have you had anything to eat or drink, other than water?
- Triglyceride measurement

Age Group (years)	Mean fasting triglycerides (mg/dl)								
	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-29	1126	111.2	106.4-115.9	1966	109.5	105.5-113.5	3092	110.4	106.8-113.9
30-44	1141	127.8	121.0-134.6	1655	119.0	114.4-123.6	2796	123.5	119.1-127.9
45-59	637	140.1	130.7-149.4	750	140.0	133.8-146.2	1387	140.0	134.0-146.1
60-69	262	130.0	120.4-139.7	287	140.0	131.3-148.8	549	133.8	126.9-140.8
15-69	3166	120.7	116.6-124.7	4658	117.3	114.4-120.2	7824	119.1	116.2-122.0

Percentage of respondents with fasting triglycerides ≥ 1.7 mmol/L or ≥ 150 mg/dl									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1126	17.5	14.2-20.8	1966	18.3	15.5-21.1	3092	17.9	15.6-20.2
30-44	1141	23.5	20.5-26.6	1655	21.9	18.8-24.9	2796	22.7	20.4-25.0
45-59	637	29.0	24.0-34.0	750	33.4	28.7-38.1	1387	30.9	27.2-34.5
60-69	262	25.0	17.8-32.2	287	35.4	27.7-43.1	549	28.9	23.2-34.6
15-69	3166	21.1	18.8-23.5	4658	21.9	20.1-23.8	7824	21.5	19.8-23.2

Percentage of respondents with fasting triglycerides ≥ 2.0 mmol/L or ≥ 180 mg/dl									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-29	1126	10.1	7.5-12.7	1966	10.3	8.5-12.2	3092	10.2	8.4-12.0
30-44	1141	14.1	11.4-16.8	1655	11.7	9.3-14.0	2796	12.9	10.9-14.9
45-59	637	20.3	15.9-24.6	750	19.6	15.6-23.5	1387	20.0	16.9-23.1
60-69	262	15.9	10.7-21.2	287	17.8	11.9-23.8	549	16.6	12.5-20.8
15-69	3166	13.0	11.2-14.8	4658	12.2	10.9-13.5	7824	12.6	11.3-13.9

Cardiovascular disease risk

CVD risk of $\geq 30\%$ or existing CVD Description: Percentage of respondents aged 40-69 years with a 10-year cardiovascular disease (CVD) risk* $\geq 30\%$ or with existing CVD
Instrument questions: combined from Step 1, 2 and 3

- Gender, age
- Current and former smoking
- History of diabetes, CVD
- Systolic blood pressure measurements
- Fasting status, glucose and total cholesterol measurements.

Percentage of respondents with a 10-year CVD risk $\geq 30\%$ or with existing CVD									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
40-54	882	4.3	2.6-5.9	1091	6.0	3.9-8.1	1973	5.0	3.6-6.4
55-69	463	2.6	1.0-4.2	507	5.9	3.4-8.4	970	3.9	2.3-5.4
40-69	1345	3.7	2.4-5.0	1598	6.0	4.3-7.7	2943	4.7	3.5-5.8

* A 10-year CVD risk of $\geq 30\%$ is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0 mmol/l (126 mg/dl)).

Drug therapy and counseling for those with CVD risk $\geq 30\%$ or existing CVD Description: Percentage of eligible persons (defined as aged 40-69 years with a 10-year cardiovascular disease (CVD) risk* $\geq 30\%$, including those with existing CVD) receiving drug therapy and counseling** (including glycaemic control) to prevent heart attacks and strokes.

Instrument questions: combined from Step 1, 2 and 3

- Gender, age
- Current and former smoking
- History of diabetes, CVD
- Lifestyle advice
- Systolic blood pressure measurements
- Fasting status, glucose and total cholesterol measurements.

Percentage of eligible persons receiving drug therapy and counseling to prevent heart attacks and strokes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
40-54	36	14.6	2.1-27.0	51	5.2	0.0-12.2	87	9.7	2.8-16.6
55-69	14	10.4	0.0-26.4	34	21.3	7.0-35.6	48	16.8	6.3-27.2
40-69	50	13.6	2.3-24.9	85	9.7	3.3-16.1	135	11.5	5.3-17.7

* A 10-year CVD risk of $\geq 30\%$ is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0 mmol/l (126 mg/dl)).

**Counseling is defined as receiving advice from a doctor or other health worker to quit using tobacco or not start, reduce salt in diet, eat at least five servings of fruit and/or vegetables per day, reduce fat in diet, start or do more physical activity, maintain a healthy body weight or lose weight.

Summary of Combined Risk Factors

Summary of Combined Risk Factors

Description: Percentage of respondents with 0, 1-2, or 3-5 of the following risk factors:

- Current daily smoking
- Less than five servings of fruit and/or vegetables per day
- Not meeting WHO recommendations on physical activity for health (<150 minutes of moderate activity per week, or equivalent)
- Overweight or obese (BMI ≥ 25 kg/m²)
- Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP).

Instrument questions: combined from Step 1 and Step 2

Summary of Combined Risk Factors							
Men							
Age Group (years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
15-44	2779	1.3	0.6-2.0	95.3	94.2-96.5	3.4	2.5-4.3
45-69	1052	1.0	0.0-2.1	91.0	88.6-93.5	7.9	5.6-10.2
15-69	3831	1.2	0.5-1.9	94.5	93.3-95.7	4.3	3.3-5.2

Summary of Combined Risk Factors							
Women							
Age Group (years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
15-44	4065	2.3	1.4-3.2	94.5	93.4-95.6	3.2	2.6-3.9
45-69	1183	1.2	0.5-2.0	87.3	85.0-89.7	11.4	9.3-13.6
15-69	5248	2.1	1.3-2.9	93.3	92.2-94.4	4.6	3.9-5.4

Summary of Combined Risk Factors							
Both Sexes							
Age Group (years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
15-44	6844	1.7	1.0-2.4	95.0	94.0-95.9	3.3	2.7-3.9
45-69	2235	1.1	0.3-1.9	89.6	87.7-91.4	9.4	7.6-11.1
15-69	9079	1.6	0.9-2.3	94.0	93.0-94.9	4.4	3.7-5.1

Annex 3: Questionnaire

Ethiopia STEPS survey questionnaire on Risk Factors for non-communicable disease and Prevalence of selected NCDs, 2015
The Ethiopian Public Health Institute

Survey Information

Location and Date	Response	Code
Enumeration area ID	_____	I1
Region [2 digits]	____	I1-B
Woreda [text]		X1
Interviewer ID	_____	I3
Date of completion of the instrument	____ ____ _____ dd mm year	I4

*1 =Tigray; 2=Afar; 3=Amhara; 4=Oromia, 5=Somali; 6= B-gumuz; 7= SNNP; 8=Gambella; 9=Harari 10= Dire Dawa; 11= Addis Ababa

Consent, Interview Language and Name	Response	Code
Consent has been read and obtained	Yes 1 No 2 If NO, END	I5
Interview Language	English 1 Amharic 2 Oromifa 3 Tigrigna 4 Others Specify 5 _____	I6
Start Time of interview (24 hour clock)	____ : ____ hrs mins	I7
Full Name of study participant (Grand Father, First and Middle Name)	_____	I8-19
Additional Information that may be helpful		
Contact phone number where possible		I10

Step 1 Demographic Information

CORE: Demographic Information		
Question	Response	Code
Sex (<i>Record Male / Female as observed</i>)	Male 1 Female 2	C1
How old are you?	Years <input style="width: 40px;" type="text"/>	C3
In total, how many years have you spent at school and in full-time study (excluding pre-school)?	Years <input style="width: 40px;" type="text"/>	C4

EXPANDED: Demographic Information		
What is the highest level of education you have completed?	No formal schooling 1 Less than primary school 2 Primary school completed 3 Secondary school completed 4 College/University completed 6 Post graduate degree 7 Refused 88	C5
What is your ethnic background ?	Oromo 1 Amhara 2 Tigray 3 Somali 4 Wolayita 5 Sidama 6 Guragie 7 Hadiya 8 Afar 9 Gamo 10 Others 11 Sp _____ Refused 88	C6
What is your marital status ?	Never married 1 Currently married 2 Separated 3 Divorced 4 Widowed 5 Cohabiting 6 Refused 88	C7
Which of the following best describes your main work status over the past 12 months?	Government employee 1 Non-government Employee 2 Private employee 3 Private Skilled worker 4 Farmer 5 Trader 6 Student 7 Homemaker/housewife 8	C8

	Gaya	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	T5X/ T5Xw
	Other	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>If Other, go to T5other, else go to T6</i>	T5f/T5fw
	Other (please specify):	_____	T5other/ T5otherw
During the past 12 months, have you tried to stop smoking ?	Yes	1	T6
	No	2	
During any visit to a doctor or other health worker in the past 12 months, were you advised to quit smoking tobacco?	Yes	1 <i>If T2=Yes, go to T12; if T2=No, go to T9</i>	T7
	No	2 <i>If T2=Yes, go to T12; if T2=No, go to T9</i>	
	No visit during the past 12 months	3 <i>If T2=Yes, go to T12; if T2=No, go to T9</i>	
In the past, did you ever smoke any tobacco products? (USE SHOWCARD)	Yes	1	T8
	No	2 <i>If No, go to T12</i>	
In the past, did you ever smoke daily ?	Yes	1 <i>If T1=Yes, go to T12, else go to T10</i>	T9
	No	2 <i>If T1=Yes, go to T12, else go to T10</i>	
How old were you when you stopped smoking?	Age (years)		T10
	Don't Know	77 <input type="checkbox"/> <input type="checkbox"/> <i>If Known, go to T12</i>	
How long ago did you stop smoking? (RECORD ONLY 1, NOT ALL 3)	Years ago	<input type="checkbox"/> <input type="checkbox"/> <i>If Known, go to T12</i>	T11a
Don't Know	OR Months ago	<input type="checkbox"/> <input type="checkbox"/> <i>If Known, go to T12</i>	T11b
	OR Weeks ago	<input type="checkbox"/> <input type="checkbox"/>	T11c
CORE: Tobacco Use, cont.			
Question	Response		Code
Do you currently use any smokeless tobacco products such as <i>snuff(Suret), chewing tobacco</i> , (USE SHOWCARD)	Yes	1	T12
	No	2 <i>If No, go to T15</i>	
Do you currently use smokeless tobacco products daily ?	Yes	1	T13
	No	2 <i>If No, go to T14aw</i>	
On average, how many times a day/week do you use (IF LESS THAN DAILY, RECORD WEEKLY) (RECORD FOR EACH TYPE, USE SHOWCARD) Don't Know 7777	DAILY↓ WEEKLY↓		
	Snuff, by mouth	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	T14a/ T14aw
	Snuff, by nose	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	T14b/ T14bw
	Chewing tobacco	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	T14c/ T14cw
	Other	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>If Other, go to T14other, if T13=No, go to T16, else go to T17</i>	T14e/ T14ew
	Other (please specify):	_____/ <i>f T13=No, go to T16, else go to T17</i>	T14other/ T14otherw
In the past , did you ever use smokeless tobacco products such as <i>snuff, chewing tobacco</i> ?	Yes	1	T15
	No	2 <i>If No, go to T17</i>	
In the past , did you ever use smokeless tobacco products such as <i>snuff, chewing tobacco daily</i> ?	Yes	1	T16
	No	2	

The last time you bought manufactured cigarettes for yourself, how many cigarettes did you buy in total?	Don't know or Don't smoke or purchase manuf. cigarettes 7777	If "Don't know or don't smoke or purchase manuf. cig.", end section	
In total, how much money did you pay for this purchase?	Amount Don't know 7777 Refused 8888	Birr <input type="text"/> <input type="text"/> Cents <input type="text"/> <input type="text"/>	TP7

CORE: Alcohol Consumption			
The next questions ask about the consumption of alcohol.			
Question	Response	Code	
Have you ever consumed any alcohol such beer, Tella, Bordie, Tej, Arake, wine, spirits, beherawi, ye bale zaf? (USE SHOWCARD OR SHOW EXAMPLES)	Yes 1 No 2 <i>If No, go to A16</i>	A1	
Have you consumed any alcohol within the past 12 months ?	Yes 1 <i>If Yes, go to A4</i> No 2	A2	
Have you stopped drinking due to health reasons, such as a negative impact on your health or on the advice of your doctor or other health worker?	Yes 1 <i>If Yes, go to A16</i> No 2 <i>If No, go to A16</i>	A3	
During the past 12 months, how frequently have you had at least one standard alcoholic drink? (READ RESPONSES, USE SHOWCARD)	Daily 1 5-6 days per week 2 3-4 days per week 3 1-2 days per week 4 1-3 days per month 5 Less than once a month 6	A4	
Have you consumed any alcohol within the past 30 days ?	Yes 1 No 2 <i>If No, go to A13</i>	A5	
During the past 30 days, on how many occasions did you have at least one standard alcoholic drink?	Number Don't know 77 <input type="text"/> <input type="text"/>	A6	
During the past 30 days, when you drank alcohol, how many standard drinks on average did you have during one drinking occasion? (USE SHOWCARD)	Number Don't know 77 <input type="text"/> <input type="text"/>	A7	
During the past 30 days, what was the largest number of standard drinks you had on a single occasion, counting all types of alcoholic drinks together?	Largest number Don't Know 77 <input type="text"/> <input type="text"/>	A8	
During the past 30 days, how many times did you have six or more standard drinks in a single drinking occasion?	Number of times Don't Know 77 <input type="text"/> <input type="text"/>	A9	
During the past 30 days, when you consumed an alcoholic drink, how often was it with meals? Please do not count snacks.	Usually with meals 1 Sometimes with meals 2 Rarely with meals 3 Never with meals 4	X6	
During each of the past 7 days , how many standard drinks did you have each day? (USE SHOWCARD)	Monday <input type="text"/> <input type="text"/>	A10a	
	Tuesday <input type="text"/> <input type="text"/>	A10b	
	Wednesday <input type="text"/> <input type="text"/>	A10c	

Don't Know 77	Thursday	<input type="checkbox"/>	A10d
	Friday	<input type="checkbox"/>	A10e
	Saturday	<input type="checkbox"/>	A10f
	Sunday	<input type="checkbox"/>	A10g

CORE: Alcohol Consumption, cont.

I have just asked you about your consumption of alcohol during the past 7 days. The questions were about alcohol in general, while the next questions refer to your consumption of homebrewed alcohol, alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol. Please only think about these types of alcohol when answering the next questions.

Question	Response	Code	
During the past 7 days , did you consume any homebrewed alcohol, like Tella, Tej, Katikalla, Bordie? (USE SHOWCARD)	Yes 1 No 2 <i>If No, go to A13</i>	A11	
On average, how many standard drinks of the following did you consume during the past 7 days ? (USE SHOWCARD) Don't Know 77	Homebrewed spirits, e.g. Katikalla	<input type="checkbox"/>	A12a
	Homebrewed beer or wine, e.g. Tella, Tej	<input type="checkbox"/>	A12b
	Alcohol brought over the border/from another country	<input type="checkbox"/>	A12c
	Alcohol not intended for drinking, e.g. alcohol-based medicines, perfumes, after shaves	<input type="checkbox"/>	A12d
	Other untaxed alcohol in the country	<input type="checkbox"/>	A12e
During the past 12 months , how often have you found that you were not able to stop drinking once you had started?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4 Never 5	A13	
During the past 12 months , how often have you failed to do what was normally expected from you because of drinking?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4 Never 5	A14	
During the past 12 months , how often have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4 Never 5	A15	
During the past 12 months , have you had family problems or problems with your partner due to someone else's drinking?	Yes, more than monthly 1 Yes, monthly 2 Yes, several times but less than monthly 3 Yes, once or twice 4 No 5	A16	

Diet

The next questions ask about the fruits and vegetables that you usually eat. I have a nutrition card here that shows you some examples of local fruits and vegetables. Each picture represents the size of a serving. As you answer these questions please think of a typical week in the last year.

Question	Response	Code
In a typical week, on how many days do you eat fruit ? (USE SHOWCARD)	Number of days <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Don't Know 77 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <i>If Zero days, go to D3</i>	D1
How many servings of fruit do you eat on one of those days? (USE SHOWCARD)	Number of servings <input type="text"/> <input type="text"/> <input type="text"/> Don't Know 77 <input type="text"/> <input type="text"/> <input type="text"/>	D2
In a typical week, on how many days do you eat vegetables ? (USE SHOWCARD)	Number of days <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Don't Know 77 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <i>If Zero days, go to D5</i>	D3
How many servings of vegetables do you eat on one of those days? (USE SHOWCARD)	Number of servings <input type="text"/> <input type="text"/> <input type="text"/> Don't know 77 <input type="text"/> <input type="text"/> <input type="text"/>	D4

Dietary salt

With the next questions, we would like to learn more about salt in your diet. Dietary salt includes ordinary table salt, unrefined salt such as sea salt, iodized salt, salty stock cubes and powders, and salty sauces such as soya sauce or fish sauce (see show card). The following questions are on adding salt to the food right before you eat it, on how food is prepared in your home, on eating processed foods that are high in salt such as *[insert country specific examples]*, and questions on controlling your salt intake. Please answer the questions even if you consider yourself to eat a diet low in salt.

How often do you add salt or a salty sauce such as soya sauce to your food right before you eat it or as you are eating it? (SELECT ONLY ONE) (USE SHOWCARD)	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D5
How often is salt, salty seasoning or a salty sauce added in cooking or preparing foods in your household?	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D6
How often do you eat processed food high in salt ? By processed food high in salt, I mean foods that have been altered from their natural state, such as packaged salty snacks, canned salty food including pickles and preserves, salty food prepared at a fast food restaurant, cheese, bacon, Mitmitta, and processed meat like Quantta (USE SHOWCARD)	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D7
How much salt or salty sauce do you think you consume?	Far too much 1 Too much 2 Just the right amount 3 Too little 4 Far too little 5 Don't know 77	D8

Diet

Question	Response	Code
How important to you is lowering the salt in your diet?	Very important 1 Somewhat important 2 Not at all important 3 Don't know 77	D9

Do you think that too much salt or salty sauce in your diet could cause a health problem ?	Yes 1 No 2 Don't know 77	D10
Do you do any of the following on a regular basis to control your salt intake ? (RECORD FOR EACH)		
Limit consumption of processed foods	Yes 1 No 2	D11a
Look at the salt or sodium content on food labels	Yes 1 No 2	D11b
Buy low salt/sodium alternatives	Yes 1 No 2	D11c
Use spices other than salt when cooking	Yes 1 No 2	D11d
Avoid eating foods prepared outside of a home	Yes 1 No 2	D11e
Do other things specifically to control your salt intake	Yes 1 <i>If Yes, go to D11other</i> No 2	D11f
Other (please specify)		D11other
The next questions ask about the oil or fat that is most often used for meal preparation in your household, and about meals that you eat outside a home.		
What type of oil or fat is most often used for meal preparation in your household? (USE SHOWCARD) (SELECT ONLY ONE)	Vegetable oil 1 Homemade oil product 2 Butter 3 Margarine 4 Solid fats 8 Other 5 <i>If Other, go to D12 other</i> None in particular 6 None used 7 Don't know 77	D12
	Other specify _____	D12other
On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.	Number _____ Don't know 77	D13

CORE: Physical Activity

Next I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be a physically active person.

Think first about the time you spend doing work. Think of work as the things that you have to do such as paid or unpaid work, study/training, household chores, harvesting food/crops, fishing or hunting for food, seeking employment. In answering the following questions 'vigorous-intensity activities' are activities that require hard physical effort and cause large increases in breathing or heart rate, 'moderate-intensity activities' are activities that require moderate physical effort and cause small increases in breathing or heart rate.

Question	Response	Code
Work		
Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like <i>carrying or lifting heavy loads, digging or construction work, cutting fire and other wood</i> for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 <i>If No, go to P 4</i>	P1

In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days <input type="text"/>	P2
How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P3 (a-b)
Does your work involve/ or do you do moderate-intensity activity, that causes small increases in breathing or heart rate such as brisk walking or carrying light loads, washing clothes for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P 7	P4
In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days <input type="text"/>	P5
How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P6 (a-b)
Travel to and from places		
The next questions exclude the physical activities at work that you have already mentioned. Now I would like to ask you about the usual way you travel to and from places. For example to work, for shopping, to market, to place of worship, to place of meeting.		
Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?	Yes 1 No 2 If No, go to P 10	P7
In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	Number of days <input type="text"/>	P8
How much time do you spend walking or bicycling for travel on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P9 (a-b)
Recreational activities		
The next questions exclude the work and transport activities that you have already mentioned. Now I would like to ask you about sports, fitness and recreational/leisure activities.		
Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like running or football, local dancing for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P 13	P10
In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities?	Number of days <input type="text"/>	P11
How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P12 (a-b)
Physical Activity, Continued		
Question	Response	Code
Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that cause a small increase in breathing or heart rate such as brisk walking, cycling, swimming, volleyball for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P16	P13

In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?	Number of days <input type="text"/>	P14
How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P15 (a-b)

Physical Activity		
Sedentary behavior		
The following question is about sitting or reclining at work, at home, getting to and from places, or with friends including time spent sitting at a desk, sitting with friends, traveling in car, bus, train, reading, playing games/cards or watching television, but do not include time spent sleeping. (USE SHOWCARD)		
How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P16 (a-b)

History of Raised Blood Pressure		
Question	Response	Code
Have you ever had your blood pressure measured by a doctor or other health worker?	Yes 1 No 2 <i>If No, go to X10</i>	H1
Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?	Yes 1 No 2 <i>If No, go to X10</i>	H2a
Have you been told in the past 12 months?	Yes 1 No 2	H2b
In the past two weeks, have you taken any drugs (medication) for raised blood pressure prescribed by a doctor or other health worker?	Yes 1 No 2	H3
Have you ever seen a traditional healer for raised blood pressure or hypertension?	Yes 1 No 2	H4
Are you currently taking any herbal or traditional remedy for your raised blood pressure?	Yes 1 No 2	H5
Has any of your family members (biological parents, siblings or children) ever had raised blood pressure or hypertension?	Yes 1 No 2	X10

History of Diabetes		
Have you ever had your blood sugar measured by a doctor or other health worker?	Yes 1 No 2 <i>If No, go to X11</i>	H6
Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?	Yes 1 No 2 <i>If No, go to X11</i>	H7a
Have you been told in the past 12 months?	Yes 1 No 2	H7b

In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker?	Yes 1 No 2	H8
Are you currently taking insulin for diabetes prescribed by a doctor or other health worker?	Yes 1 No 2	H9
Have you ever seen a traditional healer for diabetes or raised blood sugar?	Yes 1 No 2	H10
Are you currently taking any herbal or traditional remedy for your diabetes?	Yes 1 No 2	H11
Has any of your family members (biological parents, siblings or children) ever had raised blood sugar or Diabetes?	Yes 1 No 2	X11

History of Raised Total Cholesterol

Question	Response	Code
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?	Yes 1 No 2 <i>If No, go to X12</i>	H12
Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes 1 No 2 <i>If No, go to X12</i>	H13a
Have you been told in the past 12 months?	Yes 1 No 2	H13b
In the past two weeks, have you taken any oral treatment (medication) for raised total cholesterol prescribed by a doctor or other health worker?	Yes 1 No 2	H14
Have you ever seen a traditional healer for raised cholesterol?	Yes 1 No 2	H15
Are you currently taking any herbal or traditional remedy for your raised cholesterol?	Yes 1 No 2	H16
Has any of your family members (biological parents, siblings or children) ever had raised Cholesterol?	Yes 1 No 2	X12

History of Cardiovascular Diseases

Have you ever had a heart attack or chest pain from heart disease (angina) or a stroke (cerebrovascular accident or incident)?	Yes 1 No 2	H17
Are you currently taking aspirin regularly to prevent or treat heart disease?	Yes 1 No 2	H18
Are you currently taking statins (Lovastatin/Simvastatin/Atorvastatin or any other statin) regularly to prevent or treat heart disease?	Yes 1 No 2	H19

Lifestyle Advice

During the past three years, has a doctor or other health worker advised you to do any of the following? (RECORD FOR EACH)		
Quit using tobacco or don't start	Yes 1 No 2	H20a
Reduce salt in your diet	Yes 1	H20b

	No 2	
Eat at least five servings of fruit and/or vegetables each day	Yes 1 No 2	H20c
Reduce fat in your diet	Yes 1 No 2	H20d
Start or do more physical activity	Yes 1 No 2	H20e
Maintain a healthy body weight or lose weight	Yes 1 <i>If C1=1 go to K1</i> No 2 <i>If C1=1 go to K1</i>	H20f

(for women only): Cervical Cancer Screening

The next question asks about cervical cancer prevention. Screening tests for cervical cancer prevention can be done in different ways, including Visual Inspection with Acetic Acid/vinegar (VIA), pap smear and Human Papillomavirus (HPV) test. VIA is an inspection of the surface of the uterine cervix after acetic acid (or vinegar) has been applied to it. For both pap smear and HPV test, a doctor or nurse uses a swab to wipe from inside your vagina, take a sample and send it to a laboratory. It is even possible that you were given the swab yourself and asked to swab the inside of your vagina. The laboratory checks for abnormal cell changes if a pap smear is done, and for the HP virus if an HPV test is done.

Question	Response	Code
Have you ever had a screening test for cervical cancer, using any of these methods described above?	Yes 1 No 2 Don't know 77	CX1

Khat use

Now I am going to ask you some questions about Khat chewing.

Question	Response	Code
Have you ever chewed Khat? (USE SHOWCARD)	Yes 1 No 2 <i>If No, go to K14</i>	K1
Do you currently chew Khat?	Yes 1 No 2 <i>If No, go to K8</i>	K2
During the past 12 months, how frequently did you chew Khat?	Daily 1 5-6 days per week 2 3-4 days per week 3 1-2 days per week 4 1-3 days per month 5 Less than once a month 6	K3
How old were you when you first started chewing Khat?	Age (years) <input type="text"/> Don't know 77 <i>If Known, go to K5</i>	K4
Do you remember how long ago it was? (RECORD ONLY 1, NOT ALL 3)	In Years <input type="text"/> <i>If Known, go to K5</i>	K4a
	OR in Months <input type="text"/> <i>If Known, go to K5</i>	K4b
Don't know 77	OR in Weeks <input type="text"/>	K4c
	DAILY↓ WEEKLY↓	

On average, how many bundles of Khat do you chew each day/week? (IF LESS THAN DAILY, RECORD WEEKLY) (USE SHOWCARD) Don't Know 77	Bundles of Khat <u> </u> <u> </u> <u> </u> <u> </u>	K5
During the past 12 months, have you tried to stop chewing Khat?	Yes 1 No 2	K6
During any visit to a doctor or other health worker in the past 12 months, were you advised to quit chewing Khat?	Yes 1 go to K9 No 2 go to K9 No visit during the past 12 months 3 go to K9	K7
How old were you when you stopped chewing Khat?	Age (years) <u> </u> <u> </u> If Known, go to K10	K8
How long ago did you stop chewing Khat? (RECORD ONLY 1, NOT ALL 3) Don't Know 77	Years ago <u> </u> <u> </u> If Known, go to K10	K8a
	OR Months ago <u> </u> <u> </u> If Known, go to K10	K8b
	OR Weeks ago <u> </u> <u> </u> if known, go to K10	K8c
Do you currently smoke tobacco products while chewing Khat? (USE TOBACCO SHOWCARD)	Yes 1 If yes, go to K11 No 2	K9
In the past , did you ever smoke tobacco products while chewing Khat?	Yes 1 If K2=2 go to K13 No 2 If K2=2 go to K13	K10
Does one or more of your friends smoke tobacco products while you chew Khat together?	Yes 1 No 2	K11
Do you currently drink alcohol after you chew Khat?	Yes 1 If yes, go to K14 No	K12
In the past , did you ever drink alcohol while chewing Khat?	Yes 1 No 2	K13
During the past 12 months, have you had family problems or problems with your partner due to consumption of Khat by you or somebody else?	Yes 1 No 2	K14

Violence and Injury

CORE: Injury

The next questions ask about different experiences and behaviours that are related to road traffic injuries.

Question	Response	Code
In the past 12 months, have you been involved in a road traffic crash as a driver, passenger, pedestrian, or cyclist?	Yes (as driver) 1 Yes (as passenger) 2 Yes (as pedestrian) 3 Yes (as a cyclist) 4 No 5 If No, go to V5 Don't know 77 If don't know, go to V5 Refused 88 If Refused, go to V5	V3
Did you have any injuries in this road traffic crash which required medical attention?	Yes 1 No 2 Don't know 77 Refused 88	V4

The next questions ask about the most serious accidental injury you have had in the past 12 months.		
In the past 12 months, were you injured accidentally, other than road traffic crashes which required medical attention?	Yes 1 No 2 <i>If No, go to V11</i> Don't know 77 <i>If don't know, go to V11</i> Refused 88 <i>If Refused, go to V11</i>	V5
Please indicate which of the following the cause of this injury was.	Fall 1 Burn 2 Poisoning 3 Cut 4 Near-drowning 5 Animal bite 6 Other (specify) 7 Don't know 77 Refused 88	V6
	Other (please specify) _____	V6other

CORE: Violence		
The following questions are about different experiences and behaviours that are related to violence.		
Question	Response	Code
In the past 12 months, how many times were you in a violent incident in which you were injured and required medical attention?	Never 1 <i>If never, go to V16</i> Rarely (1- 2 times) 2 Sometimes (3 – 5 times) 3 Often (6 or more times) 4 Don't know 77 <i>If don't know, go to V16</i> Refused 88 <i>If Refused, go to V16</i>	V11
The next questions ask about the most serious violent incidence you have had in the past 12 months.		
Please indicate which of the following caused your most serious injury in the last 12 months. (USE SHOWCARDS)	Being shot with a firearm 1 A weapon (other than a firearm) was used by the person who injured me 2 Being injured without any weapon (slapped, pushed...) 3 Don't know 77 Refused 88	V12
Please indicate the relationship between yourself and the person(s) who caused your injury.	Intimate partner 1 Parent 2 Child, sibling, or other relative 3 Friend or acquaintance 4 Unrelated caregiver 5 Stranger 6 Official or legal authorities 7 Other (specify) 8 Refused 88	V13
	Other (please specify) _____	V13other
Since your 15th birthday, have you ever experienced a sex act involving vaginal, oral, or anal penetration against your will ?	Never 1 Once 2 A few times (2 to 3 times) 3 Many times (4 or more times) 4 Don't know 77	V16

Step 2 Physical Measurements

Blood Pressure		
Question	Response	Code
Interviewer ID	_ _ _	M1
Device ID for blood pressure	_ _ _	M2
Cuff size used	Small 1 Medium 2 Large 3	M3
Reading 1	Systolic (mmHg) _ _ _ _	M4a
	Diastolic (mmHg) _ _ _ _	M4b
Reading 2	Systolic (mmHg) _ _ _ _	M5a
	Diastolic (mmHg) _ _ _ _	M5b
Reading 3	Systolic (mmHg) _ _ _ _	M6a
	Diastolic (mmHg) _ _ _ _	M6b
During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	M7
Height and Weight		
For women: Are you pregnant?	Yes 1 <i>If Yes, go to M 16 a-c</i> No 2	M8
Interviewer ID	_ _ _	M9
Device IDs for height and weight	Height _ _ _	M10a
	Weight _ _ _	M10b
Height	in Centimetres (cm) _ _ _ _ . _	M11
Weight <i>If too large for scale 666.6</i>	in Kilograms (kg) _ _ _ _ . _	M12
Waist		
Device ID for waist	_ _ _	M13
Waist circumference	in Centimetres (cm) _ _ _ _ . _	M14

Hip Circumference and Heart Rate

Hip circumference	in Centimeters (cm) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	M15
Heart Rate		M16a
Reading 1	Beats per minute <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Reading 2	Beats per minute <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Reading 3	Beats per minute <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	M16c

Step 3 Biochemical Measurements

CORE: Blood Glucose

Question	Response	Code
During the past 12 hours have you had anything to eat or drink, other than water?	Yes 1 No 2	B1
Technician ID	<input type="text"/> <input type="text"/> <input type="text"/>	B2
Device ID	<input type="text"/> <input type="text"/> <input type="text"/>	B3
Time of day blood specimen taken (24 hour clock)	Hours : minutes <input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> hrs mins	B4
Fasting blood glucose	mg/dl <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	B5
Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker for raised blood glucose?	Yes 1 No 2	B6

CORE: Blood Lipids

Total cholesterol	mg/dl <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	B8
During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	B9

CORE: Urinary sodium and creatinine

Had you been fasting prior to the urine collection?	Yes 1 No 2	B10
Technician ID	<input type="text"/> <input type="text"/> <input type="text"/>	B11
Time of day urine sample taken (24 hour clock)	Hours : minutes <input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/> hrs mins	B13

EXPANDED: Triglycerides and HDL Cholesterol

Question	Response	Code
HDL Cholesterol	mg/dl <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	B17

Annex 4: Survey Personnel

Advisory Committee

HE. Dr. Kebede Worku, state minister for program wing, and Dr. Yeneabeba Sima and Dr. Mahlet Kifle –FMoH, Dr. Amha Kebede, Director General, EPHI; Dr. Yibeltal Assefa, Deputy Director General, EPHI Regina Guthold and Melanie Cowan – technical assistants from WHO HQ; Dr. Abdikamal Alisalad WHO-AFRO; Dr. Abebayehu Assefa WHO-Ethiopia; Abebe Bekele, Health System Research Directorate Director, EPHI

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Dr. Alemayehu Bekele
Prof. Yeweyenharg Feleke
Dr. Asmamaw Bezabeh
Dr. Fasil Shiferaw
Dr. Mussie G/Michael
Dr. Yewondwossen Tadesse
Dr. Dejuma Yadeta
Dr. Tedla Kebede
Dr. Yoseph Mamo
Dr. Solomon Teferra
Feyissa Chala
Mulugeta Guta
Theodros Getachew
Atkure Defar
Mekonnen Tadesse
Habtamu Teklie
Terefe Gelibo
Tefera Tadele
Abebech Asmamaw
Dr. Yabestse Girma

National Level Coordinators

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Theodros Getachew
Atkure Defar
Mekonnen Tadesse
Habtamu Teklie
Terefe Gelibo
Tefera Tadele
Abebech Asmamaw
Dr. Yabestse Girma

Data Management and Analysis Team

Terefe Gelibo – Senior Analyst
Mekonnen Tadesse–Senior Statistician
Andualem Derese– Data manager
Daniel Mekonnen – Data manager

Biological Sample Analysis Team

Feyissa Challa – lead Lab. analyst
Kissi Mudie: Lab.analyst
Bikila Negasa: Lab.analyst
Tigist Getahun: Lab.analyst
Meron Sileshi: Lab.analyst
Genet Ashebir: Lab.analyst
Zelege Geto: Lab.analyst

Questionnaire and report reviewers

Yoseph G/Yohannes
Dr. Alemayehu Ambel-WB
Misrak Getinet
Thuria Adem

Field Data Collection Team

Team No	Name of Enumerators	Profession	Route	Supervisor
1	Efrem Tsegay	Laboratory	Tigray(North west and Central)	Merhawi G/medihin
	Ketema Dawi	BSc Nurse		
2	Tiliksew Mola	BSc Nurse	Tigray(Central, East and South)	Berihun Darge
	Tamirat Shiferaw	Laboratory		
3	Tesfaye Assefa	BSc Nurse	Tigray(West, South and Mekele town)	Eskindir Tesfaye
	G/Silase Demeke	Laboratory		
4	Yezailem Tamiru	BSc Nurse	North Gondar	Endalemawu Mengesha
	Shegaw Belay	Laboratory		
5	Abew Mola	BSc Nurse	North and South Gondar	
	Getachew Abebe	Laboratory		
6	Desalegn Kefyalew	BSc Nurse	East and West Gojam	Bezabih Fantahun
	Adane Ashagre	Laboratory		
7	Demeke Tarekegn	BSc Nurse	Metekel, Pawe,Awi	Tadese Ejigu
	Alebel Bekele	Laboratory		

8	Biruktawit Dagneu	BSc Nurse	West Gojam, B/dar and Awi	
	Zewudu Ayele	Laborator y		
9	Tiruneh Tefera	BSc Nurse	North Wollo and Wag himira	Samuel Asmamaw
	Esuyawukal Kasawumar	Laborator y		
10	Tekalign Markos	BSc Nurse	South Wollo and North Shoa	Mirtnesh Selfu
	Melese Hailu	Laborator y		
11	Abera Lema	BSc Nurse	Afar (Zone 1 and 2), East shoa and Bati	Getachew Kabew
	Assefa Belay	Laborator y		
12	Biniyam Degife	BSc Nurse	North Shoa, Afar(Zone 3,4,5)	
	Girma Yilma	Laborator y		
13	Abraham Abate	BSc Nurse	Wollega(East, west, Kellam, horoguduru)	Fituma Feyera
	Chala Shumi	Laborator y		
14	Yewalashet Teklie	BSc Nurse	Shoa(West, North and south west)	Hana Mekonnen
	Mulugeta Bayisa	Laborator y		
15	Abebe Tikicha	BSc Nurse	Assosa and Kamashi	Amsalu Jember
	Mekonnen Beshada	Laborator y		
16	Birtukan Alemu	BSc Nurse	Arsi and Bale	Tamene Dereje
	Samuel Wondewosen	Laborator y		
17	Alemayehu Wondimu	BSc Nurse	East Shoa, Awassa, Sidama,WestArsi	Dereje Girma
	Abraham Fajiga	Laborator y		
18	Zelalem Koresa	BSc Nurse	Harari and East Hararge	Tezera Mosago
	Degefa Tafa	Laborator y		
19	Lema Tafa	BSc Nurse	East Hararge, Jigjiga	
	Belay Mamo	Laborator y		
20	Mulisa Abdisa	BSc Nurse	Jigjiga	Zelege Bonger
	Wondimu Ashagre	Laborator y		
21	Ayalew Petros	BSc Nurse	West Hararge, D/Dawa	Getachew Fikadie
	Birhanu Babusa	Laborator y		
22	Yohannis Workineh	BSc Nurse	D/Dawa. Shinile	
	Bizuayehu Tariku	Laborator y		
23	Feyisa Tufa	BSc Nurse	Borena, Guji	Yassin Mohammed
	Workisa Chala	Laborator y		
24	Markos Hankebo	BSc Nurse	Liben	

	Henok Reta	Laborator y		Bisirat Getahun
25	Fikadu Alemu	BSc Nurse	Sidama, Gedeo	Toni Habesha
	Anteneh Mengesha	Laborator y		
26	Ermiyas Worku	BSc Nurse	Gurage,Hadiya,Silte	Girma Demissie
	Seniya Asfir	Laborator y		
27	Kalkidan Belachew	BSc Nurse	West Asri,Kambata, Wolayita, Alaba	Serawit Lakew
	Chala Wondimu	Laborator y		
28	Zelalem Tenaw	BSc Nurse	Gamogofa, s/omo	Mehari Mesfin
	Genene Tilahun	Laborator y		
29	Sofia Seyid	BSc Nurse	East Shoa,Adama,N/silk	Tigist Tesfaye
	Addisu Birke	Laborator y		
30	Elsa Assefa	BSc Nurse	Kolfe, Gulele,Lideta,Kirkos	
	Temesgen Basaznew	Laborator y		
31	Rodas Merihid	BSc Nurse	S/W/shoa,W/Shoa,Arada,Bole,AddisKete ma	Million Molla
	Rago Eda	Laborator y		
32	Mihret Mesfin	BSc Nurse	N/W/shoa, Yeka	
	Demissew Bogale	Laborator y		
33	Eskedar Tessema	BSc Nurse	Iluababor, Jimma	Tsegaye Getachew
	Temesgen Afework	Laborator y		
34	Dereje Fufa	BSc Nurse	Agnuak,Niwer, Mejengir	
	Geresu K/Mikael	Laborator y		
35	Alemayehu Sayih	BSc Nurse	Kefa, BenchiMaji	Lema Mideksa
	Ali Yesuf	Laborator y		