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Noncommunicable Disease Risk Factors:

Bhutan STEPS Survey Report, 2019

S P

World Health Organization

Ministry of Health
Royal Government of Bhutan

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Royal Government of Bhutan

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Contents

List of Tables

Demographic Information

Alcohol Consumption

Tobacco Use

Dietary Habits

Dietary Salt Intake

Physical Activity

Anthropometry

Raised Blood Pressure

Raised Blood Sugar

Raised Blood Cholesterol

Cardiovascular Diseases

Cervical Cancer

Oral Health

Mental Health

Violence and Injury

Water, Sanitation and Hygiene

List of Figures

Abbreviations

BMI	Body Mass Index
BP	Blood Pressure
CI	Confidence Interval
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardiovascular Disease
DALYs	Disability-Adjusted Life Years
DBP	Diastolic Blood Pressure
dl	Decilitre
EA	Enumeration Areas
FCTC	Framework Convention on Tobacco Control
GYTS	Global Youth Tobacco Survey
HDL	High-density lipoproteins
Hg	Mercury
HLC	High-level Committee
JDWNRH	Jigme Dorji Wangchuck National Referral Hospital
LDL	Low density lipoproteins
mmol/L	Millimoles per litre
NCD	Noncommunicable Disease
NGO	Nongovernmental Organisation
PDA	Personal digital assistant
PEN	Package of Essential Noncommunicable disease interventions
PHC	Primary Health Care
PHCB	Population and Housing Census of Bhutan
PPS	Probability Proportionate to Population Size
PSU	Primary Sampling Unit
SBP	Systolic Blood Pressure
SEARO	South-East Asia Regional Office
SSU	Secondary Sampling Unit
WHA	World Health Assembly
WHO	World Health Organization

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Foreword

Under the wise leadership of our Monarchs, Bhutan made remarkable progress in the last couple of years in the spheres of socio-economic development including health sector. As the country graduates to a low middle-income country in 2023, the gap between rich and poor is likely to widen. With development, the non communicable diseases have emerged as one of the most challenging public health problems accounting for 69% of all deaths in the country. NCDs have affected the whole spectrum of society and see no boundaries.

While the Ministry of Health is all out to mitigate the impact of NCDs, we see no sign of abating as is evident from the second nation-wide NCD risk factors STEPS survey conducted in 2019. Despite numerous laws and regulations in place, two out of five Bhutanese are current alcohol drinkers. Similarly, one out of five Bhutanese still use some kind of tobacco products. The mean population salt intake was found to be 8.3 grams per day as against the recommended level of 5 grams of salt per day. The results of this survey not only revealed the trends in the NCD risk factors but also give us a good assessment of our programmatic interventions and control strategies in the fight against non-communicable diseases.

I am glad that this survey also covered expanded modules such as cervical cancer, oral health, mental health, violence and injury, and WASH components. Elimination of cervical cancer and other forms of cancer is at the core of my heart. With a dedicated team of health workers across the country, I am sure we can overcome the hurdles of NCDs in the country.

To combat NCDs and to promote healthy society, Bhutan has embraced Health in all Policies (HiAP). All the HiAP conditions are embedded within the GNH matrices. Only through these approach, and with support and collaboration from all government sectors, NGO and Development Partners and private agencies, Bhutan can successfully combat the menace of NCDs.

Lastly, I would like to thank the World Health Organization for their support in the successful conduct of the survey. Further, my deepest appreciation goes to our technical partners, ministries and other agencies for the support rendered in combating NCDs. It is only through such multi-sectoral approach that we can halt the rise of NCDs in Bhutan.

Lyonpo Dechen Wangmo

Minister for Health

Foreword

Noncommunicable diseases (NCD) are a serious threat to the social and economic development of the WHO South-East Asia Region. Sixty-four per cent of all deaths in the Region are NCD-related, half of which are among people between the economically productive ages of 30 and 70 years. Globally, the NCD burden is predicted to rise in coming years, especially in low- and lower-middle-income countries. Since 2014, preventing and controlling NCDs has been one of the Region's Flagship Priorities.

Quality and timely data on trends in NCD risk factors are essential to developing sound policy. Data on the implementation status of policies and the coverage and impact of different interventions are also needed. Member States are required to report progress on key indicators to the UN General Assembly as part of specific global commitments for NCD control and prevention, as well as the Sustainable Development Goals.

Given the public health importance of addressing NCDs, WHO is actively supporting Member States in the Region to implement integrated adult risk factor surveys – known as WHO STEPS surveys – under the global "STEPwise approach to NCD surveillance". Since 2000, WHO has regularly updated a set of standardized tools that it has developed to meet the needs of NCD programmes. WHO continues to provide high-quality technical support to Member States to implement the WHO STEPS surveys and has contributed to building country capacity in NCD surveillance.

I congratulate the Ministry of Health of Bhutan for regularly conducting STEPS surveys and for implementing the 2019 survey in a timely and efficient manner. STEPS surveys remain the best source of high-quality information on NCDs in most countries in the Region. The 2019 STEPS survey is Bhutan's second STEPS survey, the first being conducted in 2014. The results from the 2019 survey will be instrumental in evaluating the performance of Bhutan's multisectoral action plan (2015–2020) and will provide a baseline for its next multisectoral action plan. The survey findings suggest that action is required at several levels to achieve key NCD indicators and targets.

I have full confidence that the Ministry of Health will institutionalize the WHO STEPS surveys as part of NCD surveillance and the country's overall health information system. By ensuring that quality and timely data on NCDs are available, Bhutan will ensure that it can meet today's challenges and anticipate and plan for tomorrow's. WHO will continue to support Bhutan in its quest to prevent and control NCDs and build a healthier future for all.

Dr Poonam Khetrapal Singh

Regional Director

WHO South-East Asia Region

EXECUTIVE SUMMARY

Rationale

Noncommunicable diseases (NCDs) in the recent past have become a serious cause of concern to the health and wellbeing of the people of Bhutan. It accounts for 69% of all deaths in the country, attributable mainly to changing lifestyle and dietary habits of the people [1,2]. Reducing the incidence and prevalence of risk factors has been identified as a major scheme in the prevention of NCDs in Bhutan. Therefore, it is imperative that surveys to assess the status and trends of behavioural and biological risk factors be carried out at regular intervals for planning public health priorities, predicting future caseloads, monitoring and evaluating population-wide prevention and control interventions. As part of the national NCD surveillance system, the STEPwise survey was conducted in 2019 to identify and assess the risk factors in the country.

Methodology

Based on WHO's approved STEPwise survey method, a cross sectional study was carried out in April 2019. A sample size of 5632 was used to represent the target population of (15-69) years in Bhutan. A multistage cluster sampling, using a mix of probability proportionate to size (PPS) and systematic random sampling was applied, using the sampling frame from the Population and Housing Census of Bhutan 2017 to select the participants. The primary sampling unit (PSU) was "*Gewog*", or county , in rural setting and towns (*thromdes*) in an urban setting. A total of 88 PSUs (55 from rural and 33 from urban) settings were selected. From each PSU, 4 Secondary Sampling Unit (SSU) were selected using PPS method, resulting in a total of 352 SSUs (220 from rural and 132 from urban). From each of these census blocks, 16 households were selected using circular systematic random sampling. Only one eligible individual from each household was selected randomly using Kish sampling method.
The data collection consisted of three steps measuring NCD risk-factors including physical and biochemical measurements. Socio demographic and behavioral information on tobacco use, harmful use of alcohol, low fruit and vegetable intake, history of blood pressure, blood glucose levels and the degree of dietary salt consumption were collected in STEP I. Physical measurement such as height, weight, blood pressure were collected in STEP II. Biochemical measurement were collected in STEP III using the dry chemistry to assess the fasting blood glucose and total cholesterol levels. Data weighting and analysis were conducted following STEPS survey guideline using Microsoft Excel-based tool developed by WHO for STEPS Survey, EpiInfo version 3.5.1 and STATA software version 15.0.

Response rate

The overall response rate was 99% for step 1 and 2 (questionnaire response), 96.9% for Blood glucose and cholesterol and 94.8% for collection of urinary samples.

Demographic Characteristics

Of the 5,575 respondents interviewed, 61.3% were women and 38.7% were men. Of the respondents, 58.4% were from rural and 41.6% were from urban. Two-thirds of respondents were less than 40 years. Majority of respondents (57%) have no education or have less than primary education. With regard to marital status 72% were currently married. In terms of wealth, the western region has the highest proportion of individuals in the wealthiest quintile and the lowest proportion was observed in the eastern region.

Alcohol Consumption

More than two-fifths (42.9%) of respondents were current drinkers, 16.4% were former drinkers and 40.7% were lifetime abstainers. The percentage of heavy episodic drinkers in the whole population

was 17.5% while it was 51.3% among the current drinkers. Likewise, the proportion of unrecorded alcohol consumed in the last seven days in the whole population was 12.4% while among the current drinkers it was 36%. Beer (45%) was the most popular form of alcohol consumed, followed by Ara (24.0%), other home-brewed alcoholic beverages (15.0%), wine (9.0%) and spirits (8.0%).
On a monthly or more frequent basis, 12.0% reported that they were not able to stop drinking once started, 4.0% needed a drink first thing in the morning and 5.0% failed to perform tasks assigned to them. Regarding access, 11.0% reported difficulty in obtaining alcohol for varied reasons. Regarding advertisement, 10.0% reported seeing advertisements promoting alcohol while 76.0% reported seeing advertisements discouraging alcohol consumption.

Tobacco Use

The findings indicate that 23.9% of respondents (men-32.9% women-11.8%) currently used tobacco products of some kind. Of these, 10.6% smoked while 14.5% used smokeless tobacco products and 1.4% used both smoke and smokeless tobacco products. Cigarettes (88%) and *bidis* (22.7%) were the most commonly used smoked tobacco products while chewing tobacco (82.4%) and sniffing by the nose (33.0%) were the most popular form of smokeless tobacco products. The median age of initiation of smoking tobacco was 19 years. More than two-thirds of current smokers (75.3%) had tried to stop smoking. Only one fifth (20.9%) of current smokers were advised by a doctor to stop smoking. The exposure to second-hand smoke at home was 13.1% while it was 41.4% at the workplace in the past 30 days. The overall users of betel and areca nut products were 51.8%.

Dietary Salt Intake

The mean population salt intake for an adult Bhutanese was found to be 8.3 grams per day (9.1 g/d men, 7.4g/d women) as against the WHO recommended level of 5 grams of salt per day. 11.6% of respondents always or often added salt or salty sauces to food while eating. Around 45% of respondents drink salted tea in their home (12.7% always, 32.2% sometimes).

Physical Activity

About 7.3% of respondents aged 15-69 years (8.2% in women, and 6.5% in men) did not meet the WHO recommended levels of physical activity for health (i.e. < 150 minutes of moderate-intensity physical activity per week or its equivalent).

Raised Blood Pressure

Of the respondents 83.3% reported having had their blood pressure measured by a health worker. The prevalence of raised blood pressure within the preceding 12 months was 28.0%. One-fifth of all respondents (20.0%) who had high blood pressure were not on medication (20.0% males and 20.0% females).

Body Mass Index

About 57.6% males and 45.7% females (average 52.0%) had a normal BMI value (18.5-24.9kg/m^2). Of the respondents, approximately 3.1% were found to be underweight, 33.5% overweight and 11.4% obese.

Waist Circumference

Mean waist circumference was 82.2 cm for male and 82.1 cm for female.

Raised Blood Sugar

Of the total respondents, 34.2% reported having had their sugar level measured by a health

worker. The prevalence of raised blood sugar was 2% (1.9% in male, 2.1% in female). Around 6.3% of the respondents who had raised sugar were not on medication.

Raised Blood Cholesterol

More than one-tenth (11.0%) of respondents have raised total cholesterol level (9.9% in male, 12.3% in female). Among those with raised blood cholesterol, 90.5% were not aware of their diagnosis while 3.3% were aware but not put on treatment. Of those who were put on treatment, 0.7% reported no-control while 5.1% reported controlled cholesterol level.

Cardiovascular Diseases

Overall 3.4% of the respondents reported ever having a heart attack or chest pain from heart disease or stroke. Based on the WHO/ISH risk prediction, around 4% of respondents aged (40-69) years have a predicted 30% or more chance of having a fatal or nonfatal major cardiovascular event (myo- cardial infarction or stroke) in the next 10 years .

Cervical Cancer

More than half (54.4%) of the female respondents, aged (15-69) years reported that they had undergone cervical cancer testing. Among those who had not tested, the most common reasons cited were embarrassment, lack of time in going to the hospital, did not know where to get tested and fear.

Oral Health

Nearly half the respondents (49.7%) reported visiting a dentist in the past one year. A majority (91.5%) visited the dentist for consultation or treatment while 8.5% visited for preventive services.

Mental Health

The survey revealed that of the respondents, 0.7% attempted suicide, 0.7% had made plans to commit suicide and 1.2% had seriously considered attempting suicide. Further, of the total respondents, 0.4% had severe depression, 1.6% had moderate depression and 12.3% had mild depression. Similarly, 0.2% had severe anxiety, 1.5% had moderate anxiety and 7.5% had a mild anxiety disorder.

Violence and Injury

The prevalence of road traffic accidents was 3.2% and found more predominant among males. Similarly, accidental injuries accounted for 3.8% of respondents that required medical attention. The percentage of people using a seat belt while in a motor vehicle was 16.4% while the use of a helmet while riding a motorcycle was 22.5%.

Water, Sanitation and Hygiene

The survey found that 99.0% of households have improved water sources and piped water sources. Similarly, 95.0% of households have improved sanitation facilities and handwashing facilities in the premises (99.5%).

In summary, the prevalence of modifiable behavioural risk factors and biological NCD risk factors are very high among Bhutanese and therefore require urgent action both at the policy level and ground level.

CHAPTER 1:
INTRODUCTION

1.1 Background

The global burden of non-communicable diseases (NCDs) continues to increase, accounting for 71.0% (41 million) of all deaths in 2018 with significant health, social and economic consequences. Each year, 15 million people die from a NCD between the ages of 30 and 69 years and causing over 85.0% of these "premature" deaths in low- and middle-income countries.[1,3]

In Bhutan, NCDs are estimated to account for 69.0% of all deaths in 2016. Four main groups of NCDs – CVD (28.0%), cancers (10.0%), chronic respiratory diseases (9.0%), and diabetes mellitus (4.0%) – are responsible for the majority of these NCD related deaths[2,4,5].

The Sustainable Development Goals 3.4 targets to reduce by one-third premature mortality from NCDs and promote mental health and well-being[6]. This is further supplemented by the Global Action Plan for the Prevention and Control of NCDs 2013-2020 with 9 voluntary global targets to be attained by 2025 with 2010 as the reference year. Bhutan has incorporated all 9 targets in its 5-year multi-sectoral action plan for prevention and control of Noncommunicable Diseases (2015-2020)[8].

The key to controlling the global epidemics of NCDs is the primary prevention based on comprehensive population-wide programmes. This requires the identification and surveillance of the most common risk factors shared between the common noncommunicable diseases identified by the World Health Organization (WHO) which are: tobacco use, harmful use of alcohol, unhealthy diet (low fruits and vegetables consumption, high salt intake), physical inactivity, overweight and obesity, raised blood pressure, raised blood glucose and cholesterol.

The WHO STEPwise approach to non communicable disease risk factor surveillance facilitates countries to track national NCDs status including the 25 key indicators (except the indicator on NCD mortality and per capita alcohol consumption) highlighted in the NCD Global Monitoring Framework which will help Bhutan track progress and guide policy and program planning in NCD prevention and control.

Current National NCD Landscape

Bhutan launched Multisectoral National Action Plan for Prevention and Control of Non-communicable Disease in 2015. It takes a holistic approach of primary prevention and provision of care and treatment services. The implementation of the action plan is overseen by a National Steering Committee for NCD prevention and control formed in 2015. The Life Style Related Disease Program (LSRD) established in 2008 is the focal programme within MoH for all NCD related activities and member secretary to the steering committee.

STEPS survey and NCD surveillance

As part of the national health surveillance systems, STEPS surveys are done every 3-5 years to assess trends in prevalence of NCD risk factors including health system response, service

coverage and utilization. The first nationwide STEPS Survey in the country was conducted in 2014. Since then, several programmatic interventions have been implemented to prevent and control NCDs in the country. Thus, to determine the magnitude and trends of risk factors, and to monitor the trends towards set target (Figure 1), the second nationwide STEPS survey was conducted five years after the first survey in 2014.

	A **25%** relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.
	At least **10%** relative reduction in the harmful use of alcohol, as appropriate, within the national context.
	A **10%** relative reduction in prevalence of insufficient physical activity.
	A **30%** relative reduction in mean population intake of salt/sodium.
	A **30%** relative reduction in prevalence of current tobacco use in persons aged 15+ years.
	A **25%** relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.
	Halt the rise in diabetes and obesity.
	At least **50%** of eligible people receive drug therapy and counseling (including glycaemic control) to prevent heart attacks and strokes.
	An **80%** availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.

Figure 1: Nine targets incorporated into Multisectoral National Action Plan for Prevention and Control of NCDs in Bhutan (2015-2020)

1.2 Objectives of 2019 nationwide STEPS Survey

General Objective

- To assess the prevalence of selected NCD risk factors in the population of Bhutan aged 15- 69 years.

Specific Objectives

- To describe the current levels of behavioural risk factors in the population aged 15-69 years in Bhutan (tobacco use, harmful use of alcohol, unhealthy diet and physical inactivity).
- To measure the prevalence of biological risk factors (raised blood pressure, overweight, obesity, raised blood glucose, raised cholesterol).

- To help track the direction and magnitude of trends in NCD risk factors since the first survey in 2014.
- To assess the levels of implementation of key policies for tobacco and alcohol control.
- To assess responses of the national health system in terms of coverage with early detection and treatment of key physiological risk factors (i.e. diabetes, hypertension, tobacco cessation).
- To assess the coverage, availability and use of cervical cancer screening/testing services and reasons for not getting screened or treated.
- To assess the oral health practices of the adult population.
- To assess the prevalence of road traffic injuries and unintentional injuries.
- To track key indicators related to mental health status in the country.
- To support planning and evaluating NCD policy and programme interventions.

CHAPTER 2:
SURVEY METHODOLOGY

2.1 Scope

Using the WHO STEPS Survey methodology, a national cross-sectional survey was carried out to obtain nationally representative data of the population aged 15-69 years in Bhutan.

The WHO STEPS survey protocol was used, which included the steps below:

STEP 1 included face-to-face interview of participants to assess behavioural risk factors and health history related to NCDs;

STEP 2 involved physical measurements to assess blood pressure, height, weight, waist and hip circumference; and

STEP 3 involved measurement of blood glucose, total cholesterol and urinary sodium using dry chemistry and rapid diagnostic tests.

2.2 Study Population

The survey population included usual household members aged 15-69 years except for the following:

- The usual household member who is severely sick/disabled to participate in the survey;
- In-country school or college students who are staying as boarders;
- All students living outside Bhutan;
- Armed forces personnel who live in barracks (*dekha)*;
- Monks (*gelongs*) who live in monastic institutions (*shedas*, *gomdeys*, or *dratshangs)* in Bhutan or outside Bhutan.

2.3 Sample Size

2.3.1 Sample design and Sample size

A multi-stage cluster sampling method was applied to obtain a nationally representative sample size aged 15- 69 years in Bhutan. The following formula was used to determine the sample size of 5632 at 95% Confidence Interval.

Step 1

$$n=\frac{Z^2 P(1-P)}{d^2}$$

Where:

Z= level of confidence measure and it represents the number of standard errors away from the mean. This describes the uncertainty in the sample mean or prevalence as an estimate of the population mean (normal deviate if alpha equals 0.05, Z = 1.96, for 95% confidence level)

P= Baseline level of indicators. The estimated proportion of one of the indicators related to the risk factors currently being measured. The percentage not engaging in vigorous activity (48.8%) from the 2014 NCD STEPS survey, which was the closest value to 50%, was considered.

d = Margin of error. The expected half-width of the confidence interval and taken 0.05 for this study

$$n = \frac{1.96*1.96\ \{0.488\ *(1-0.488)\}}{0.05*0.05}$$

n= 383.9387238

Step 2

Eight domains were chosen based on the gender (male and female), area (rural and urban), two age groups and four regions of Bhutan. This ensured enough representation for eight sub-groups to be reported. The design effect of 1.5 was considered to address the issue of cluster sampling, the expected sample size was as below.

n= 383.9387238*1.5*8 = 4607.264686

Step 3

Assuming an expected 85% (based on 2014 NCD STEPS survey) response rate, the estimated required sample size was 5421.

The above sample size was divided by the expected response rate arrive at the

n= 4607.264686/0.85 = 5420.311395~ (rounded to 5421)

However, taking into account 16 households were selected from each Secondary Sampling Units (SSU) led to the final sample of 5632 (16*352 SSUs).

2.4 Sampling

To achieve a nationally representative sample, a multi-stage sampling method was used to select enumeration areas, households and eligible participants at each of the selected households in three stages.

Sampling frame: For this STEPS survey the sampling frame was used from the 2017 Population and Housing Census of Bhutan (PHCB).

Stage 1: Type and Number of PSUs selected:

The Primary Sampling Units (PSUs) of this survey was *Gewogs* in rural areas and towns in urban areas. Overall 88 PSUs were selected which comprised 33 from urban and 55 from rural areas. PSUs from each stratum (urban and rural) of each region were selected using Probability Proportionate to Size (PPS).

Stage 2: Selection of Secondary Sampling Units (SSUs)

The Secondary Sampling Units of this survey was chiwogs in rural areas and enumeration areas (EAs) in urban areas. Four SSUs were selected for every PSU which led to the selection of 352 SSUs (220 from rural and 132 from the urban). This was also selected using PPS sampling by using the number of households in each SSU.

Stage 3: Selection of households from SSU

Within each SSU, 16 households were selected using circular systematic sampling. The sampling frame for this was the list of households with a unique identification number (ID) developed by the enumerators during the survey. The household listing was done by the enumerators under the supervision of the team leader/supervisor with the help of *Chiwog Tshogpa* or *Thromde Thuemi* or local healthcare providers.

Stage 4: Selection of eligible participants at the household level

At the household level, Kish sampling method was used to randomly select one eligible member aged 15-69 years for the survey. The Kish method ranks eligible household members in order of decreasing age, starting with males and then females, and randomly selected a respondent using an automated program for Kish section in the handheld android Samsung tablets.

2.5. Operational definitions

Household: A household is defined as a person or group of persons, related or unrelated, who live together in the same dwelling unit, who acknowledge one adult male or female as the head of household, who share the same living arrangements, and are considered as one unit. A usual member is a person who "normally" lives in the household.

Household head: The person who manages the income and expenses of the household and who is most knowledgeable about its other members.

Household member, usual: A person who has lived with the household for at least 6 of the last 12 months.

Current drinkers are people who consumed alcohol in the past 30 days unless specified otherwise defined separately under specific sections.

Heavy episodic drinking (HED) is defined as consumption of 60 or more grams of pure alcohol (6+ standard drinks) on at least one single occasion in the 30 days before the survey.

Unrecorded alcohol refers to alcohol that is not taxed in the country where it is consumed because it is usually produced, distributed and sold outside the formal channels under government control.

2.6. Data collection tool

The survey was conducted using the WHO NCD STEPS instrument. The questionnaire consisted of three STEPS for measuring the NCD risk factors. Each step consisted of several cores and expanded questions that were modified to suit the local context. Bhutan included all core modules and expanded modules on tobacco policy, alcohol policy (country-specific), oral health, cervical cancer screening, mental health and violence and injury.

Step I included**:**

- Demographic information on date of birth, age, sex, marital status, and years at school, primary occupation and variables for calculation of assets;
- Tobacco use and related policies;
- Alcohol consumption and related policies;
- Fruit and vegetable consumption;
- Dietary salt consumption;
- Physical activity;
- Mental health (suicide, depression and anxiety);
- Oral health;
- Cervical cancer screening;
- Violence and injury;
- History of raised blood pressure and raised blood glucose.

STEP-II included physical measurements: height, weight, waist and hip circumference and blood pressure

STEP-III included biochemical measurements: blood glucose, total cholesterol and urinary sodium

The questionnaire was translated into the national language Dzongkha and actual administration happened in other local dialects too. Verbal translations of the questionnaire in other local languages were standardized during the training with the help of native speakers since written translation is not feasible or desirable. Assistive pictorial show cards were displayed to provide a visual reference for various tobacco, alcohol products, types of fruits and vegetables and corresponding servings sizes (one standard serving of fruit or vegetables equals 80 grams), various salty sauces and processed foods, various levels of physical activity and sedentary activities.

Survey flow

STEP 1 and 2 were conducted at the respondent's household. Responses from participants were recorded by the survey enumerators using a handheld android Samsung tablet which was programmed with assistance from WHO/SEARO.

The respondents were asked to fast overnight after completing STEP 1 and STEP 2. They were asked not to consume any food or drinks except water after 10 pm until the morning of the following day. Diabetic patients on medication were requested to bring their medicine/ insulin with them and take their medicine after providing the blood sample. They were also asked to take a urine sample in a container provided, before starting their fast. Participants were then asked to go to the testing centre set up by the survey team the next morning where blood samples were taken and urine samples collected.

2.7 Physical measurements:

2.7.1. Anthropometry

Height, weight, hip and waist circumference were measured for all respondents who gave their consent for STEP 2. Height, weight, waist and hip circumference were measured using stadia meter, portable digital weighing scale, constant tension Myotape tape (SecaTMbrand) respectively following the standard protocol (annexed). The body weight was recorded in kilograms and height, waist and hip circumference in centimetres.

2.7.2. Blood Pressure

Blood pressure and pulse were measured with a digital automated blood pressure monitor (Omron brand) with uniform cuff-size as per the standard protocol. Three readings of the systolic and diastolic blood pressure were obtained with five minutes rest between each reading. The mean of the second and third readings was calculated and finally recorded in the tablet.

2.8. Biochemical measurements

2.8.1. Blood sugar and lipids

The biochemical assessments were performed the next day in fasting at a designated place. Blood glucose, cholesterol and triglycerides were measured on the spot using CardioCheck machine. Spot urine sample was collected and transferred to the central laboratory at JDWNRH for analysis for sodium and creatinine to determine the mean salt intake using Easylyte plus Na/K/Cl analyzer (Medica Corporation, USA). Sodium data was recorded in mmol/L and creatinine in mg/dl.

The following INTERSALT (North American) equation was used to estimate the mean population salt intake for the survey.

INTERSALT

For North America (HQ)

Additional information required by the equations included respondent weight, height, age, sex. Respondents with a height less than 100 cm or above 270 cm; weight less than 20kg or above 350 kg were excluded. To convert creatinine from mg/dl to mmol/L; creatinine in mg/dl was multiplied with a conversion factor of 0.00884.

Male:

$$\left(23.51 + 0.46 \times Naspot\left(\frac{mmol}{L}\right)\right) - 3.09 \times Crspot\left(\frac{mmol}{L}\right) + 4.16 \times BMI\left(\frac{kg}{m^2}\right) + 0.26 \times Age(year)$$

Female:

$$\left(3.74 + 0.33 \times Naspot\left(\frac{mmol}{L}\right)\right) - 2.44 \times Crspot\left(\frac{mmol}{L}\right) + 2.42 \times BMI\left(\frac{kg}{m^2}\right) + 2.34 \times Age(year) - 0.03 \times Age^2(year)$$

The 24-hour sodium intake derived from the above equation was then converted to salt intake by dividing it with 17.1 (or the multiplication of 2.54/1000*23) and final estimated salt intake in grams was obtained.

2.9. Pre-test

The questionnaire was pretested for two days after the training of supervisors and enumerators covering at least 32 interviews in the non-sampled areas. The purpose of the pre-test was to assess the applicability, relevancy, content, timing and sequencing/flow; and to get hands-on practice on the tools. The issues and feedback identified from the pre-test were incorporated in the final tools.

2.10. Staff and Field work

For the survey, 16 teams were deployed with each team comprising 3 members (one team leader and two enumerators) for data collection. In addition, teams in each region were monitored by the regional supervisors and spot checkers during the data collection period. The actual data collection were conducted from 23rd April to 3rd July 2019.

2.11. Technical Working Member

The STEPS Survey was mainly coordinated by the Non-Communicable Disease Division led by the Lifestyle Related Disease Program during all the phases including planning, resources mobilization, and implementation and monitoring.

The core technical working group comprising representatives from the KGUMSB, FoNPH, NSB, JDWNRH, WHO SEARO and Country Office were involved from proposal development, planning, implementation and monitoring.

In addition, the High-Level committee (HLC) was established to oversee, guide and provide administrative and logistic support for the overall implementation of the STEPS survey.

2.12. Training

The training was conducted for five days for the enumerators and the supervisors. The contents included basic interviewing skills, sampling methods including selection of households and eligible respondents, recording of interviews on android tablets followed by practical sessions on taking both physical and biochemical measurements. The mock interviews were conducted in local dialects to ensure quality and standardization of the questionnaire.

In addition, the team supervisors were trained on how to check, verify and monitor the data collection process and provide assistance as and when required.

2.13. Data processing and analysis

Data entry

All the survey data were directly entered on handheld android samsung tablet with inbuilt WHO eSTEPS software by the enumerators except for urine samples, which were separately recorded by a central laboratory later. The final data from the field were uploaded to the server which was reviewed in real time by the central team from their master database.

The data from the server were downloaded into a single master database following completion of the fieldwork. Data cleaning and weighting were undertaken prior to data analysis, following the guidance provided by the WHO in the eSTEPS manual. This included checking ranges and combinations of variables, detecting and handling missing data, and detecting and handling outliers. Data was weighted to make the sample representative of the target population (aged 15 – 69 years). Weights were calculated to adjust for the following aspects; probability of selection (sample weights), non-response (non-response weight), and differences between the sample population and target population (population weight). From these, an overall weight was calculated for each step of the survey and applied to the final dataset.

Data analysis

Data analysis was primarily performed using STATA version 15.0. WHO team provided virtual technical support for data analysis and report writing.

Reporting and dissemination

Following the completion of data analysis, a factsheet on NCD STEPS survey was generated with the support of WHO. It was then presented at the biennial health conference in September 2019. Further dissemination workshop was planned to communicate the detail results of the survey at the national level for relevant stakeholders.

2.14. Ethical considerations

Ethical clearance for the survey was obtained from the Research Ethics Board for Health (REBH), and administrative approval was sought from National Statistics Bureau and Ministry of Home and Cultural Affairs. The survey enumerators obtained two written copies of informed consent from the participants. Two consent forms were used; one for STEPS 1 and 2, and the other for STEP 3. A copy of the information sheet was given to the respondents and the survey team kept the written consent forms. After obtaining informed consent, the interview and physical measurements (Step 1 and 2) were then administered at the household.

Participation in the survey was voluntary. Interviews were conducted in a manner that ensured confidentiality and the privacy of the respondents.

For minor participants, informed consent from their parents or legal guardian were obtained. In addition, the informed assent from the minor themselves were also obtained.

CHAPTER 3:
Demographic Information

Key Findings

- **Age:** Two-thirds of all respondents were less than 40 years of age.
- **Marital status:** Of all respondents, 72.4% of women and 70.2% of men were currently married, while 18.9% of women and 26.9% of men were never married.
- **Education level:** Of all respondents, 50.6% had no education or have less than primary education; 27.5% had completed primary or middle level and only 21.8% had completed a secondary or higher level of education.
- **Employment:** Of all respondents, 23.1% of women and 44.6% of men were currently employed either in government, non-government, and private jobs or self-employed.
- **Wealth:** Of all respondents, 81.7% of households had a smart mobile phone and 83.1% had a television set. The western region has the highest proportion of individuals in the wealthiest quintile and the lowest proportion was observed in the eastern region.

This chapter presents information on demographic and socioeconomic characteristics of the survey respondents such as age, education, place of residence, marital status, occupation and wealth status, and other household characteristics. This information is useful in understanding the epidemiology of NCD risk factors that affect healthcare-seeking behaviours and health inequities.

3.1 Basic Characteristics of Survey Respondents

The 2019 STEPS Survey interviewed 5,575 respondents aged 15-69 years. Of them 3416 (61.3%) were women and 2159 (38.7%) were men; 58.4% were from the rural and 41.6% were from uban. Majority of the respondents (72.4% women and 71.3% men) were currently married. Only 18.9% women and 23.1% men were never married. Of the respondents, 8.6% women and 5.4 % men were divorced or widowed (Table 3.1)

3.2 Education

Among the respondents, 50.6% had no education/less than primary level education, 27.5% had completed primarily to middle secondary level of education while 21.8% had completed secondary or higher education level. (Table 3.1)

Patterns by background characteristics (Table 3.2)

- **Age and educational level:** An inverse relationship was seen between the level of education and the age. The younger age group reported higher level of education while the older age group reported no/less than primary education level and vice versa (54.4% primary to secondary level and 29% secondary/more education level in 15-24 years vs. 89.5% no/less than primary education for 55-69 years age group).
- **Household wealth and educational level:** The likelihood of no education or less than primary education decreased with increasing wealth from 87% of respondents in the lowest wealth quintile to 19.2% in the highest wealth quintile. The reverse relationship was seen with primary-middle education and secondary or more than secondary education.
- **Residence and educational level:** Respondents who lived in rural areas were more likely to report lower education levels. Nearly two-thirds (64.1%) of respondents in rural areas reported no education or less than primary-level compared to 31.7% in urban areas. The reverse relationship was seen for primary-middle and secondary or more than secondary level education, with a higher proportion of respondents reporting a secondary or higher level of education in the urban areas.

3.3 Employment

Overall 34.4% (44.6% men and 23.1% men) of the respondents were either government, non-governmental, private or self employed and 30.1% of the respondents (31.3% men and 28.8% women) were subsistence farmers. (Table 3.2).

Patterns by background characteristics (Table 3.2)

- **Age, sex and occupational status:** Respondents between the age groups 15-24 and

55-69 years reported 'less likely being being employed' while highest proportion of respondents from age group 25-39 and 40-54 years reported being employed (49.9% and 33.5%). More men(44.6%) reported being employed than women (23.1%).

- **Household wealth and occupation status:** Overall, the likelihood of being employed increased with increasing wealth (6.3% of respondents in the lowest wealth quintile to 59.7% in the highest wealth quintile). However, the likelihood of being a subsistence farmer decreased with increasing household wealth index (71% in the lowest wealth quintile to 3.2% in the highest wealth quintile).
- **Residence and occupational status:** Significant differences in being employed was seen by the rural and urban residents (20.8% in rural and 53.5% in urban). Across the regions the likelihood of being employed was higher in the western region(41.5%) compared to central (28.5%) and eastern region (25.3%).

3.4 Household Characteristics

The most commonly used materials for house construction was RCC cement for wall (26%); metal sheets (97.0%) for roofing and concrete (42.5%) and planks (45.6%) for flooring (Table 3.3).

Household possessions

Majority of respondents (81.7%) have a smart mobile phone (91.3% in urban and 74.9% in rural), however, only 2.7% of households have fixed land-line telephones (1.3% in rural and 4.5% in urban). Overall, four out of five (83.1%) households reported owning a television, with television ownership much higher among urban households compared to rural households (92.3% versus 76.5%). Television ownership increased with increasing wealth, from 36.9% of respondents in the lowest wealth quintile to 99.1% in the highest wealth quintile. Only one-fourth (26.7%) of households reported having a computer/laptop/tablet, and it was much higher in urban households (45.1%) than in rural households(13.7%). (Table 3.3)

3.5 Household Wealth Index

Household wealth was assessed based on selected household characteristics such as materials used for wall, floor and roof construction, means of transport, and possession of selected consumer goods. These were used as an indicator of economic status rather than a direct assessment of household income, as the former is easier to assess in household surveys and was found to be a valid marker of economic status. Household wealth index has been used as a key stratified to assess socio-economic differentials in the prevalence of NCD risk factors and care- seeking behaviour.

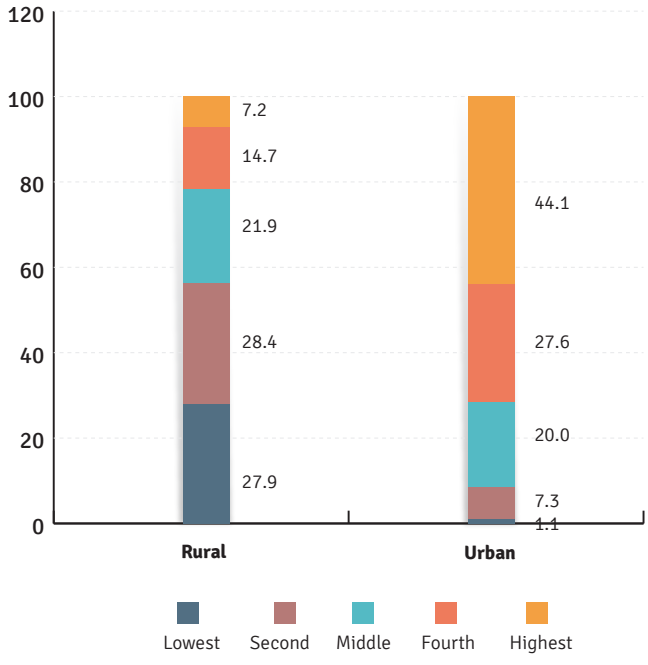
Computation of household wealth index

Households were given scores based on the number and kind of consumer goods they own ranging from television to bicycle or car and housing roof/wall/floor characteristics. These scores are derived using principal component analysis. National wealth quintiles are compiled by assigning the household score to sample individuals, ranking them by his/her household score, and then dividing the distribution into five equal categories, each comprising 20% of the population.

Of all the respondents 81.7% reported having smart phone; 2.7% of the households as having fixed land-line telephones; 83.1% owning a television and 26.7% reported having a

computer/laptop/tablet. The television ownership and laptop/compter/tablet was reported to be higher among the urban households compared to rural households.(92.3% VS 76.5%) and (45.1% VS 13.7%) (Table 3.3)

Figure 2: Percentage distribution of sampled individuals by wealth quintile and residence



STEP 1:
BEHAVIOURAL MEASUREMENTS

CHAPTER 4:
ALCOHOL CONSUMPTION

Key Findings

Alcohol consumption

- Overall 42.9% were current drinkers (men-50.1% and women-34.9%) while 40.7% were life-time abstainer (men-32.7% and women-49.7%).

Heavy episodic drinking (HED)

- Among the current drinkers, 51.3% of respondents were engaged in heavy episodic drinking.

Type of Alcohol consumed in the last 30 days

- Beer (45.2%) was the most consumed form of alcohol, followed by *Ara* (23.5%) and other home-brewed alcoholic drinks such as *changkoe*, *bangchang* or *shingchang* (14.8%), wine (8.5%) and spirits (7.9%).

Unrecorded Alcohol Use

- Of the total population, 12.4% consumed unrecorded alcohol and amongst the current drinkers, 35.5% consumed unrecorded alcohol in the past 30 days. Amongst the current drinkers, 35.9% consumed unrecorded alcohol in the past 7 days.

Alcohol Dependence

- On a monthly or more frequent basis, 12.3% reported that they are not able to stop drinking once started, 3.8% needed a drink first thing in the morning and 4.5% of the respondents failed to perform tasks that were assigned to them due to alcohol use.

Harm to others

- Of the total population, 0.9% of respondents reported being harmed due to someone else's drinking on a monthly/more frequent basis and 4.0% on less than monthly basis.

Access to Alcohol

- Among the drinkers, 10.3% found it difficult or very difficult to get alcohol while 7.8% of respondents were refused sale of alcohol at a bar or a shop due to one or more regulations.
- About 5.8% were refused sale due to the day being a dry-day, 1.0% due to time

restrictions for sale, 1.2% for being under-aged, and 0.8% for already being intoxicated.

Alcohol advertisement

- About 9.2% of respondents reported seeing advertisements promoting alcohol on different media platforms. Besides, 1 in 5 respondents (22.1%) who attended social events such as sports events, fairs, concerts, etc., saw alcohol advertisements or got free beer/discounted alcohol.
- Amongst all respondents, 75.8% of the population saw/heard messages that discouraged consumption of alcohol in the media.

Drink driving

- Among respondents who drove in past six months, 16.3% reported being stopped or checked by traffic police for drink-driving and 7.2% of all respondents reported they rode in a vehicle, in the past 30 days, where the driver was drunk.

Alcohol regulations

- Amongst all respondents, 60.5% were aware of one or more alcohol regulations.
- Of the respondents, 22.8% reported that they had attended some awareness programme on reduction of harmful use of alcohol.
- An estimated 42.8% reported that they were aware of dry-days (Tuesday), 6.2% were aware of restrictions on the timing of sale, 16.2% were aware of the restriction in sale "before 1 pm and after 10 pm", 32.5% were aware that sale of alcohol to under 18 years is prohibited.
- About 1.8% were aware that a seller can refuse sale to an intoxicated person, 3.6% were aware of the prohibition of sale of homebrewed alcohol, 5.6% were aware that sale of alcohol near monasteries and schools is prohibited, 17.1% reported being aware of driving under influence of alcohol is illegal, and 13.2% knew that only a bar license holder can sell alcohol.

Home-brewed alcohol

- An estimated 32.3% of respondents reported that alcohol was brewed in their households and 13.6% reported that it was brewed weekly or more frequently.

Worldwide, 3 million deaths occur every year due to harmful use of alcohol, which represents 5.3 % of all deaths. In the South-East Asia Region, which is home to 1.9 billion people, 1 in 20 deaths were attributed to alcohol consumption.[13] The SDG Goal 3.5 aims for a relative reduction of 10% per capita alcohol consumption by 2025.

In Bhutan, the National Policy and Strategic Framework to Reduce Harmful Use of Alcohol (2015-2020), entails strategies to reduce accessibility, availability and affordability of alcohol. There is a total ban on alcohol advertisement, promotions and sponsorships. To reduce alcohol availability and accessibility, mechanisms such as restricted licensing, sale timing and location, age and restriction on the sale of locally brewed alcohol were instituted. Further, affordability is minimized through heavy taxation in addition to stringent drink driving countermeasures. Additionally, community-based interventions to reduce the harmful use of alcohol were implemented in selected priority districts.

This chapter focuses on indicators related to patterns of alcohol consumption, the incidence of heavy episodic drinking, drink driving, consumption of unrecorded alcohol, access to alcohol and awareness about alcohol regulations. This information will help assess trends and progress towards alcohol control targets as specified in its multisectoral action plan.

4.1 Alcohol Consumption

The prevalence of current alcohol consumption (in the past 12 months) among all respondents was 42.9% and that of life-time abstainers was 40.7%. Of the respondents, 16.4% were former drinkers and 33.1% reported consuming alcohol in the past 30 days. Among those who drank in the past 12 months, 6.2% drank daily, 13.9% drank 1-4 days/week and 22.9% drank 1-3 days/month or less than a month. Majority of current drinkers (51.7%) were found in the age group of 25-39 years while former drinkers (24.6%) were reported in the older age group of 59-65 years (Table 4.1).

Patterns by background characteristics

- Of the total respondents, 19.4% in the age group of 15-24 years were current drinkers (past 30 days) and this proportion increased with increase in age, going up to 41% for the 25-39 years' age group and decreasing a bit for the age group of 40-69 years (34.5%). Correspondingly, the proportion of lifetime abstainers decreased with increase in age (Table 4.1.)
- The eastern region had the highest prevalence of current alcohol consumption in the past 12 months (49.6%) followed by western region (42.8%) and central region (38.4%) compared to the national average of 42.9%.
- There were slightly more men current drinkers (50.1%) than women (34.9%) and urban areas had higher current use of alcohol compared to rural areas (48.7% versus 38.8%).
- There were more current drinkers among 25-39 years, secondary or more education level and those in the lowest and highest wealth quintiles (Figure 3).

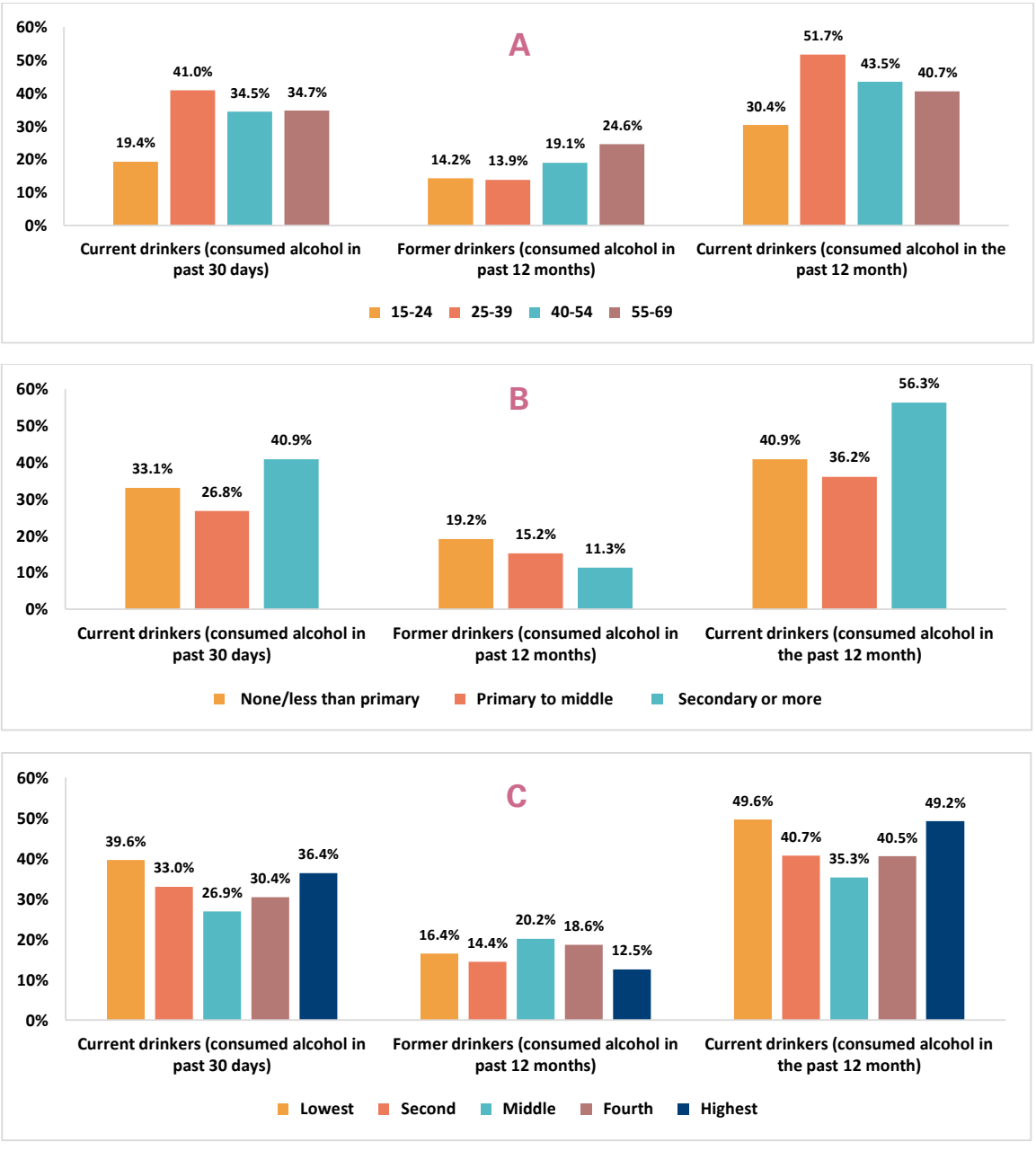


Figure 3: Differentials in the proportion of former and current drinkers by age category (A), levels of education (B) and wealth (C).

4.2 Heavy Episodic Drinking

Of the respondent, 17.5% were heavy episodic drinkers and amongst the current drinkers in the last 30 days, 51.3% were engaged in HED.

The incidence of HED drinking increased with increasing age and amongst current drinkers; it was the highest for the age group 25-39 years (53.6%) (Table 4.2).

Patterns by background characteristics

Older aged people and men are more heavy episodic drinkers than other population groups (Figure 4). For all respondents, HED was higher in urban areas compared to rural areas (18.7% versus 15.1%). Amongst all respondents, the prevalence of HED was the highest in the

eastern region (19.0%). However, amongst the current drinkers, the prevalence of HED was lowest in the eastern region and highest in the central region (53.4%) (Table 4.2).

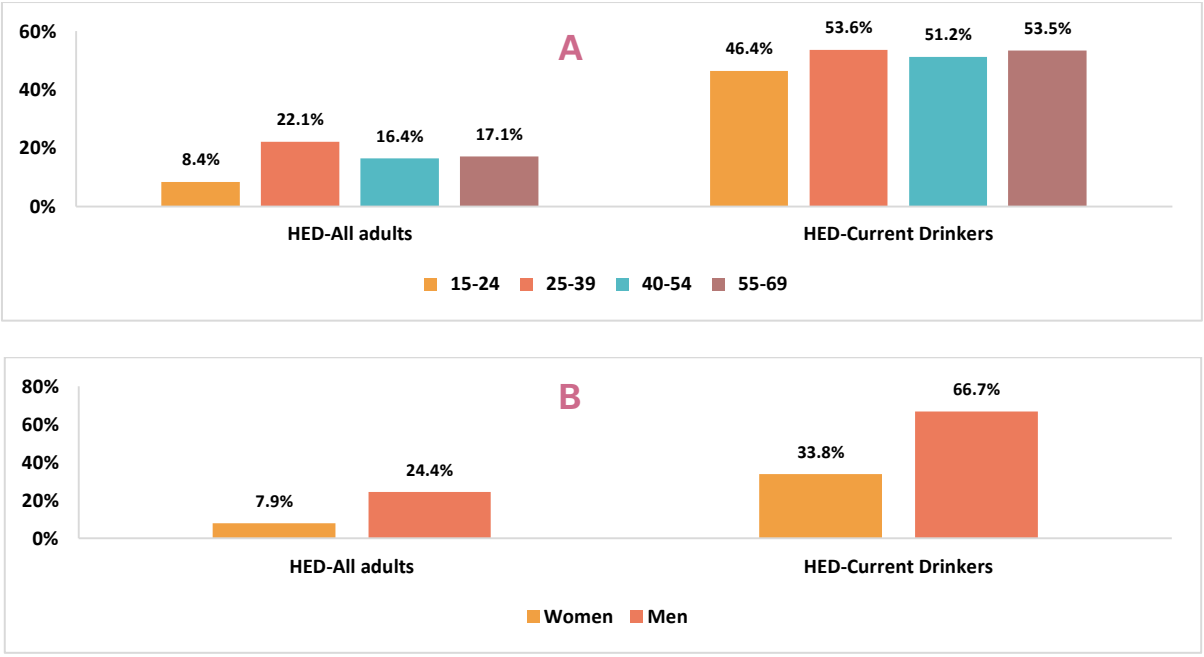


Figure 4: Differentials in the prevalence of HED, by age category (A) and gender (B)

4.3 Alcohol Consumption by Type

Beer is the most common type of alcohol consumed (45.2%) followed by ara (23.5%) as shown in Figure 5.

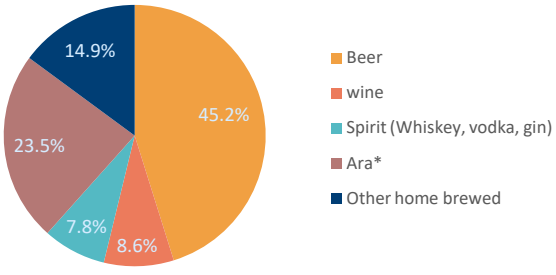
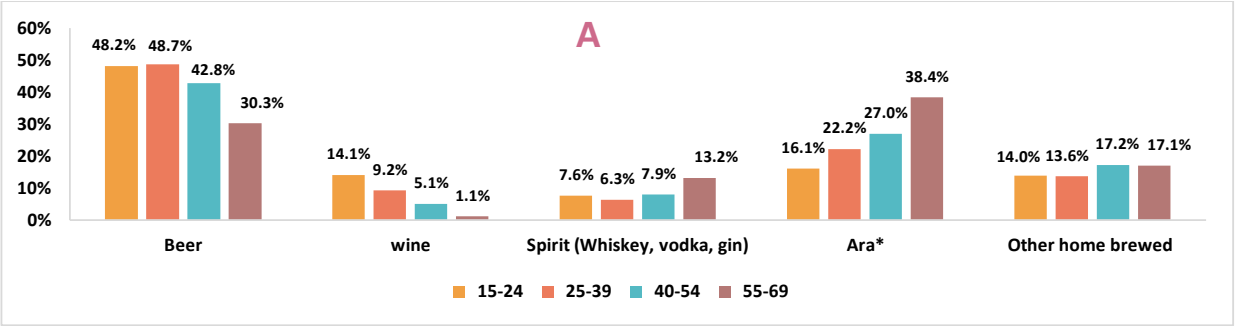


Figure 5: Percentage of different types of alcohol consumed by Bhutanese

Patterns by background characteristics (Table 4.3)

- While whisky and *Ara* are more popular among the older age group, beer and wine are more popular among the younger age group. Wine and *Ara* are the more popular drinks with women than men (Figure 6).



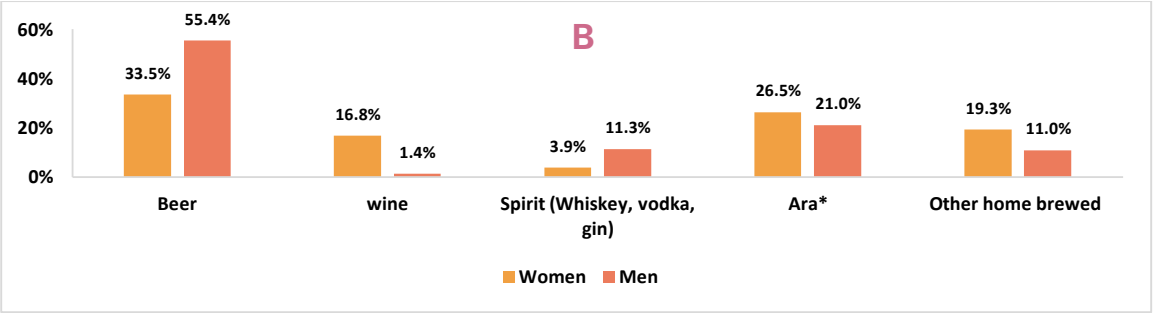


Figure 6: Differentials in the consumption of alcohol by type of alcohol by age category (A) and gender (B)

- While beer (urban 54.8%, rural 36.8%), wine (urban 13.8%, rural 4.2%) and spirit (urban 8.4%, rural 7.4%) are popular with the urban population, *Ara* is more popular in the rural areas (rural 32.2%, urban 13.5%). Similarly, respondents with higher qualification drink more commercial products (beer 59.4%, wine 16.0%, spirit 6.3%, *Ara* 8.1%, other home-brewed 10.2%) while respondents with none or less than primary level education drink more *Ara* (Beer 33.8%, wine 2.0%, Spirit 7.9%, *Ara* 38.1%, other home-brewed 18.2%) (Figure 7).

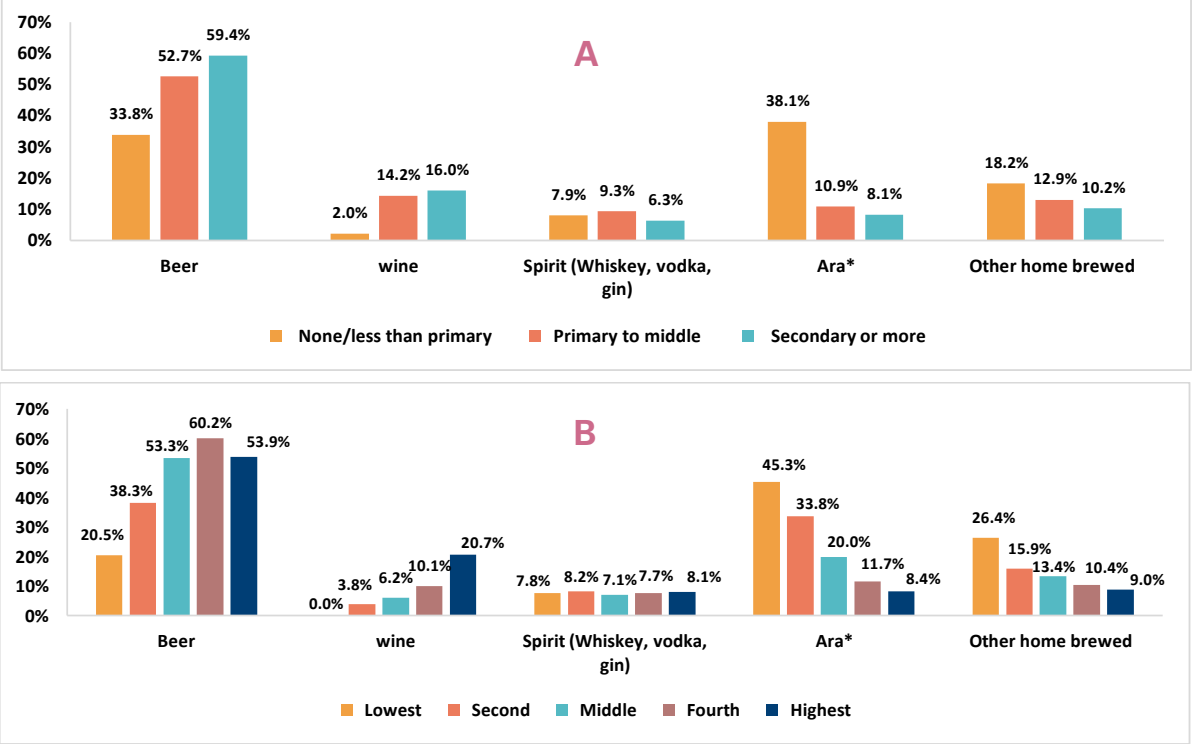


Figure 7: Differentials in the consumption of alcohol by type of alcohol, amongst current drinkers by levels of education (A) and wealth quintile (B).

4.4 Unrecorded Alcohol Use

Of the respondents, 12.4% consumed unrecorded alcohol and amongst the current drinkers, 35.5% consumed unrecorded alcohol in the past seven days. Amongst the current drinkers, the proportion of unrecorded alcohol consumed as a fraction of overall alcohol was 35.9% (Table 4.4).

Patterns by background characteristics

- In the overall population, the proportion of respondents consuming unrecorded alcohol increased with increase in age, with the lowest being 4.2% for the 15-24 years' age group, and highest being 19.2% for 55-69 years. Rural population (15.1%) drink more unrecorded alcohol than the urban population (8.0%). With increase in levels of education and wealth, consumption of unrecorded alcohol declined amongst all respondents and current drinkers, with the gradient being more pronounced for the current drinkers (Figure 8).

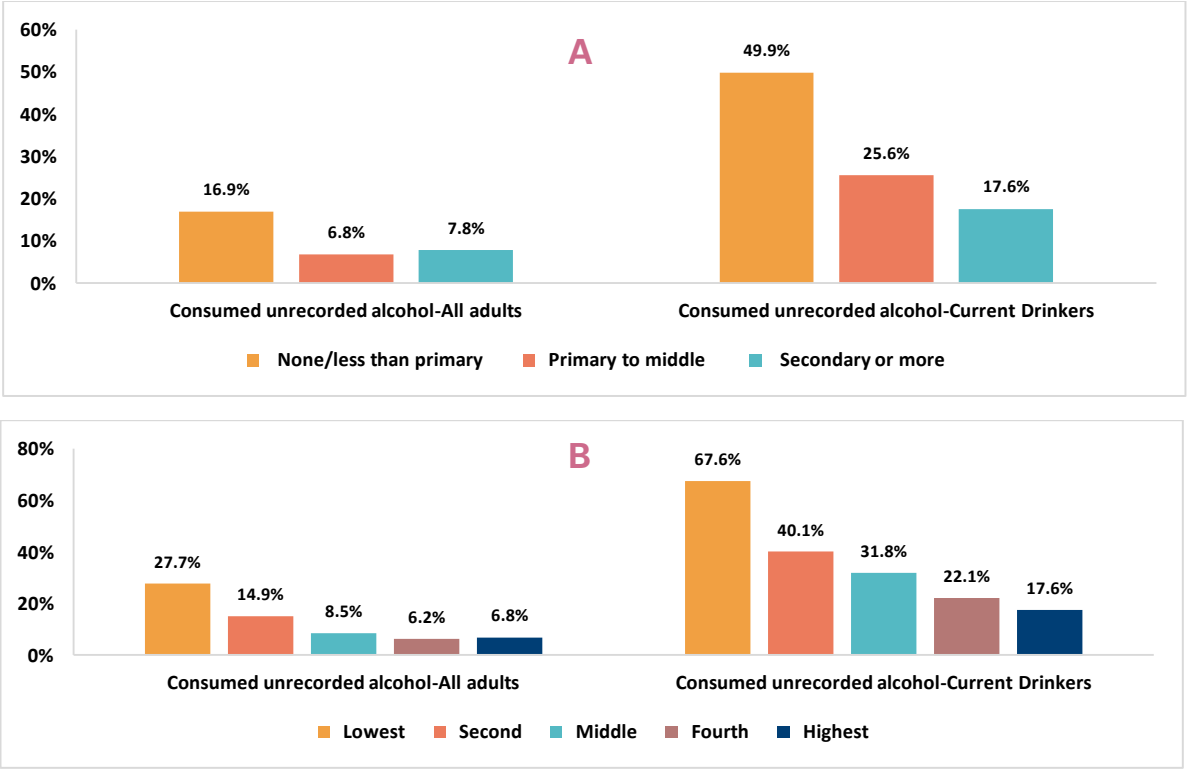


Figure 8: Differentials in consumption of unrecorded alcohol amongst current drinkers by levels of education (A) and wealth (B).

4.5 Alcohol Dependence

On a monthly or more frequent basis, 12.3% reported that they are not able to stop drinking once started, 3.8% needed a drink first thing in the morning, and 4.5% of the respondents failed to perform tasks that were expected of them (Table 4.5.).

Patterns by background characteristics (Figure 9)

- "Not able to stop drinking once started" was the most prevalent sign amongst the current drinkers, which increased with increase in age. While 7.6% in the age group of 15-24 years reported not able to stop drinking once started it increased to 17.5% for the age group of 55-69 years. The other signs of alcohol dependency also increased with age (Table 4.5.).

- An estimated 6.8% of women current drinkers reported they couldn't stop drinking once started, compared to 16.9% of men. A higher proportion of respondents in rural areas (13.9%) reported not being able to stop drinking, as compared to respondents in urban areas (10.1%).

- With increase in levels of education and wealth, all three signs of dependency declined. Current drinkers belonging to the lowest wealth quintile had the highest proportion of respondents (18.3%) reporting their inability to stop drinking once started. This proportion decreased to 6% for respondents in the highest wealth quintile (Figure 10).

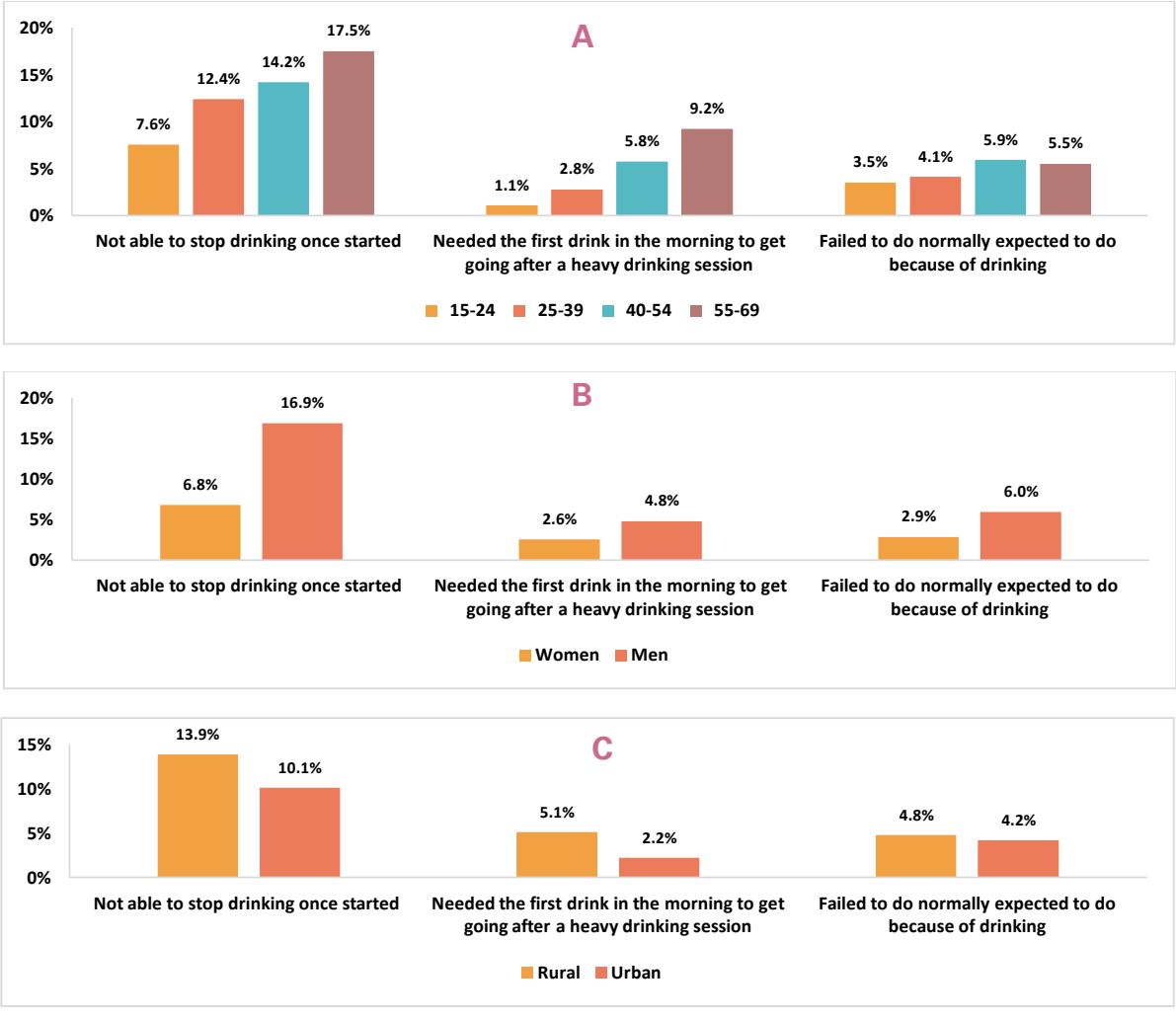
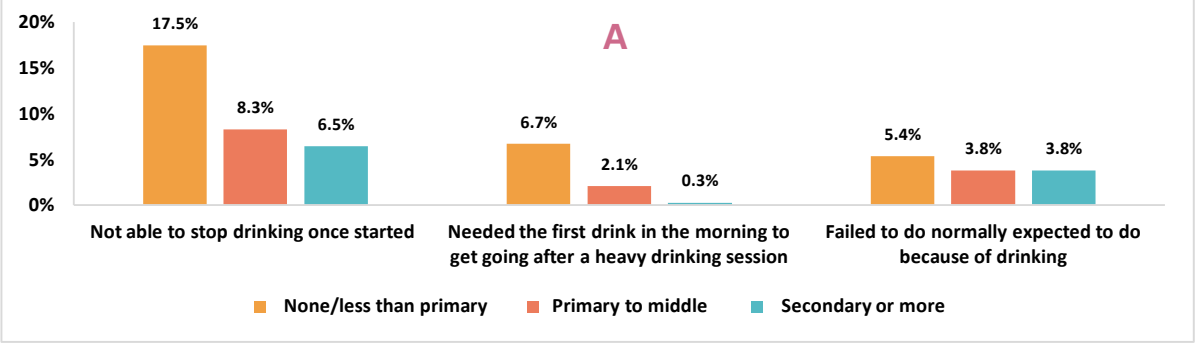


Figure 9: Differentials in experiencing symptoms of alcohol dependency, amongst current drinkers by age (A), gender (B), place of residency (C)



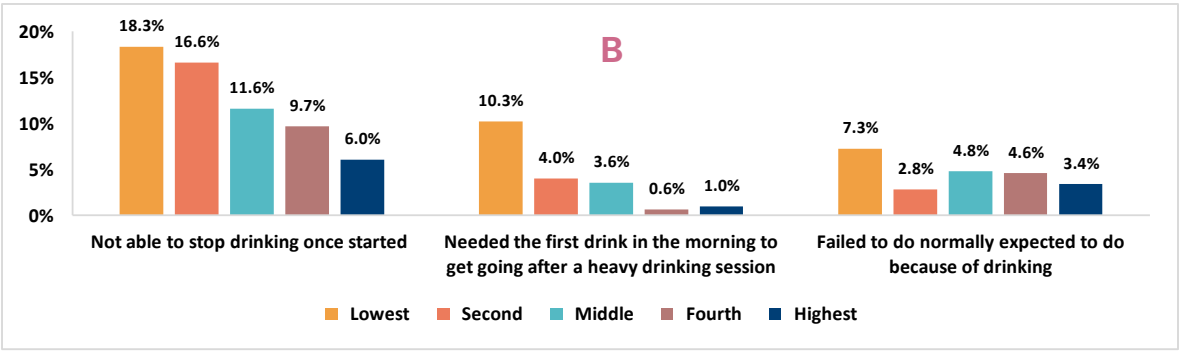


Figure 10: Differentials in experiencing symptoms of alcohol dependency, amongst current drinkers, by levels of education (A) and wealth (B).

4.6 Harm to Others

All respondents were asked if, during the past 12 months, they had family problems or a problem with their partner due to someone else's drinking. Of the total population, 0.9% of respondents reported being harmed due to someone else's drinking, on a monthly/more frequent basis and 4.0% on less than monthly basis (Table 4.6).

Patterns by background characteristics (Figure 11)

- Younger age groups were more likely to experience family problems due to someone else's drinking. Lower wealth quintiles are more likely to suffer family problems due to someone else's drinking.

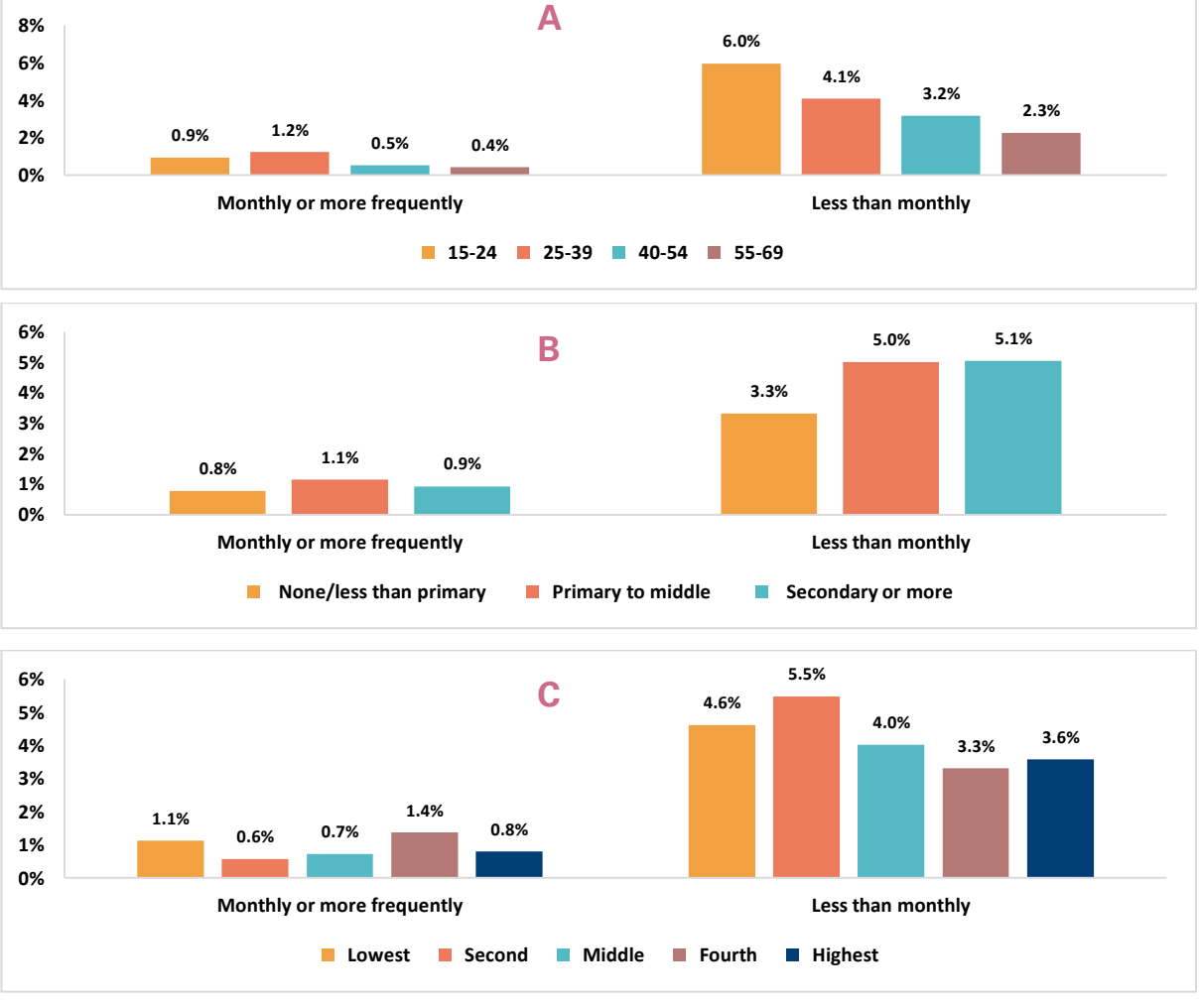


Figure 11: Differentials in experiencing family problems/harm due to someone else's drinking, by age (A), levels of education (B) and wealth (C).

4.7 Access to Alcohol

Among respondents consuming alcohol, 10.3% found it difficult or very difficult to obtain alcohol, 7.8% of respondents were refused sale of alcohol at a bar or a shop, 5.8% were refused sale due to the day being a dry-day, 1.0% due to time restrictions for sale, 1.2% for being under-aged, and 0.8% for being already intoxicated. (Table 4.7)

Patterns by background characteristics

- Older age group, low or no education and lower wealth quintiles found it more difficult to obtain alcohol

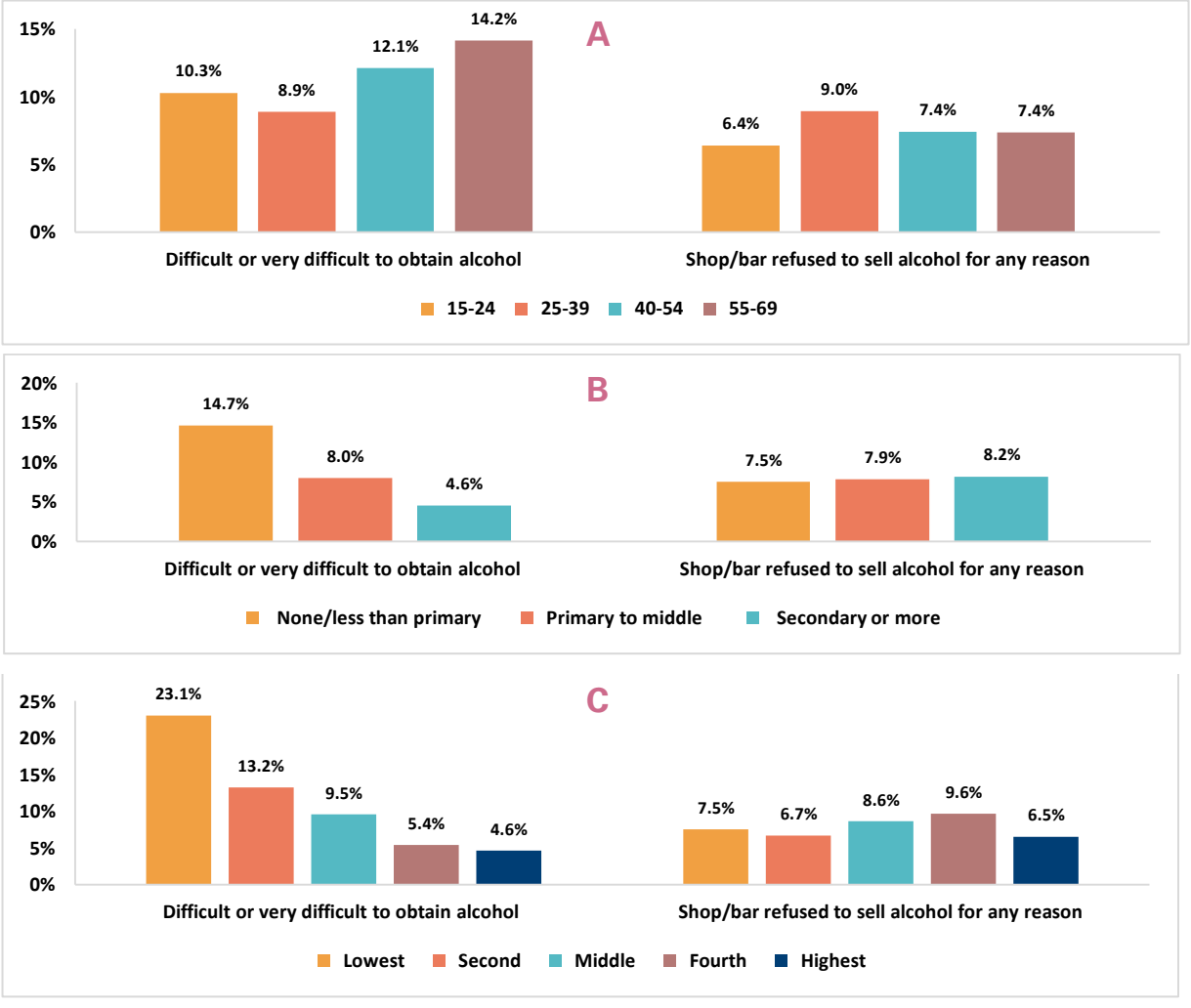


Figure 12: Differentials in access to alcohol by age (A) levels of education (B) and wealth (C).

4.8 Alcohol Advertisements

Alcohol Promotions

Overall, 9.2% of respondents reported seeing advertisements promoting alcohol on some media platform. Also, 1 in 5 respondents (22.1%) who attended social events such as sports events, fairs, concerts, etc., saw alcohol advertisements or got free/discounted alcohol. (Table 4.8)

Patterns by background characteristics

People living in urban areas noticed more alcohol promotions in media than people living in rural areas (Urban 12.8%, rural 7.1%). However, people living in rural areas noticed more alcohol advertisement during events (Rural 22.7%; Urban 19.2%)

- Lower age group, higher education level and higher wealth quintiles noticed alcohol-related advertising and promotions (Figure 13).

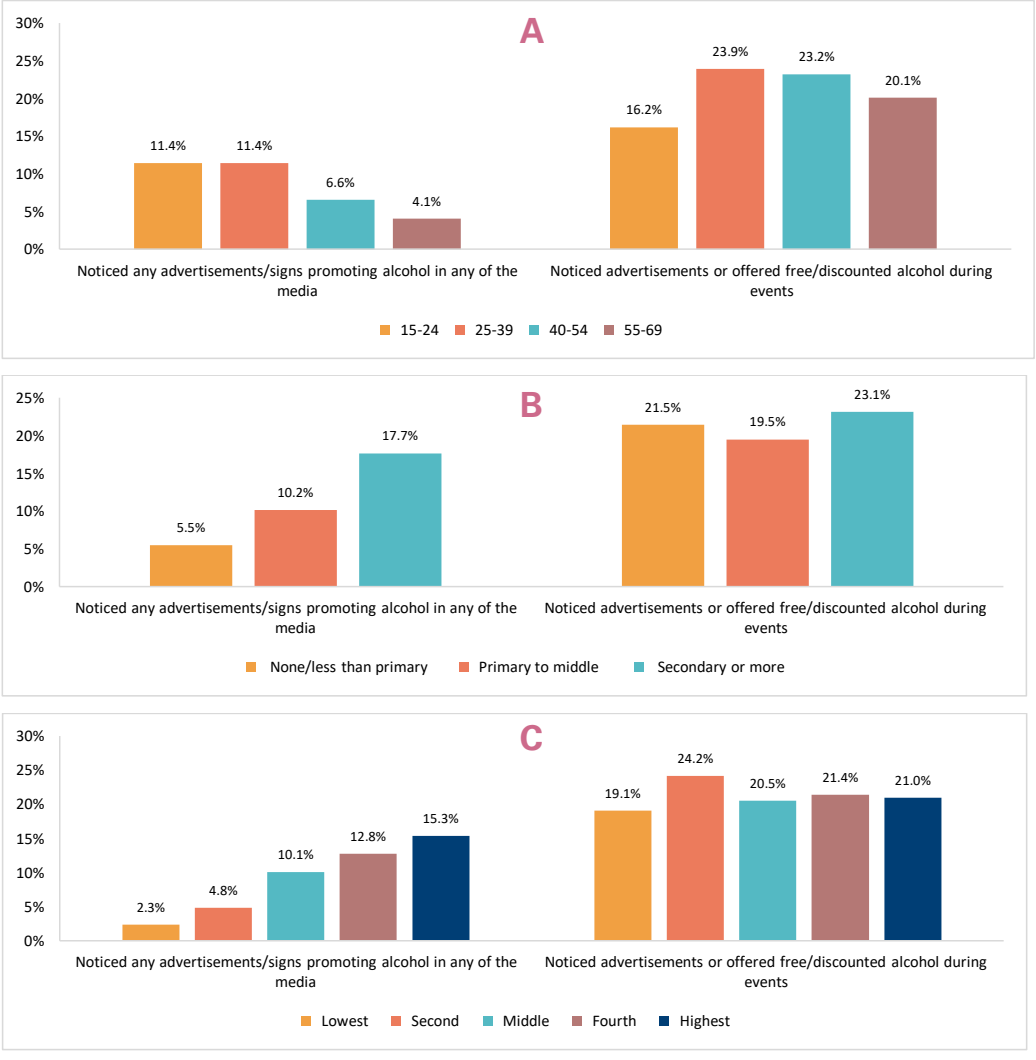


Figure 13: Differentials in noticing alcohol-related advertising and promotions by age (A), levels of education (B) and wealth (C).

Anti-alcohol Messages

Amongst all respondents, 75.8% of the population saw/heard messages in the media that discouraged consumption of alcohol.

Patterns by background characteristics (Figure 14)

- Lower age group, higher educational qualification and higher wealth quintiles noticed messages about the dangers of drinking alcohol.

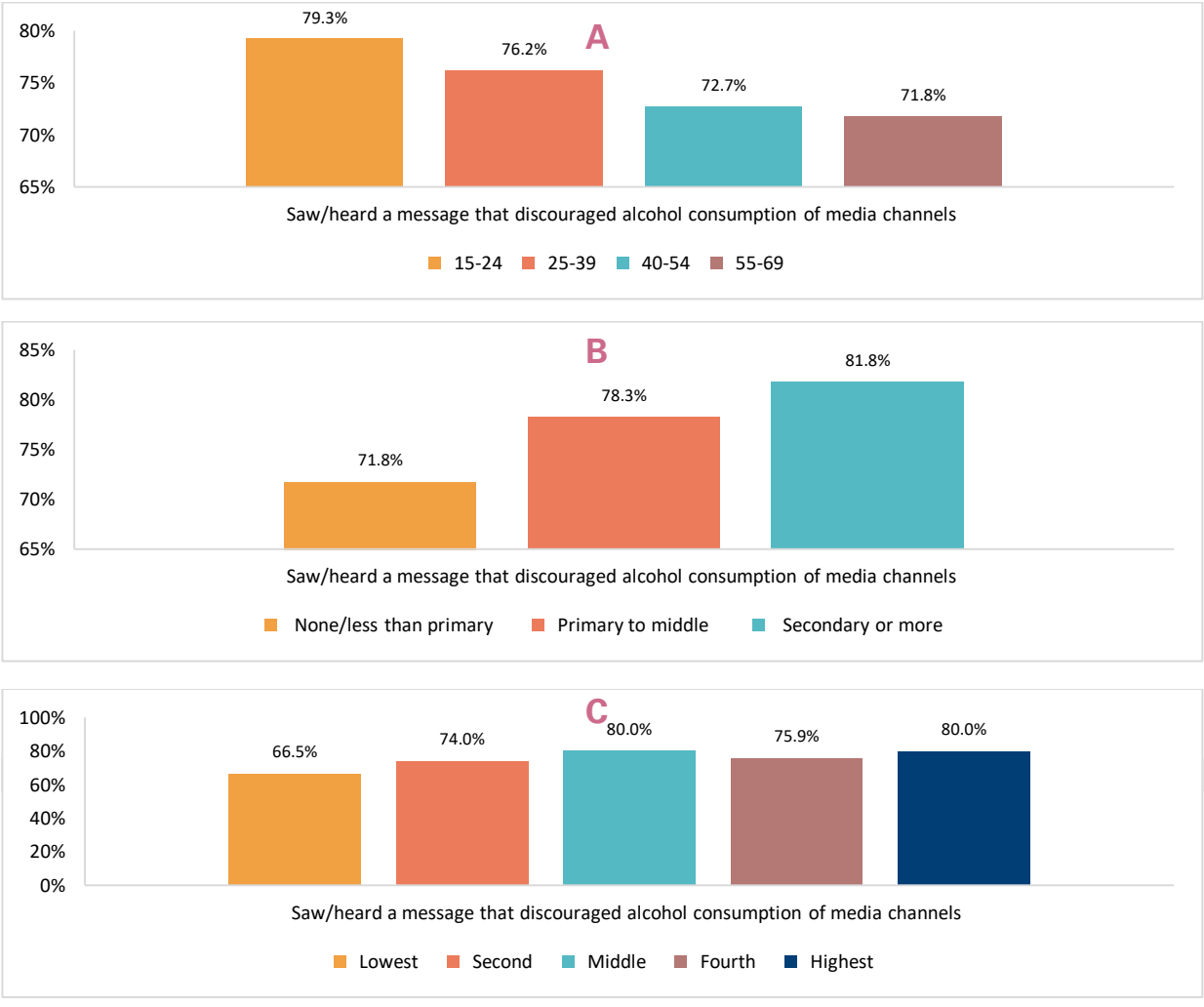


Figure 14: Differentials in noticing messages about the dangers of drinking alcohol, by age (A), levels of education (B) and wealth (C).

4.9 Drink Driving

Amongst respondents who drove a vehicle in the past six months, 16.3% reported being stopped or checked by traffic police for drink driving and 7.2% of all respondents reported that in the past 30 days they rode in a vehicle where the driver was drunk (Table 4.9).

Patterns by background characteristics

- Respondents aged between 25-39 years with higher educational level and in higher wealth quintiles engage more in drink driving (Figure 15)
- Respondents aged between 25-39 years, being a man, residing in urban areas, of medium level education and in higher wealth quintiles had experienced more countermeasures for drink driving.

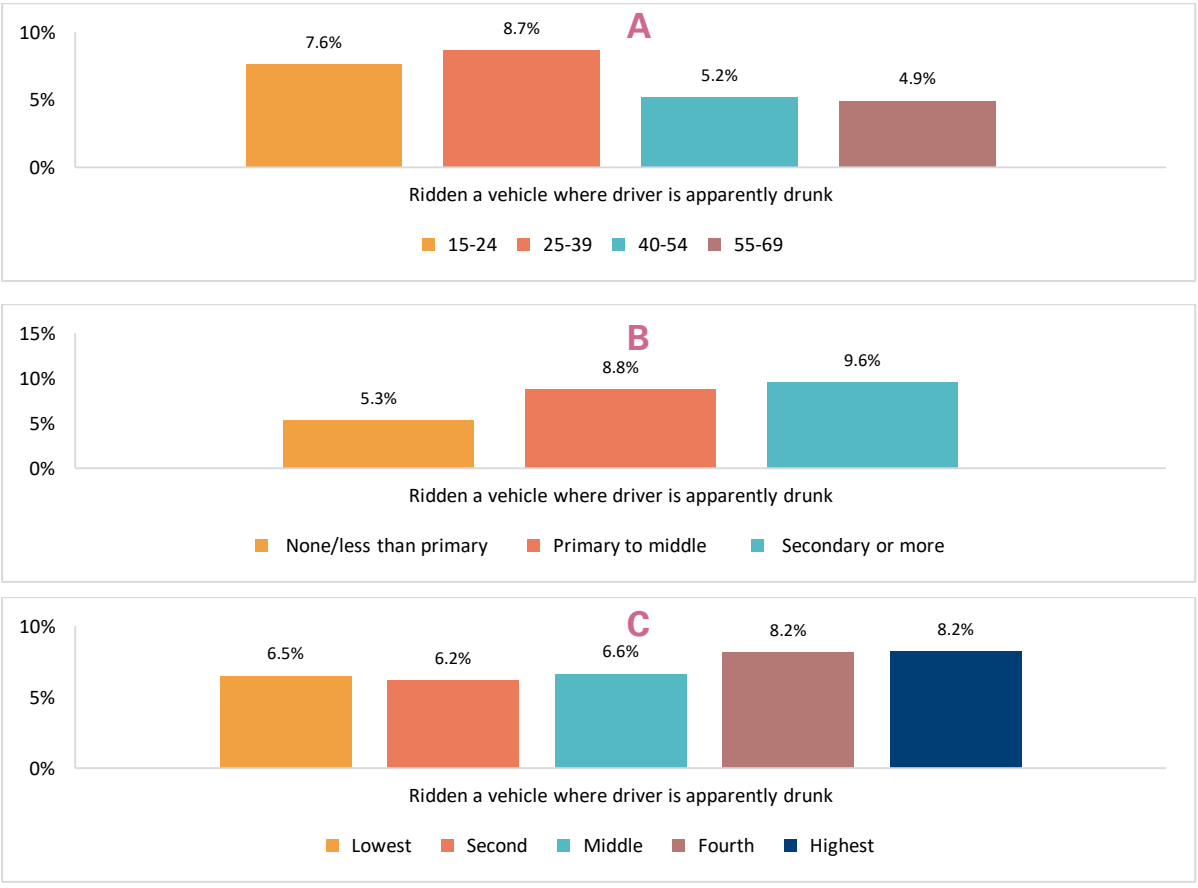


Figure 15: Differentials in engaging in risky behaviour associated with drink driving, by age (A), levels of education (B) and levels of wealth (C).

4.10 Alcohol Regulations

With regards to regulations related to alcohol, 60.5% of respondents said they were aware of regulations with 22.8% having attended some awareness programme to reduce the harmful use of alcohol. Maximum respondents were aware of Tuesday as a dry day (41.9%), 32% were aware of age restriction and 15.6% were aware the restriction on sale "before 1 pm and after 10 pm" (Figure 16) (Table 4.10).

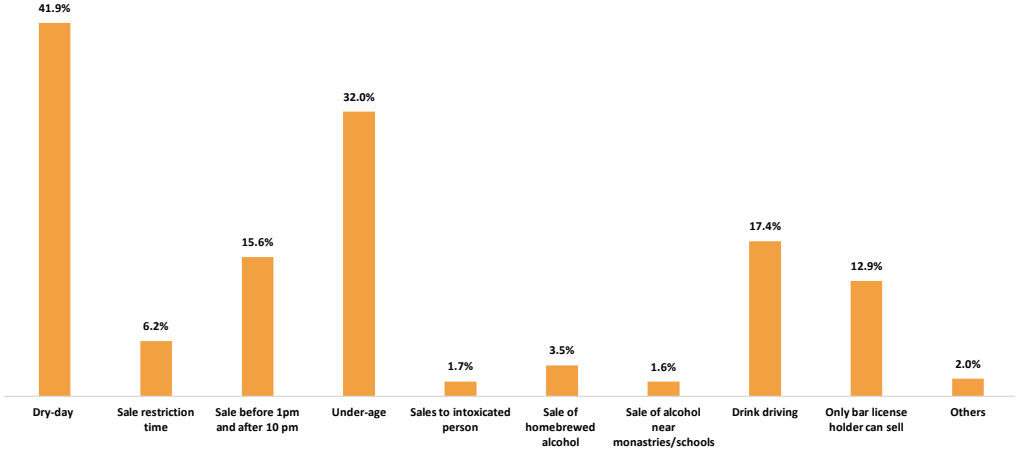


Figure 16: Percentage of all respondents who were aware of the existing alcohol regulations.

Patterns by background characteristics (Figure 17)

- With increase in age, awareness about any regulation on alcohol declined. For age

groups of 15-24 years and 25-39 years, more than 60% showed awareness about one of more regulations; this decreased to 38.5% for the age group of 55-69 years. There wasn't a significant pattern for attendance at alcohol awareness programs.

- Overall, 67.6% of men were aware of alcohol regulations as compared to 52.3% of women. The awareness was higher among urban residents as compared to rural residents (68.5% versus 54.6%).
- With increasing levels of education, awareness on alcohol regulations also increased from 47.6% of respondents with no or less than primary education to 66.3% with primary or a middle school education and to 82.5% among respondents with secondary or higher education.
- While 45.4% of respondents in the lowest wealth quintile were aware of regulations on alcohol, this increased to 77.2% for respondents in the highest wealth quintile.

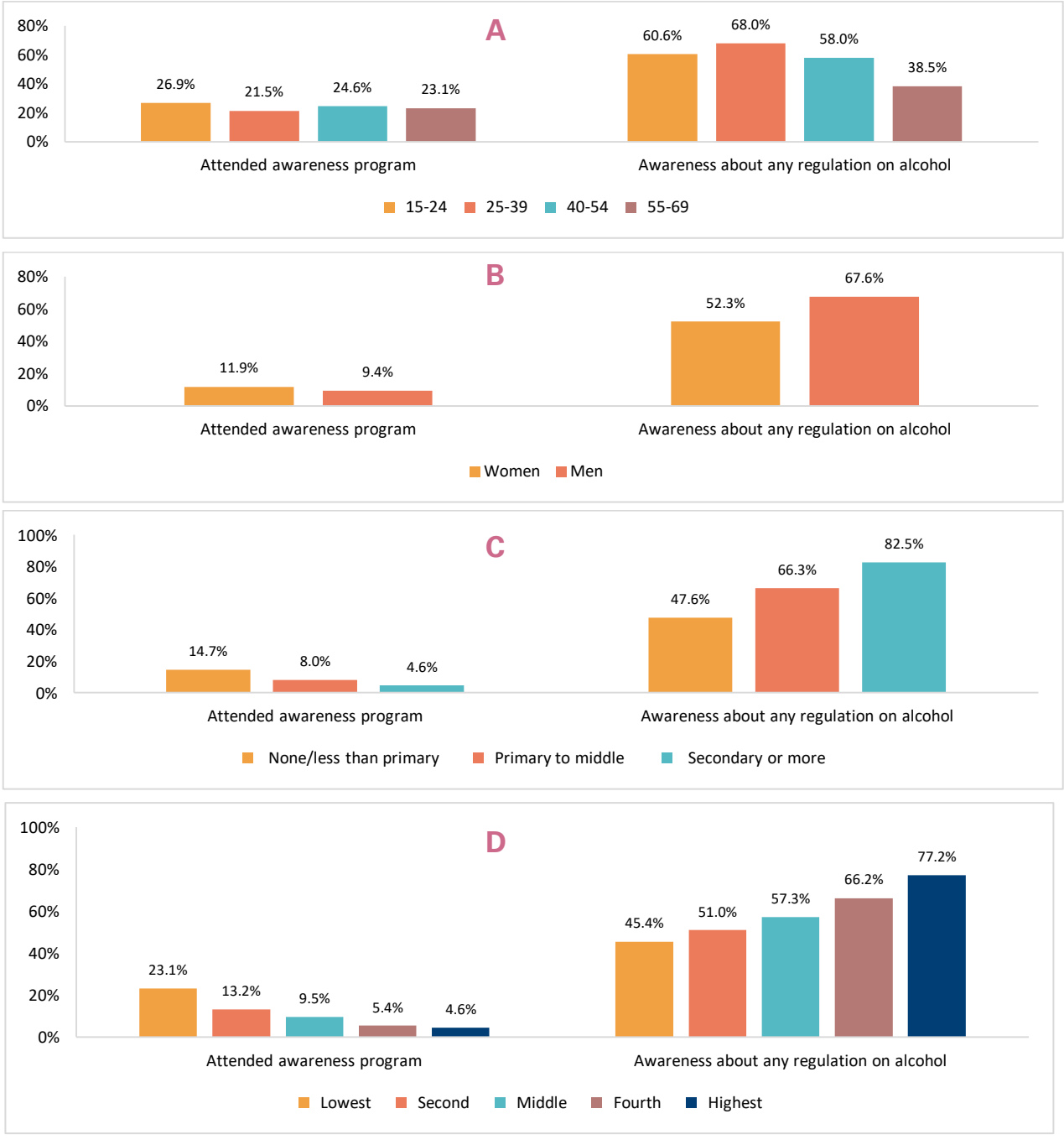
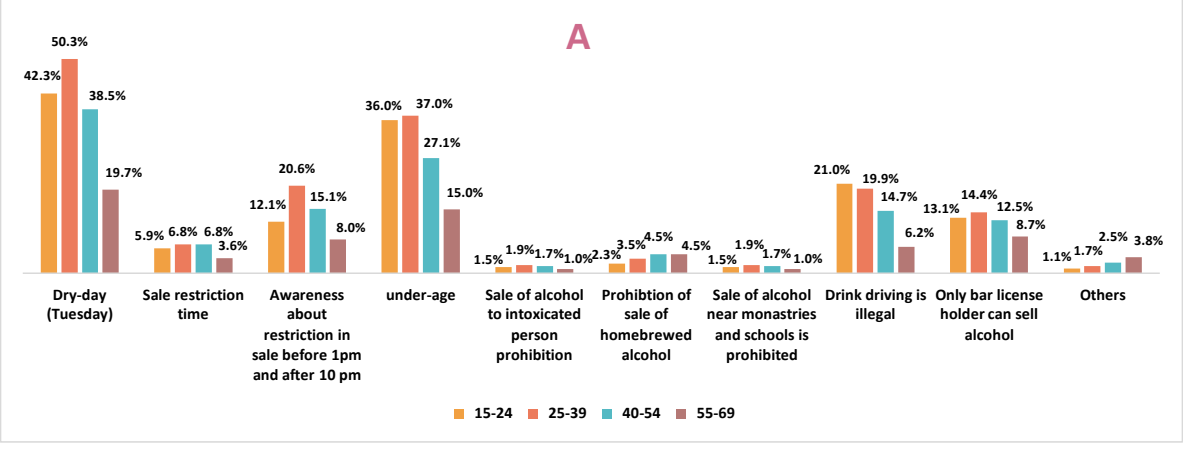
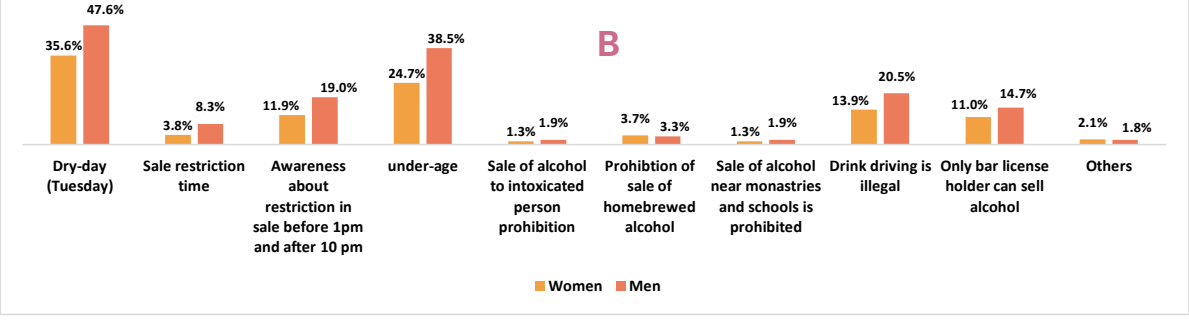


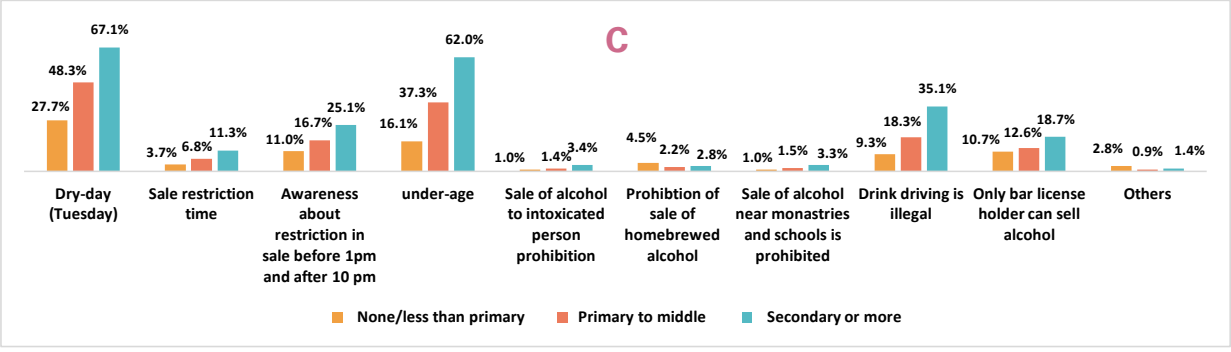
Figure 17: Differentials in awareness of the existing alcohol regulations, by age (A), gender (B), levels of education (C) and wealth (D).

Awareness about Specific Regulations (Figure 18)

- With increase in age, the proportion of respondents who were aware of regulations on dry-day and time restrictions on the sale of alcohol followed an inverted u-shaped curve. The awareness about the prohibition on the sale of alcohol to below 18 years and illegality of drink driving decreased with an increase in age.
- The awareness about dry day, time restriction on the sale of alcohol, under-age drinking, the illegality of drink driving, and awareness that only a licensed bar holder can sell alcohol was higher in urban areas as compared to rural areas. The awareness for each of the specific regulations was higher amongst men as compared to women.
- With increasing levels of education and wealth, the awareness on dry-day, time restrictions on the sale of alcohol, under-age drinking, and other regulations around alcohol, generally increased.







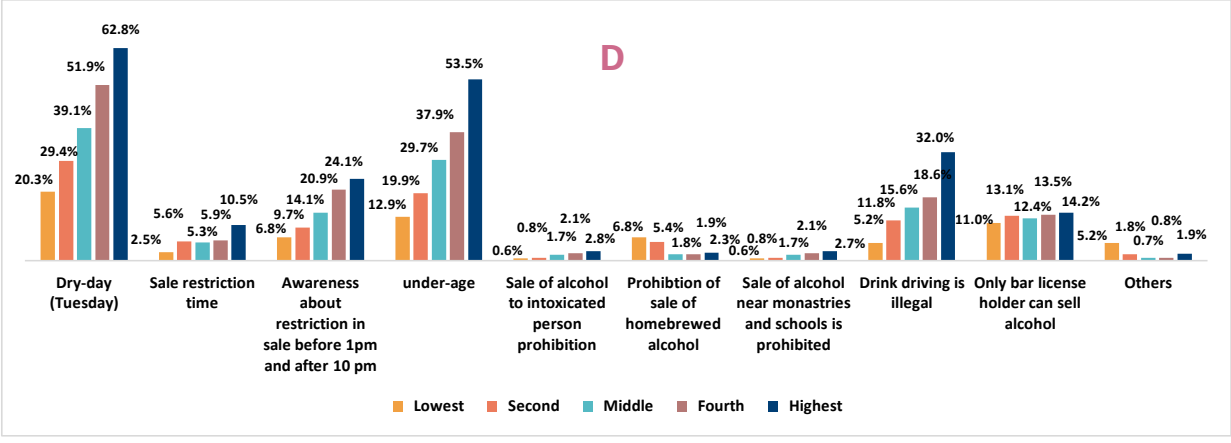


Figure 18: Differentials in awareness of the specific existing alcohol regulations by age (A), gender (B), Education (C) and wealth(D)

4.11 Home Brewed Alcohol

Of the total respondents, 32.3% of respondents reported that alcohol was brewed in their households. Of this, 13.5% reported that alcohol was brewed weekly or more frequently, 24.5% reported that alcohol was brewed monthly, and 61.8% reported that alcohol was brewed less than monthly. Of the total respondents, 63.4% reported that the brewing was for religious purposes, 43.4% reported that it was for self-consumption, 2.4% reported that it was for a baby shower, and 2.1% reported that it was for commercial purposes (Table 4.11).

Patterns by background characteristics (Figure 19)

- With increase in age, the proportion of respondents brewing alcohol at home increases; 27.9% of the age group of 15-24 years brewed alcohol at home and this increased to 45.9% for the age group of 55-69 years.
- A higher proportion of women brewed alcohol at home compared to men (34.4% versus 29.9%).
- The proportion of rural residents brewing alcohol at home was five times higher than the proportion of urban residents (rural 47.8%- urban 9.8%) brewing alcohol at home.

- Home brewing of alcohol decreased with an increase in levels of education. A similar pattern emerged with an increase in household wealth. With an increase in household wealth home brewing decreased significantly; 65.5% of respondents, belonging to the lowest wealth quintile, brewed alcohol at home and this proportion went down to 8.8% for respondents belonging to the highest wealth quintile.

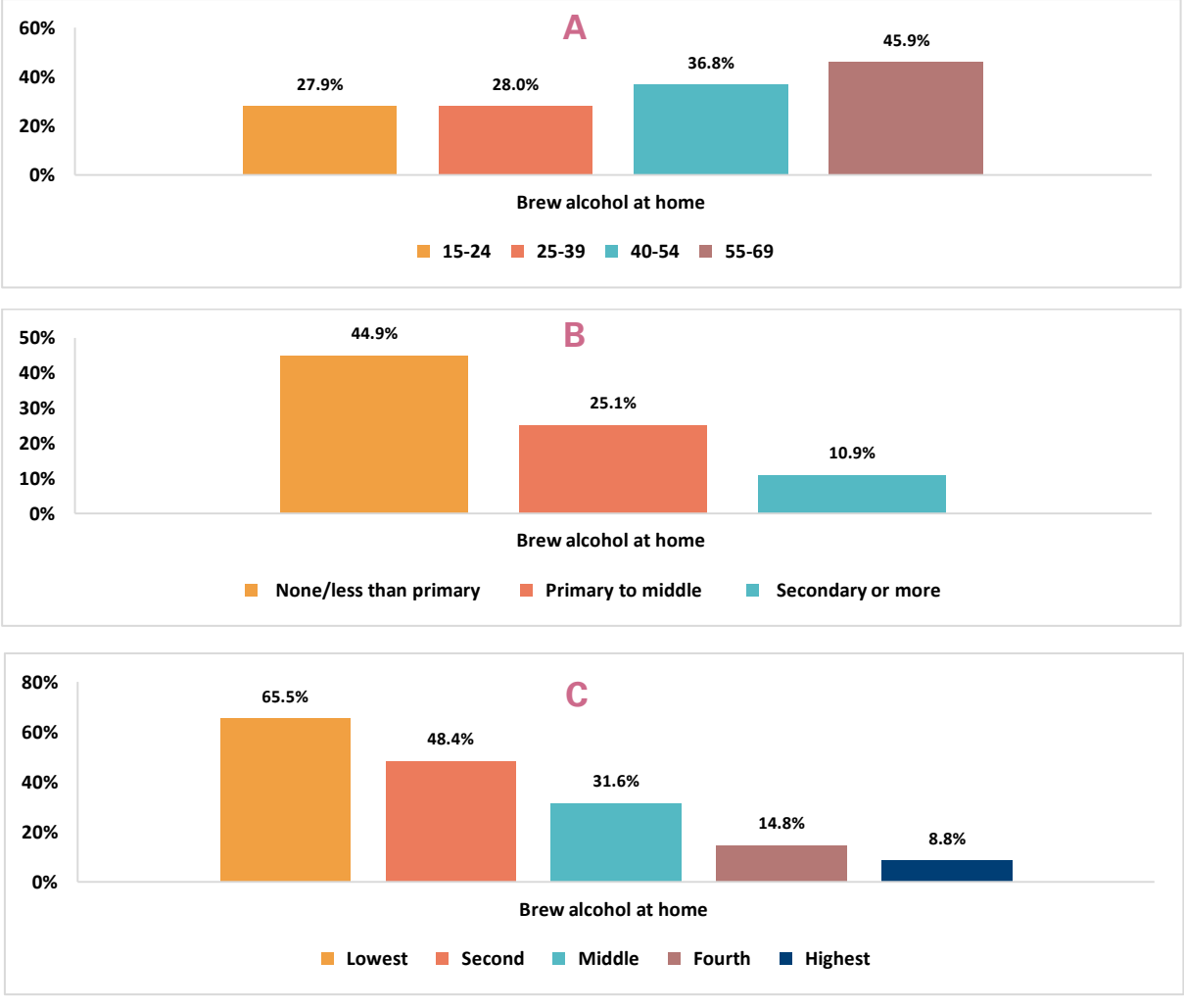


Figure 19: Differentials in Consumption of home-brewed alcohol, by Age (A), level of Education (B) and Wealth (C).

Frequency of brewing alcohol among those who brew alcohol at home (Figure 20)

- There wasn't significant differential in home brewing alcohol on a weekly or more frequent basis by age or sex.
- However, a significantly higher proportion of rural residents home-brewed alcohol as compared to urban residents on a weekly or more frequent basis (15.2% versus 2.1%). In the eastern region, 27.7% of respondents home-brewed alcohol, a proportion much higher than in the central or the western region (8.3% and 3.2%, respectively).
- Overall, 15.6% of respondents with no or less than primary education brewed alcohol

at home on a weakly or more frequent basis. This proportion decreased to 3.9% with secondary or higher education. A similar pattern emerged with an increase in wealth. In the lowest wealth quintile, 21.2% brewed alcohol at home and this proportion decreased to 0.8% and 2.6% in the second highest and highest wealth quintile respectively.

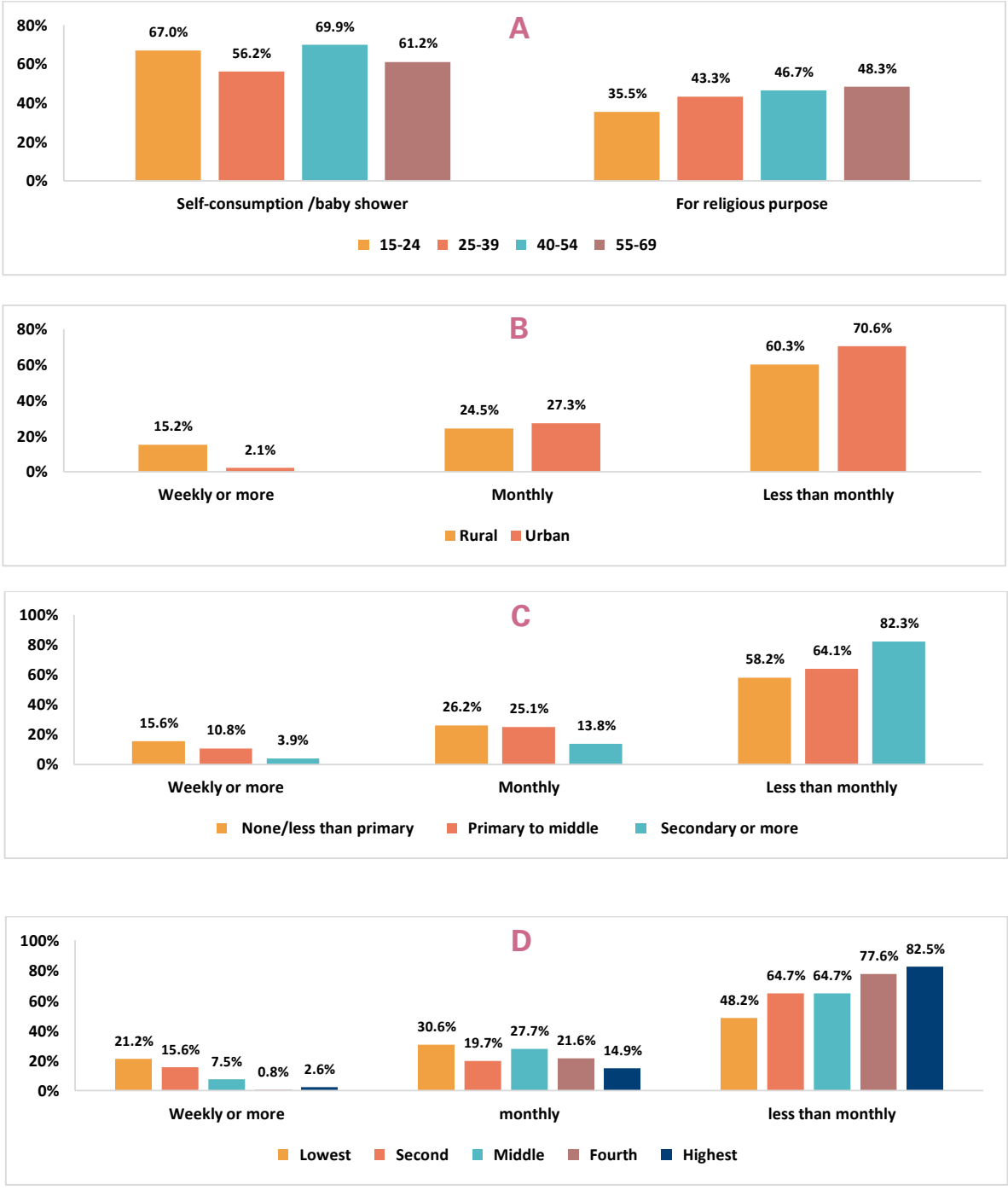


Figure 20: Differentials in the frequency of consumption of home-brewed alcohol among those who brew alcohol at home by age (A), residence (B), levels of education (C) and wealth (D).

4.12 Comparative Analysis between 2014 & 2019 STEPS Survey

The prevalence of current drinkers (18-69 years) for recorded and unrecorded alcohol (measured for the past 12 months and past 30 days) decreased in 2019 as compared to 2014 (Figure 21).

The percentage of respondents not able to stop drinking once started, also reduced in 2019 as compared to 2014 (Figure 22).

Figure 21: Trends in consumption of recorded (A) and unrecorded (B) alcohol by sex between 2014 and 2019

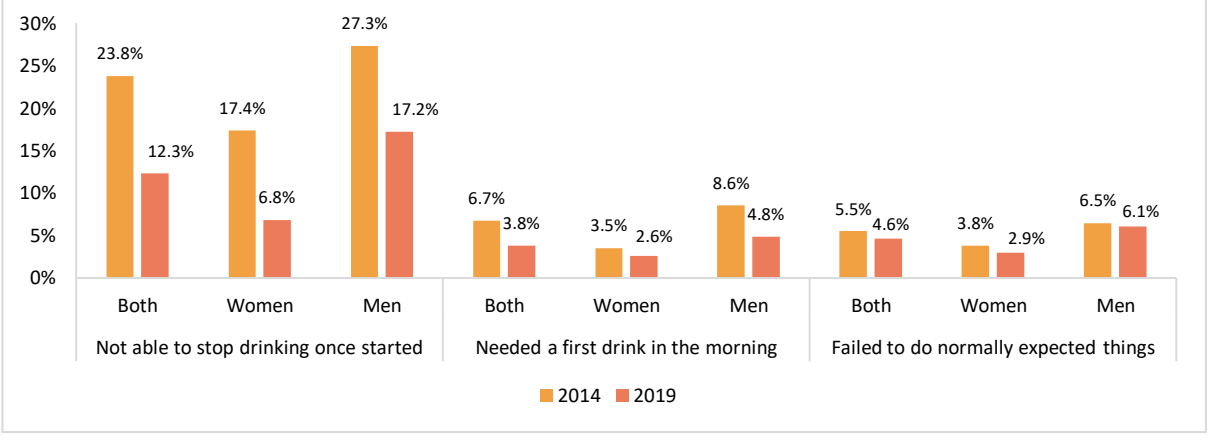


Figure 22: Trends in experiencing symptoms of alcohol dependency by sex between 2014 and 2019

CHAPTER 5:
TOBACCO USE

Key Findings

Tobacco use

- The prevalence of use of any tobacco product was 23.9% (32.9% for men, 11.8% for women).
- Amongst the current tobacco users, 10.6% used smoked tobacco (15.2% for men, 3.7% for women); 14.7% used smokeless product (20.3% for men, 8.3% for women) and 1.4% used both smoked and smokeless tobacco products.

Smoked and smokeless tobacco use status

- Overall 70.6% of respondents never used smoked tobacco, 18.8% smoked formerly (8.7% daily 10.1% non daily) and 10.6% were current smokers (5.8% daily and 4.6% non daily).
- Overall 77.8% of respondents never used smokeless tobacco, 7.5% used formerly and 14.7% were current users (12.8% daily and 1.9% non daily users) of smokeless tobacco.

Type of Tobacco products used

- Around 10% of respondents smoked cigarettes, 2.1% smoked *bidis*, and 0.5% smoked products like cigars, cheroots and cigarillos.
- Amongst the current users, cigarettes and bidis were the most commonly used smoked tobacco products reported by 88% and 22.7% of current tobacco smokers respectively.
- Overall, 12.8% reported chewing tobacco, 4.5% using snuff by mouth or nose, and 0.4% reported using betel leaves with tobacco.
- Amongst the current users of smokeless tobacco, 82.4% chewed tobacco, 33% reported using snuff by mouth or nose, and, 2.2% used betel leaves with tobacco.

Age at initiation of tobacco use

- The average age at initiation of smoking tobacco in Bhutan was 20.1 years (19.9 years for men and 20.3 years for women).
- The median age or the age by which 50% of current smokers started smoking was 19 years (18 years for men and 20 years for women).

Tobacco cessation:

- Amongst the current users of tobacco, 75.3% tried to stop smoking and only 20.7% were advised to quit smoking by a doctor or health worker.

Second-hand smoke home & workplace:

- Of the respondents, 13.1% were exposed to second-hand smoke at home (SHSH) and 41.4% were exposed at work in the past 30 days.

Exposure to anti-tobacco messages:

- 69.3% said they received anti-tobacco information from television, 28.8% from radio, 23.9% from newspapers or magazines, and 46.2% from poster, banners and signboards.

Exposure to graphic health warnings

- 57.2%, who saw a cigarette package, reported noticing health warnings on tobacco packages.
- Amongst the current users who noticed these health warnings, 83.1% thought about quitting smoking.

Expenditure on Tobacco

- On an average, a cigarette smoker smoked 111 cigarettes per month and spent an average of Nu 1,416/ month.
- The average price of 20 cigarettes was estimated to be about Nu 249/.

Access to tobacco products

- 51.2% stated that people usually bought smoked tobacco products from outside of Bhutan and 29.4% stated they purchased from within the country.
- 54.3% reported that procuring tobacco products was very difficult and 28.5% reported that it was easy or very easy.

Betel or Areca nut use

- 56.8% consumed betel or areca nut, 13% were former users of the nut and 30.2% never used it. Amongst the current users, 65% used it daily and 35% on a non-daily basis.
- Overall 51.8% of the respondents reported using betel nut currently (*doma* and *paan*), and 14.9% reported using *supari* and other products. Amongst the current users of betel or areca nut, 90.2% used betel nut (*doma* and *paan*) and 26.5% consumed *supari* and other products.

Tobacco kills more than 8 million people each year. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke.[14]

Under the Framework Convention on Tobacco Control, Bhutan had adopted the MPOWER policy packages to reduce the use of tobacco. Further, Bhutan has set a target to reduce by 30% the prevalence of current tobacco use in persons aged 15+ years by 2025. The national multisectoral action plan (2015-2020) for NCDs and Tobacco Control Amendment Act 2014 gives the necessary impetus in its endeavour to curtail the use of tobacco.

This chapter focuses on indicators related to tobacco use in Bhutan. The data will help analyse trends in tobacco use over time as well as differentials across different population groups defined by age, gender, residence, education, administrative regions and wealth quintile. This information can be used to evaluate and strengthen the current tobacco control programs and policies.

5.1 Tobacco use

The tobacco-related questions were based on the core tobacco module and tobacco policy module of STEPS Survey. The respondents were aged 15-69 years and the analysis presented is for the said age group unless otherwise stated.

5.2 Tobacco Use, Smoked Tobacco, Smokeless Tobacco Use

- The prevalence of tobacco use (both smoked and smokeless tobacco combined) was 23.9%. Of the respondents 10.6% were current user of smoked tobacco product and 14.7% were current user of smokeless tobacco product and 1.4% were the user of both smoke and smokeless tobacco products (Figure 23) (Table 5.1).

Patterns by background characteristics (Figure 24)

- Men (32.9%) are nearly three times more likely to smoke than women (11.8%). Smoking is more prevalent in the western (26.1%) and central (26.7%) region than in eastern region (9.9%).
- The prevalence of smoking tobacco was lower in the rural areas compared to urban areas (21.4% versus 25.1%). However, the use of smokeless tobacco was slightly higher in rural areas (15.8%) compared to urban areas (13.2%).
- Those with higher educational level smoked cigarettes whereas those with no/less than primary education level used smokeless tobacco. Similarly, people in lower wealth quintiles used smokeless tobacco compared to people in the higher wealth quintiles who used more cigarettes.

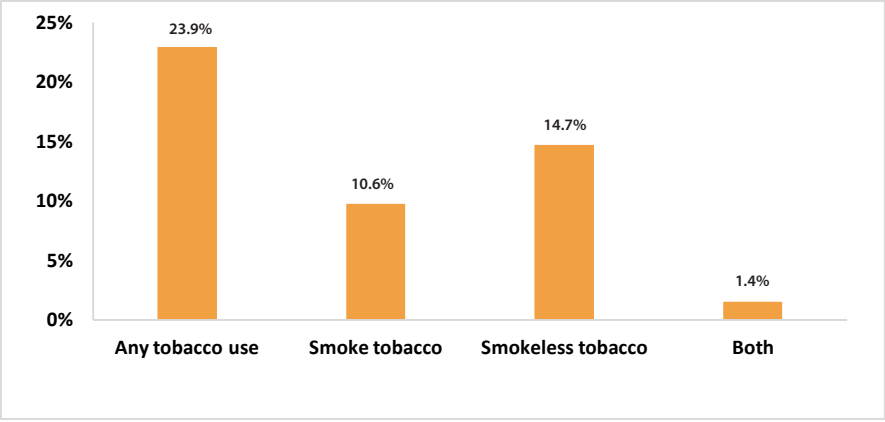


Figure 23: Percentage of all respondents (15-69 years) that currently use any tobacco product, smoke tobacco, smokeless tobacco and use both smoked and smokeless tobacco.

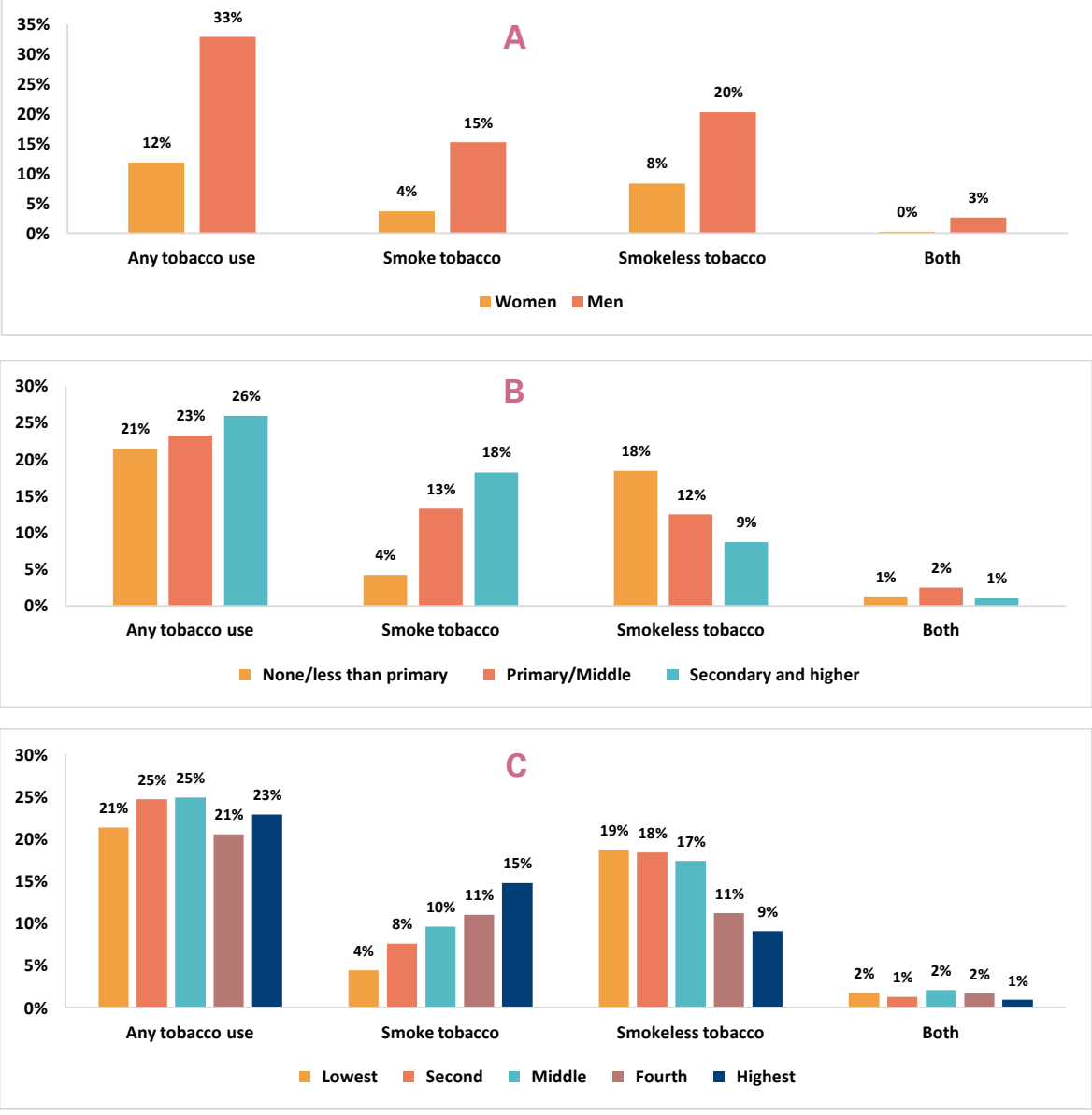


Figure 24: Differentials in tobacco use by gender (A), level of education (B) and by wealth (C).

5.3 Tobacco Use Status: Current, Former and Never

Overall, 70.6% of respondents never smoked tobacco, 18.8% former smokers (8.7% daily and 10.1% non daily) and 10% were current smokers (5.2% daily and 4.6% non daily). Of the respondents 77.8% never used smokeless tobacco, 7.5% used it formerly and 14.7% were current users of smokeless tobacco (12.7% daily and 2% non-daily) (Figure 25).

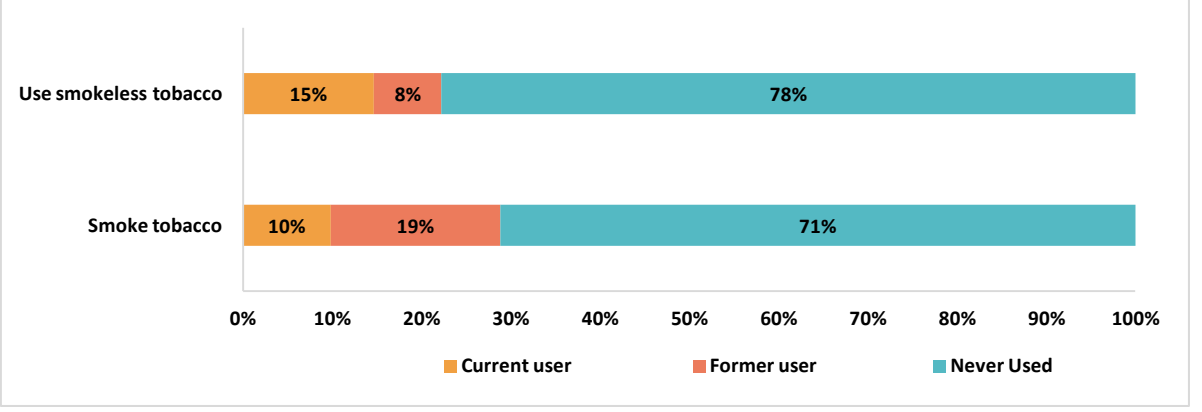


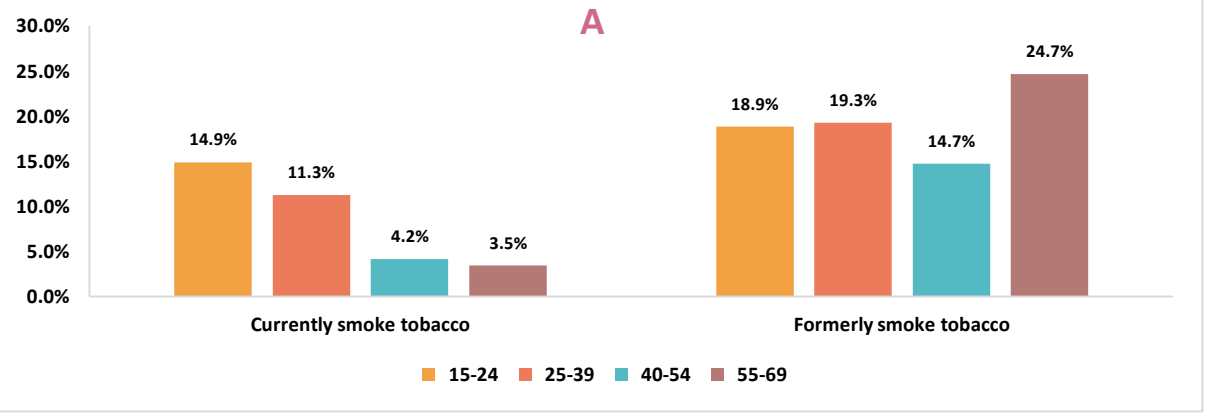
Figure 25: Tobacco use status in the overall population- current, former and never, by smoke and smokeless tobacco product.

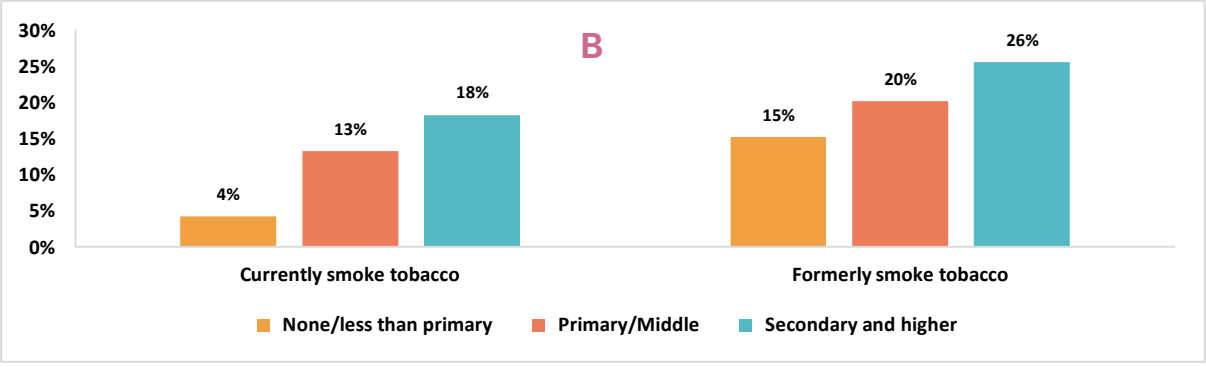
5.4 Tobacco Smoking Status

Over 70% of respondents never smoked tobacco (70.6% never smoked, former user 18.8%, current user 10.6%) or used smokeless tobacco (never used 77.8%, former user 7.5%, current user 14.7%). (Table 5.2) (Figure 26)

Patterns by background characteristics

The current smokers were more prevalent amongst the younger age groups, with higher education level and wealth quintiles. (Figure 26)





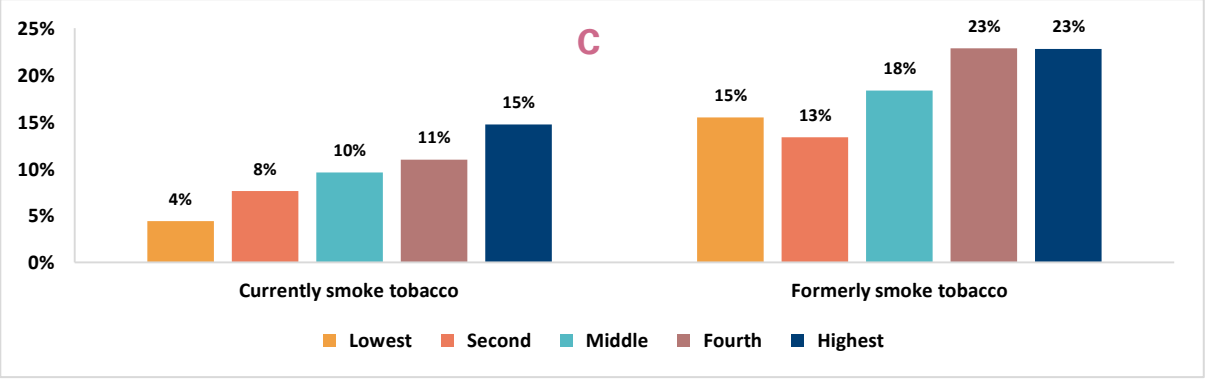
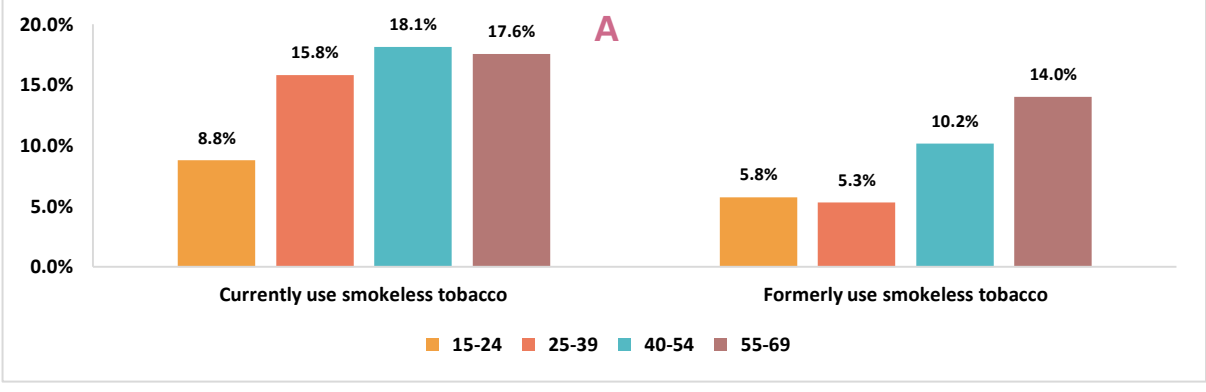


Figure 26: Differentials in the prevalence of current and former smoking by age (A), levels of education (B) and by wealth (C).

5.5 Smokeless Tobacco Use Status (Table 5.3)

Patterns by background characteristics (Figure 27)

- Older age group with no/less than primary education level and from the lower wealth quintile used more of smokeless tobacco.
- The prevalence of smokeless tobacco use was lowest in the eastern region (6.8%) followed by the western region (15.6) and highest in the central region (18.6%).



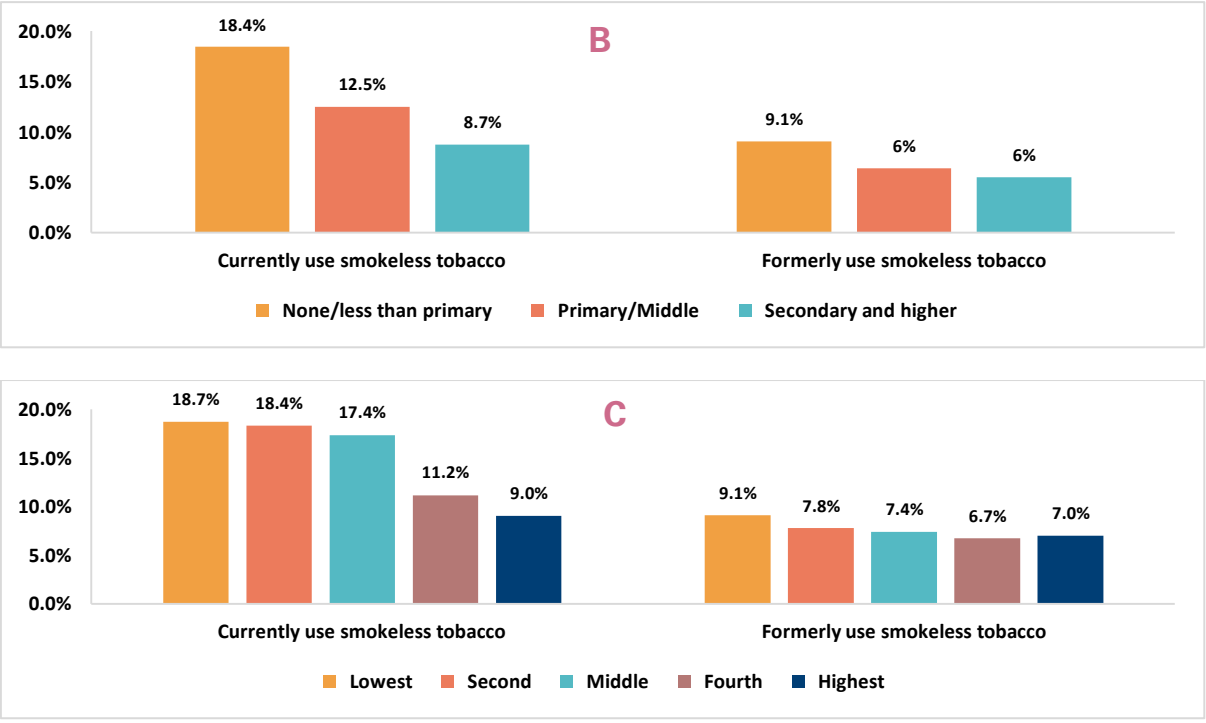


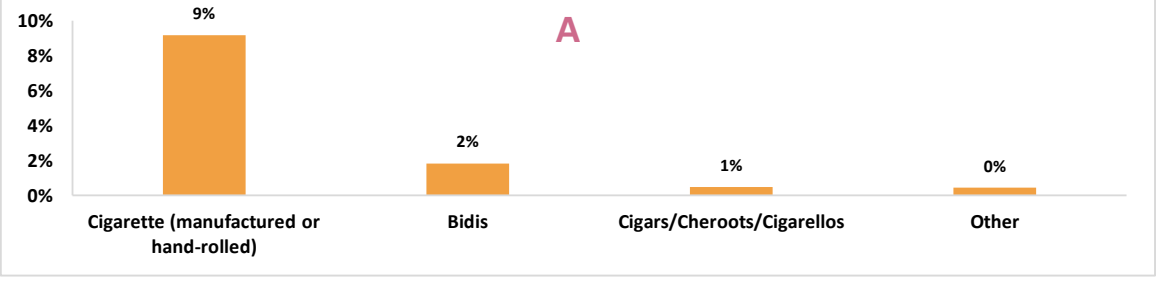
Figure 27: Differentials in current and former user of smokeless tobacco, by age (A), levels of education (B) and by wealth (C).

5.6 Tobacco Products Used

STEPS Survey collected the data on different types of tobacco products used (smoke and smokeless) on a daily or a weekly basis. The product mix was analysed both for all respondents and amongst the current tobacco users.

a) Tobacco products smoked (Table 5.4.)

Overall, 10% of respondents smoked cigarettes, 2.1% smoked *bidis*, and less than 0.5% smoked products like cigars, cheroots and cigarillos. Amongst current users, cigarettes and *bidis* were the most commonly used smoked tobacco products reported by 88% and 22.7% respectively (Figure 28).



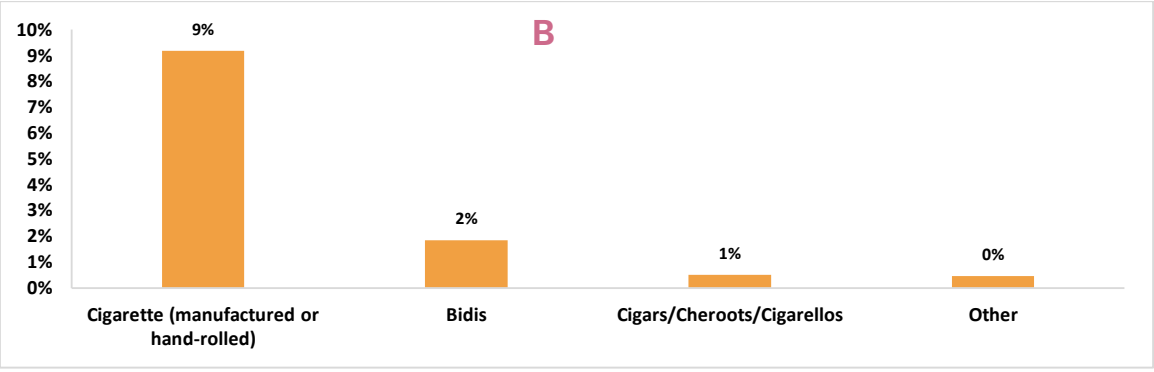
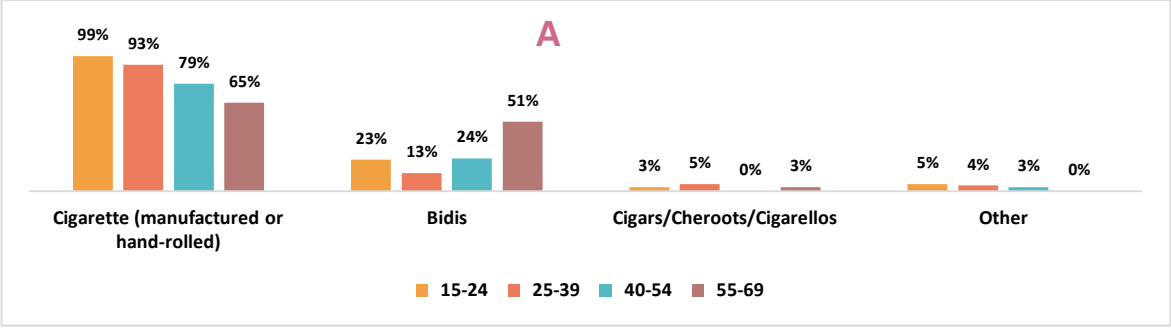
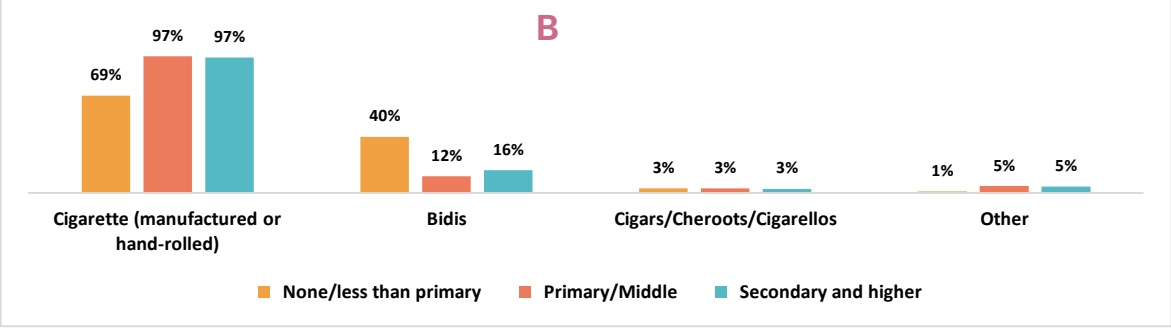


Figure 28: Use of different tobacco smoking products amongst all respondents (A) and among current smokers (B).

Patterns by background characteristics

- Among the current smokers, the younger age group, men and those with higher education level and wealth quintiles were more of tobacco smokers (Figure 29).





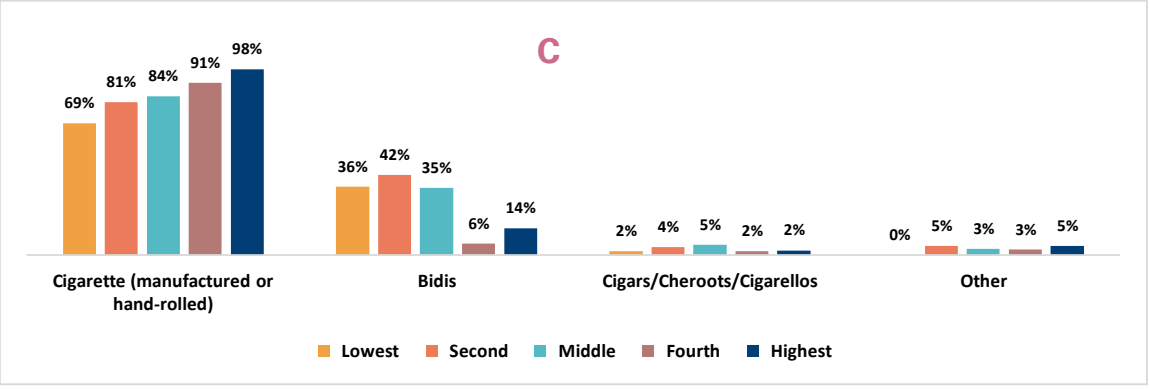


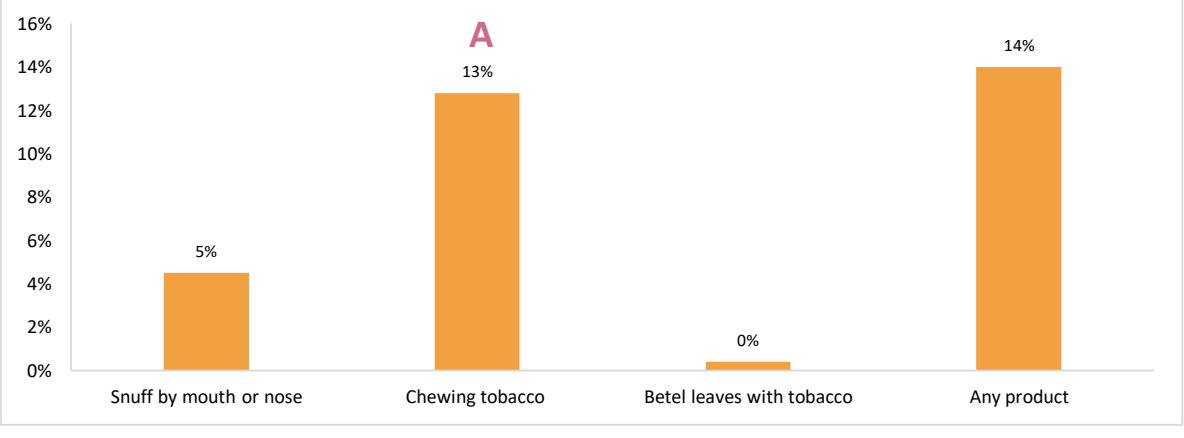
Figure 29: Differentials in use of different smoking tobacco products amongst current tobacco smokers, by age (A), levels of education (B) and wealth (C).

b) Smokeless tobacco products

Information was elicited on use of snuff tobacco by nose and mouth, chewing tobacco, betel quid with tobacco and others. Overall 12.8% reported chewing tobacco, 4.5% of respondents using snuff by mouth or nose, and 0.4% reported using betel leaves with tobacco. Amongst the current users of smokeless tobacco, 82.4% chewed tobacco, 33% reported using snuff by mouth or nose and 2.2% used betel leaves with tobacco (Table 5.5) (Figure 30).

Patterns by background characteristics

Among the current users of tobacco, the older age group, men and those with lower education level and wealth quintiles used more smokeless tobacco (Figure 31).



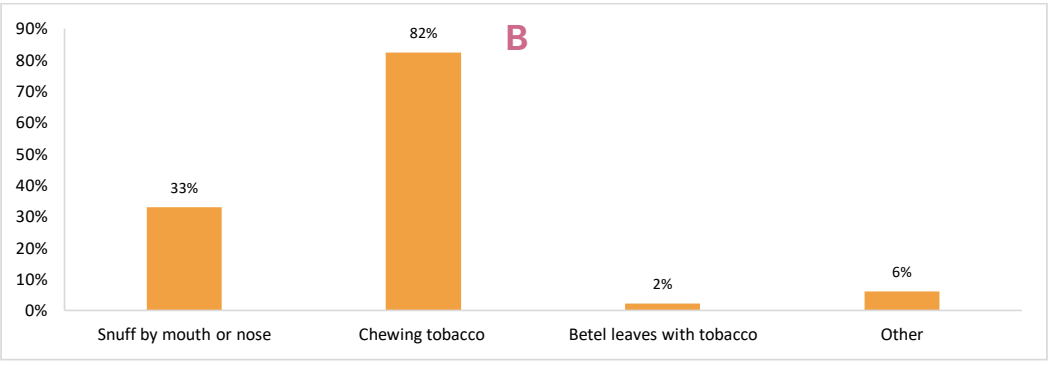
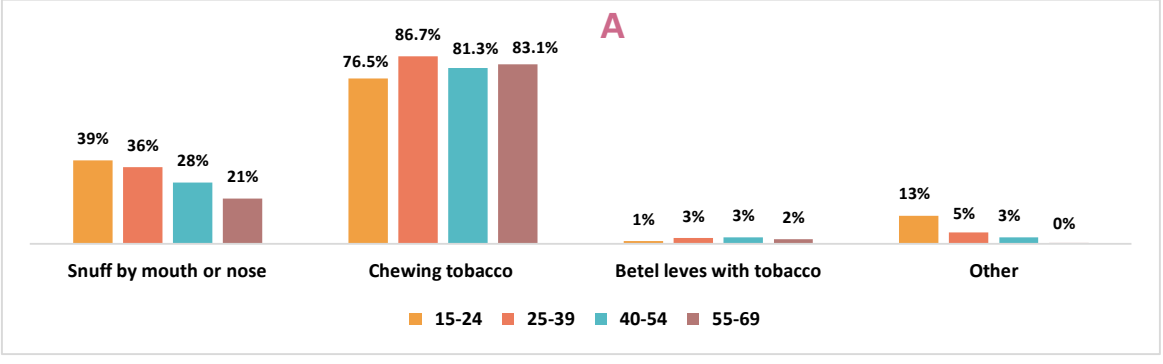
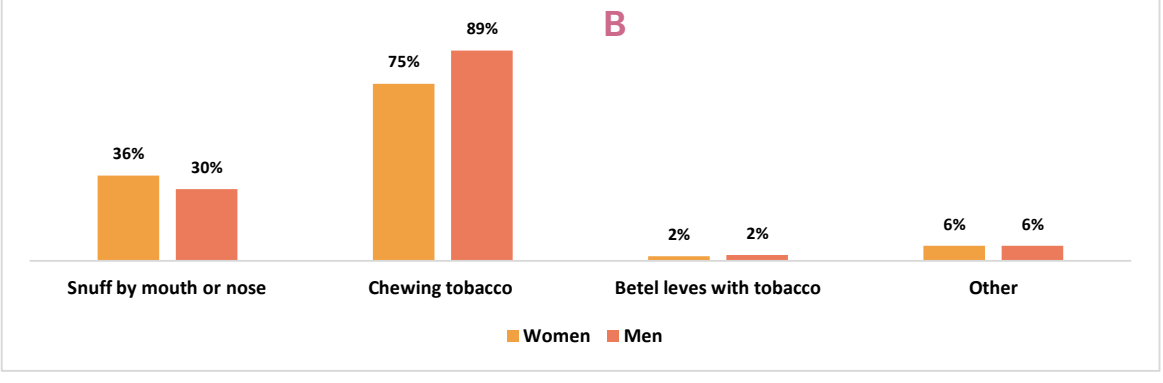
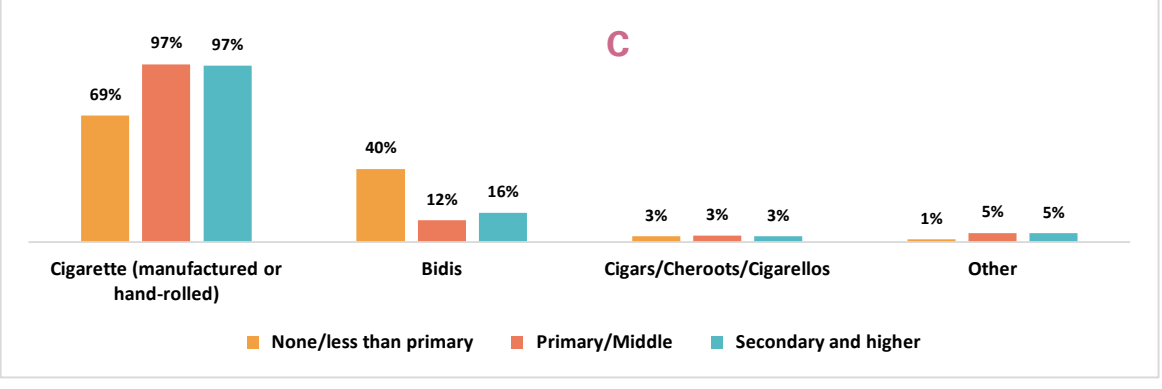


Figure 30: Use of different smokeless tobacco products amongst all respondents (A) and current users of smokeless tobacco (B) aged 15-69 years.







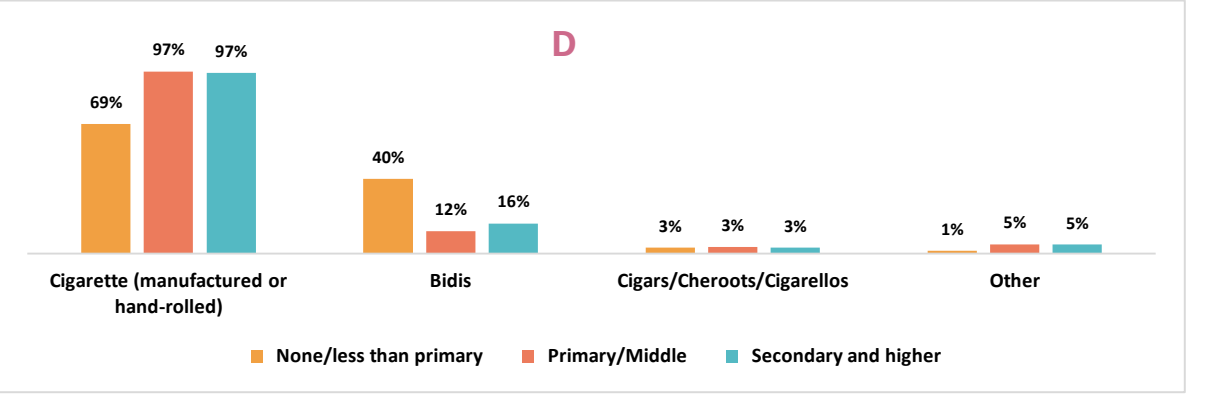


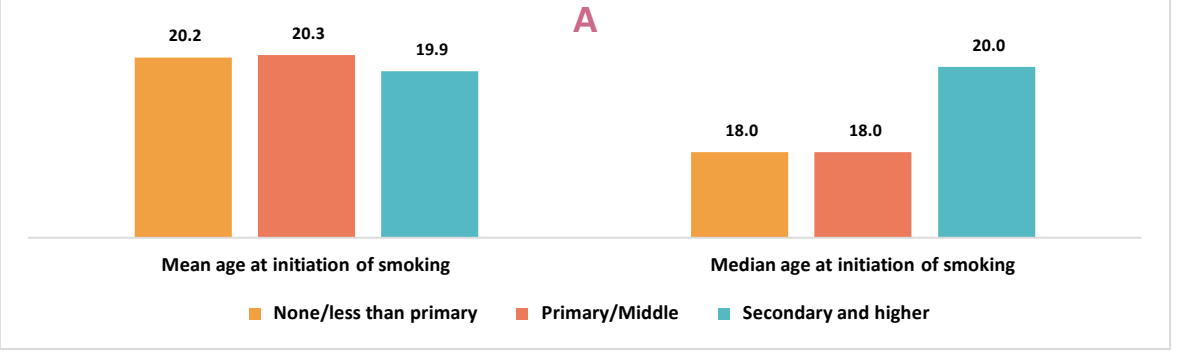
Figure 31: Differentials in use of different smokeless tobacco products, amongst all current smokeless tobacco users, by age (A), gender (B) wealth (C) and levels of education (D)

5.7 Age of Initiation of Tobacco Use

The average age of initiation of smoking tobacco in Bhutan was 20.1 years (19.9 years for men and 20.3 years for women). The median age or the age by which 50% of current smokers started smoking was 19 years (18 years for men and 20 years for women) (Table 5.6.).

Patterns by background characteristics

- There was no significant differences in age of initiation of smoking with areas of residents (rural or urban) (Figure 32)
- There was no significant difference in the average age or median age of initiation of smoking with the increase in level of education.



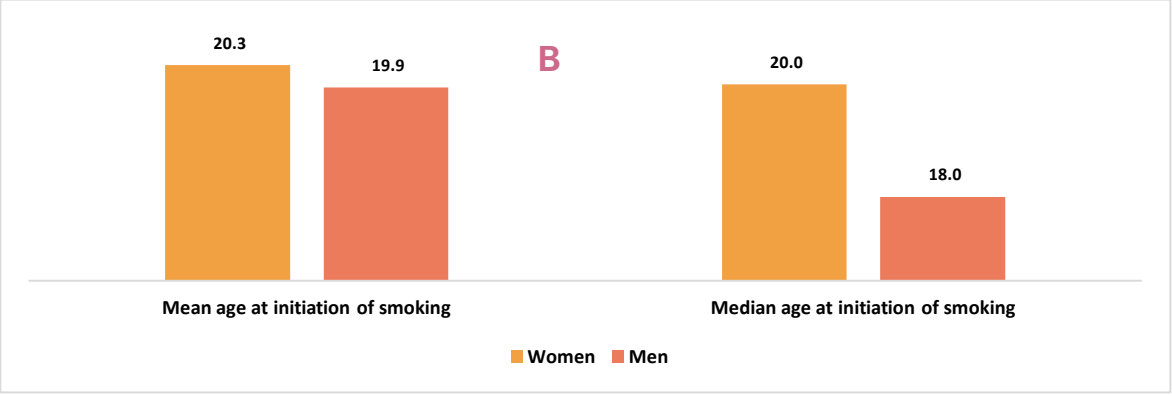


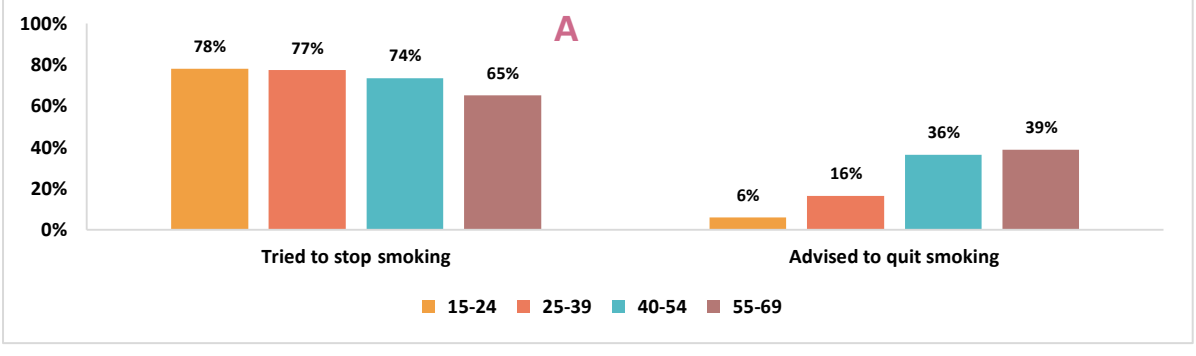
Figure 32: Differential in mean and median age of initiation of smoking among current smokers, by levels of education (A) and gender (B).

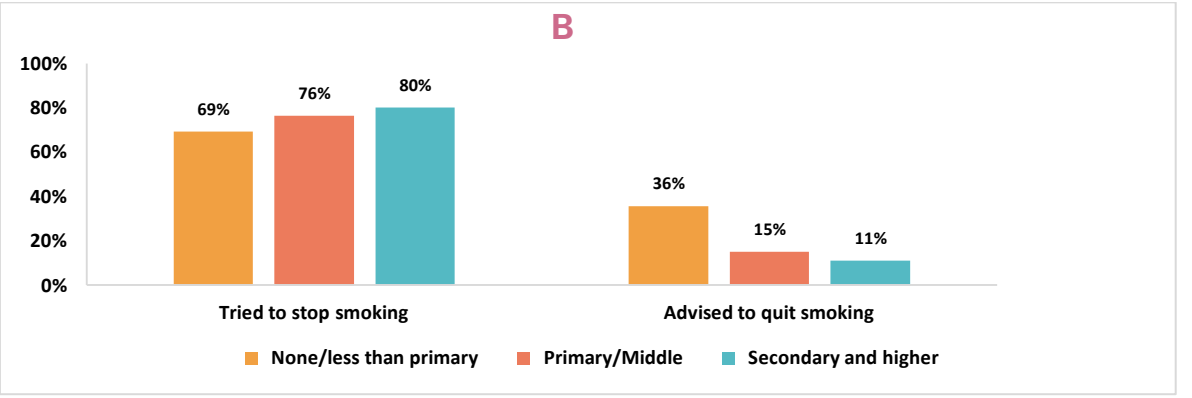
5.8 Tobacco Cessation

Among the current users of tobacco, 75.3% of smokers tried to stop smoking and only 20.9% of those who visited a health care provider in last 12 months were advised to quit smoking (Table 5.7).

Patterns by background characteristics (Figure 33)

- For respondents who tried to quit, there is not much of difference in terms of age, education and wealth spectrum. However, the older age group, those with no/less than primary education level and from the lower wealth quintiles were advised more by the health workers to quit smoking.





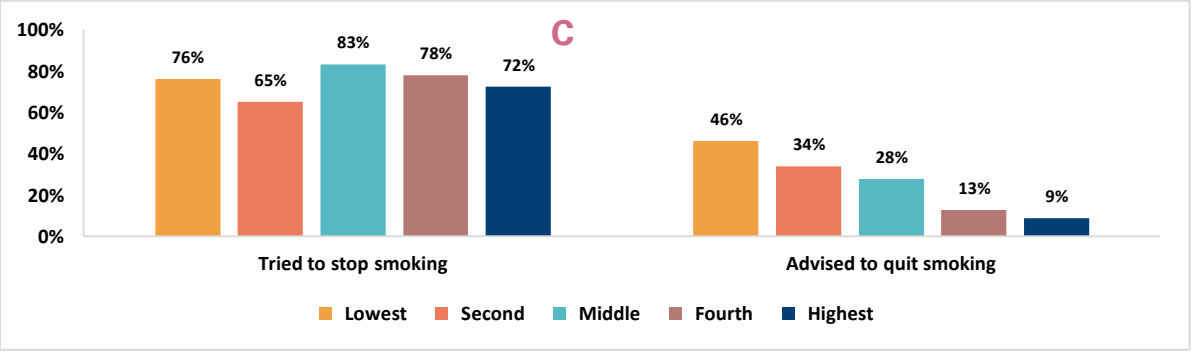


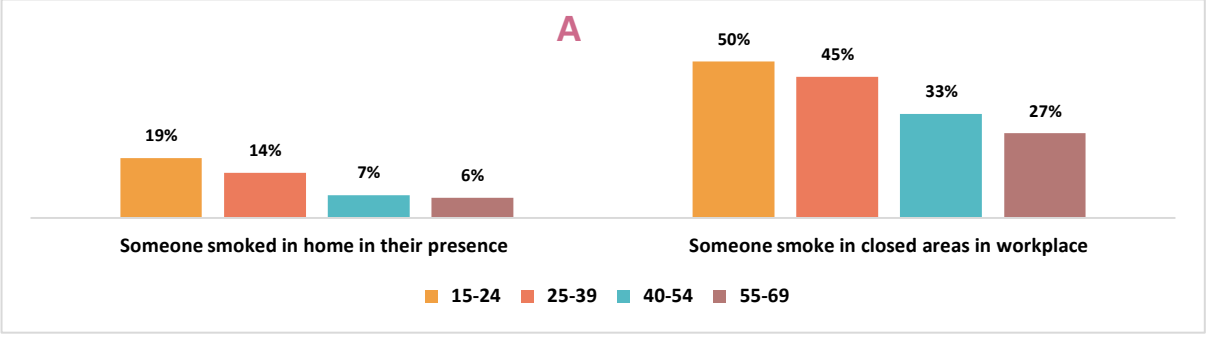
Figure 33: Differentials in tobacco cessation (attempt to stop and advise received to quit) by Age (A), levels of education (B) and wealth (C).

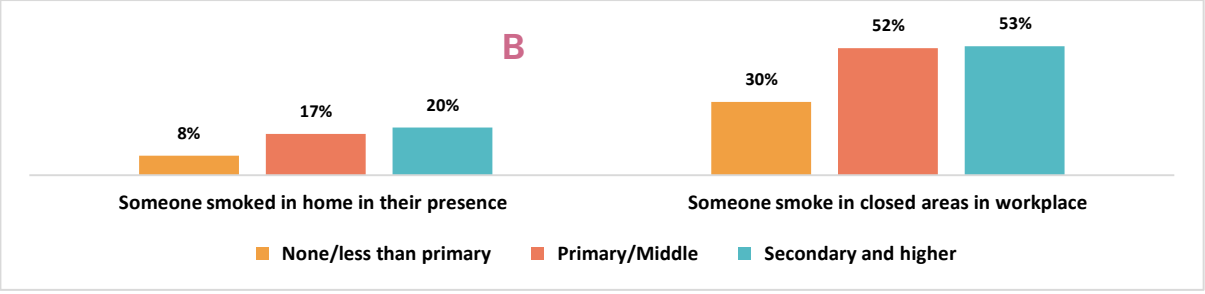
5.9 Second-Hand Smoke at Home and Workplace

Of the total respondents, 13.1% were exposed to second-hand smoke at home (SHSH) and 41.4% were exposed to second-hand smoke at work (SHSW), in the past 30 days (Table 5.8).

Patterns by background characteristics

- Younger age group, with higher education level and wealth quintiles were exposed to second-hand smoking at home and in areas of the workplace in the past 30 days (Figure 34).





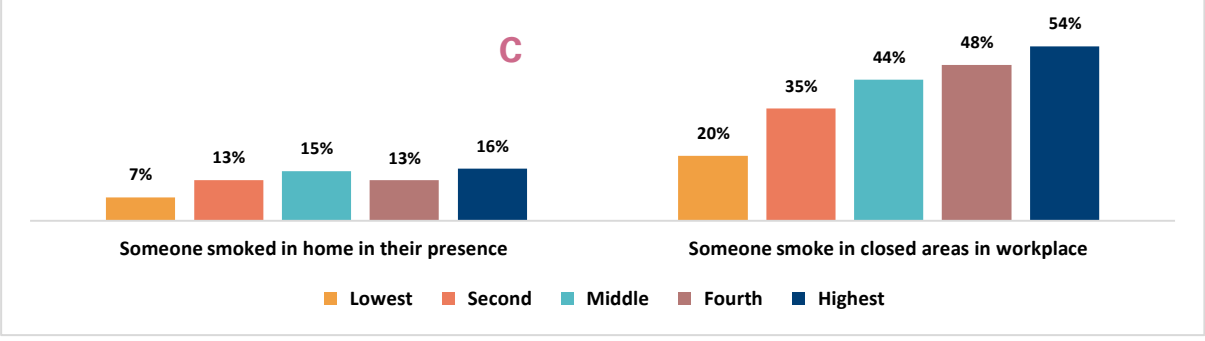


Figure 34: Differentials in second-hand smoke (at home and in areas of the workplace), by age (A), levels of education (B) and wealth (C).

5.10 Exposure to Anti-tobacco Messages

Among respondents who received anti-tobacco message, 69.3% received it from television, 28.8% from radio, 23.9% from newspapers or magazines, and 46.2% from posters, banners and signboards; 74.2% from any electronic media, radio/TV and 81.1% from any other media platforms (Figure 35) (Table 5.9).

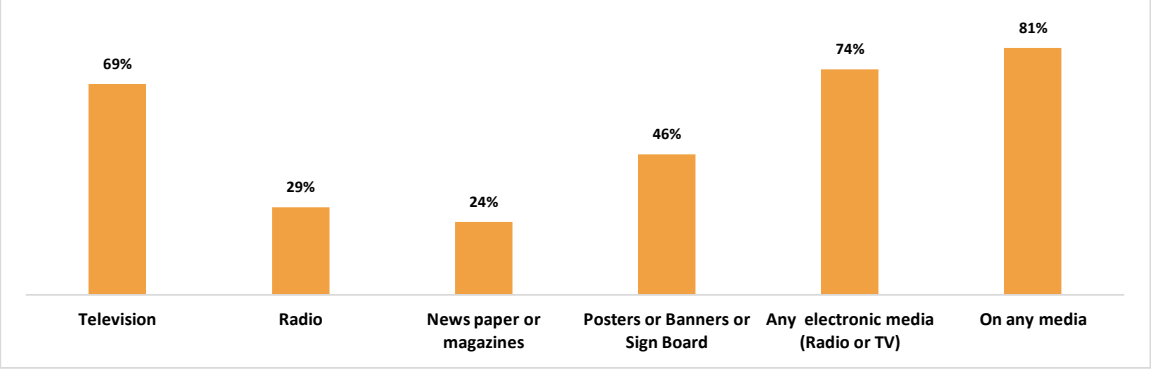


Figure 35: Exposure to anti-tobacco messages through various forms of media, amongst those aged 15-69 years.

Patterns by background characteristics (Figure 36)

- The leading sources of anti-tobacco messages, for both men and women, were television and posters/banners/signboards.

- While these two sources remain the leading source of anti-tobacco messages, both in urban and rural areas, radio is the third predominant source of anti-tobacco messages in rural areas (36.7% rural residents received anti-tobacco messages from radio, compared to 17.8% of urban residents).

Figure 36: Differentials exposure to anti-tobacco messages through various forms of media, by age (A), levels of education (B) and wealth (C).

5.11 Exposure to graphic health warnings

Of the total respondents, 57.2% who saw a cigarette package reported noticing warnings on tobacco packages. Amongst the current users who noticed these health warnings, 83.1% thought about quitting because of the package warnings (Table 5.10).

Patterns by background characteristics (Figure 37)

- Among the current smokers, there is no significant difference among those who noticed graphic warning and thought about quitting smoking.
- Younger aged group, with higher education level and higher wealth quintiles seem to notice health warnings on tobacco packages more than their counterparts.

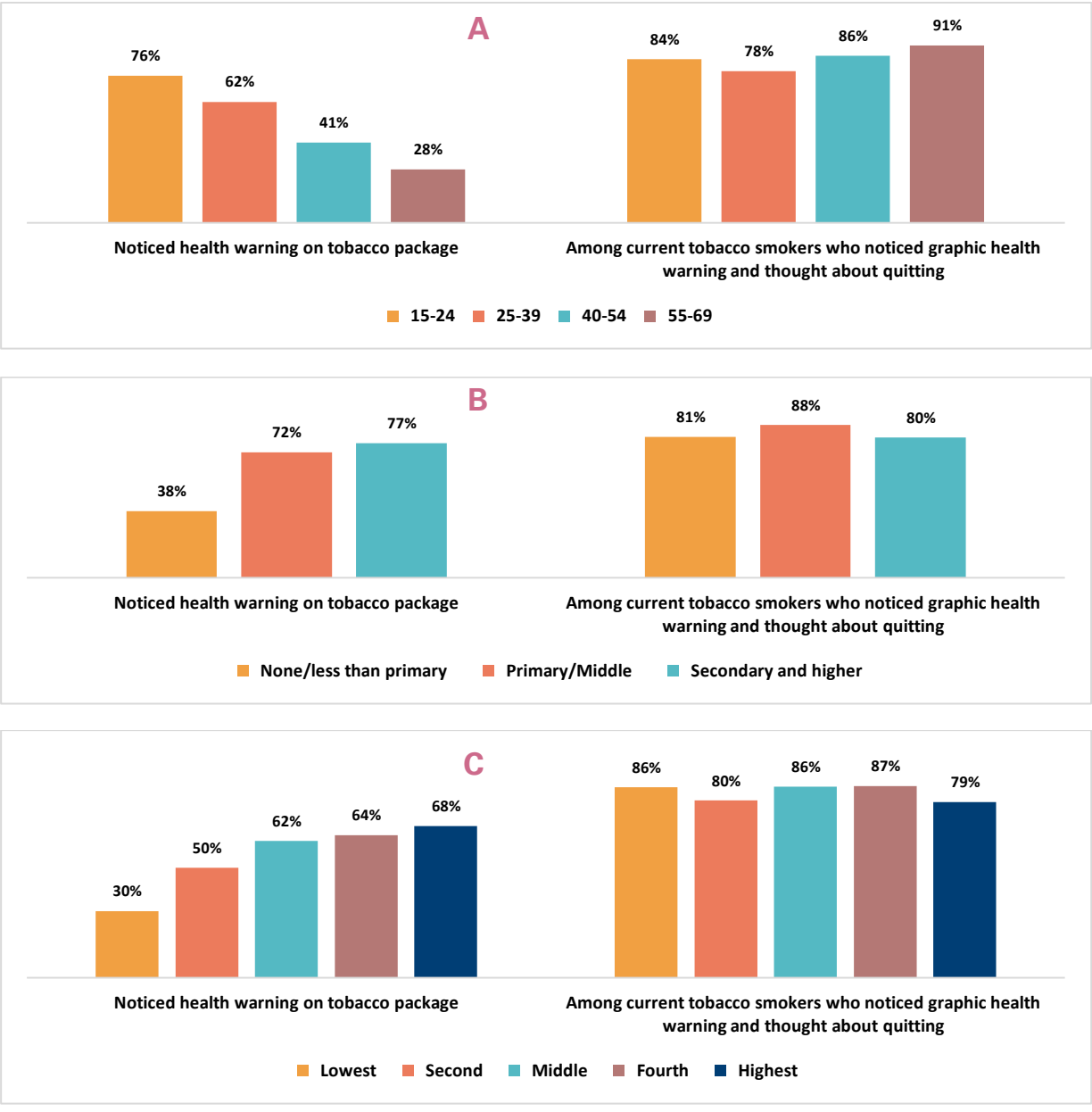


Figure 37: Differentials in exposure to graphic health warnings, by age (A), levels of education (B) and wealth (C).

5.12 Expenditure on Tobacco Products

On average, a cigarette smoker smoked 111 cigarettes per month and spent on an average Nu 1,416 a month. The average price of 20 cigarettes was estimated to be about Nu 249 (Table 5.11).

Patterns by background characteristics (Figure 38)

- Respondents aged 40-54 years smoked the highest number of cigarettes (143 cigarettes) as compared to other age groups.
- The average number of cigarettes smoked per person/month was higher in rural areas (123 cigarettes per month) as compared to urban areas (103 cigarettes per month).

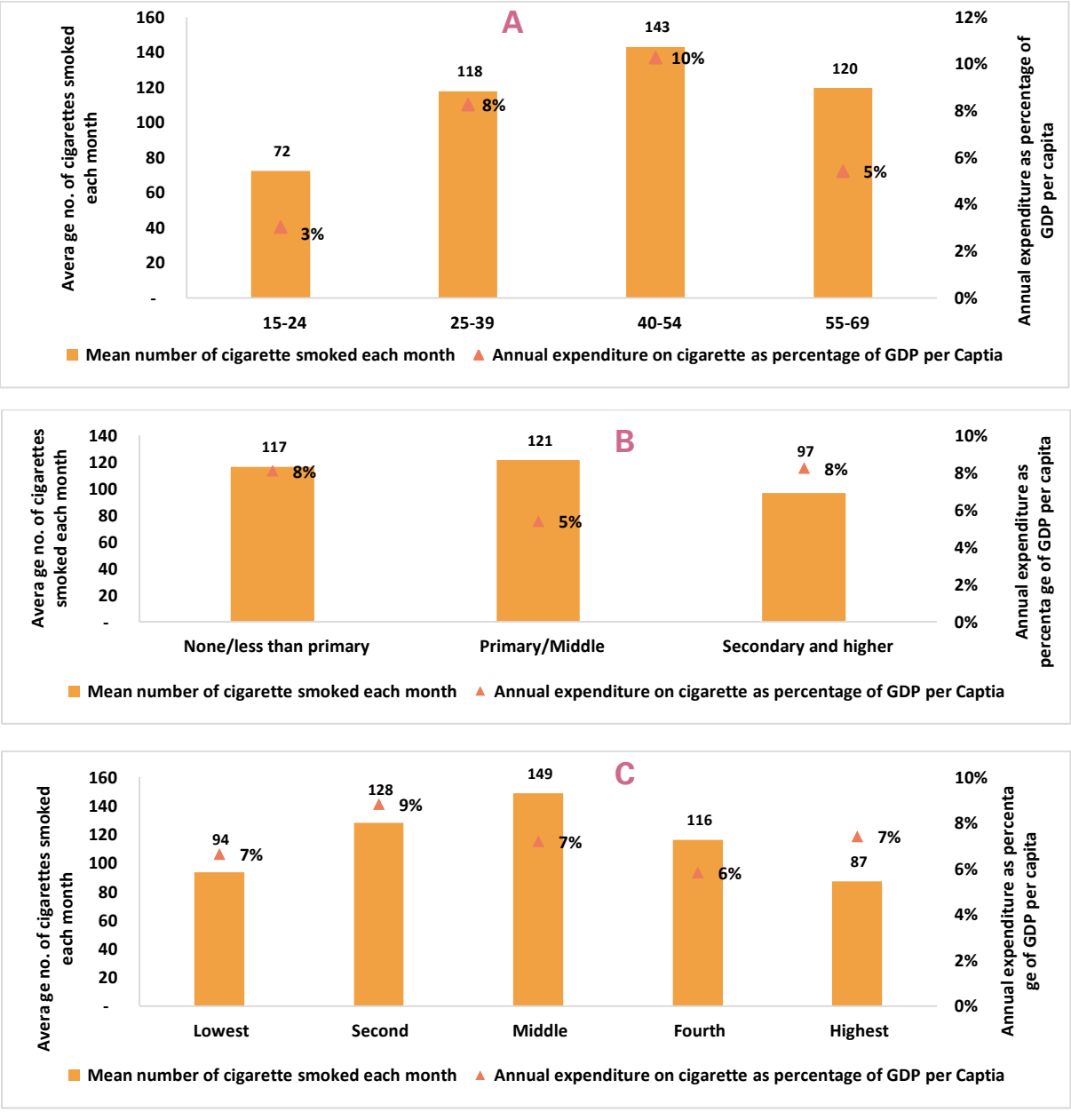


Figure 38: Differentials in the average number of cigarettes smoked each month and annual expenditure as a percentage of GDP per capita, amongst current smokers, by age (A), levels of education (B) and wealth (C).

5.13 Access to Tobacco Products

Of the respondents, 51.3% stated that people usually bought smoked tobacco products from outside of Bhutan and 29.3% stated they purchased from within the country. However, 54.3%

reported that procuring tobacco products was very difficult, and 28.5% reported that it was easy or very easy (Table 5.12).

Patterns by background characteristics (Figure 39)

- The older age group had difficulty in accessing tobacco products and procures from outside Bhutan compaired to the younger age groups that seem to have easy access to tobacco products within Bhutan.
- More number of respondents with lower education level and lower wealth quintiles faced difficulty or found it very difficult in accessing tobacco products.
- A larger proportion of respondents in urban areas reported that it was easy to procure smoked tobacco products, as compared to rural areas (37.9% versus 21.9%).

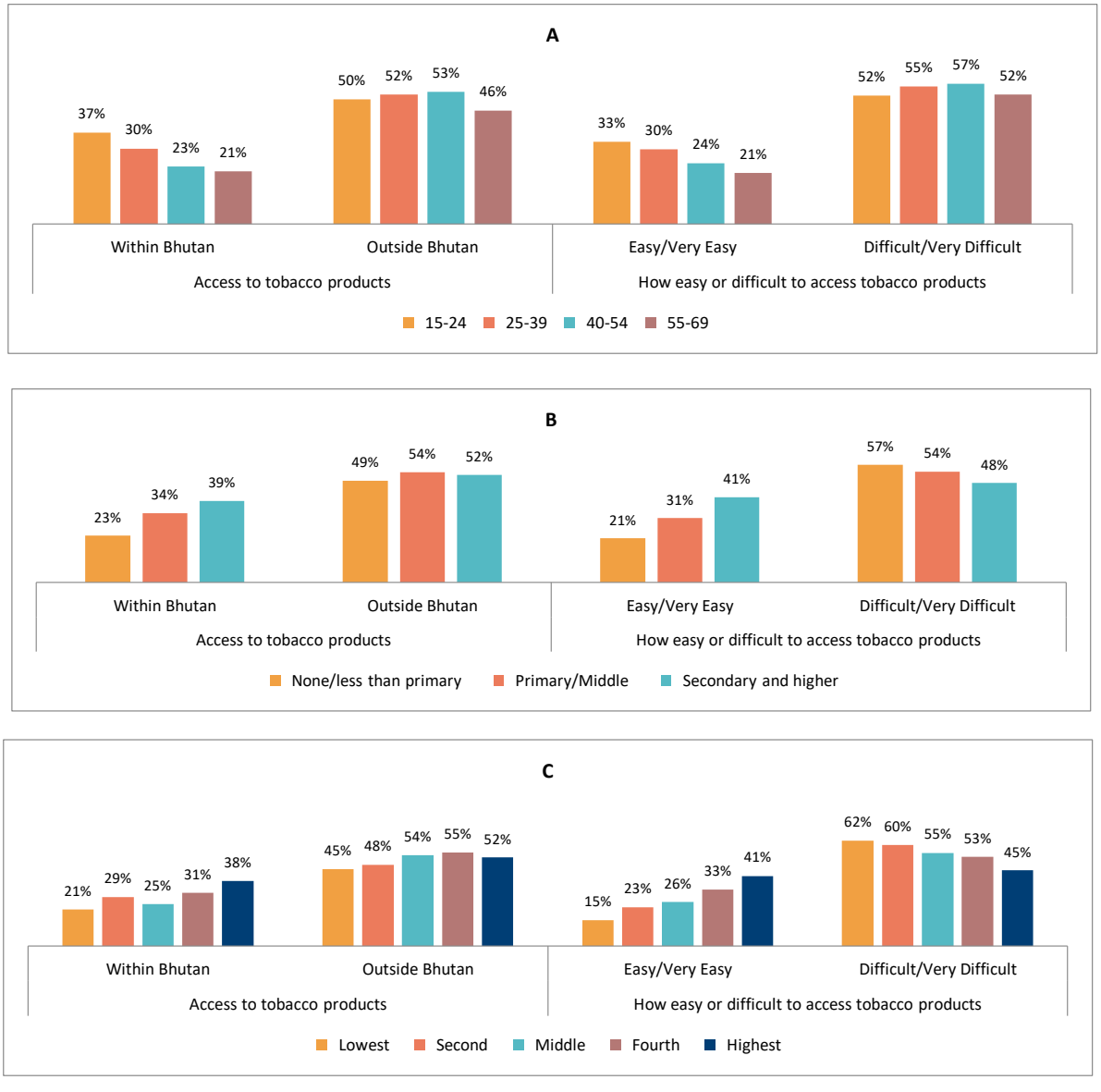


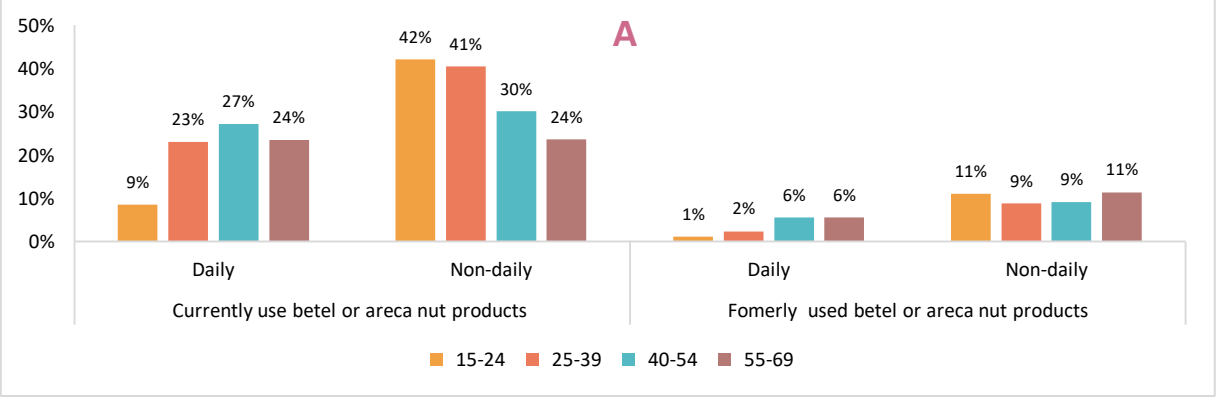
Figure 39: Differentials in access to tobacco products and ease of access, amongst all respondents aged 15-69 years, by age (A), levels of education (B) and wealth (C).

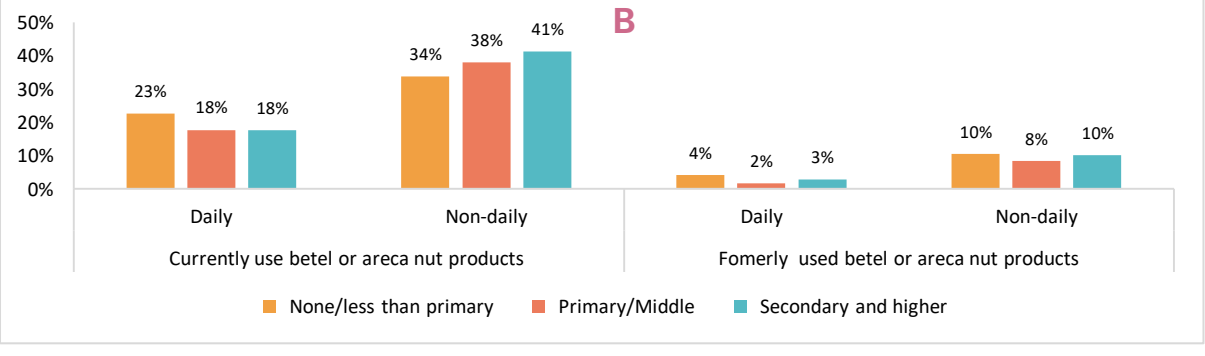
5.14 Betel or Areca Nut Use

The use of betel nut or areca nut is very common in Bhutan. The survey collected information on its use, different forms of betel nuts used and frequency of consumption from all respondents and amongst current and former users. Of all the respondents, 56.7% were current users of betel nut or areca nut while 13% were former users and only 30.2% never used it. And amongst the current users, 65% used it daily while the other 35% used it on non-daily basis (Table 5.13).

Patterns by background characteristics (Figure 40)

- More number of respondents in the younger age group and those with higher education level consumed betel nut or areca nuts on a non-daily basis.
- The daily use of betel nut was slightly higher among men (21.3%) compared to women (9.81%).
- The daily use of betel nut or areca nut was found to be more pronounced among less educated respondents (22.6% among no/less than primary education) as compared to higher educated respondents (17.7% among primary to less than middle secondary, 17.7% among middle secondary and higher education).





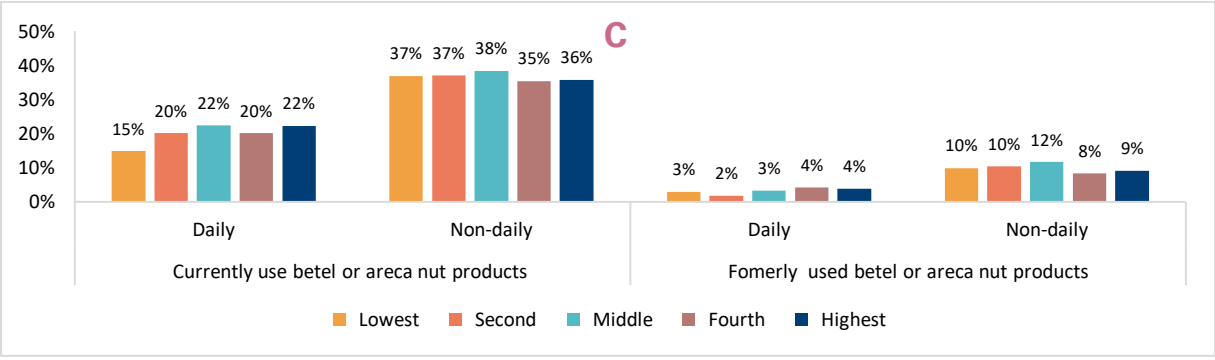


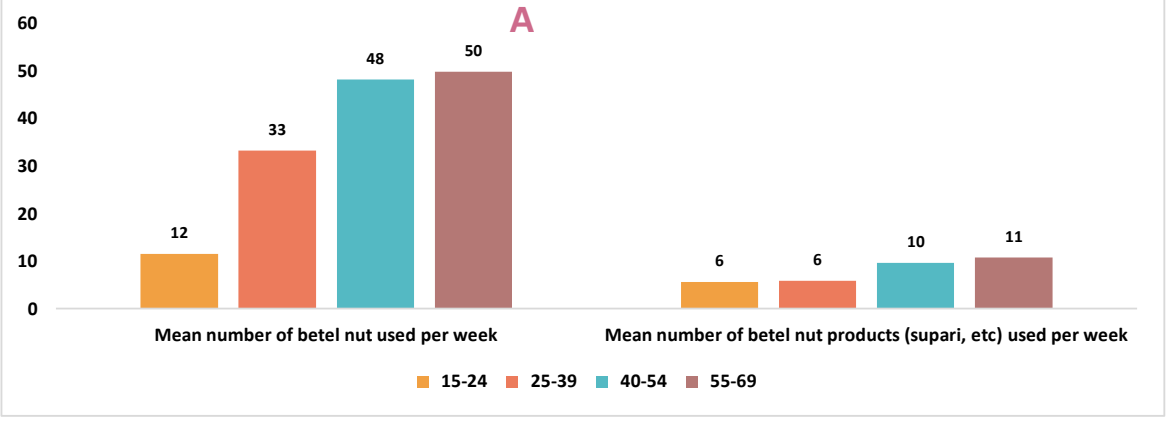
Figure 40: Differentials in the status of betel or areca nut use (current, former, daily versus non- daily), by age (A), levels of education (B) and wealth (C)

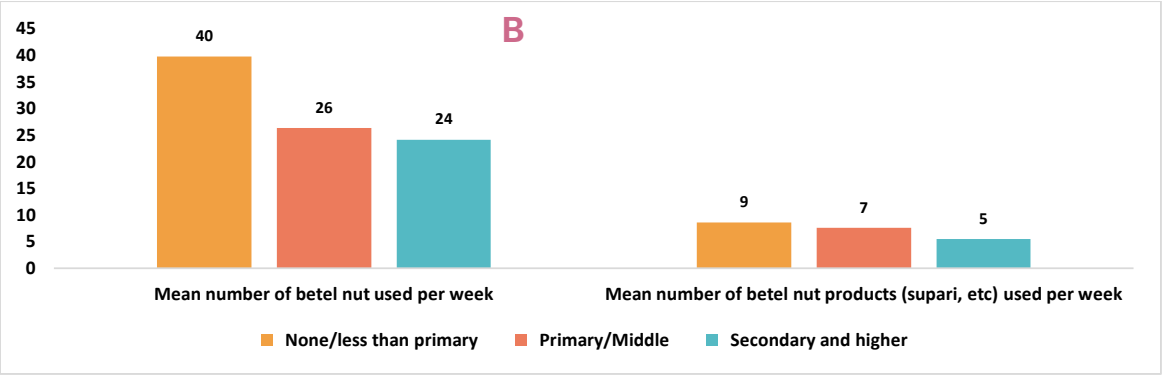
5.15 Use of betel nut or areca nut products

Overall 51.8% used betel nut (doma and paan), and 14.9% used *supari* and other products. Amongst the current users of betel or areca nut, 90.2% were current user of betel nut (*doma* and *paan*) and 26.5% were current user of *supari* and other products. And on an average, 32.7% betel nuts were used per person per week and 7.3 *supari* and other products were used per person per week (Table 5.15).

Patterns by background characteristics

- Respondents with no/less than primary level education level (mean of 40 numbers/week) and older age group (55-69 years) consumed more betel nuts than other categories (mean of 50 numbers/week). (Figure 41) (Table 5.15)





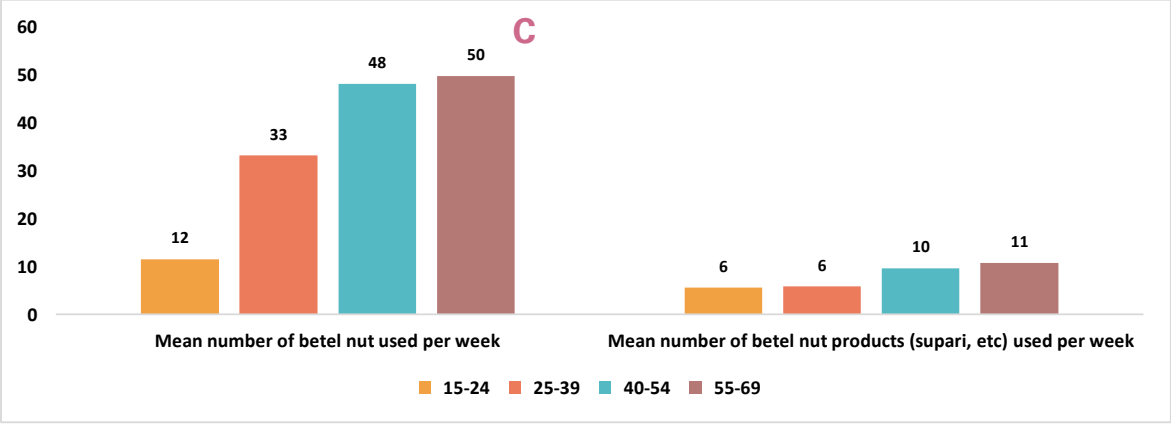
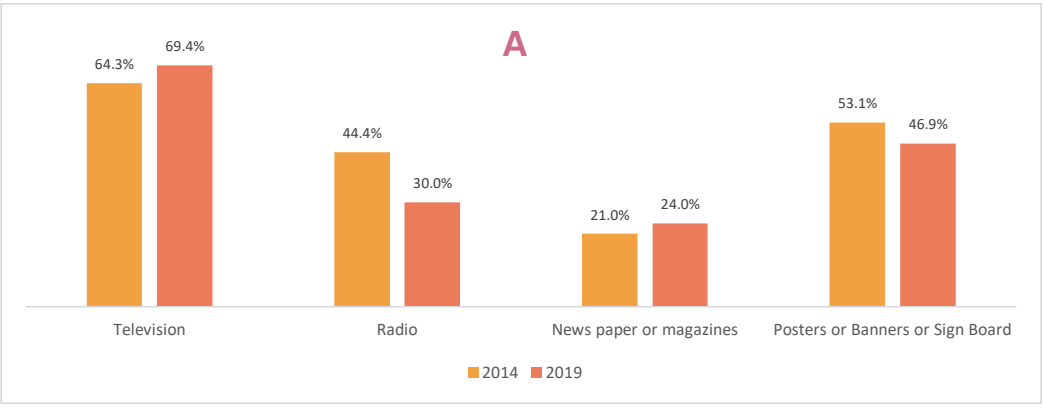
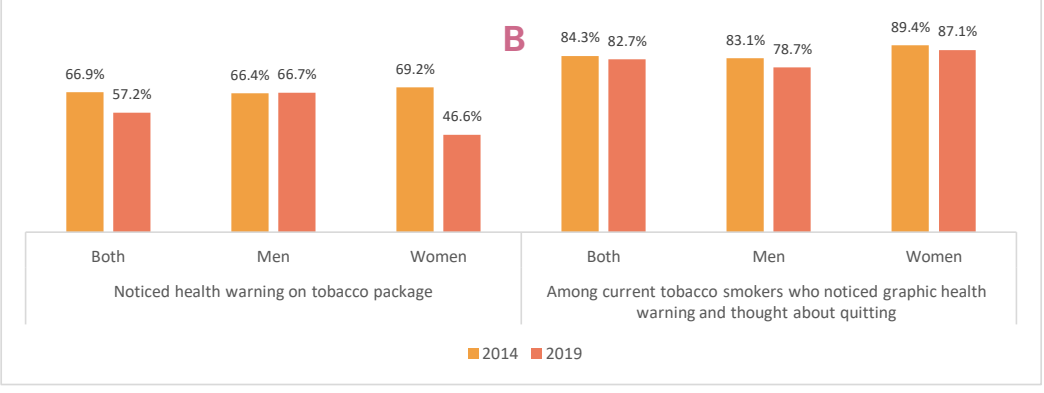


Figure 41: Mean number of betel nut or areca nut products used per week, amongst current users, by age (A), by level of education (B) and by wealth (C).

5.16 Comparative Analysis between 2014 & 2019 STEPS Survey

- The number of cigarette smokers has increased to 9% in 2019 as compared to 6% in 2014. However, the age of initiation remained almost the same (18 years in 2014 and 19 years in 2019).
- Annual expenditure on tobacco products has increased to 7% in 2019 from 5% of GDP in 2014.
- The mean number of cigarettes smoked per month also increased to 112.8 cigarettes from 98.3 cigarettes.
- Overall, the levels of exposure to second-hand smoke at home declined to 13% in 2019 as compared to 21% in 2014, On the contrary, exposure to second-hand smoke at work increased to 41% in 2019 compared to 25% in 2014.
- While there was an increase on exposure to anti-tobacco messages on television and newspapers/magazines, there was a slight decrease on exposure from other sources. However not much difference was seen between 2019 and 2014 among current tobacco users that saw warning messages and tried quitting tobacco (Figure 42).





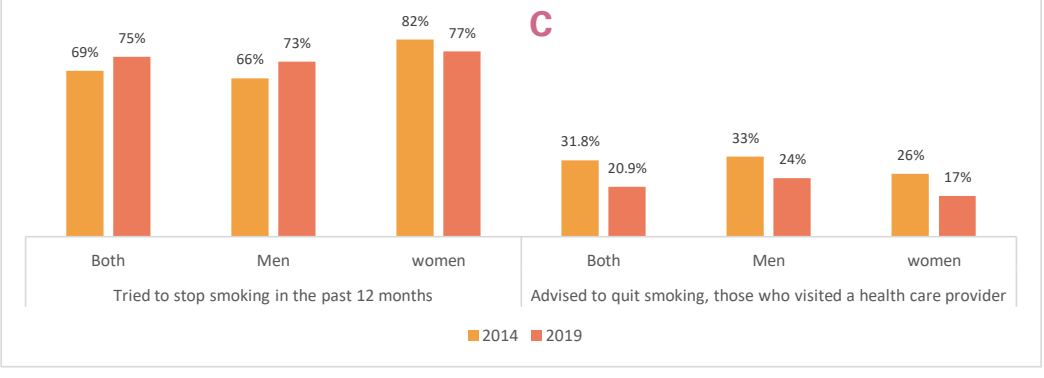


Figure 42: Trends in exposure to anti-tobacco messages through various forms of media (A), trends in exposure to graphic health warnings who saw graphic health warnings on cigarette package (B), and trends among current smokers who noticed graphic health warnings and thought about quitting (C)

CHAPTER 6:
DIETARY HABITS

Key Findings

Consumption of Fruits and vegetables:

- The average number of servings of fruits and vegetables consumed per day was 3.0 servings (0.9 servings of fruit and 2.2 servings of vegetables per day).
- The prevalence of insufficient fruits and vegetable intake (<5 serving a day) was 86.4% (86.1% for women, 86.7% for men).

Consumption of legumes:

- The average servings of legumes consumed per day was 0.7 servings (0.7 servings for women, 0.8 servings for men).

Practice of Vegetarianism

- Overall vegetarianism is reported amongst 13.9% of the respondents (16% in women, 12% in men).
- The most common type of vegetarianism was Lacto- vegetarianism (5.6%) followed by Lacto-ovo-vegetarianism (4.8%).

Fats and oils used for food preparation and practices of choosing lower fat/oil alternatives

- Vegetable oil (98.6%) is the most commonly used cooking oil.
- 41.1% of respondents (40.2% women, 41.9% men) reported often or always choosing low or reduced fat/oil varieties of foods.

Behaviours and attitudes around checking nutrition labels

- Only 19.3% of respondents (17.8% women, 20.6% men) reported reading nutrition labels for sugar/fat/salt content.
- The most common reasons for not checking nutrition labels: 'Can't read' (47.5%); 'Did not feel the need to' (39.0%); 'Difficult to understand' (7.9%).

An unhealthy diet is one of the 5 main risk factors for NCDs and the promotion of a healthy diet is one of the recommended components for policies and programs in the Global Action Plan against NCDs[15]. WHO recommends mean population intake of at least 5 servings (400g) of fruits and vegetables as part of a healthy balanced diet which provides a rich mix of nutrients and bioactive substances for the prevention of diet-related non-communicable diseases[16].

Ministry of Education has introduced school agriculture programme and encouraged the consumption of fruits and vegetables in the schools. In the hospitals, the dieticians advocates good dietary habits to the patients.

This chapter summarizes average fruits, vegetables and legumes consumption levels as well as the type of cooking oil used. Country-specific Information was elicited on nutrition label reading, which is one of the best-buys for control of salt intake. The indicators presented will help Bhutan to assess current trends in dietary patterns and guide policy and programs targeting the improvement of population dietary intake.

6.1 Consumption of fruits and vegetables

On an average, the daily consumption of fruit and vegetable amongst the respondent was 3.0 servings. The average daily fruit consumption was 0.9 servings while the vegetable consumption was 2.2 servings. Around 86.4% of the respondents had inadequate intake of fruits and vegetables per day and hence, not meeting the WHO recommendation of fruits and vegetables. (Table 6.1).

Patterns by background characteristics (Table 6.2)

- Overall, consumption of vegetables was almost double than that of the fruit servings consumed.
- Average daily servings of fruits and vegetable consumption did not vary significantly by sex, residence or region.
- The total servings of fruits and vegetables amongst those with no/less education was significantly lower compared to those respondents with secondary and higher education (2.9 serving/day vs 3.3 serving/day).
- The consumption of fruits and vegetables was significantly higher among the wealthier quintiles compared to other quintiles.
- The prevalence of the inadequate fruit and vegetable consumption was higher amongst the age groups 15-24 years and 55-69 years.
- The prevalence of inadequate fruit and vegetable intake was higher amongst urban residents, lower quintiles and among low education group (Figure 43).

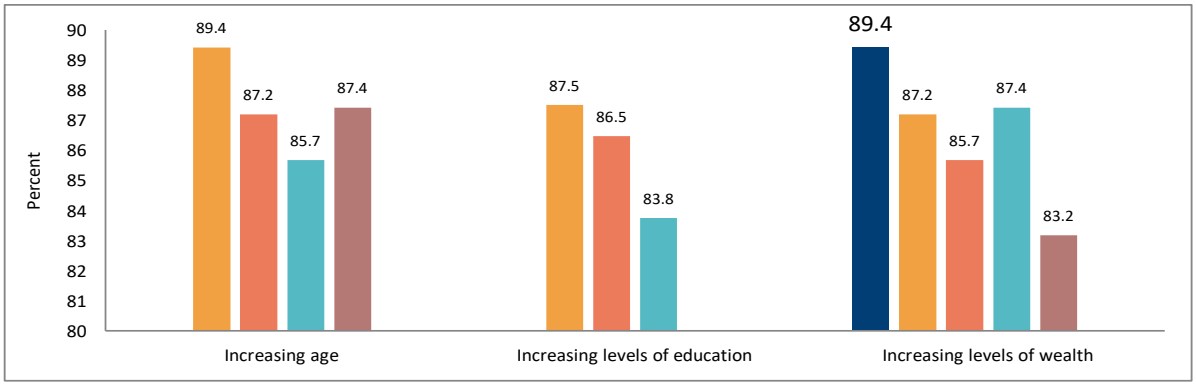


Figure 43: Percentage of respondents aged 15-69 years with an inadequate intake of fruits and vegetables, by age group, education and wealth.

6.2 Type of cooking oil used and preference for lower fat/oil alternatives

Overall 98.6% of households used vegetable oil for cooking while only 1% used butter and 0.9% used ghee; and around 41.1% of respondents reported choosing low or reduced fat/oil alternatives (Table 6.3).

Patterns by background characteristics (Table 6.4)

- The older age group, rural resident, eastern region, low education level and the lowest wealth quintile were more likely to use butter/ghee for food preparation than other counter parts.
- Older aged group, men, urban residents and those from the wealthier quintiles, more likely to report often or always choosing lower fat/oil varieties of food than their counterparts.
- Higher percentage of respondents from the western region preferred or chose lower fat/oil varieties of food compaired to eastern and central region.

6.3 Consumption of legumes

This information was country-specific and enquired in Bhutan 2019 survey for the first time. Legumes are considered a sustainable source of vegetarian protein and a rich source of fibre. Average daily servings of legumes consumed were 0.7 servings (Table 6.5).

Patterns by background characteristics (Table 6.5)

- Consumption of legumes was the lowest among the age group (15-24) years compared to other age groups.
- Women consume lesser legumes than men (0.7 servings/day vs. 0.8 servings/day).
- Westerm region had the lowest average consumption of legumes compared to central and eastern region.
- Intake levels of legumes did not vary significantly by education or household wealth.

6.4 Vegetarianism

Overall 13.9% of the respondent were vegetarian. The common type of vegetarianism was lacto-vegetarian (5.6%) followed by lacto-ovo vegetarian (4.8%), ovovegetarian (1.8%) and vegan (1.7%) (Table 6.6).

Patterns by background characteristics (Table 6.6)

- Vegetarianism was higher among the age group 15-24 years compared to other age groups
- More women reported being vegetarian than men.
- Of the respondents those residing in the urban, higher education level and from the wealthier quintile were more likely to be vegetarian than their counterparts (Figure 44).

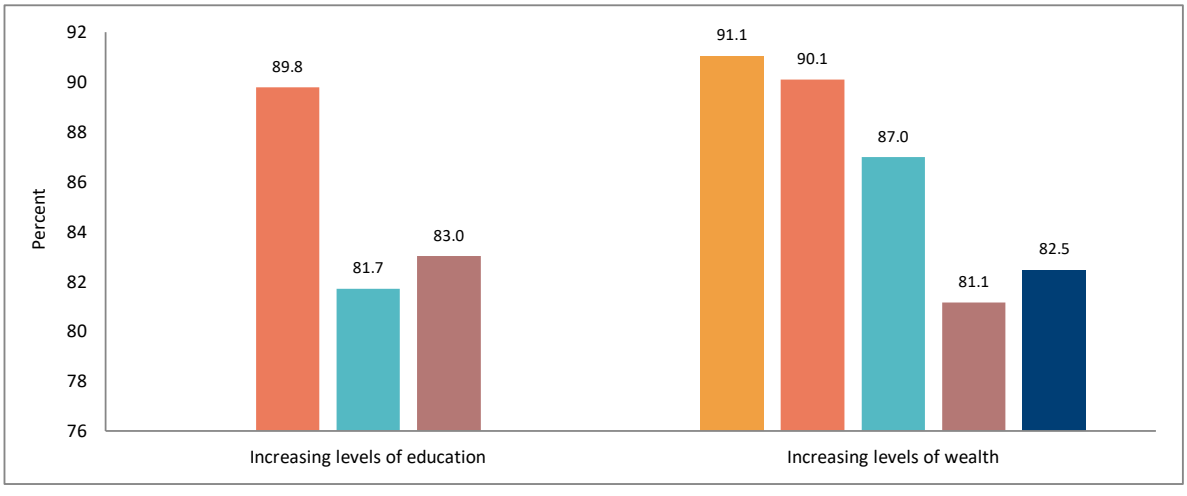


Figure 44: Differentials in non-vegetarianism amongst those aged 15-69 years, by education and wealth.

6.5 Reading nutrition labels

Only 19.3% of respondents who shop for food reported checking nutrition labels for salt/ sugar and fats content before purchasing the food products.

The common reasons reported for not checking the nutrition labels were inability to read (47.5%), followed by did not feel the need to check the label (39.0%).

Patterns by background characteristics (Table 6.7)

Overall men were more likely to check the nutrition labels than women (20.6% men and 17.8% women). The younger age group, urban resident, wealthier quintile and more educated reported checking nutrition labels compared to their counterparts (Figure 45).

- Higher percentage of population from the western region (23.2%) reported checking nutrition label compared to other regions.
- The older age group, rural resident, less educated and the lowest wealth quintile reported

'inability to read' as the reasons for not checking the nutrition labels while the younger age group, urban resident, more educated and the wealthier quintile reported 'did not feel the need to check'.

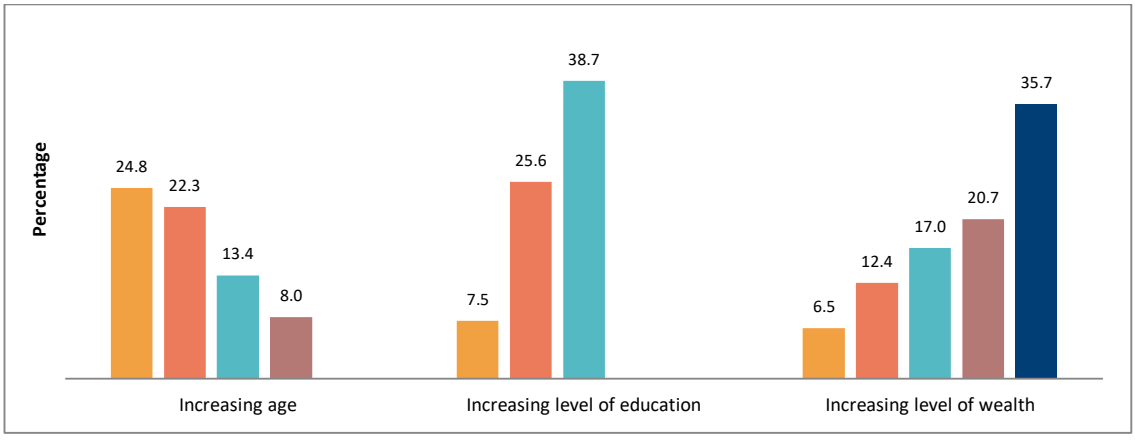


Figure 45: Differentials in percentage of people aged 15-69 years checking nutrition labels, by age group, education and wealth.

6.6 Comparative Analysis between 2014 & 2019 STEPS Survey

The average consumption of fruits and vegetables declined significantly to 3.1 servings per day from 4.5 servings per day in 2014. While the vegetable consumption declined to 2.3 servings/day from 3.8 servings/day in 2014, the fruit consumption increased to 0.9 servings per day in 2019 from 0.7 servings per day in 2014 (Figure 46).

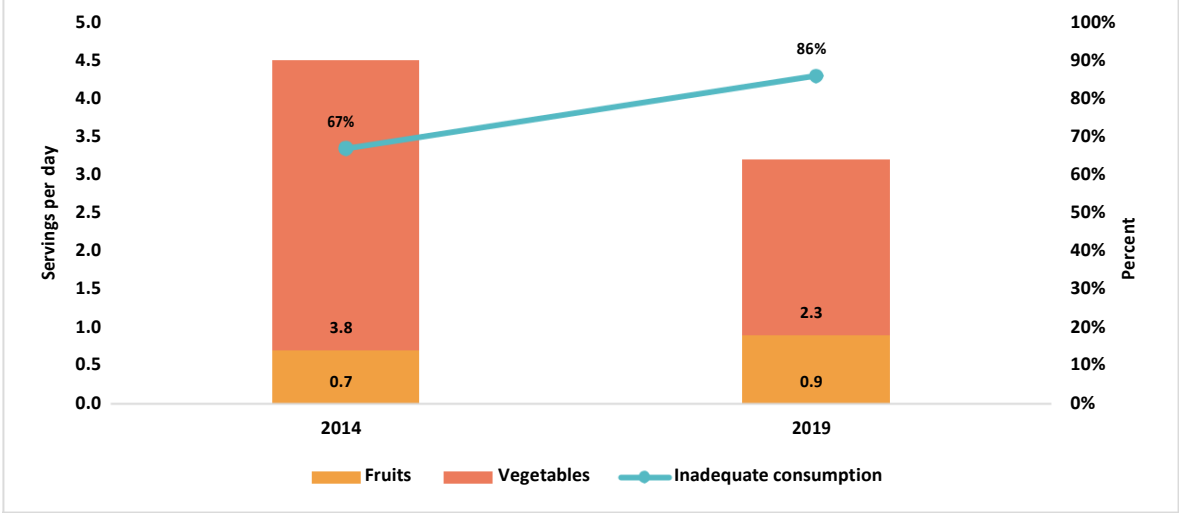


Figure 46: Average servings of fruits and vegetable consumption and percentage of respondents with inadequate level of intake in respondents aged 18-69 years.

CHAPTER 7:
DIETARY SALT INTAKE

Key Findings

Estimated salt intake

- The average population salt intake based on spot urine testing was 8.3 grams/day (7.4 g/dl for women and 9.1 g/dl for men).

Behaviours around the dietary salt intake

- 10.4% of the respondents reported adding salt often or always to food right before or while eating.
- 1.6% of the respondents reported adding salty sauce often or always to the food right before or while eating.
- 11.5% of the respondents reported consuming processed food often or always that are high in salt.
- 12.7% of the respondents reported often or always consuming salted tea in the household.

Perceptions about levels of salt intake

- 65.3% of respondents (65.6% women, 65.0% men) perceived their salt intake to be "just right" and 14.5% of respondents (13.9% women, 15.1% men) perceived it to be "far too much or too much".
- 96.1% of the respondents (95.8 % women and 96.3 % men) thought that lowering salt is very important or somewhat important.

Knowledge on salt intake, recommendations and health consequences

- 66.5% of the respondent (66.8% women, 65.7% men) had incorrect knowledge or did not know of the recommended amount of salt for optimal health.
- 68.9% of the respondents (71.7% women, 66.3% men) correctly identified the health consequences related to excessive salt/salty sauce intake.

Practices and methods to reduce salt intake

- Overall, 68.0% of respondents (66.7% of women, 69.1% of men) reported currently doing something to reduce salt intake.
- The common methods reported in controlling salt intake was avoiding or 'minimising consumption of processed foods' (81.8%); 'avoiding eating foods prepared outside of the home' (45.1%); using spices other than salt when cooking (31.2%).

Excessive salt intake is a major risk factor for hypertension, which is a major cause of premature deaths worldwide. WHO recommends consuming less than 2 grams of sodium or 5 grams of salt per day amongst respondents to reduce blood pressure and the risk of cardiovascular disease, stroke and coronary heart disease[17]. Policies to reduce salt intake (food product reformulation; establishing a supportive environment in public institutions; communication and mass media campaigns; front-of-pack labelling) at population-level are one of the most cost-effective interventions or 'best buys' to prevent and control non-communicable diseases[15]. The Ministry of Health has developed the national salt reduction strategy through the multisectoral approach.

A 30% relative reduction in mean population intake of salt/sodium by 2025 relative to 2010 levels is one of the nine voluntary global targets set under the global action plan[18]. Bhutan has incorporated it as one of the key targets in its 5-year multisectoral action plan for 2015-2020[18, 2].

This chapter focuses on indicators related to dietary sodium intake by estimating average population 24-hour salt intake based on spot urine sodium and creatinine levels, assessing the knowledge, behaviours, perceptions and practice on salt intake.

7.1 Mean population 24-hour salt intake

The population mean salt intake can be assessed using 24-h urinary sodium excretion, however, STEPS survey has, instead, adopted spot urine sodium as a proxy due to ease of collection of spot urine samples, lower cost and higher response rates vis-à-vis 24-hour urine samples, in population-based household surveys. Three main studies investigated the estimation of 24-h urinary sodium excretion from spot urine samples in the literature: Kawasaki[10], INTERSALT[19] and Tanaka[12] (Refer to section 2.6 under Survey Methodology). So far, there is no scientific consensus on the equation to be used in a given population/context. The estimation in this survey maintained the use of the same equation as in previous survey rounds to facilitate comparison of results and assessment of trends.

Using the INTERSALT (North American) equation, the mean population salt intake was estimated to be 8.3 g per day amongst all respondents (Table 7.1).

Patterns by background characteristics

- Estimated average salt intake was the highest amongst age groups of 25-39 years and 40- 54 years.
- Women had significantly lower estimated average salt intake compared to men (7.4g/day vs 9.1g/day).
- The eastern region (8.7 g/day) had higher estimated average salt intake compared to western (8.2g/day) and central (8.1g/day) region.

7.2 Behaviours around the dietary salt intake

Only 10.4% of respondents reported adding salt often or always while only 1.6% of respondents reported adding salty sauces (such as soya sauce, fish sauce etc.). More than half of respondents (67.7%) reported rarely or never adding salt to foods right before or while eating.

11.5% of respondents report often or always consuming processed foods high in salt. Only 2.9% of respondents reported adding salty seasoning or salty sauces often or always during food preparation and the majority (81.4%) of respondents rarely or never add any salty seasoning/sauces. Salted tea such as *Suja* and *Fika* are common household beverages

consumed in Bhutan and are considered a source of dietary salt. 12.7% of respondents reported their households consuming salted tea often or always. Taking into consideration, the information on all the dietary source of salt, processed foods high in salt is the most common source consumed (60.3%) followed by salted tea (44.9%), adding salt to the food (32.3%) (Figure 47).

Monosodium Glutamate (MSG) is commonly used as flavour enhancer in many Asian countries and is considered a source of dietary salt. Only 2.2% of respondents in Bhutan add MSG to foods during food preparation (Table 7.2.).

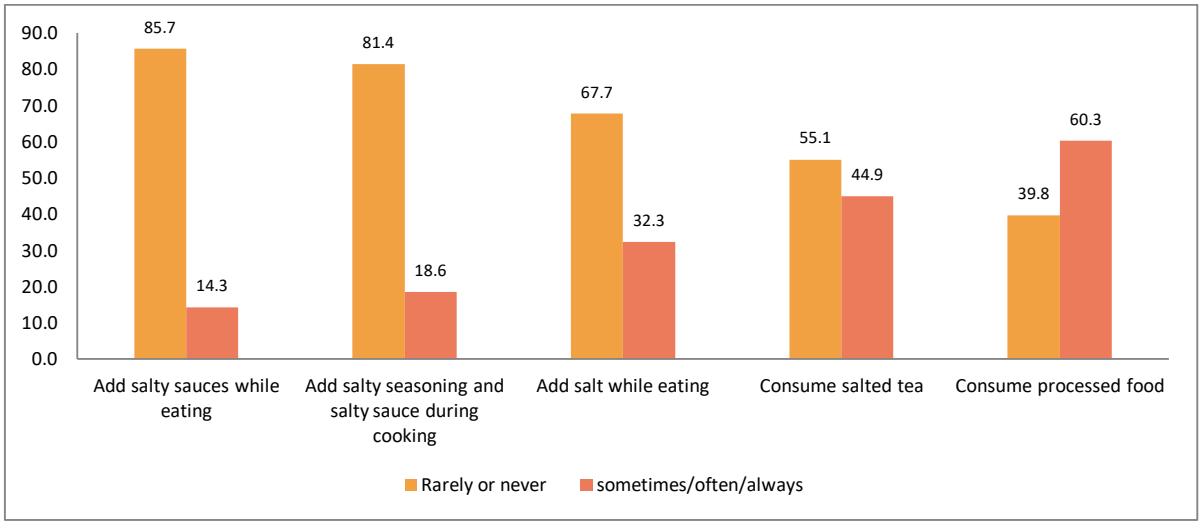


Figure 47: Common source of dietary salt in Bhutan

Patterns for adding salt and salty sauces by background characteristic

- Higher percentage of women reported adding salt or salty sauce always or often to the food compared to men (Table 7.3).
- The frequency of adding salty sauce to foods while eating was higher among the younger age group 15-24 years (Figure 48) (Table 7.4).
- Rural residents had a higher percentage of respondents adding salt often to always to foods compared to urban residents. This relationship is reversed for adding salty sauces. A significant difference is seen across regions with the highest percentage in the western region and the lowest in the central region for both added salt and salty sauces (Figure 49) (Table 7.6).
- Household wealth was associated with both adding salt and salty sauces often or always to foods while eating. Respondents of higher wealth were less likely to add salt often or always while eating, and more likely to add salty sauces.

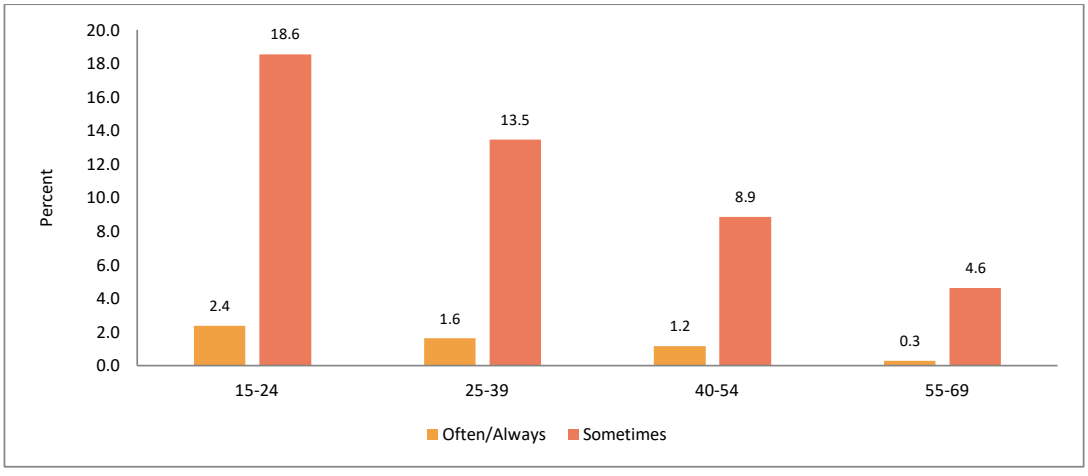


Figure 48: Differentials in frequency of adding salty sauces to foods while eating by age group.

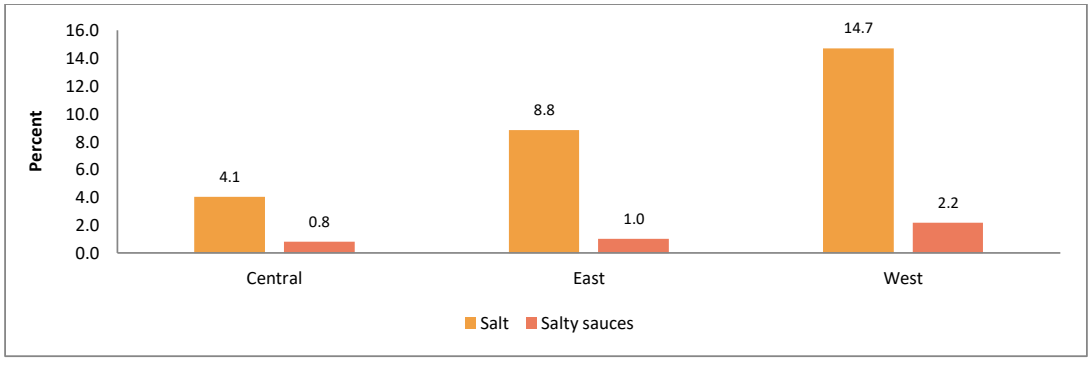


Figure 49: Differentials in often or always adding salt and salty sauces to foods while eating by region.

Patterns for the consumption of processed foods by background characteristic

- Consumption of processed food is highly associated with younger age, urban populations, increased level of education and increased household wealth quintile (Figure 50) (Table 7.6).
- Respondents who often or always consumed processed food was highest in the central region(14.3%) and lowest in the eastern region (4.9%).

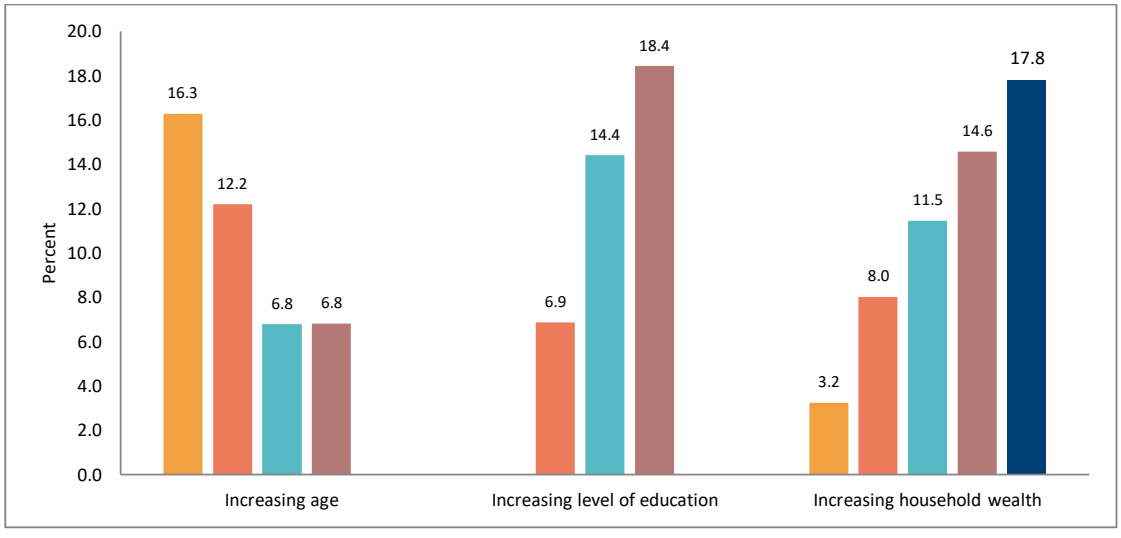


Figure 50: Percentage of respondents often or always consuming processed foods by age group, education and wealth.

Patterns for dietary salt from other sources and usage of MSG

- Around 2.2% of the respondents reported adding MSG powder often or always to the food during food preparation. The practice was more prevalent amongst the younger age group 15-24 years compared to other age groups.
- The consumption of salted tea does not vary across age and sex. However, significantly higher percentage of respondents residing in the rural, of lower education level and from lower wealth quintile often or always consumed salted tea.

7.3 Perceptions about levels of salt intake

In contrast to the high estimated population mean salt intake reported earlier, majority of respondents (65.3%) think they consume "just the right amount of salt", with only 14.5% reporting consuming "far too much or too much" salt. However, awareness of the importance of lowering dietary salt is almost universal amongst respondents in Bhutan (96.1%) (Table 7.7).

Patterns by background characteristics

- Perception of salt intake to be 'just right' did not vary much with gender.
- Urban residents perceived their salt intake to be just right compared to their counterpart.
- Higher percentage of respondents with primary to middle secondary education perceived their salt intake to be "just right" compared to those with higher or lower levels of education.
- Higher percentage of respondents in the western regions (67.5%) perceived their salt or salty sauces intake to be "just right" compared to eastern (65.9%) and central region (61.0%).
- Although awareness on the importance of lowering salt is almost universal in Bhutan, households with lower wealth quintile is associated with a relatively lower percentage of respondents who think lowering salt is important (93.9% in lowest quintile vs 97.5% in highest quintile).

7.4 Knowledge on salt intake, recommendations and health consequences

Around one third (33.5%) of the respondents stated the maximum amount of salt/day for optimum health while half of the respondents (50.8%) reported not knowing the recommendations. However, 68.9% of respondents correctly identified relevant health consequences due to excessive salt intake.

Patterns by background characteristics (Table 7.8)

- More men had the correct knowledge on the recommended dietary salt intake levels compared to women while the opposite applied for knowledge on relevant health consequences.
- The highest percentage of respondents with correct knowledge on both recommended salt intake and relevant health consequences was amongst the group aged 25–39 years (Figure 51).
- The lowest percentage of respondents with the correct knowledge on relevant health consequences was in eastern region (63.5%) compared to other regions.
- Percentage of respondents with the correct knowledge on dietary salt recommendations and relevant health consequences was higher amongst urban residents, those with higher levels of education and household wealth (Figure 52).

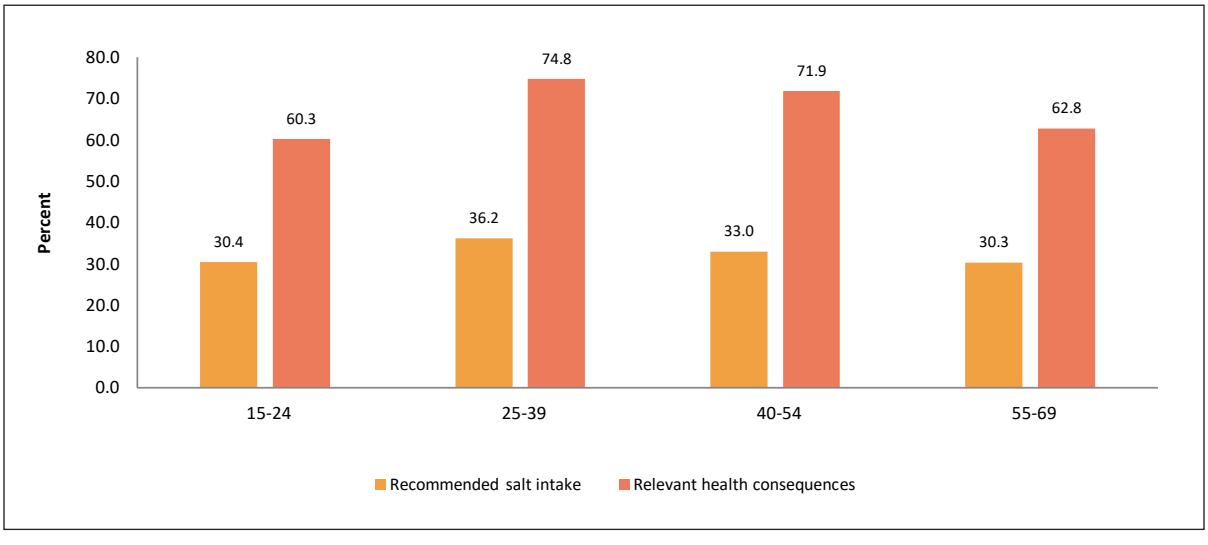


Figure 51: Differential in knowledge on recommended salt intake and relevant health consequences by age group.

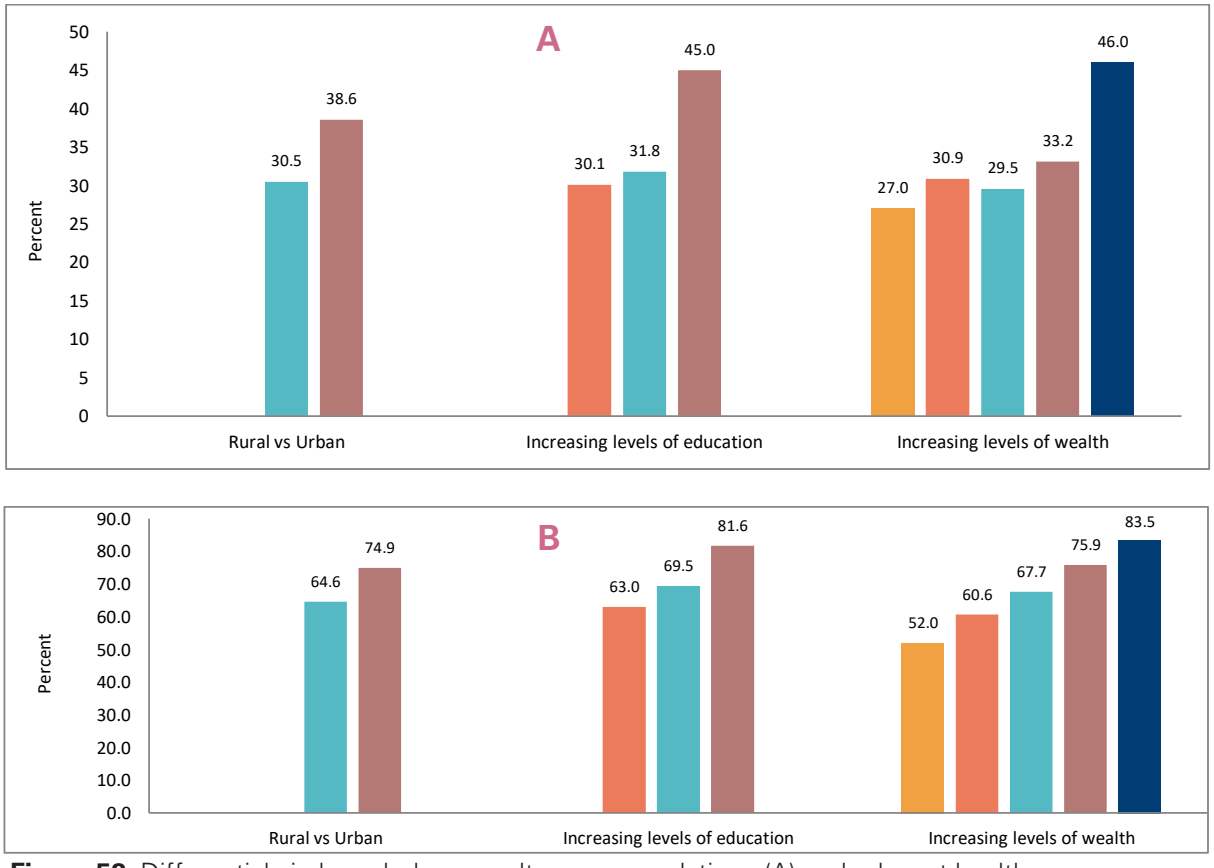


Figure 52: Differentials in knowledge on salt recommendations (A) and relevant health consequences (B) by residence, education and wealth.

7.5 Practices and methods to reduce salt intake

More than half the respondents in Bhutan (68.0%) reported currently taking different methods to control salt intake. Amongst those who are currently doing something to control their salt intake, the most common methods were: avoiding or minimizing consumption of processed foods (81.8%); avoiding eating foods prepared outside of the home (45.1%); and using spices other than salt when cooking (34.4%). Looking at the salt or sodium content on food labels (28.7%) was the least common method to control salt intake.

Patterns by background characteristics (Table 7.9)

- More men reported currently doing something to control their salt intake compared to women (69.1% vs 66.7%).
- The highest percentage of respondents who were currently doing something to control their salt intake was from the age groups 25-39 years and 40-54 years while the lowest was from 15-24 years (Figure 53).
- A notable difference in salt controlling behaviour exists across the region. Western region had the highest percentage (75.0%) of respondents currently trying to reduce salt and the lowest in central region (55.0%).
- Avoiding or minimizing the consumption of processed foods was the most common method used across all background characteristics.
- The percentage of respondents reporting salt reducing behaviours significantly increases with increasing levels of education and household wealth (Table 7.9).

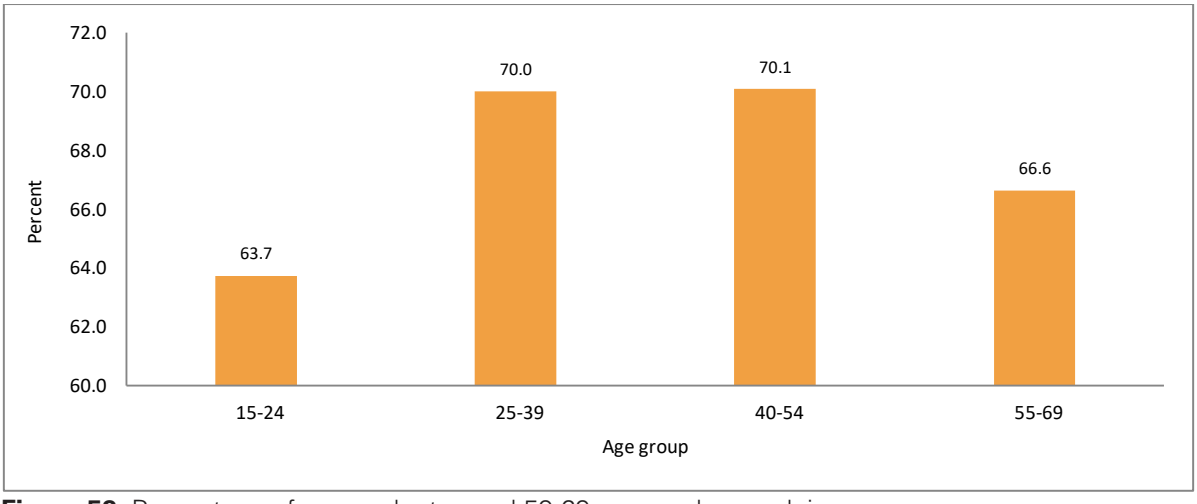


Figure 53: Percentage of respondents aged 59-69 years who are doing something to reduce salt intake.

7.6 Comparative Analysis between 2014 & 2019 STEPS Survey

A significantly higher percentage of respondents reported adding salt or salty sauces often/ or always to foods while eating (11.8% in 2019 vs 7.8% in 2014). Slight increases were also seen in the percentage of respondents who report often or always consuming processed foods (11.7% in 2019 vs 11.1% in 2014). The percentage of respondents reporting often or always consuming salty tea in the household has also significantly reduced from 17.54% in 2014 to 12.7% in 2019. This reduction is most prominent amongst rural populations where the consumption is the highest (16.9% in 2019 vs 21.9% in 2014).

More respondents in 2014 perceive their salt intake to be "far too much or too much" (16.7% in 2014 vs 14.4% in 2019) or "just right" (69.9% in 2014 vs 65.0% in 2019). Awareness of the importance of lowering salt has remained consistently high over the years in Bhutan (95.9% in 2014 vs 96.2% in 2019).

Significant increase in the percentage of respondents who are currently doing something to control salt intake is seen from 2014 to 2019 (40.3% in 2014 vs 68.0% in 2019). However, progress made is differential across household wealth and area of residence. A reduction in the percentage of respondents currently doing something is seen in the lowest two wealth quintiles (lowest quintile: 69.2% in 2014, 60.6% in 2019; second-lowest quintile: 67.6% in 2014 vs 61.7% in 2019) while the highest wealth quintile (46.3% in 2014 vs 82.1% in 2019) saw almost double the percentage of respondents. Similarly, the improvement is minimal amongst rural residents (63.0% in 2014 vs 63.5% in 2019) compared to urban residents (52.5% in 2014 vs 75.3% in 2019).

CHAPTER 8:
PHYSICAL ACTIVITY

Key Findings

Time spent on physical activity

- On average, time spent on physical activity (of moderate-intensity) was 371.3 minutes per day.
- Half the population spent 240 minutes (median) per day on physical activity.

Insufficient levels of physical activity

- Among respondents aged 18-69 years 5.9% of respondents (6.9% in women, and 5.1% in men) have insufficient levels of physical activity defined as <150 minutes of moderate- intensity activity per week.
- Among adolescents, aged 15-17 years, 28.9% of adolescents (36.2% in girls, 22.1% in boys) have insufficient levels of physical activity defined as < 60 minutes of moderate to vigorous intensity per day.
- In terms of percentage contribution to total physical activity, work related contributed the highest contribution (69.0%), followed by travel from and to places (15.5%). Recreational activity contributed only (15.4%) of total physical activity.

Time spent on sedentary activities

- On average respondents (15-69 years) spend 146.1 minutes per day sitting or reclining.
- Half of the population spent 120.0 minutes or more per day (median) sitting or reclining.

Use of outdoor gym

- 19.3% of respondents reported ever using outdoor gyms.
- 60.7% of respondents who used the outdoor gyms reported using it less than once a month in the last 12 months.
- 57.4% of respondents who have never used outdoor gyms reported it not being available.

Insufficient physical activity and sedentary behaviour is a leading risk factor for NCD related mortality and has major implications for the rising prevalence of NCDs[20]. Additionally, it accrues staggering economic cost through increased health-care expenditure and loss of productivity[21].

Participation in regular physical activity and reducing sedentary behaviours has substantial effects on increasing life expectancy and the primary prevention of several chronic diseases such as cardiovascular diseases, diabetes, hypertension, cancer, obesity and mental health at a population level[22,23,24].

The 2025 global physical activity target aims for a 10% reduction in the prevalence of insufficient physical activity relative to 2010[25]. Bhutan has also incorporated it as one of the key targets in its 5-year multisectoral action plan for 2015-2020[8]. Policies to promote physical activity (mass media campaigns combined with community-based education, motivational and environmental programmes aimed at supporting behavioural change) are one of the recommended interventions to prevent and control non-communicable diseases[25].

CurrentWHO physical activity guidelines (Figure 54a) for respondents are expressed in minutes of physical activity throughout the week at two levels of intensities for ease of understanding amongst the public. The underlying standardized measurement to assess both quantity and intensity of physical activity is MET, metabolic equivalent of task, which is assigned to each domain of activity and levels of intensity (which is based on the Global Physical Activity Questionnaire (GPAQ)[26]. An example is given on the calculations for standardized (Figure 54b) conversion between regular minutes of varying intensity-level and MET minutes.

Age group	Current WHO guidelines
5-17 years	- At least 60 minutes of moderate- to vigorous-intensity physical activity daily for children and adolescents.
18 years and above*	- At least 150 minutes of moderate-intensity physical activity per week OR - 75 minutes of vigorous-intensity physical activity per week OR - An equivalent combination of moderate- and vigorous-intensity physical activity which equates to 600 MET-minutes per week

Figure 54a: WHO Physical activity guidelines 2010

Domain	Intensity level and MET value per minute:
	(Example: Activity: 30 minutes of moderate-intensity physical activity and 60 min of vigorous-intensity physical activity in one day. MET value per day: (30 min x 4) METs + (60 min x 8) METs =600 METs /day)
Work	Moderate-intensity = 4 MET per minute Vigorous-intensity = 8 MET per minute
Transport (Cycling and walking)	Moderate-intensity = 4 MET
Recreation	Moderate-intensity = 4 MET per minute Vigorous-intensity = 8 MET per minute

Figure 54b: Metabolic equivalent of task per domain and intensity.

This chapter focuses on indicators related to physical activity and sedentary behaviour. This information will help Bhutan assess trends and progress towards physical activity targets specified in its multisectoral action plan as well as evaluation of current policies and programs in place.

8.1 Time Spent on Physical Activity

Total minutes of physical activity were obtained by inquiring respondents about time spent on physical activity in three key domains (work, transport, and recreational) at a moderate and vigorous-intensity level on a typical day each week. The vigorous intensity minutes were converted into moderate-intensity minutes using a multiplication factor of 2 and 'total' physical activity minutes were expressed as moderate-intensity minutes per day.

On average, Bhutanese aged 15-69 years spent 371.3 minutes of moderate-intensity or equivalent level physical activity per day while the median was 240.0 minutes. In other words, 50% of the population engaged in 240.0 or more minutes of moderate-intensity physical activity each day, which is higher than the level recommended by current WHO recommendations (Table 8.1).

In terms of intensity, the population average minutes per day for vigorous- and moderate-intensity physical activity were 102.8 and 161.5 minutes, respectively. More than half of the population participated in 17.1 minutes of vigorous-intensity physical activity per day. On the other hand, the median for moderate-intensity activity was 111.4 minutes.

Patterns by background characteristics

- Total average minutes of physical activity is consistently higher than the median, which suggest the average is influenced by many respondents that reported very long hours of engagement in physical activity.
- Average total minutes of physical activity were highest amongst the age groups of 40-54 years and 55-69 years at 451.7 min and 405.2 min respectively.
- Although women had lower average total minutes of physical activity than men (331.4 min vs 406.9 min), more women participated in longer hours of moderate-intensity activities (median: 120 min for women vs 102.9 min for men) while more men participated in more vigorous-intensity activities (median: 0 min for women vs 42.9 min for men).
- Participation in physical activity was much higher amongst rural residents than urban residents, as also reflected in significantly higher average total minutes in eastern region compared to central and western regions (Figure 55)
- The higher total minutes of activity amongst the rural population is mostly contributed by higher participation in vigorous-intensity activities (mean: 149.5 min vs 36.6 min).
- Total minutes of physical activity decreased with increasing levels of education and household wealth.

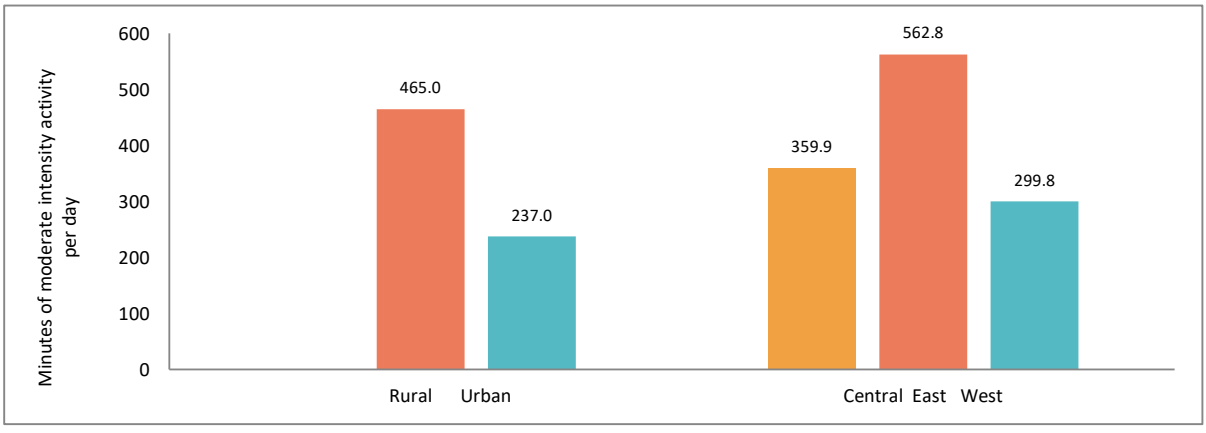


Figure 55: Differentials in total minutes of physical activity by residence and region.

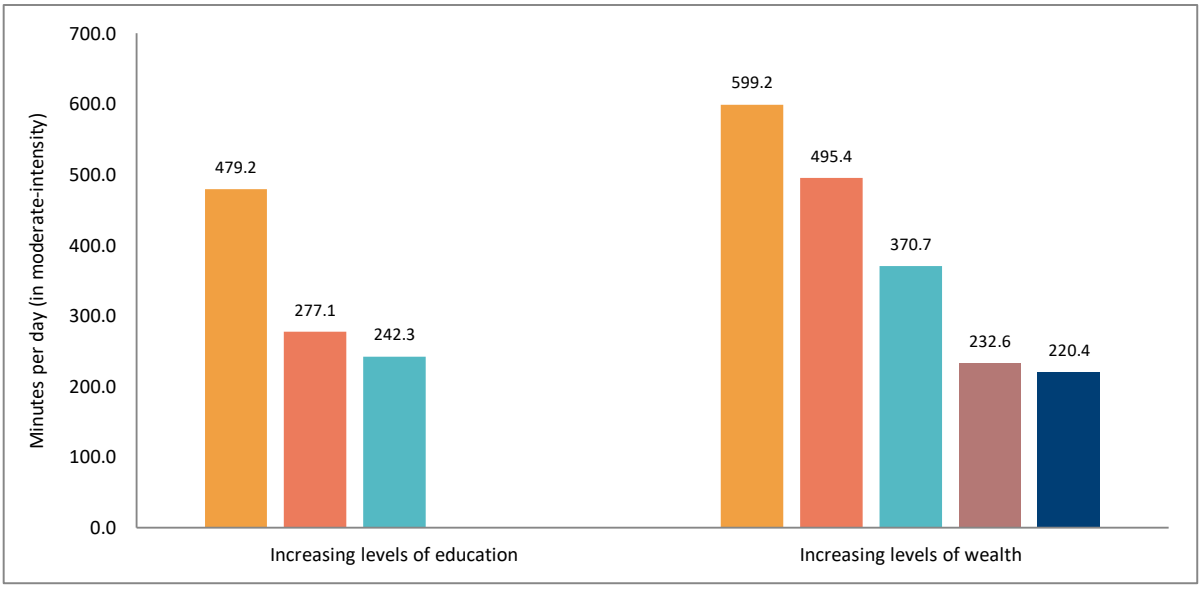


Figure 56: Average total time spent on physical activity by education and wealth.

8.2 Insufficient levels of Physical Activity

Percentage of respondents not meeting WHO recommended physical activity as 6.0% (7.1% women, 5.0% men) in the age group of 18-39 years and 5.7% (6.4% women, 5.1% men) for the age group of 40-69 years (Table 8.2.).

Patterns by background characteristic

- The highest proportion of respondents with insufficient levels of physical activity was in the youngest age group across gender (Figure 57).
- Prevalence of insufficient physical activity is higher amongst urban residents than rural residents (11.6% vs 4.3%). Western region has the highest prevalence of insufficient physical activity.
- The proportion of respondents with primary to middle school level education had the highest prevalence of insufficient level of physical activity.
- The proportion of insufficiently active respondents increased with increasing household wealth (Figure 58).

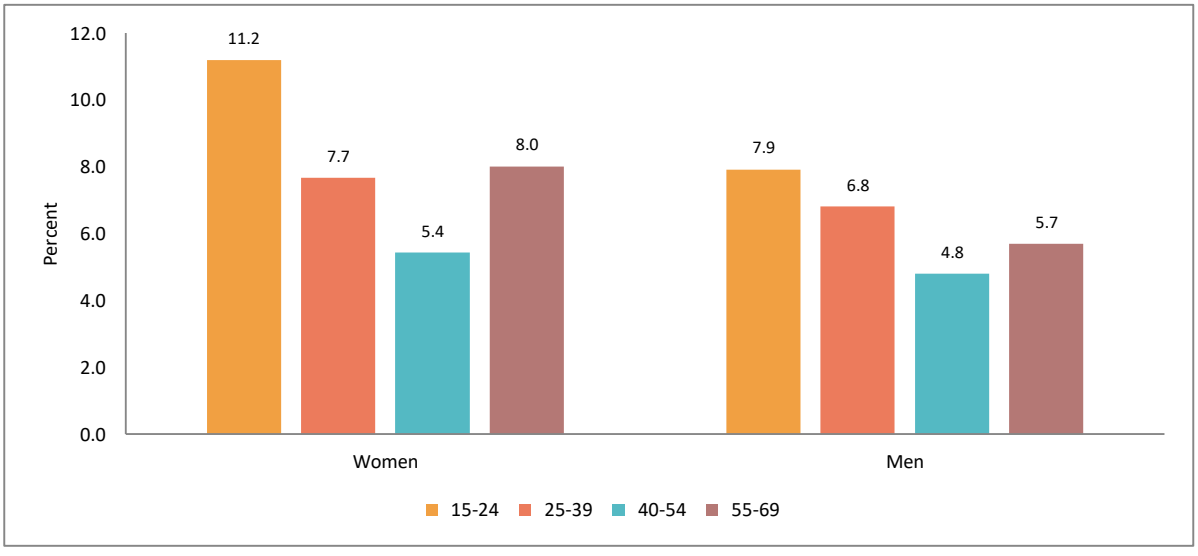


Figure 57: Prevalence of insufficient physical activities by age group amongst women and men aged 15-69 years.

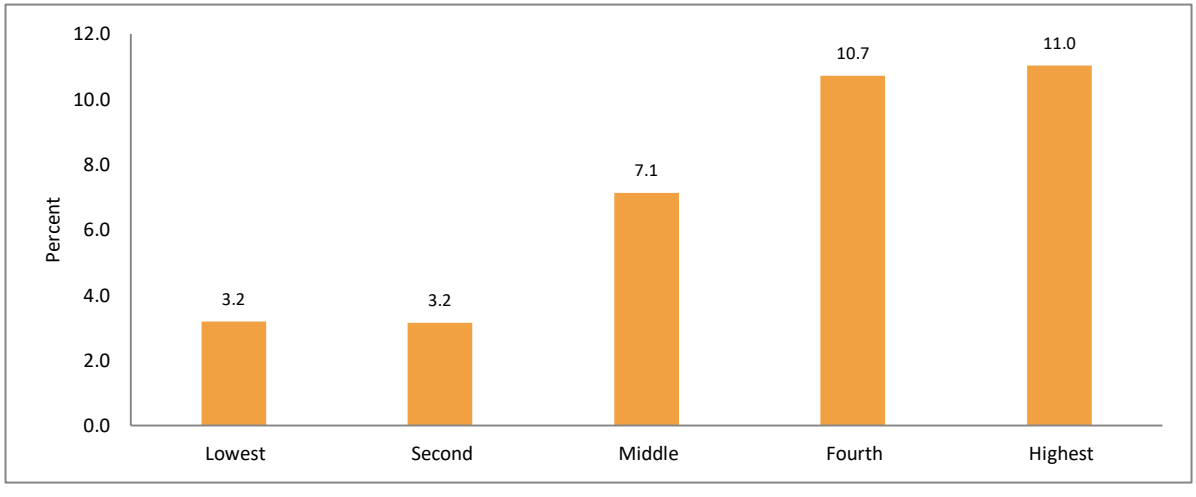


Figure 58: Prevalence of insufficient physical activity amongst respondents aged 15-69 years by wealth quintile.

8.3 Percent contribution to physical activity from each domain

Amongst respondents who engaged in some level of physical activity, 69.0% of the total physical activity minutes came from physical activity at work, 15.5% from travel and only 15.4% were from recreational activities.

Patterns by background characteristics

- A higher proportion of respondents in urban areas engaged in recreational physical activities and travel-related physical activities compared to rural residents (20.9% vs 11.7% for recreational activities; 18.0% vs 13.9% for travel) (Table 8.3). The opposite relationship is seen for physical activity contributed from work-related physical activities (74.5% vs 61.1%).
- The proportional contribution from work to the total physical activity declines with increasing household wealth, while the reverse is true for physical activity from travel and recreational activities. Similar patterns were observed with increasing educational levels.

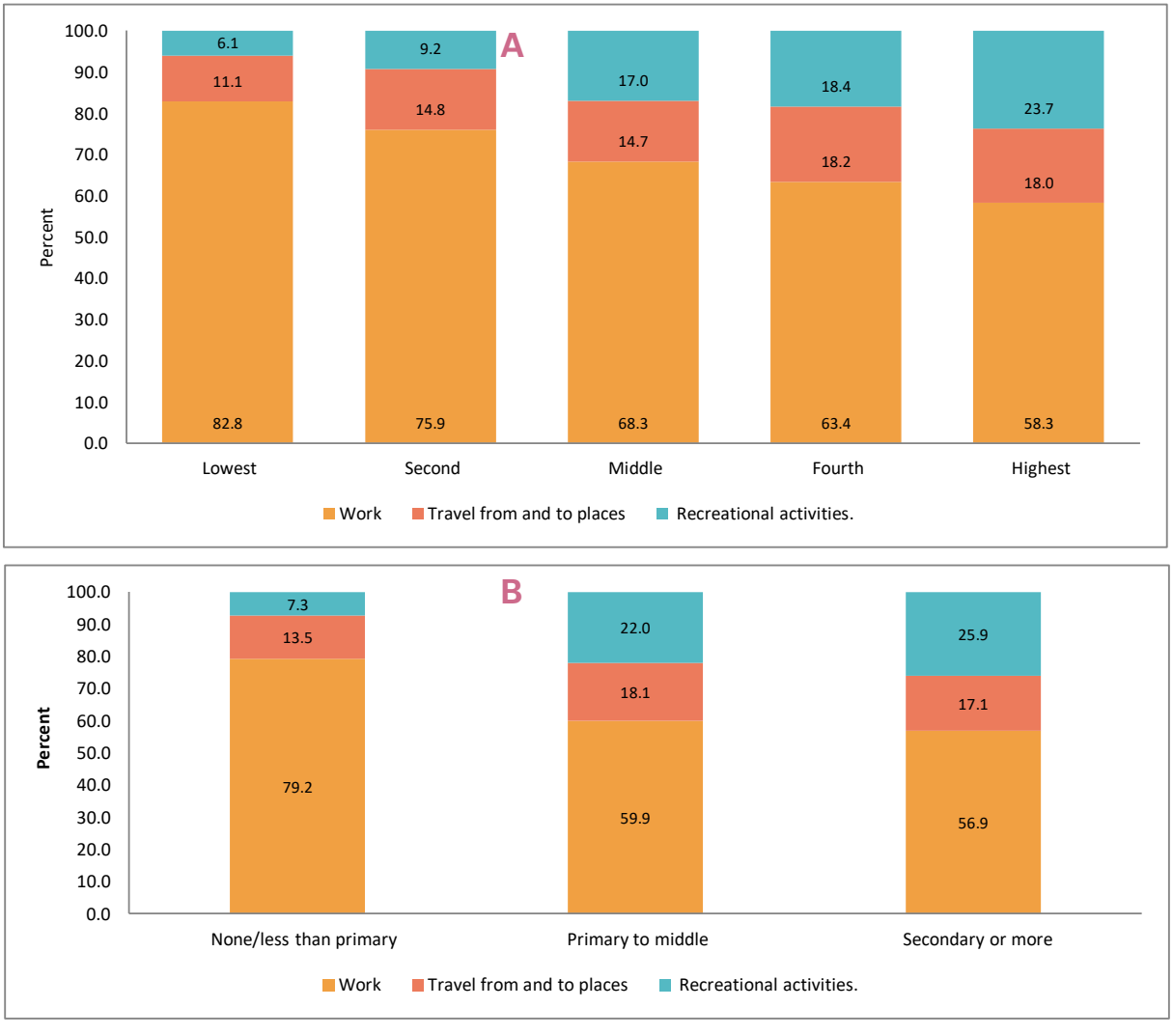


Figure 59: Contribution to total physical activity from each domain by wealth quintile (A) and educational level (B)

8.4 Time spent on Sedentary Activities

On average, respondents spend 146.1 minutes per day on sedentary activities such as sitting or reclining excluding sleep time. Fifty per cent of respondents spent 120.0 minutes or more per day on sedentary activities.

Patterns by background characteristics (Table 8.4):

- Younger respondents, who are of urban residents and with higher levels of education and wealth, are more sedentary (Figure 60).

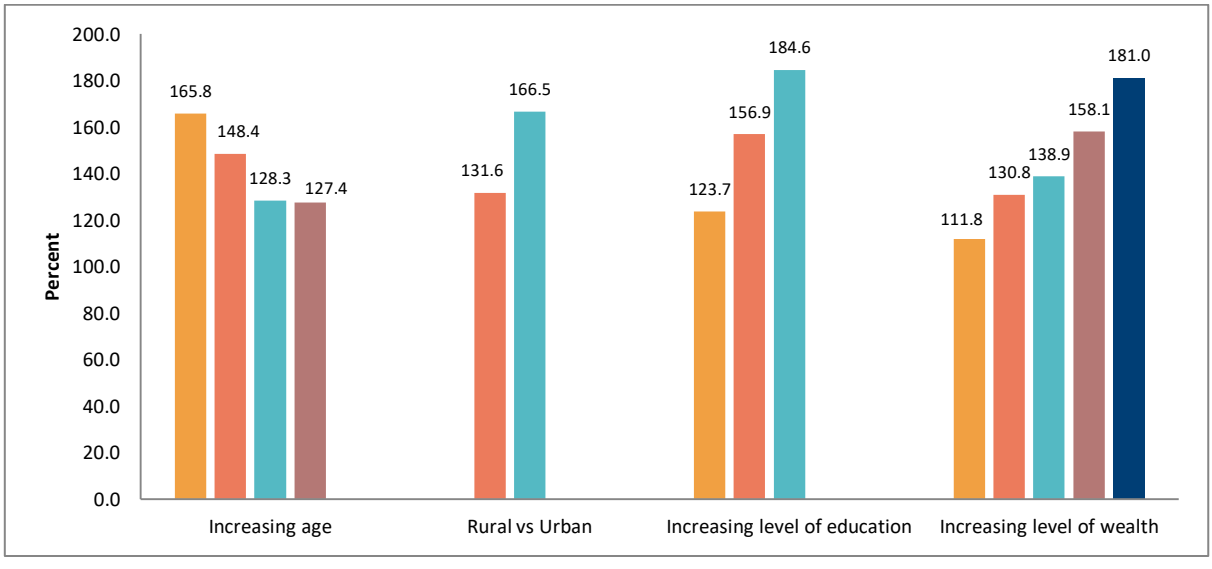


Figure 60: Differentials in average minutes of sedentary activity per day by age, residence, education and wealth.

8.5 Use of Outdoor Gym

Amongst those aged 15-69 years, 19.3% reported having ever used outdoor gyms, of which 60.7% used them less than once a month. For those who reported never having used outdoor gyms, the main reason was "lack of availability" (57.4%); "no time" (21.0%); and "not interested" (15.9%) (Table 8.5).

Patterns by background characteristics:

- A higher proportion of younger respondents have ever used outdoor gyms compared to older respondents. However, more older respondents used it "daily or almost daily "and more younger respondents used it "monthly".
- More respondents who were men and who are urban residents reported ever using outdoor gyms compared to their rural counterparts (25.8% in men vs 12.1% in women; 32.8% in urban residence vs 9.8% in rural residence). More rural respondents reported unavailability of outdoor gyms (73.2%) than urban respondents (28.4%) while more urban respondents cited reasons of "no time" (36.1% vs 12.8%) and "not interested" (30.6% vs 7.8%).
- Respondents with higher levels of education and household wealth were more likely to report having ever used outdoor gyms than their counterparts (Figure 61).
- However, fewer respondents with higher educaton level and higher wealth quintiles reported lack of outdoor gyms as their main reason for not using outdoor gyms and "no time" or "not interested" as the main reasons for not using outdoor gyms.

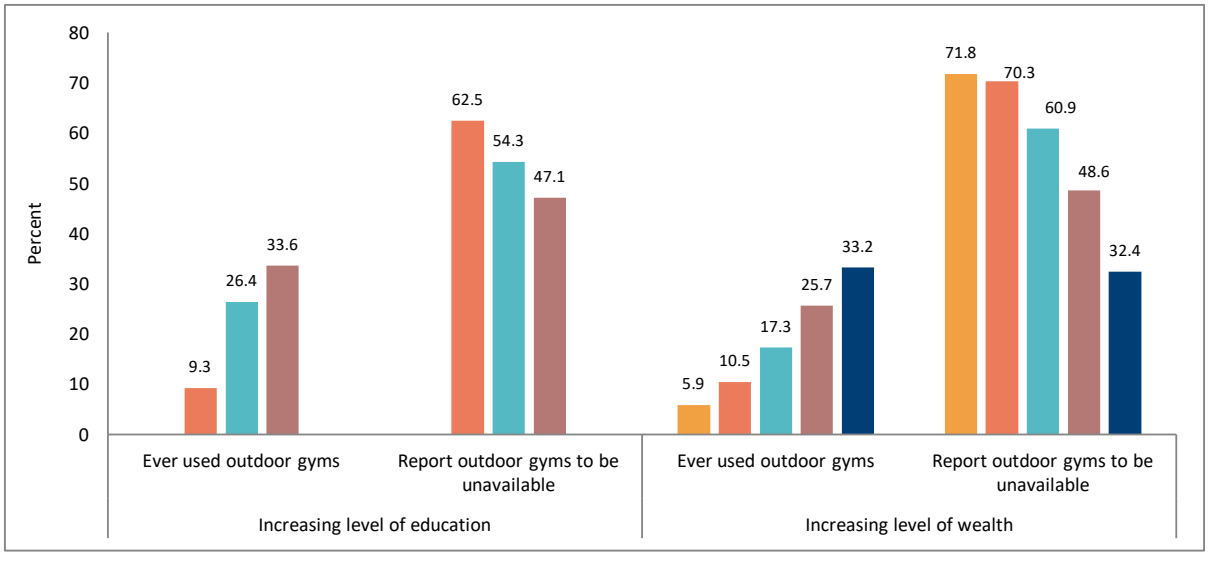


Figure 61 : Differentials in reported use of outdoor gyms vs reported lack of availability of outdoor gyms by education and wealth.

8.6 Comparative Analysis between 2014 & 2019 STEPS Survey

- Average total time spent on physical activity has reduced 377.0 min from 451.4 min in 2014.
- While average time spent on moderate-intensity physical activity reduced to 174.9 min from 248.9min in 2014, the average time spent on vigorous-intensity did not vary 102.8 min vs 103.8 min in 2014.
- Percentage contribution to total physical activity from work remained the same (70.2% from 71.7% in 2014), while contribution from travel reduced to 15.3% from 18.8% in 2014 and the recreational activities increased to 14.5% from 9.5% in 2014 (Figure 62).
- On average, respondents spend 146.1 minutes per day on sedentary activities such as sitting or reclining excluding sleep time. Fifty per cent of respondents spent 120.0 minutes or more per day on sedentary activities.

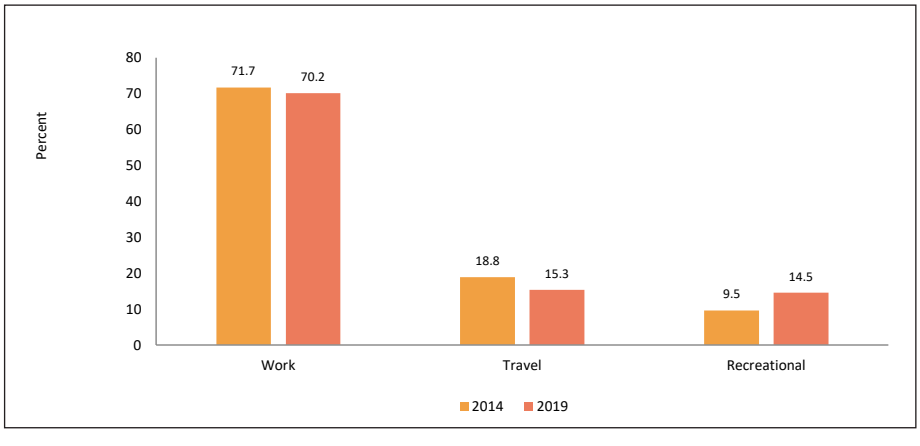


Figure 62: Trends in contribution from different domains between 2014 and 2019.

STEP 2:
PHYSICAL MEASUREMENTS

CHAPTER 9:
ANTHROPOMETRY

Key Findings

Nutritional status:

- Underweight: 3.1% of respondents (3.9% women, 2.3% men)
- Overweight: 33.5% of respondents (35.5% women, 31.7% men)
- Obesity: 11.4% of respondents (14.8% women, 8.4% men)
- Mean population Body-mass Index (BMI): 24.8 kg/m^2 (25.4 kg/m^2 in women, 24.4 kg/m^2 in men)

Waist circumference and waist-hip ratio:

- High waist circumference (>88cm for women, >104 cm for men): 15.9% (28.9% in women, 4.4% in men)
- High waist-hip ratio (>= 0.85 for women, >=0.90 for men): 52.9% (62.4% in women, 44.5% in men)

Disease risk based on body-mass index and waist circumference:

- Increased risk:27.8% (24.1% women, 31.1% men)
- High risk: 11.2% (16.6% women, 6.4% men)
- Very high risk: 8.0% (13.2% women, 3.3% men)

The global epidemic of overweight and obesity is rapidly becoming a major public health problem that paradoxically coexists with under nutrition in many developing countries. The increasing prevalence of overweight and obesity is associated with many chronic diseases including type 2 diabetes mellitus, cardiovascular disease (CVD), stroke, hypertension, non-alcoholic fatty liver disease, and certain cancers, etc. One of the nine voluntary global targets set under the WHO Global Action Plan against NCDs is to halt the rise in diabetes and obesity by 2025. Hence, Bhutan has incorporated it as one of the key targets in its 5-year multisectoral action plan for 2015-2020. The anthropometry measurement is encouraged during the national and global event celebration to keep the population informed on their body mass index.

This chapter summarizes anthropometric parameters that reflect both general obesity (body-mass Index (BMI), and abdominal obesity as measured by waist circumference (WC) and waist-to-hip ratio (WHR) and its associated disease risk. The indicators presented will help Bhutan assess current trends in overall nutrition status and the risk for chronic diseases and metabolic disorders and the effectiveness of current policy and programs.

9.1 Nutritional Status

The mean body mass index of the respondents (15-69 years) was 24.8 kg/m^2. Of all the respondents, 3.1% were underweight (BMI<18.5 kg/m^2) , 33.5% were overweight (BMI 18.5-24.9 kg/m^2) and 11.4% were obese (BMI> =30 kg/m^2) (table 9.1).

Patterns by background characteristics for nutritional status (Table 9.1)

- The younger age group 15-24 years had the highest prevalence of underweight and lowest prevalence of overweight and obesity while it was opposite for the age group 40-54 years (Figure 63).
- Women and respondents residing in urban areas have a significantly higher mean BMI; reflected as a higher prevalence of overweight and obesity compared to their counterparts.
- Across the regions, eastern region had the highest prevalence of mean BMI (25.3 kg/m^2); overweight (35.4 kg/m^2) and obesity (13.3 kg/m^2).
- The prevalence of overweight and obesity increased with increasing household wealth (Figure 64).

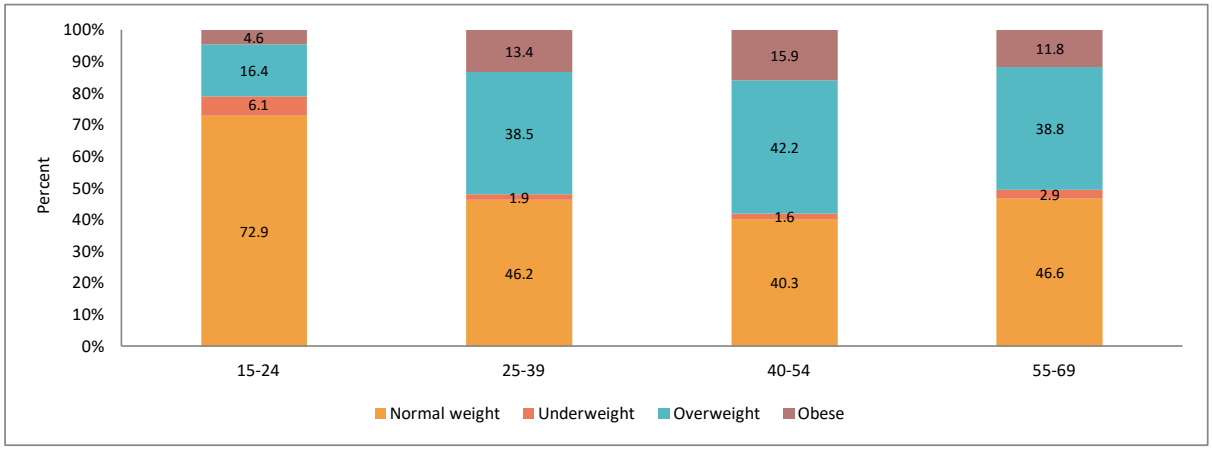


Figure 63: Differentials in nutritional status in the 15-69 age groups.

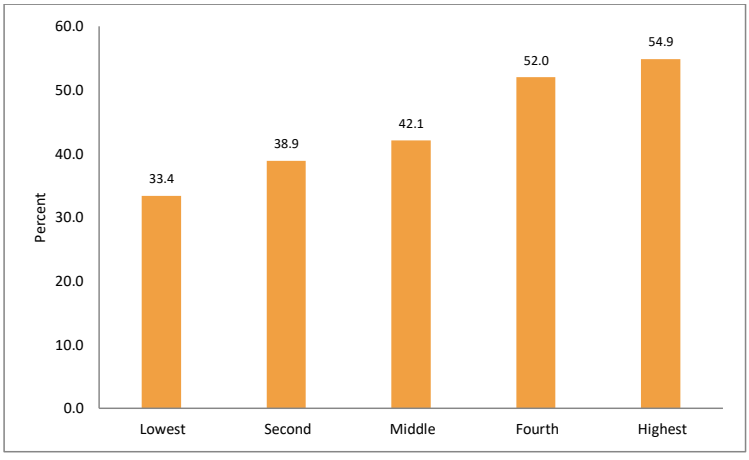


Figure 64: Prevalence of overweight and obesity amongst respondents by wealth quintiles.

9.2 Waist Circumference and Waist-Hip Ratio

While BMI is a population-level measure for overweight and obesity, it does not reflect variation in body fat distribution and lean body mass. Both WC and WHR correlate more closely to abdominal obesity which in-turn is more reflective of metabolic abnormalities such as decreased glucose tolerance, reduced insulin sensitivity and adverse lipid profiles[27]. There is no definite evidence on appropriate universal or population-specific cut-offs for WC or WHR[28] and variations in outcome measures used for reference. For this report, cut-offs commonly attributed to WHO[6,29] (used for discussion below) and South Asian specific cut-offs established by International Diabetes Federation[30] that both have been widely cited across studies were utilized for cross country comparison and trend analysis. Further analysis using validated country or population-specific cut- offs may be required for more sensitive population risk assessment.

The population mean WC of all respondents (15-69 years) was 82.2 cm and mean WHR was 0.88. Around 15.9% of respondents had high WC (>88 cm for women, > 102 cm for men) and 52.9% of respondents had high WHR (Table 9.2.).

Patterns by background characteristics (Figure 65)

- The prevalence of high WC and high WHR increased with increasing age.
- Women residing in the urban areas have significantly higher mean WC and WHR compared to their counterparts.
- The proportion of respondents with high WC declined as education level increased while no apparent relationship was seen for WHR and education.
- Respondents from the highest wealth quintile had significantly higher mean WC compared to the other wealth quintiles and similar patterns were seen for WHR.

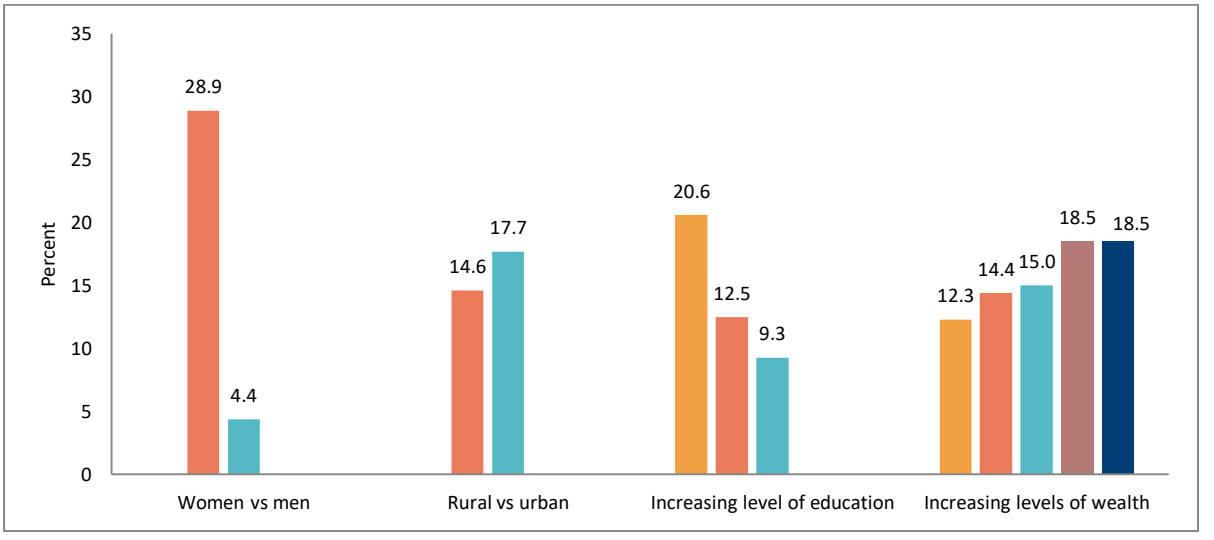


Figure 65: Differentials in the prevalence of high waist circumference by sex, residence, education and wealth.

9.3 Disease risk based on Body-Mass Index and Waist Circumference

Information from BMI and WC can be combined to capture both general obesity and abdominal obesity for the better categorization of risk status relative to individuals who have normal BMI and normal WC (Figure 66).

BMI categories (underweight category excluded)	**Waist Circumference**	
	Men <=102 cm, Women <=88 cm	Men < 102 cm, Women <88 cm
Normal (BMI 18.5-24.9)	Normal	Increased risk
Overweight (BMI 25.0-29.9)	Increased risk	High risk
Obese (BMI>=30.0)	High risk	Very high risk

***Disease risk is relative to normal weight and waist circumference**

Figure 66: Classification of Overweight and Obesity by BMI, Waist Circumference, and Associated Disease Risk*(Disease risk is relative to normal weight and waist circumference) [31]

Overall 53.0% of the respondents had normal BMI and normal WC and therefore categorised under the normal risk group for chronic diseases (Table 9.3). Almost 27.8% were categorised under 'increased risk' group while 11.2% were under the 'high' and 8.0% under the 'very high' risk group.

Patterns by background characteristics

- The age group 40-54 years had the lowest percentage of respondents (39.6%) categorised normal risk and highest percentage of respondents (11.3%) categorised

under the 'very high' risk compared to other age groups.

- Comparatively, men had increased risk to chronic diseases. However, at the time of the survey a higher proportion of women had high and very high risk (Figure 67).
- Higher proportion of respondents with primary to middle school level education (61.1%) had normal risk compared to other level of education.
- The overall disease risk increased with increasing wealth quintile (Figure 68).

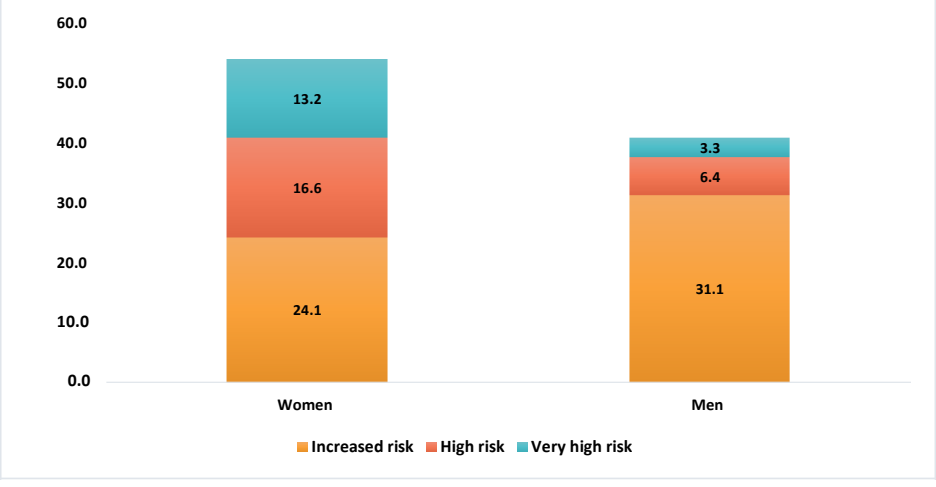


Figure 67: Differentials in disease risk based on BMI and WC by gender.

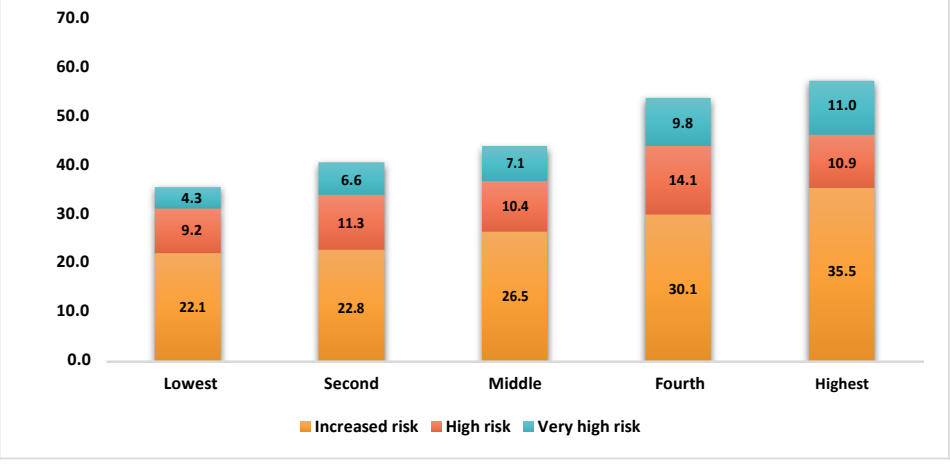


Figure 68: Differentials in disease risk based on BMI and WC by wealth quintiles.

9.4 Comparative Analysis between 2014 & 2019 STEPS Survey

- Population mean BMI has increased to 24.9kg/m^2 in 2019 from 24.0 kg/m^2 in 2014.
- The increase in overweight prevalence (10.9% to 41.0%) and obesity (3.2% to 14.4%) was substantial in the age group of 40-69 years compared to the age group of 18-39 years (Figure 69).
- Underweight prevalence remained low (3.5% in 2019 and 3.4% in 2014), while

overweight and obesity increased to (33.8% in 2019 from 26.7% in 2014) and (11.4% in 2019 from 6.2% in 2014) respectively.

- The proportion of respondents with normal risk decreased between 2014 and 2019 (65.2% vs 52.5%).
- Between 2014 and 2019, substantial increase in high WC was seen among women compared to men (women: 19.4% to 28.2%; men 3.4% to 4.2%).
- The prevalence of high WHR increased for both men (37.0% to 45.0%) and women (47.2% to 62.9%).

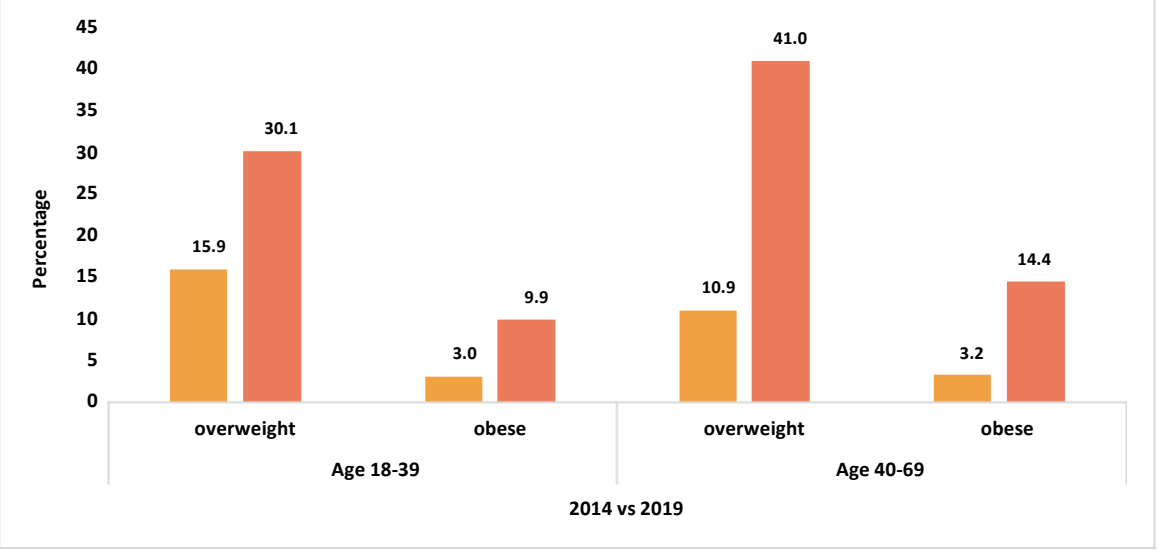


Figure 69: Trends in the prevalence of overweight and obesity by age group amongst respondents between 2014 and 2019.

CHAPTER 10:
RAISED BLOOD PRESSURE

Key Findings

Prevalence of raised blood pressure (BP) among respondents 15-69 years

- Actual measurement: Based on the criteria BP ≥140 mm Hg or diastolic BP ≥90 mm Hg), the prevalence of raised blood pressure was 28.0%. This includes people on medication who were normotensive at the time of the survey.
- Self-reported prevalence: Among respondents who had ever had their BP measured, 16.9% of respondents were ever told by a doctor or health worker that they have raised BP.

Diagnosis and treatment gap among those who have raised BP at the time of the survey

- Unaware of their raised BP : 65.1%
- Not on treatment :20% of the respondents knew about their raised blood pressure but was not on treatment
- On treatment but BP was not controlled : 9.3% of the respondents
- On treatment and BP was controlled : 5.7% of the respondents

Screening coverage, prescription of medications, treatment compliance

- Screening coverage: 83.3% of respondents had their BP checked by a doctor or a health worker
- Prescription of medications: 45.9% of respondents were prescribed with BP medications on being diagnosed with raised BP

Sources of care and medications

- Hospitals and Regional Referral hospitals: 44.5% and 26.9% of respondents reported seeking treatment from the government hospitals or regional referral hospitals respectively while only 2.4% reported seeking care from private facilities.
- Sources of drugs and medications: Majority of the respondents who were prescribed medication reported usually getting them from the hospitals/regional referral hospitals (64.7%) and 17.7% reported getting them from BHU I. Only a small proportion reported getting their medication from the medical shops or pharmacies (0.1%) or other private sources (0.3%)
- Only 1.4% of respondents who were ever told to have raised blood pressure were seeking care from the *Tsip/Neyjom/Lams/Pow* for treatment and advice. 4.2%

respondents reported having herbal medications to control their BP.

Reasons for not taking BP medications among those prescribed with medications

- An estimated 57.3% of respondents reported "medications are not necessary" and "blood pressure got normal" while 10.3% did not take medications for "fear of side effects and lifelong dependence".

Elevated blood pressure or hypertension is a serious medical condition which significantly increases the risk of developing heart, brain, kidney and other diseases. An individual is considered hypertensive if when measured on two consecutive occasions, their systolic blood pressure is ≥140mm Hg and their diastolic blood pressure is ≥ 90mm Hg on both occasions.[1]

Hypertension is often considered a "silent killer" as most people with hypertension are unaware of the problem and the condition may represent no warning signs or symptoms. Several modifiable risk factors may lead to hypertension. These include unhealthy diets (excessive salt consumption, a diet high in saturated fat and trans fats, low intake of fruits and vegetables), physical inactivity, consumption of tobacco and alcohol, and being overweight or obese.[2]

Under the WHO Global Action Plan, one of the nine voluntary targets is to achieve 25% relative reduction in the prevalence of raised blood pressure by 2025 relative to 2010 levels.[3] Bhutan has also targeted a 10% reduction in prevalence of raised blood pressure by 2020 and a 25% reduction by 2025 as per the country's Multisectoral National Action Plan for Prevention and Control of Noncommunicable Diseases.[4]

This chapter focuses on indicators related to blood pressure; assessing prevalence, diagnosis and treatment gaps and care seeking behaviors around blood pressure management. This information will help Bhutan assess trends and progress towards hypertension management as specified in its multisectoral action plan as well as evaluation of current policies and programs in place to reduce population blood pressure levels. These will also guide future policy and programs to manage hypertension at population level.

Blood Pressure Measurement

Blood pressure was measured with a digital, automated blood pressure monitor. Before taking the measurements, participants were asked to sit quietly and rest for 15 minutes with legs uncrossed. Three readings of systolic and diastolic blood pressure were obtained. Participants rested for three minutes between each reading. The mean of the second and third readings was calculated. A universal cuff size was used for all participants. The sphygmomanometer cuff was placed on the left arm while the participant rested their forearm on a table with the palm facing upward. Participants were requested to remove or roll up clothing on the arm. The cuff was kept above the elbow aligning the mark for artery (ART) on the cuff with the brachial artery and making sure the lower edge of the cuff was placed 1.2 to 2.5 cm above the inner side of the elbow joint and with the level of the cuff at the same level as the heart.

Analysis

Hypertension was defined as having systolic blood pressure ≥140 mm Hg and/or diastolic blood pressure ≥ 90 mm Hg during the study, or normotensive at the time of survey but previously diagnosed as having hypertension and currently taking medications to control blood pressure.

Observations which had systolic BP ≥ 40 mm Hg or ≥ 300 mm Hg were and Diastolic BP ≥ 30 mm Hg or ≥ 200 mm Hg were excluded, though none of adults were recorded in this range. In case the third reading was invalid, the average of the first two readings was considered..

10.1 Prevalence of Raised Blood Pressure based on the measurement and medication history

Self-reported prevalence is likely to underestimate the true prevalence as many people may be asymptomatic and not aware of their BP status. Therefore, carrying out measurements in order to determine the actual prevalence is essential to understanding the overall risk of hypertension across the population.

The prevalence of raised blood pressure based on the actual measurement and medication history was 28% (Table 10.1.) On the other hand, a self-reported history of raised blood pressure was 16.9% (Table 10.2.).

Patterns by background characteristics (Table 10.1):

- The prevalence of hypertension increased with age. The prevalence increased substantially after the age 40 (44.1 % prevalence among adults aged 40-54 years). Prevalence of hypertension was significantly higher in men compared to women (31.6% vs 24.0%).
- No significant trends in prevalence of hypertension were observed by education level. The prevalence of hypertension decreased with increase in wealth quintile with 34.3% prevalence in the lowest quintile and 26.7% in the wealthiest quintile.
- Prevalence of hypertension was somewhat similar between rural residents and urban residents (29% in rural vs 26.6% in urban). The prevalence of hypertension was observed to be highest in the eastern region (32.9%) followed by central (28.9%) and western region (25.5%)

10.2 Diagnosis and Treatment gap

Raised blood pressure increases the risk of developing several health complications such as heart disease or stroke. Ensuring early diagnosis and treatment enables respondents to make necessary lifestyle adjustments and reduces the risk of lasting damage.

Diagnosis Gap:

Of all the respondents who were diagnosed to be hypertensive, 65.1 % were unaware of their hypertensive status.

- Percentage of respondents unaware of their raised BP status declined with age.
- More men were unaware of their raised BP status than women (69.0% in men vs 60.7% in women)
- The proportion of respondents who were unaware of their diagnosis status decreased with increased education level, but no consistent trends were seen with household wealth.

Treatment Gap:

Among those with raised blood pressure, only 15% were on treatment while 20%, although aware of their raised blood pressure, were not on treatment. From among those on treatment, 5.7% had controlled blood pressure while 9.3% had uncontrolled blood pressure.

The proportion of respondents on treatment for raised blood pressure increased with increasing age. Likewise, the proportion of respondents whose blood pressure could not be controlled, despite treatment, increased with increasing age (0.0% in 15-24 years to 26.7% in the 55-69 years).

The proportion of respondents who had uncontrolled blood pressure despite treatment was highest among those with low education (12.1%) followed by secondary and higher education (7.1%) and primary and middle secondary education (5.2%).

Quality of Treatment:

Overall, only 5.7 % of respondents on treatment had controlled blood pressure.

10.3 Screening Coverage

Early detection of raised BP through regular screening of healthy individuals is one of the key public health strategies for reduction of the morbidity and mortality associated with raised blood pressure.

Patterns by background characteristics (Table 10.2):

- More women reported ever having their BP measured (87.2 % in women vs 79.9% in men).
- Younger age group (15-24) years were much less likely to report their BP ever measured compared to other age groups (Figure 70)
- The likelihood of ever having BP measured did not vary much by residence types and region. The screening coverage in the central region was highest (86.5%) followed by the eastern (84.2%) and western (81.1%) regions (Table 10.2).
- The likelihood of having had BP measured increased with household wealth (Figure 70).

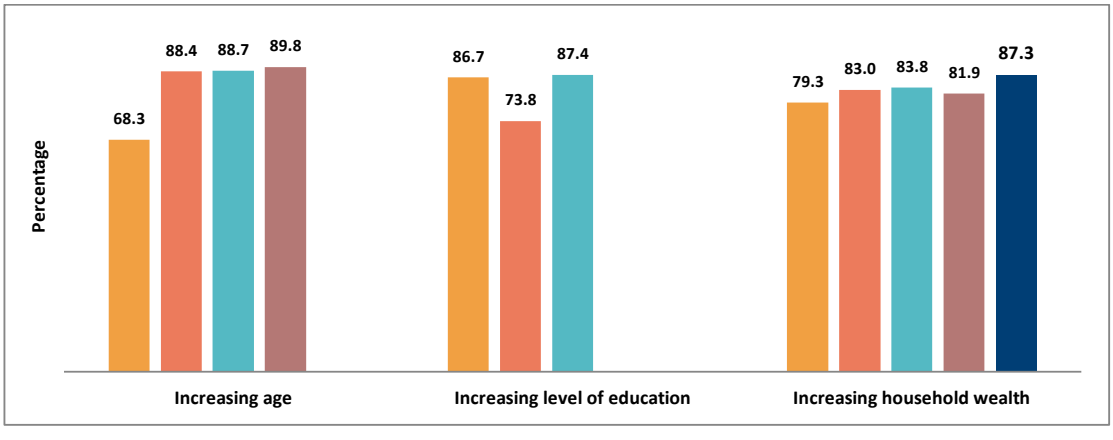


Figure 70: Percentage of respondents who have ever had their blood pressure measured by a doctor or health care provider among respondents.

10.4 Prescription of Medications and Compliance with Treatment

Monitoring of prescription practices and treatment compliance is an important strategy for

evaluating the outcomes at individual and at population level. Hypertension is a chronic risk factor, requiring treatment over the lifetime of a person, which may reduce the compliance with treatment as observed with many other chronic conditions such as HIV/AIDS or tuberculosis.

Overall, about a half of the respondents (45.9%) who were ever told to have raised BP were actually prescribed the medications; 80.6% ever took the medicines and 48.7% reported currently taking the medications, showing poor compliance with the prescriptions.

- The likelihood of being prescribed medications varied inversely with educational level. Likewise, the proportion of the respondents who reported ever taking or currently taking medications varied inversely with household wealth. (Table 10.2)

10.5 Sources of care for treatment, advice and medications

Overall, almost half the respondents sought treatment advice and care from hospitals (44.5 %) and Regional Referral Hospitals (26.9%) while 37.8% sought advice and care from other sources which include BHU-I, BHU-II/sub posts, mobile clinics and private clinics (Table 10.3.).

Majority of respondents approached hospitals (41.0%) and Regional Referral Hospitals (23.7%) for medication. The rest of the respondents reported going to other sources which include BHU-I (17.7%), BHU-II/sub posts (2.4%), mobile clinics (1.2%), private clinics (0.3%), and medical shops/pharmacies for medications (0.1%) (Table 10.4)

The proportion of respondents who visited hospitals for care and medication increased with increasing age with the highest proportion observed in the age group of 55-69 years (52.7%).

Women (48.9%) were more likely to seek treatment/advice from hospitals compared to men (40.6%). Similarly, women (50.4%) were more likely to have ever taken medications compared to men (32.7%) from hospitals.

Respondents in the lowest wealth quintiles (37.5%) were more likely to seek advice and consultation from BHU-II/sub post while those in highest wealth quintiles (5.2%) sought care from hospitals (32.6%) and regional referral hospitals (47.8%).

BHU-II/sub posts were usually visited for consultation and advice for raised BP more frequently in rural areas compared to urban areas (38.0%-rural versus 2.8%- urban) (Figure 71).

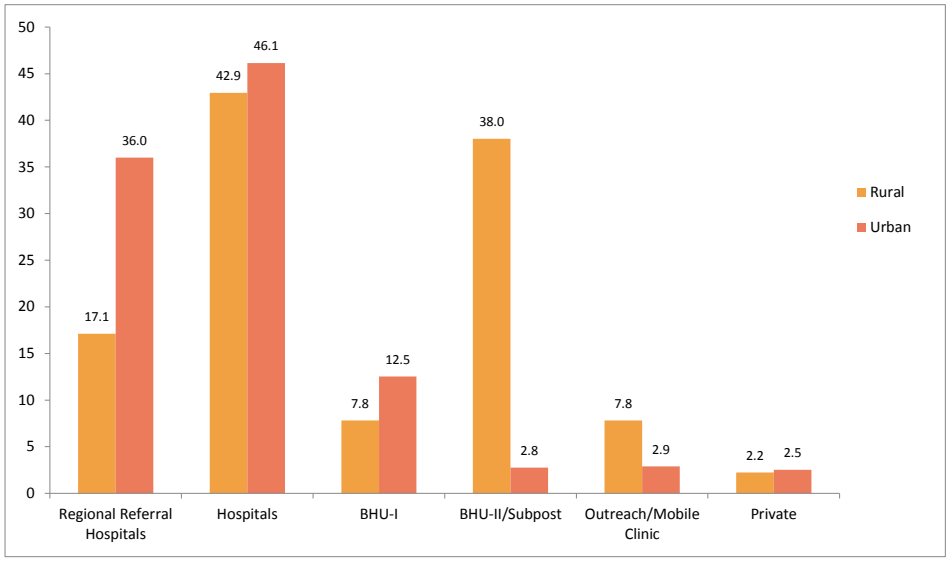


Figure 71: Percentage of respondents who sought treatment care/advise with respect to residence.

10.6 Consultation with Traditional Healers and Use of Herbal Remedies

Of all respondents with raised BP, 1.4% reported visiting local healers for treatment while 4.2% reported taking herbal or traditional remedies for raised blood pressure (Table 10.5).

- The proportion of respondents who reported taking herbal or traditional remedies for their raised blood pressure was highest among the age group (40-55) years (7.1%). Women were more likely to have ever visited a local healer as compared to men (1.9% women vs 0.9% men). However, a higher proportion of men reported currently taking herbal or traditional remedies to control their BP (5.5% men vs 2.8% women)
- Urban residents were more likely to have ever visited a local healer as compared to rural residents. Respondents from the central region were more likely to have visited a local healer (2.3%) and be currently taking herbal or traditional remedies to control their BP (5.7%).
- The proportion of respondents who had ever visited a local healer and currently taking herbal or traditional remedies to control their BP increased directly with household wealth.

10.7 Reasons for not being on treatment

More than half of the respondents (57.3%) who were prescribed medications cited "didn't think the drugs were necessary" and "their blood pressure got normal " and 10.5% cited "fear of side effects/lifetime dependence" as reasons for currently not taking medications/ treatment (Figure 72) (Table 10.6.).

- The highest proportion of respondents who reported "fear of side effects/lifetime dependence" was within the age group of 40-54 years (22.4%).
- A higher proportion of women (60.9 %) gave the reasons, "did not think drugs were necessary" or "their blood pressure was under control" compared to men (54.0%).

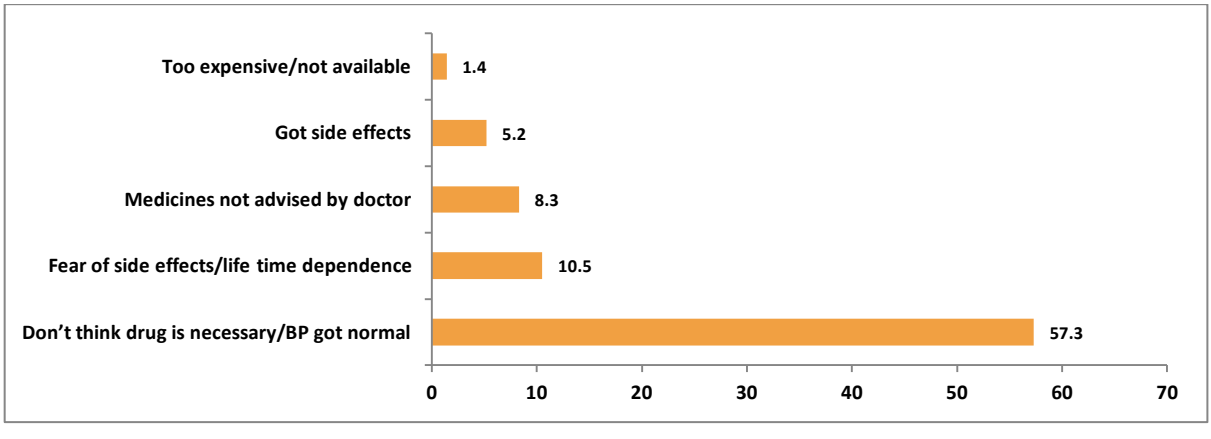


Figure 72: Reasons for which hypertensive respondents reported not taking drugs for raised BP, Bhutan 2019.

10.8 Comparative Analysis between 2014 & 2019 STEPS Survey

- The prevalence of raised blood pressure among respondents decreased to 28% from 35.7% in 2014. The decrease was observed in both men and women (Figure 73).
- The percentage of respondents who reported their blood pressure ever measured by a doctor or health care provider increased to 85.8% from 62.8% in 2014 . This increase was observed in both sexes (Figure 74).

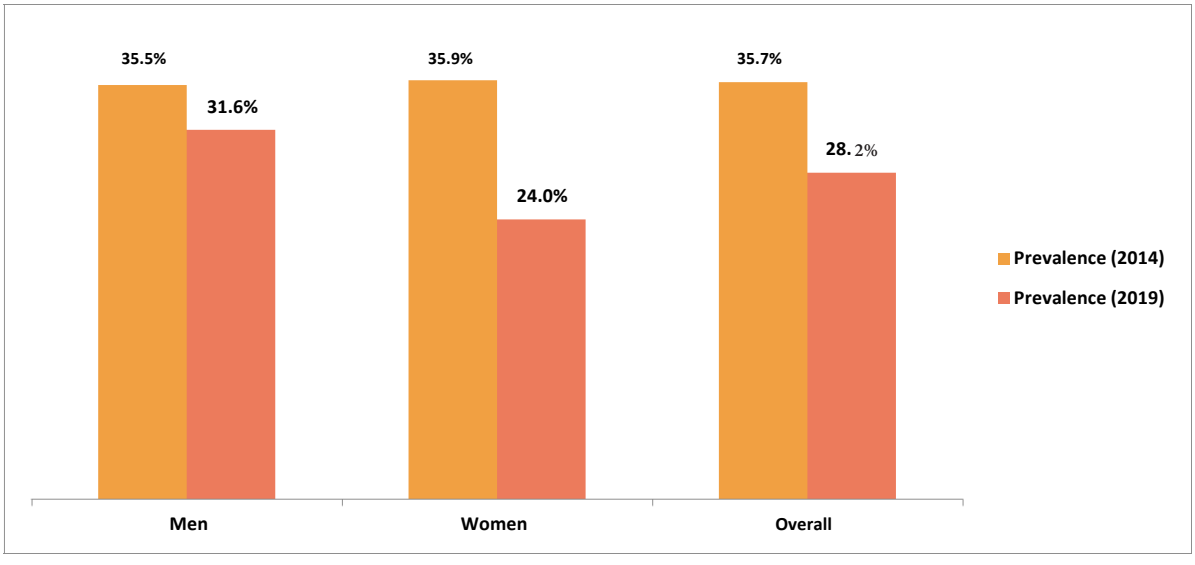


Figure 73: Trends in the prevalence of raised blood pressure by sex.

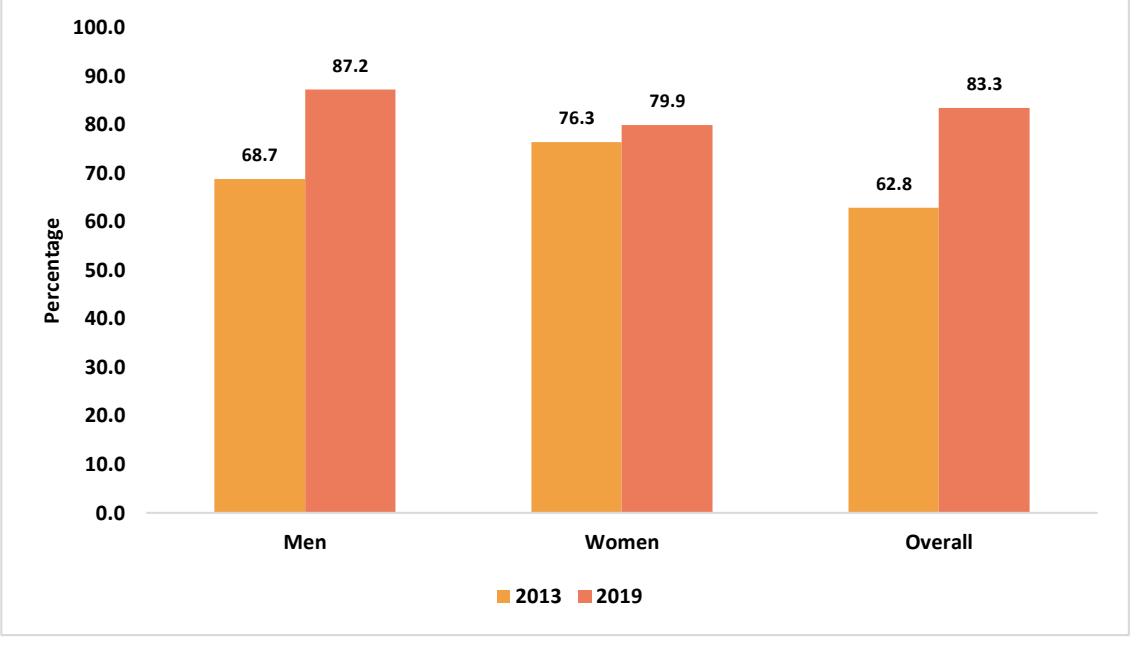


Figure 74: Trends in percentage of respondents aged 15-69 years who have ever had their blood pressure measured by sex.

STEP 3:
BIOCHEMICAL MEASUREMENTS

CHAPTER 11:
RAISED BLOOD SUGAR

Key Findings

Prevalence of raised blood sugar among respondents aged 15-69 years

- Actual measurement: Based on the criteria of fasting blood glucose 126 mg/dl, the prevalence of raised blood sugar was 1.9 %. This includes people on medication whose blood sugar levels were normal at the time of the survey.
- Self-reported prevalence: Among respondents who had ever had their blood sugar measured, 3.3% of respondents were ever told by a doctor or a health care provider that they have raised blood sugar.

Diagnosis and treatment gap among those noted to have raised blood sugar at the time of the survey

- Unaware about their raised blood sugar: 42.7% respondents.
- Not on treatment: 6.3% of respondents knew they had raised blood sugar but were not on treatment.
- On treatment but not controlled: 13.6% of respondents.
- On treatment and controlled: 37.5% of respondents.

Screening coverage, prescription of medications, treatment compliance

- Screening coverage: 34.2% of respondents (48% among 40-69 years) had their blood sugar ever measured by a doctor or a health care provider.
- Prescription of medications: 40% of respondents who were told to have raised blood sugar were prescribed medication to lower their blood sugar levels.
- Treatment compliance: 37.2% of respondents who were told to have raised blood sugar reported ever taking medications to control their blood sugar. 31.3% of respondents reported currently taking their prescribed medications (including insulin) in the two weeks before the survey.

Sources of care and medications

- Sources of care: More than 90% of respondents mentioned hospitals as their usual source of advice and care; Regional Referral Hospitals (38.2%) and hospitals (52.6%). The remaining 20.4% sought care from BHU I (9.6%), BHU II/sub-posts (10.5%), and mobile clinics (0.1%). Only 0.2% of respondents reported 'private facilities' as the source of care.
- Sources of drugs/medication: Majority of the respondents (90%) who were prescribed medication reported usually getting them from hospitals (regional referral hospitals (37%) or other hospitals (53.0%)) while only 15.6% of respondents reported usually getting their medications from BHU I.
- 1% reported seeking care from a local healer like Tsip/Jhakri/Neyjom/Lama/Pow while 2.3% reported having used herbal or traditional remedies to control their raised blood sugar.
- Reasons for not taking medications among those prescribed medication to control their blood sugar: Of the respondents 41.0% reported "Medication not necessary" and "Blood sugar got normal" as the most common reasons for not taking medication.

Diabetes is a chronic metabolic disorder characterized by raised blood sugar or hyperglycemia that occurs when the pancreas does not produce sufficient insulin (Type 1 diabetes) or when the body cannot effectively use the insulin it produces (Type 2 diabetes). Over time, diabetes can damage the heart, blood vessels, eyes, kidneys and nerves. Type 2 diabetes is much more common and affects older people (generally 35 years or older) around the world. The risk for Type 2 diabetes arises increases among obese and physically inactive individuals .1 Smoking also notably increases the risk of diabetes and other cardiovascular diseases1. An individual is considered to be hyperglycemic/diabetic if their fasting blood glucose is > 7 mmol/L or > 126 mg/ml .

Simple lifestyle changes have been shown to be effective in preventing or delaying the onset of type 2 diabetes. These include being physically active (at least 30 minutes of regular, moderate intensity activity on most days), achieving and maintaining a healthy body weight, eating a healthy diet and avoiding tobacco use.

Under the WHO Global Action Plan, two of the nine voluntary targets are directed at global diabetes control. These include attaining a 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases and halting the rise in diabetes and obesity. Bhutan has also targeted a 0% increase (or halt the rise) in prevalence of diabetes by 2025 as per our Multisectoral National Action Plan for Prevention and Control of Noncommunicable Diseases (2015-2020).

This chapter focuses on indicators related to raised blood sugar, assessing prevalence, diagnosis and treatment gaps and care-seeking behaviours around blood sugar and diabetes management. This information will help Bhutan assess trends and progress towards diabetes management as specified in its multisectoral action plan as well as evaluation of current policies and programs in place to reduce population blood sugar levels. These will also guide future policy and programs to manage diabetes at the population level.

Blood Glucose Measurement

Blood glucose was measured in step 3 of the Survey in the whole blood obtained through a finger prick following the guidelines and using the validated equipment (cardio check glucometers and strips) mentioned in the data collection section. Appropriate consent was obtained from the respondents to obtain a blood sample and carry out the biochemical measurements.

Analysis

Hyperglycemia or raised blood sugar was defined as having fasting blood glucose >126 mg / dl during the study, or blood sugar <126 mg/dl but currently taking medications to lower blood sugar based on the previous diagnosis.

Observations which had fasting blood glucose < 18 mg /dl Hg or > 630 mg /dl were excluded, though none of the respondents was recorded in this range in the survey.

11.1 Prevalence of Raised Blood Sugar based on measurement and medications history

Self-reported prevalence is likely to underestimate the true prevalence as many people with raised blood sugar may not have any symptoms in the initial stages and few asymptomatic people get their blood glucose measured regularly. Therefore, carrying out actual measurements of blood sugar levels is essential to determine the actual population-based prevalence (Table 11.1).

Overall, 1.9 % of respondents have raised blood sugar based on measurement, prior diagnosis and medications history. On the other hand, the prevalence of self-reported raised blood sugar was 3.3%.

Patterns by background characteristics

- The prevalence of raised blood sugar increased with age. The prevalence increases substantially after the age of 40 years (4.2 % among 40-54 years and 5.1% among 55-69 years). Prevalence of diabetes was higher in women compared to men (2.1% vs 1.8%).
- The prevalence of raised blood sugar decreased with increase in education level. An estimated 2.4% of respondents with "no education/less than primary education" and 1.5% respondents with more than secondary education were determined to have raised blood sugar.
- The prevalence of raised blood sugar increased with increasing household wealth (1.4% in the lowest group and 3.2% in the wealthiest group).
- Respondents from urban areas were more likely to have raised blood sugar (2.4%) compared to those from rural areas (1.6%). The prevalence of raised blood sugar was highest in the eastern region (2.4%) when compared to other regions of the country.

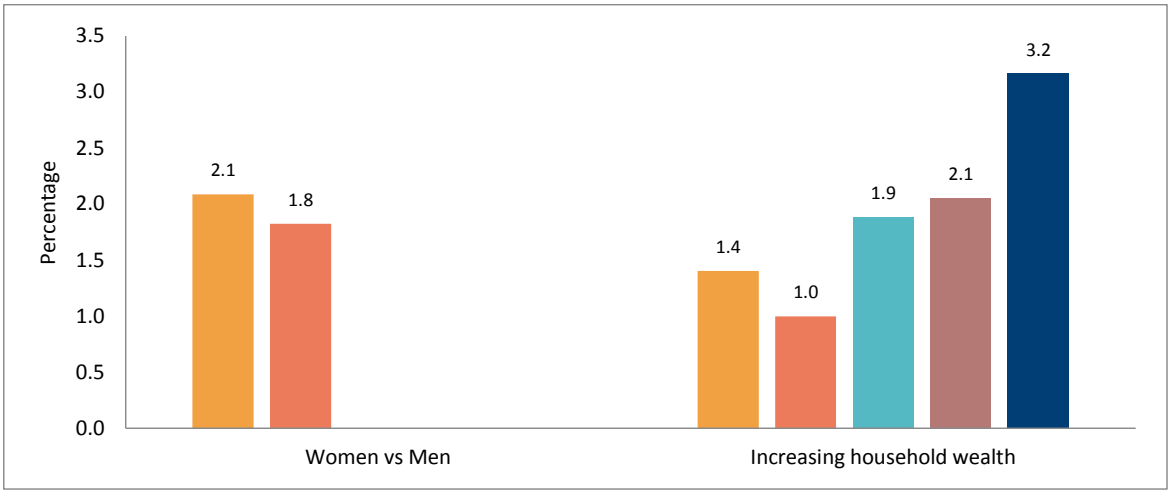


Figure 75: Prevalence of raised blood sugar amongst 15-69 years by gender and household wealth.

11.2 Diagnosis and Treatment Gap

Diabetes increases the risk of developing severe health complications such as heart disease or problems with nerves, blood vessels, eyes and kidneys. Ensuring early diagnosis and initiation of treatment enables respondents to make necessary lifestyle adjustments and reduces the risk of lasting damage. Hence, early detection of diabetes by regular screening, using fasting blood sugar levels (at least annually) is an important secondary prevention strategy to control morbidity and mortality associated with diabetes.

Diagnosis Gap

Of all respondents who were diagnosed to be diabetic, 42.7 % were unaware of the status of their raised blood sugar level. The largest proportion amongst this group (60%) was observed to be between the ages 15-24 years.

- Percentage of diabetic respondents unaware of their raised blood sugar status-declined with age.
- More diabetic men were unaware of their raised blood sugar status than women (58% in men vs 25.5% in women).
- People in rural areas were more likely to be unaware of their blood sugar status compared to urban residents (52.0% in rural vs 33.9% in urban).
- The proportion of respondents who were unaware of their diagnosis status decreased within upper and middle wealth quintiles (Figure 76), but no consistent trends were seen with education level.

Treatment Gap:

Overall, 6.3% of respondents with raised blood sugar were aware of diagnosis but not on treatment.

- The proportion of respondents who are aware of their raised blood sugar but not on treatment was highest in the age group of 40-54 years (12.4%)
- Respondents in rural areas (8%), with higher education level (11.6%) and those with least wealth quintile (16%) were more aware of their raised blood sugar but not on treatment. However, no significant difference was noted for gender and regional interpretations.

Quality of Treatment:

Overall, 13.6% of respondents reported uncontrolled blood sugar level despite treatment while 37.5% reported controlled blood sugar level with treatment.

- Uncontrolled blood sugar level despite treatment was 28.8%, the highest, in the group aged 40-54 years with urban dwellers at 18.2%, those with higher education level at 21.6% and the wealthiest at 27.3%.
- Similarly, controlled blood sugar with treatment was 54.5%, the highest, in the group aged 55-69 years with women at 55.9%, urban residents at 43.2%, primary to middle secondary educated at 66.7%, and middle wealth quintile at 71.8% (Figure 76).

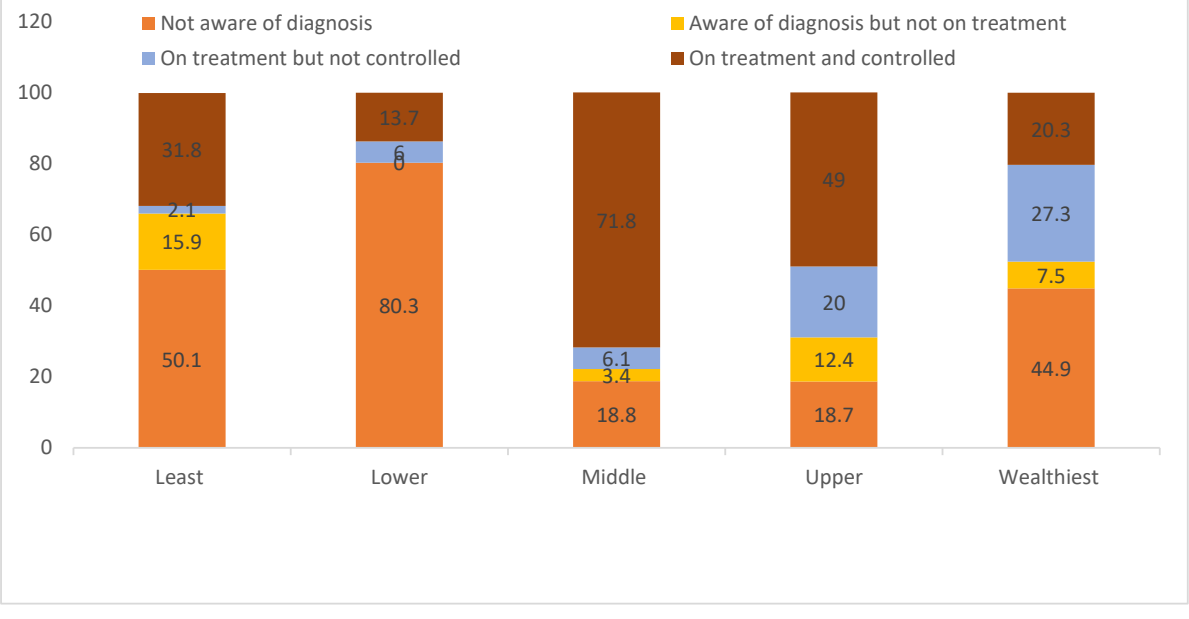


Figure 76: Diabetes diagnosis and treatment gaps among respondents by wealth quintile.

11.3 Screening Coverage

Early detection of raised blood sugar through regular (at least annual) screening of healthy individuals is one of the key public health strategies to reduce morbidity and mortality associated with diabetes. Although data on annual screening was not elicited, 34.2 % respondents (48% in the age group 40-69 years) had their blood sugar ever measured by a doctor or a health care provider (Table 11.3).

Patterns by background characteristics:

- Younger age group 15-24 years were much less likely to report their blood sugar ever measured compared to other age groups.
- Women were more likely to have ever had their blood sugar measured compared to men (39.8% of women vs 29.2% of men)
- The likelihood of ever having blood sugar measured was higher among residents from urban areas (35.9%) compared to those from rural residents (33.0%). The screening coverage in central region was highest (38.5%) followed by western (33.1%) and eastern region (30.8%). Similarly, the likelihood of having had blood sugar measured increased with increased household wealth (Figure 77).

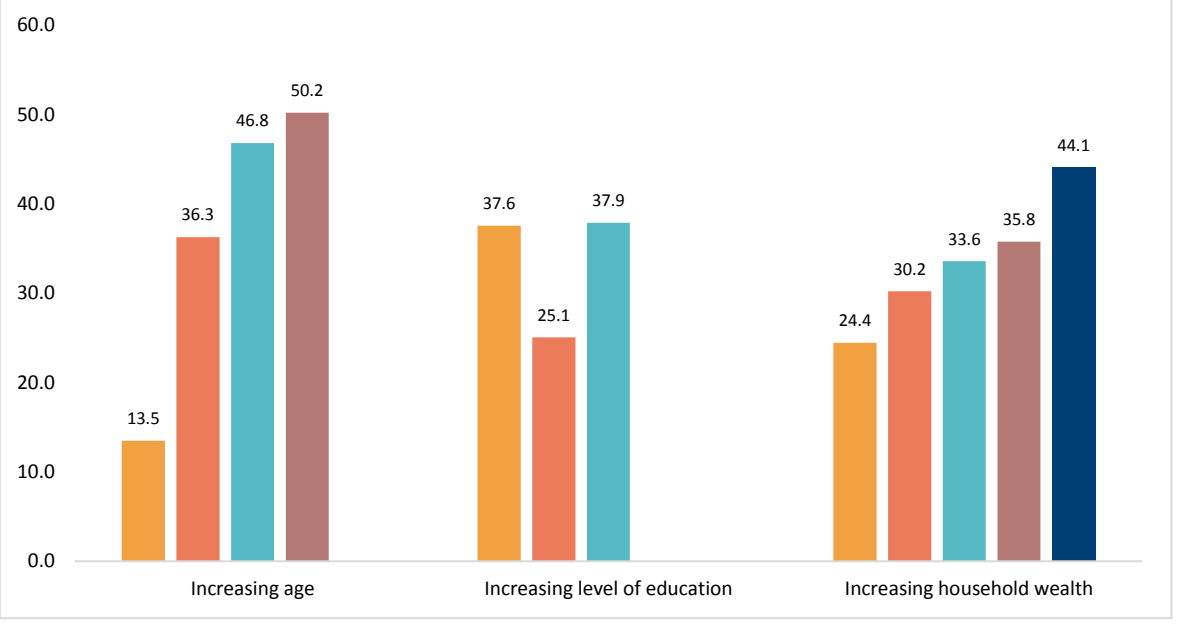


Figure 77: Percentage of respondents who have ever had their blood sugar measured by a doctor or health care provider.

11.4 Prescription of medications and compliance to treatment

Monitoring of prescription practices and treatment compliance is an important strategy for evaluating the outcomes at individual and at the population level. Raised blood sugar is a chronic risk factor, requiring treatment over the lifetime of a person, which may reduce the compliance with treatment as observed with many other chronic conditions such as HIV/AIDS or tuberculosis (Table 11.2).

Among respndents who were ever told to have raised blood sugar, 40.0% were prescribed with medication, of which 37.2% took medicines while 31.3% reported taking medicines currently thus showing fairly good compliance with the prescribed medications.

- Both the likelihood of being prescribed medication and compliance with treatment increased with age being highest in the group aged 40-69 years (69.1% prescribed medication, 63.7% ever taken medication, 57.2% currently taking medication).
- The likelihood of being prescribed medications decreased with increase in education level.

11.5 Sources of care for treatment, advice and medications

Overall a much higher proportion of respondents sought treatment advise and care from hospitals (regional referral hospitals (38.2%) or other hospitals (52.9%)) than from other sources which include BHU I, BHU II/sub posts, mobile clinics and private clinics (Table 11.3). Similarly, for medications, majority of the respondents approached either regional referral hospitals (37%) or other hospitals (53.0%). Only 16% of respondents mentioned going to other sources which include BHU I, BHU II/sub posts, mobile clinics and private clinics, medical shops/pharmacies for medications. (Table 11.4)

Patterns by background characteristics

- While different age groups do not exhibit any significant preferences to a particular health center, women reported receiving more care, treatment and advice from referral hospitals (50.6%) and men received more care and treatment from hospitals (67.0%).
- While it is a known fact that all sugar-lowering drugs are provided free in Bhutan, more men received drugs from hospitals (67%) and BHUI (19%) while more women received medicines from regional hospitals (50.6%).
- Sources of care and household wealth: Majority of respondents, even in the lowest wealth quintiles, sought care from hospitals. The proportion of respondents seeking treatment and advice at BHUI and BHUII/sub posts had a reverse relationship with wealth quintile. Those in the lowest wealth quintiles sought care from hospitals (73.2%) and BHUI (20.7%) while the wealthiest group sought care from referral hospitals (60.9%).
- Source of care and residence: While the western region predominates in providing care/advice and medications, it is the urban residents that avail more from referral hospitals while people in rural areas reported receiving the same services from hospitals and BHUI(Figure 78).

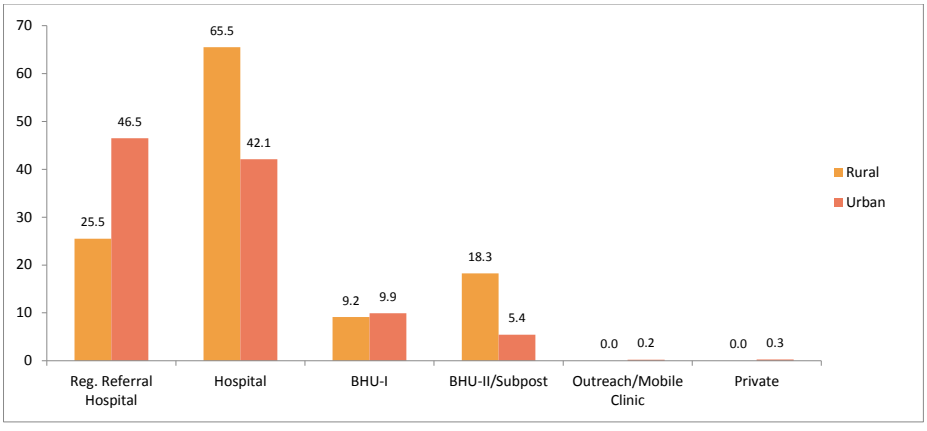


Figure 78: Percentage of respondents (who were ever told to have raised blood sugar) who sought treatment care/advise with respect to residence.

11.6 Consultation with Traditional Healers and use of Herbal Remedies

Only 1% of total respondents with raised blood sugar reported visiting a local healer such as Tsip/Jhakri/Neyjom/Lama/Pow for treatment and advice. An estimated 2.3% reported currently taking herbal or traditional remedies for their raised blood sugar (Table 11.5).

Pattern by background characteristics (Table 11.5):

- Predominantly in the central region, female, urban dwellers, and those from the upper wealth quintile seek care from a traditional healer and currently on traditional medicines for raised blood sugar.

11.7 Reasons for not being on treatment

Around 41% of the respondents cited "didn't think the drugs were necessary" and "their blood sugar got normal" while only 8.1% cited "fear of side effects/ lifetime dependence" as the reasons for not being on treatment.

Patterns by background characteristics (Table 11.6):

- "The highest proportion of respondents who reported "Fear of side effects/lifetime dependence" were within the age group 55-69 years (16.8%).
- Higher proportion of men (63.5%) cited 'did not think drugs were necessary' or 'their blood sugar was under control' compared to women (10.4%)
- No significant variations in reasons for not being on treatment were observed by wealth quintile or education level.

11.8 Comparative Analysis between 2014 & 2019 STEPS Survey

The prevalence of raised blood sugar among respondents remained almost the same between 2014 and 2019 at around 2 % (Figure 79).

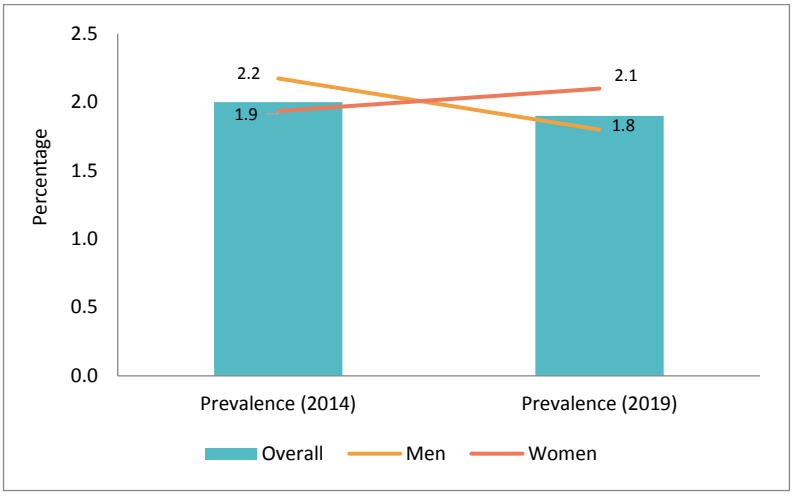


Figure 79: Trends in the prevalence of diabetes by sex in 2019 as compared to 2014.

- There is an overall decrease in the percentage of respondents who were not aware of their raised blood sugar status compared to the 2014 survey, particularly in the younger age group (18-29 years). Additionally, the percentage of respondents who are aware of their raised blood sugar status and are not on treatment has significantly decreased (Figure 80).

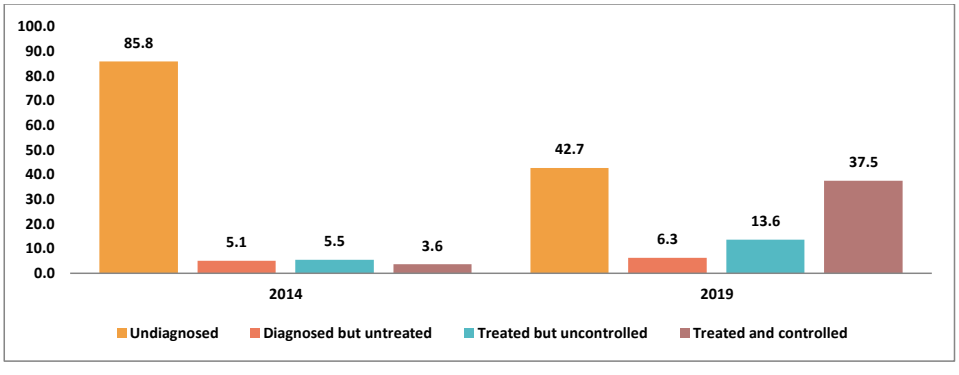


Figure 80: Respondents who are aware of their raised blood sugar status and are on treatment by age group

- The percentage of respondents who reported measurement of their blood sugar levels by a doctor or health care provider increased to 34.2% from 15.4% in 2014. This increase was observed across all age groups and in both sexes (Figure 81).

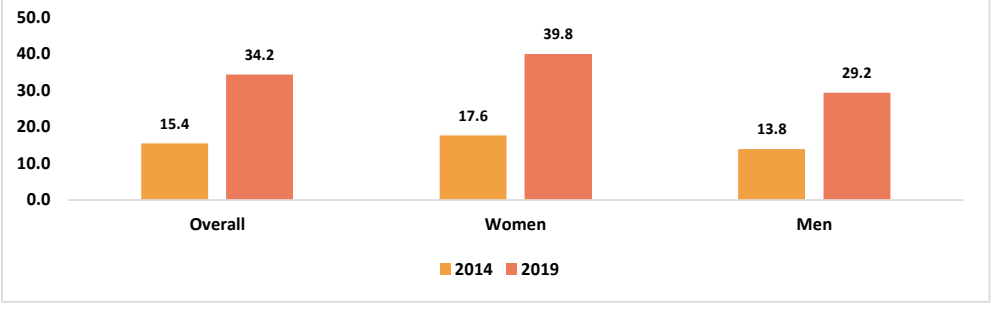


Figure 81: Trend in percentage of those aged 15-69 years who have ever had their blood sugar measured overall and by sex in 2019 as compared to 2014.

CHAPTER 12:
RAISED BLOOD CHOLESTEROL

Key Findings

Prevalence of raised blood cholesterol among the age group 15-69 years

- Prevalence of raised blood cholesterol was 11%.
- An estimated 20.7% of respondents were ever told by a doctor or health care provider that they have raised blood cholesterol level.

Diagnosis and treatment gap among those noted to have raised blood cholesterol

- Unaware about their raised Blood cholesterol: 90.5% respondents
- Not on treatment: 3.3% of the respondents knew they had raised blood cholesterol but were not on treatment.
- On treatment but not controlled: 0.7% respondents.
- On treatment and controlled: 5.1% respondents.

Screening coverage, prescription of medications, treatment and compliance

- Screening coverage: 9.9% of respondents (14.1% among 40-69 years old) had their blood cholesterol ever measured by a doctor or a health care provider.
- 58.9% of the respondents who were told to have raised blood cholesterol were diagnosed in the past 12 months.
- Treatment compliance: 20.3% respondents who were told to have raised blood cholesterol reported currently taking their prescribed medications to control their cholesterol in the two weeks prior to the survey.

Total cholesterol is a combination of both good (HDL) and bad (Non-HDL) cholesterol. An individual is considered to have raised total cholesterol levels if, when measured through capillary blood, the individual's concentration of total cholesterol level is ≥ 190 mg/dl[32].

Considering, that high cholesterol is a significant biochemical risk factor for CVD, controlling its prevalence will contribute to attainment of goal of 25% reduction in premature mortality from NCDs included in the multisectoral national action plan.

This chapter focuses on indicators related to raised blood cholesterol, assessing prevalence, diagnosis and treatment gaps and care-seeking behaviours around blood cholesterol management. This information will help Bhutan assess its current policies and programs in place to reduce population blood cholesterol levels.

Blood Cholesterol Measurement

A biochemical assessment for total cholesterol was performed through dry chemistry using CardioCheck PA Analyser as part of the STEP 3 of the survey.

Analysis

Raised blood cholesterol was defined as having a lipid profile (total cholesterol, HDL and triglycerides) of ≥ 190 mg/dl during the study, or normal cholesterol levels at the time of survey but previously diagnosed as having raised blood cholesterol and currently taking medications to control blood cholesterol.

Observations which had cholesterol levels ≥75 mg/dl or ≥ 470mg/dl were excluded, though none of adults were recorded in this range.

12.1 Prevalence of Raised Blood Cholesterol based on the measurement and medication history

Overall 11.0% of respondents were measured to have raised blood cholesterol based on both measurement and medications history. The self-reported prevalence was higher (20.7%) compared to those who got their blood cholesterol measured (10.0%) (Table 12.1)

Patterns by background characteristics:

- The prevalence of raised cholesterol increased with age. The prevalence increased substantially after 40 years. Prevalence of raised cholesterol was higher in women compared to men (12.3% vs 9.9%).
- The prevalence of raised cholesterol was observed to be higher among respondents with "no/ less than primary level" education. However, no significant trends were observed with respect to household wealth.
- Adults from rural areas were more likely to have raised cholesterol compared to those from urban areas (11.8% in rural vs 9.8% in urban). Across the regions, the prevalence of raised cholesterol was observed to be higher in the eastern (14.4%) followed by central (12.6%) and west (8.7%) region.

12.2 Diagnosis and Treatment Gap

Diagnosis Gap

Among those with raised blood cholesterol, 90.5% were not aware of their cholesterol level, of which 91.8% were women and 89.3% were men (Figure 82).

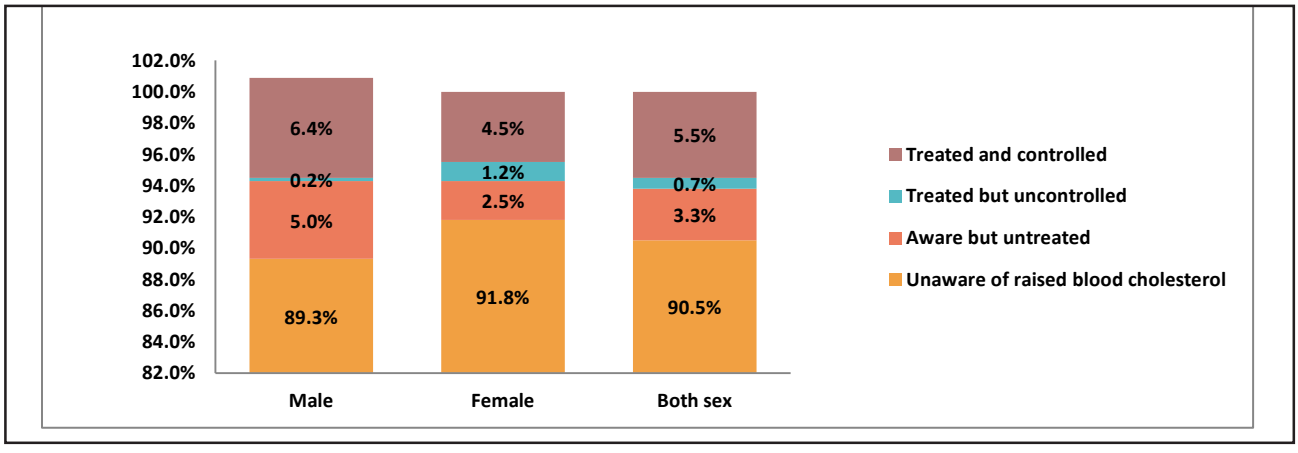


Figure 82: Diagnosis and Treatment gaps among respondents aged 15-69 years by sex.

Treatment Gap

Overall 3.3% of the respondents with raised cholesterol at the time of survey was aware of diagnosis but were not on medications. Of the remaining respondents with raised blood cholesterol who reported to be on treatment, 0.7% respondents still had raised blood cholesterol (uncontrolled) at the time of survey and 5.1% of respondents were on treatment and had controlled cholesterol level. Control of the cholesterol with treatment was seen better in older age, which was higher in men (6.2%) compared to women (4.0%).

12.3 Screening Coverage

Screening regularly (at least annually) for raised blood cholesterol in healthy individuals is one of the key public health strategies to reduce morbidity and mortality associated with high cholesterol. This survey reported that 9.9 % of respondents had their blood cholesterol ever measured by a doctor or a health care provider

12.4 Prescription of medications and compliance with treatment

Of the 58.9% diagnosed with raised cholesterol level in the past 12 months, 20.3% reported taking medications currently. The socio-demographic differentials in the prescription of medications and compliance with treatment are not being described here due to small sample sizes (Table 12.2).

12.5 Comparative Analysis between 2014 & 2019 STEPS Survey

The prevalence of raised blood cholesterol decreased to 11.1% in 2019 from 12.5% in 2014.

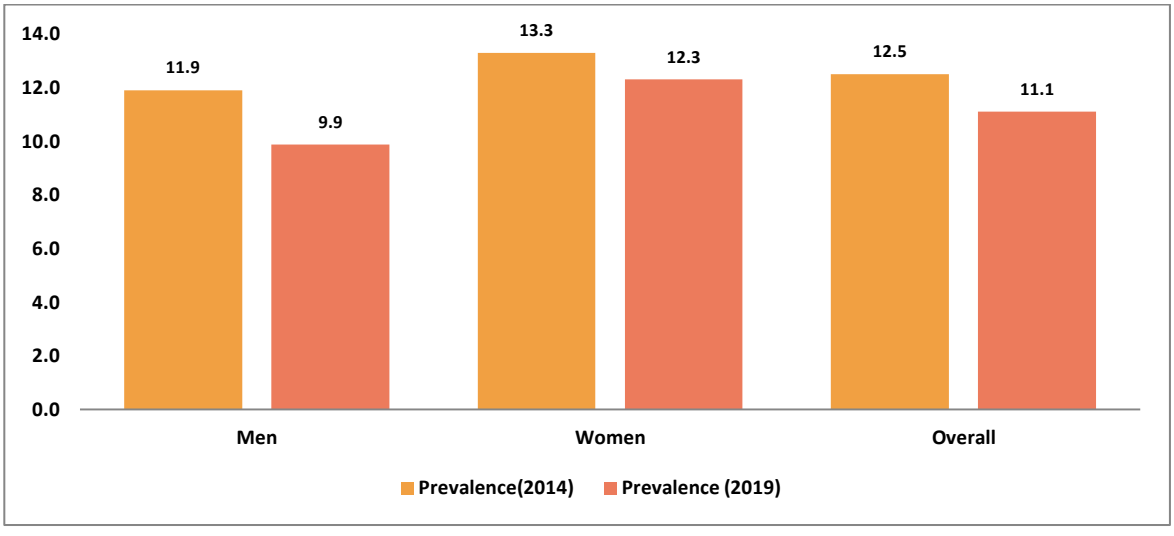


Figure 83: Trends in the prevalence of raised blood cholesterol by sex

- The proportion of respondents who had ever had their blood cholesterol level measured increased to 9.9% from 3.2% in 2014 (Figure 84).

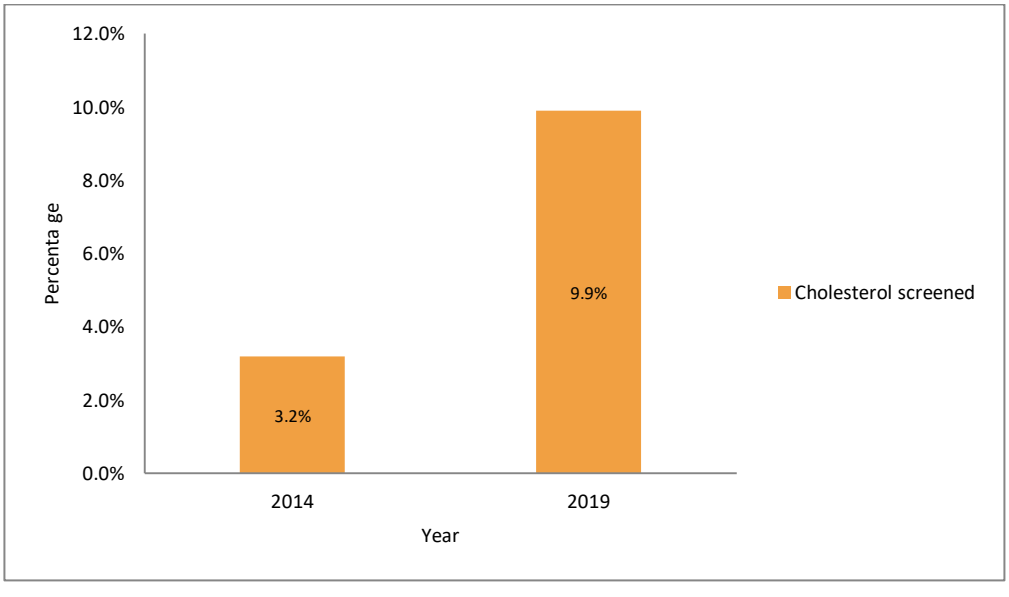


Figure 84: Trends in screening coverage for raised cholesterol.

EXPANDED MODULES

CHAPTER 13:
CARDIOVASCULAR DISEASES

Key Findings

History of cardiovascular disease

- About 3.4% of respondents from the group aged 15-69 years and 3.3% from the group aged 40-69 years reported ever having a heart attack or chest pain from heart disease or stroke.

Predicted 10-year cardiovascular disease risk

- About 3.7% of respondents aged 40-69 years have a predicted 30% or more chance of having a fatal or nonfatal major cardiovascular event (myocardial infarction or stroke) in the next 10 years based on WHO/ISH risk prediction charts.

Lifestyle advice

- The most common lifestyle advice given by health workers was "eat at least five servings of fruit and/or vegetables each day" (56.9%), followed by "reduce fat in your diet" (55.1%) and "reduce salt in your diet" (51.8%).

Cardiovascular diseases (CVDs) are the number one cause of death globally, taking an estimated 17.9 million lives each year. CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions. Individuals at risk of CVD may demonstrate raised blood pressure, glucose, and lipids as well as overweight and obesity. These can all be easily measured in all health care facilities.[33]

In Bhutan, the WHO/ISH chart is used to screen the risk of the clients; following which necessary steps are taken either for preventive or curative services. Bhutan is committed to reducing CVDs burden and has included the 25% relative reduction in premature death from NCDs as one of the targets in its five-year multisectoral action plan for 2015-2020.

This chapter describes the self-reported history of cardiovascular diseases and lifestyle advice received from doctors or health workers. Additionally, 10-year cardiovascular disease risk is predicted for the respondents. This information will help to assess the trends and progress towards the reduction of CVDs burden as well as the evaluation of current policies and programs in place.

13.1 History of Cardiovascular Disease

Overall 3.4% of respondents aged 15-69 years reported ever having the risk of a CVD event, including heart attacks or chest pain from heart disease or a stroke (Table 13.1). Amongst the high-risk age group (i.e. 40 years and above), 3.3% reported ever having a heart attack or chest pain. However, this data may underestimate the true prevalence of heart attacks/ stroke due to survivor bias (people who died from fatal cardiovascular events were excluded from the survey), recall bias, and failure to take into account asymptomatic or undiagnosed non-fatal events

Patterns by background characteristics

- For the repondents within the age group of 40-69 years, the prevalence of 30% or more CVD risk did not differ significantly with sex, residence, region, level of education and household wealth (Table 3.2).

13.2 Predicted 10-year cardiovascular disease risk

The 10-year cardiovascular disease risk at population-level was estimated using WHO/ISH risk prediction chart (2007) for South-East Asia (SEAR D)[34]. To calculate predicted risk for fatal or non- fatal CVD event (myocardial infarction or stroke), respondents' information on age, sex, systolic blood pressure, total cholesterol and the presence or absence of type 2 diabetes are utilized and combined[10].

Amongst respondents aged 40-69 years, 3.7% have a predicted 10-year CVD risk of 30% or more.

Patterns by background characteristics

- Percentage of respondents aged 40-69 years with 30% or more CVD risk did not differ significantly by sex, residence, region, level of education and household wealth (Table 13.2).

13.3 Lifestyle Advice

An individual-based intervention involving lifestyle advice from doctors and health workers to modify key risk behaviour among high-risk individuals have an important place in overall NCD prevention and control along with population-based measured targeted at the whole population.

Amongst those who visited a doctor or health worker in the past 12 months, the three most common lifestyle advice that respondents received were: "eat at least five servings of fruit and/or vegetables each day" (56.9%), "reduce fat in your diet" (55.1%) and "reduce salt in your diet" (51.8%) (Table 13.3) (Figure 85) Advice on tobacco cessation or prevention of initiation was the least commonly reported (33.8%) followed by advice for reducing sugary beverages (36.9%).

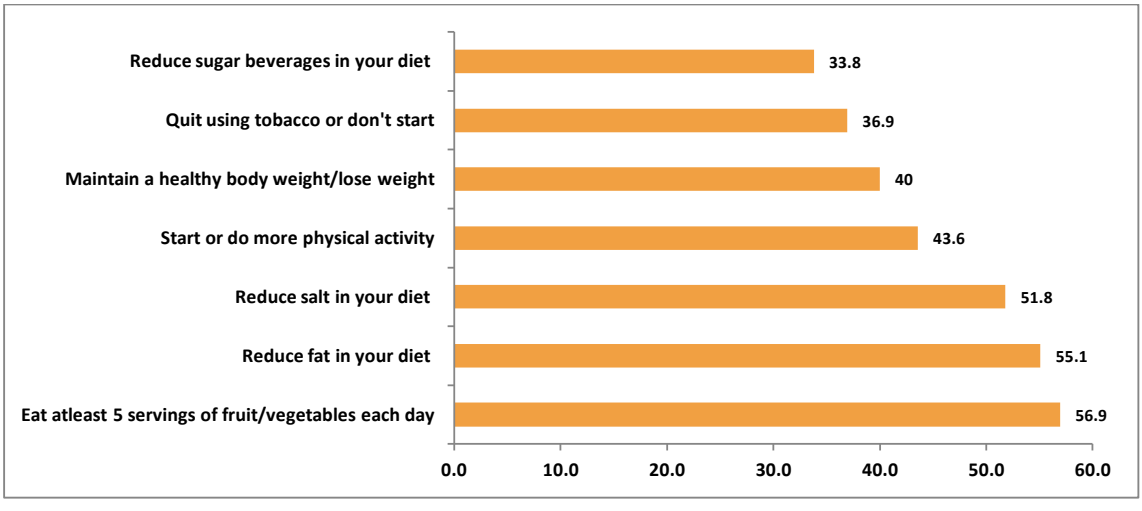
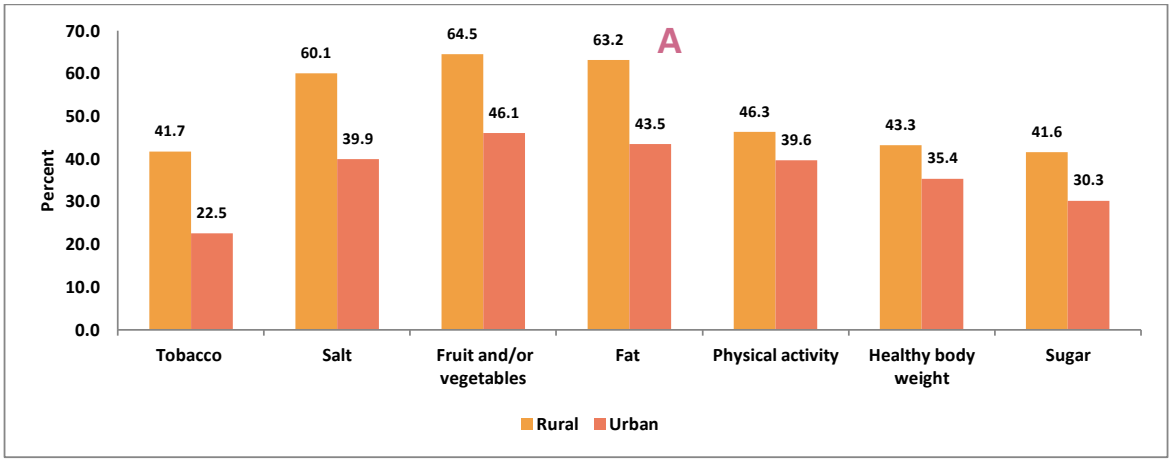
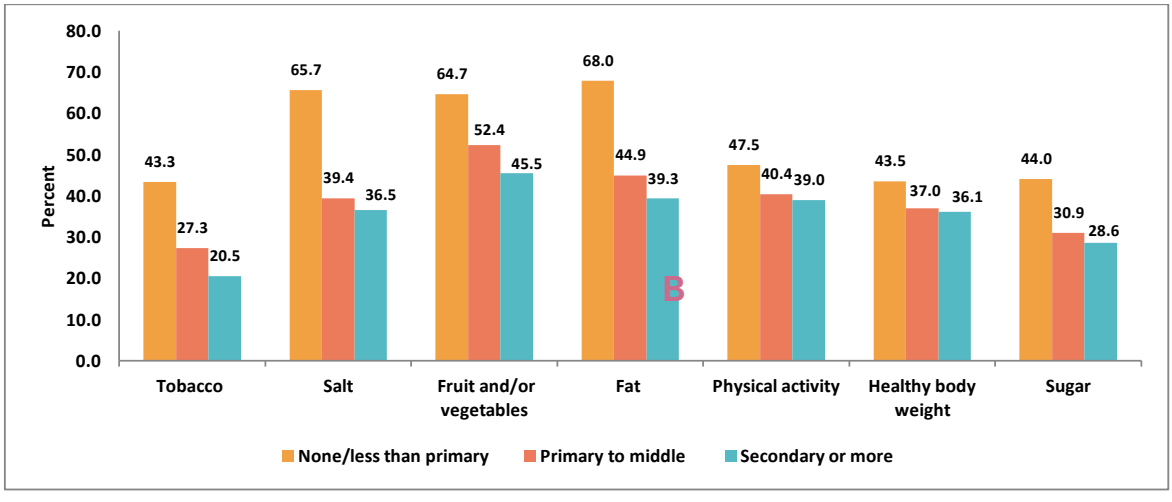


Figure 85 Percentage of respondents aged 15-69 years who have received different lifestyle advice from a doctor or health worker.

Patterns by background characteristics

- The likelihood of receiving lifestyle advice increased with age.
- Respondents residing in rural areas with lower levels of education were more likely to receive any kind of lifestyle advice compared to their counterparts.
- Respondents who resided in eastern regions were most likely to receive more lifestyle advice compared to other regions (Figure 86).





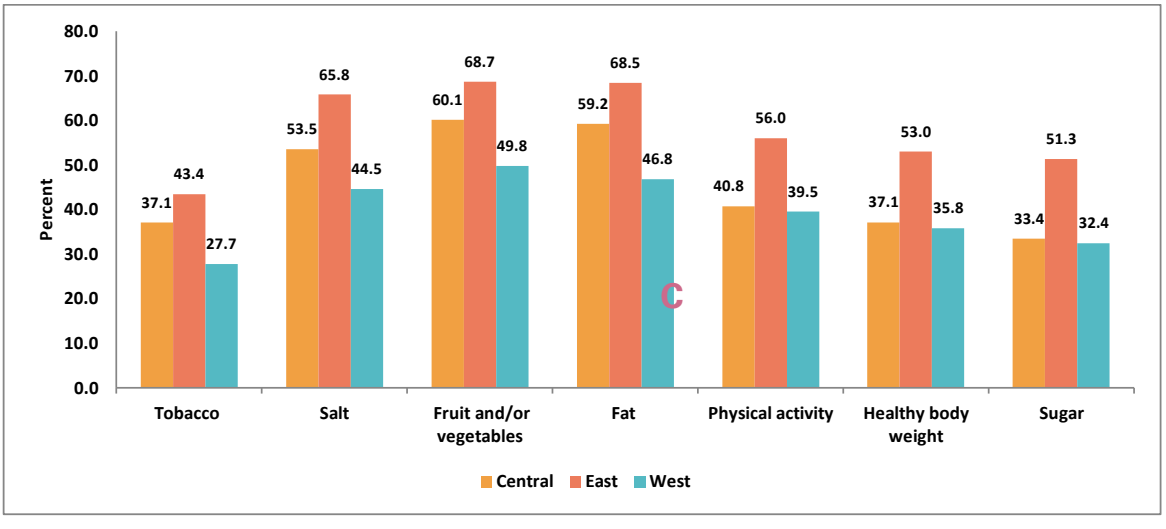


Figure 86: Differentials in lifestyle advice received from a doctor or health worker in the past 2 months by residence (A), by education level (B) and by region (C).

Patterns by disease and risk conditions:

- Respondents who were current smokers were less likely to receive any lifestyle advice compared to respondents who were previous smokers or never smoked and also least likely to receive any lifestyle advice compared to all other existing diseases and physiological risk conditions (Table 13.4).
- Presence of diseases and physiological risk conditions (raised blood pressure, raised blood sugar/diabetes, raised cholesterol, obesity and overweight) increased the probability of receiving all types of lifestyle advice compared to their counterparts (Figure 87).
- Respondents who were identified to have raised blood sugar/diabetes and those with predicted 10-year cardiovascular disease risk of 30% or more were most likely to receive any lifestyle advice than any other disease and physiological risk conditions.

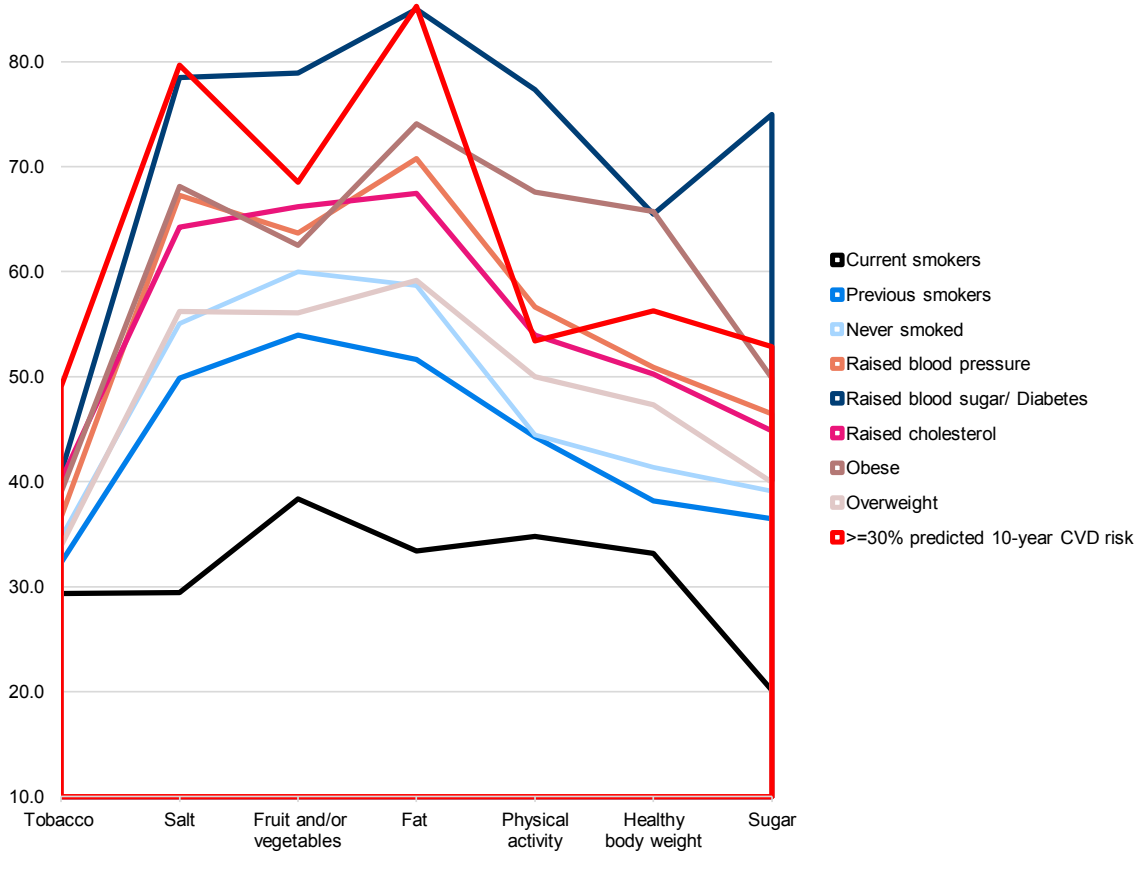


Figure 87: Differentials in lifestyle advice received, who have ever visited a doctor or health worker in the past 12 months by disease and risk conditions.

13.4 Comparative Analysis between 2014 & 2019 STEPS Survey

- The proportion of respondents aged 18-69 years, who reported ever having a CVD event in 2019 was four times higher compared to 2014 (3.6% vs 0.8%) (Figure 88). This is also true for the high-risk age group, 40-69 years, increasing to 3.3% from 0.8% in 2014 .

- Prevalence in the 40-69 age groups with a 30% or more 10-year predicted CVD risk increased significantly to 3.7% from 1.8% in 2014 (Figure 88).
- Fewer respondents aged 18-69 years reported receiving advice on "quitting tobacco or don't start" in 2019 (35.0%) compared to 2014 (42.1%), while more reported receiving advice on "maintaining healthy body weight or lose weight" in 2019 (40.5%) compared to 2014 (31.5%)(Figure 90)

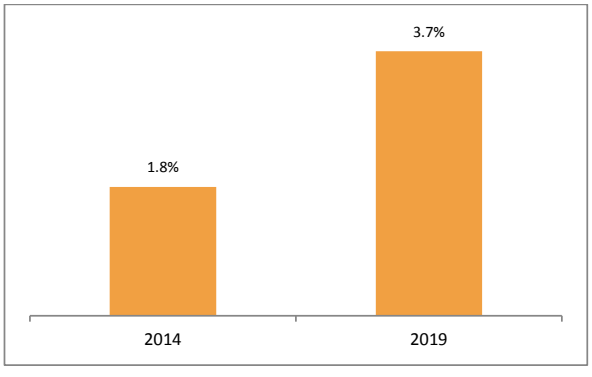


Figure 88: Trends between 2014 and 2019 in the 40-69 age group with a 30% or more 10-year predicted CVD risk.

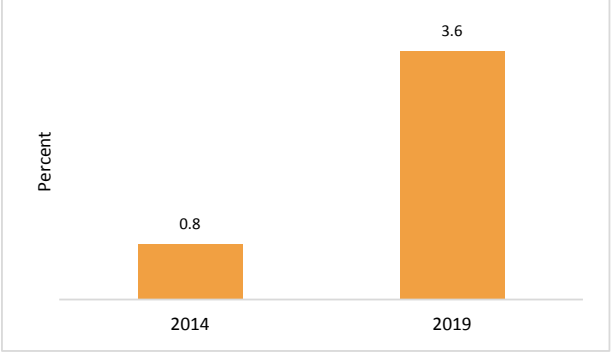


Figure 89: Trends between 2014 and 2019 in percentage of respondents aged 18-69 who reported ever having a CVD event.

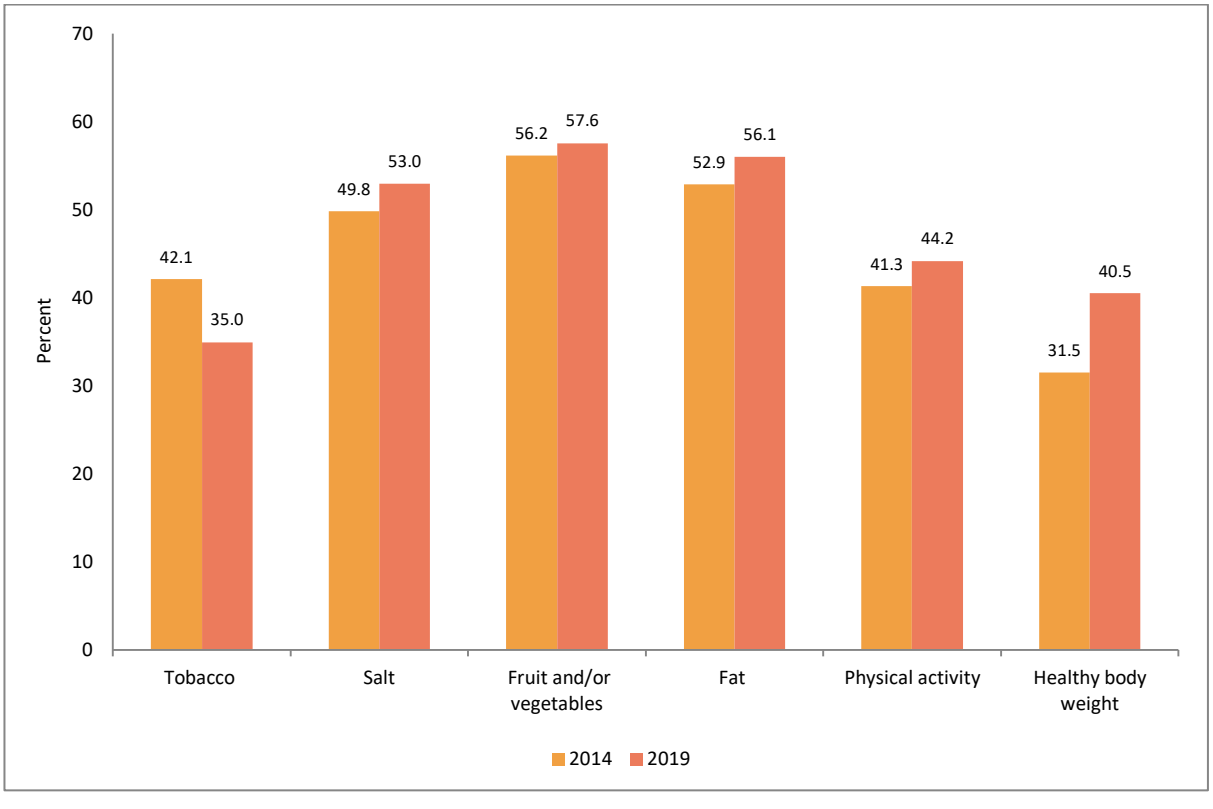


Figure 90: Trends between 2014 and 2019 in lifestyle advice received.

CHAPTER 14:
CERVICAL CANCER

Key Findings

Testing for cervical cancer

- Ever tested for cervical cancer: The percentage of women 15-69 years ever tested for cervical cancer is 54.4% while the percentage of women tested in the past five years is 45.6%. Women in the age group of 30-49 years reported ever tested for cervical cancer as 82.1% and tested in the last five years as 69.9%.
- The main reason for testing: An estimated 58.8% of women 15-69 years reported getting the test done as part of routine examinations; 30.1% women reported getting the test as recommended by a health care provider.
- The main reason for not testing: Amongst women who have never been tested, the main reasons for not being tested were: "don't know" (22.8%); embarrassment (21.3%); and "didn't have time" (19.8%).
- About 91% of women reported receiving their most recent test results.

Source (type of facility) for the most recent test for cervical cancer (15-69 years)

- 33.9% of women got tested at BHUII/Sub-posts.
- 33.1% of women got tested at hospitals and 17.7% at referral hospitals.

Treatment for cervical cancer

- Treatment: Overall, 88.4% of women with abnormal or inconclusive test result received treatment and 40.8% received treatment in the same visit.
- Follow-up: 42.1% of women with abnormal or inconclusive test received a follow-up visit.

Cervical cancer is the fourth most common cancer in women. In 2018, an estimated 570,000 women were diagnosed with cervical cancer worldwide and about 311,000 women died from the disease.[35] Almost all cervical cancer cases (99%) are linked to infection with high-risk human papillomaviruses (HPV), an extremely common virus transmitted through sexual contact. Although most infections with HPV resolve spontaneously and cause no symptoms, persistent infection can cause cervical cancer in women. Current WHO recommendation for cervical cancer prevention and treatment include[36]: (1) HPV vaccination for girls aged 9-13 years before they initiate sexual activity; (2) Every woman aged 30-49 years should be screened for cervical cancer at least once in a life-time regardless of vaccination status and should be repeated at least every 5 years if previous results are negative; (3) Adopt the "screen-and-treat" approach where treatment is given ideally on the same day and the same location after a positive diagnosis of pre-cancerous lesions to prevent loss to follow-up and delayed treatment.

In Bhutan, national cytology-based screening programme was launched in 2000 and has also adopted the Strategic Plan for cervical cancer prevention in Bhutan (2019-2023). Bhutan also launched a cervical cancer elimination programme as a flagship activity under 12th Five-year plan.

This chapter focuses on the early detection (screening) and treatment of cervical cancer. This information will help Bhutan assess trends and progress towards the elimination of cervical cancer as well as the evaluation of current policies and programs in place.

14.1 Testing for Cervical Cancer

Of the total respondents 15-69 years, 54.4% reported ever tested for cervical cancer and 45.6% were tested within the past five years. In the age recommended for screening (i.e. aged 30-49 years), 82.1% of women got ever tested for cervical cancer and 69.9% were tested within the last 5 years. Amongst women who have never been tested, the main reasons for not being tested were: "don't know" (22.8%); embarrassment (21.3%); and "didn't have time" (19.8%) (Figure 91) Amongst those who have ever been tested, 27.4% received their first testing between the ages of 30-49 years, 53.5% were first tested between the ages of 15-29 years and 6.4% between the ages of 50-69 years. (Table 14.1)

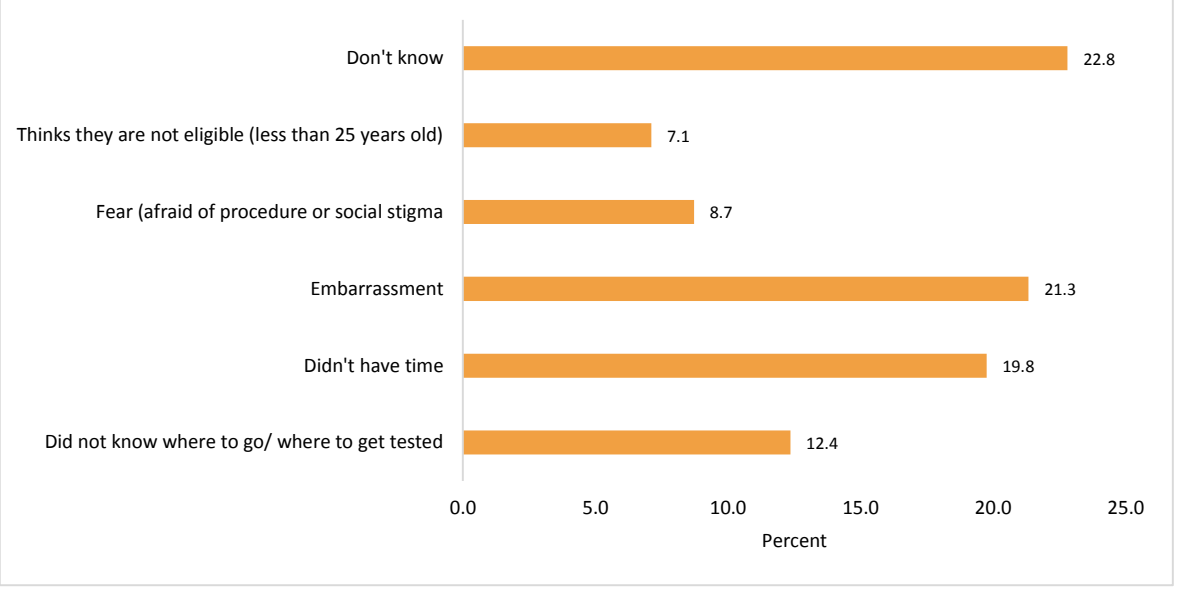


Figure 91: Most common reasons cited for not doing cervical cancer testing by women aged 25-69 years.

Patterns by background characteristics

- A higher percentage of women who were ever tested for cervical cancer and the highest percentage of women who received their last test less than 5 years ago were amongst women aged 30-49 years (82.1% and 69.9% respectively).
- A higher percentage of women in rural areas (58.4%) reported being tested than in urban areas (48.6%). In addition, eastern region (61.1%) had the highest percentage of women who received testing compared to other regions.
- Women aged 30-49 years most frequently reported their last test to be part of the routine examination (67.0%) while women aged 18-29 years most frequently reported getting tested as recommended by a health care provider (Table 14.3) (Figure 92).
- The percentage of women who have ever been tested and those who were tested within the last five years was notably higher amongst less-educated women.
- Women who were more educated and wealthier were more likely to receive their first cervical cancer test between the ages of 15-29 years compared to less educated and less wealthy women who otherwise mostly received their first test between the ages of 30-49 years.
- Amongst women who have never received cervical cancer testing, 22.3% of women aged 25-29 years did not think they were eligible while 1.6% and 0.2% of women aged 30-49 years and 50-69 years, respectively, reported non eligible as their main reason (Table 14.2).
- Younger women, those residing in urban area, and those with higher levels of education and household wealth were more likely to cite "didn't have time" as their main reason, while older women, those residing in the rural area, with lower levels of education and household wealth cited "don't know", embarrassment, and "didn't know where to go" as the main reasons for not testing (Figure 92).
- Women who reside in the central region and who were more educated were most likely to get tested as part of a routine examination.
- Women with lower household wealth were more likely to get tested as recommended by a health care provider while women with the highest wealth quintile were more likely to get tested as part of the routine examination.
- The central region had the lowest percentage of women (86.5%) who received their test results for their most recent test (Table 14.5) (Figure 93).

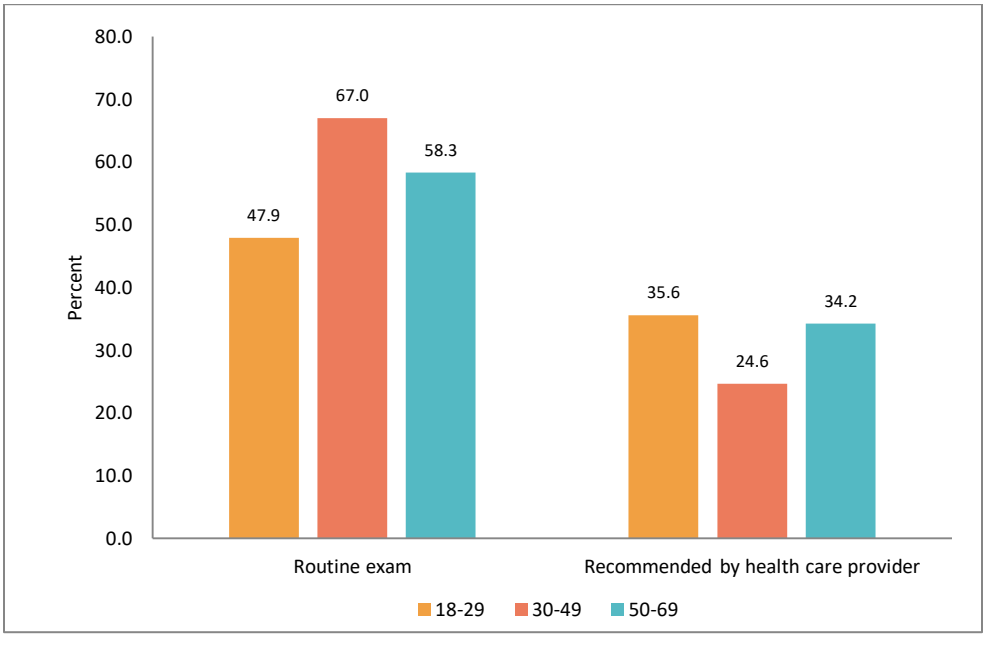
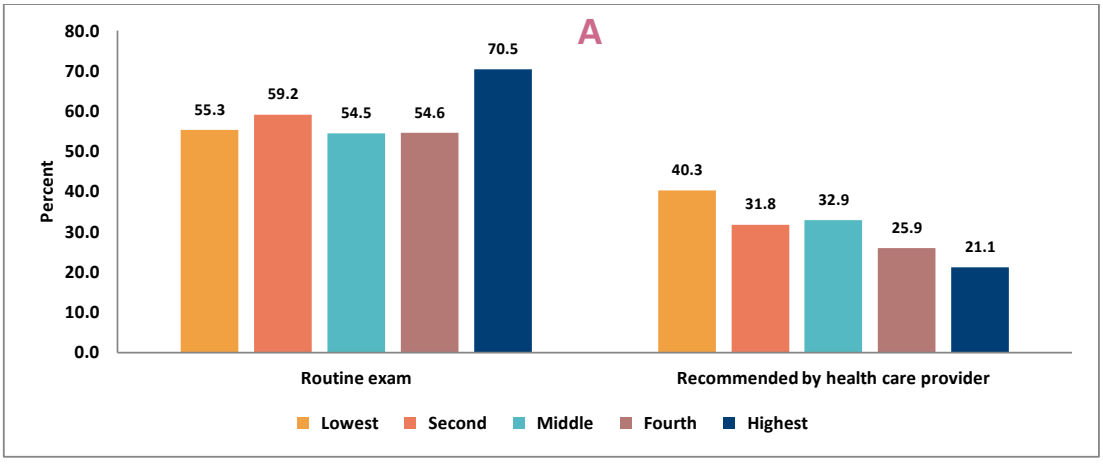


Figure 92: Percentage of women (15-69 years) who reported the main reason for the last cervical cancer test as part of a routine exam and recommended by a health care provider, by age group.



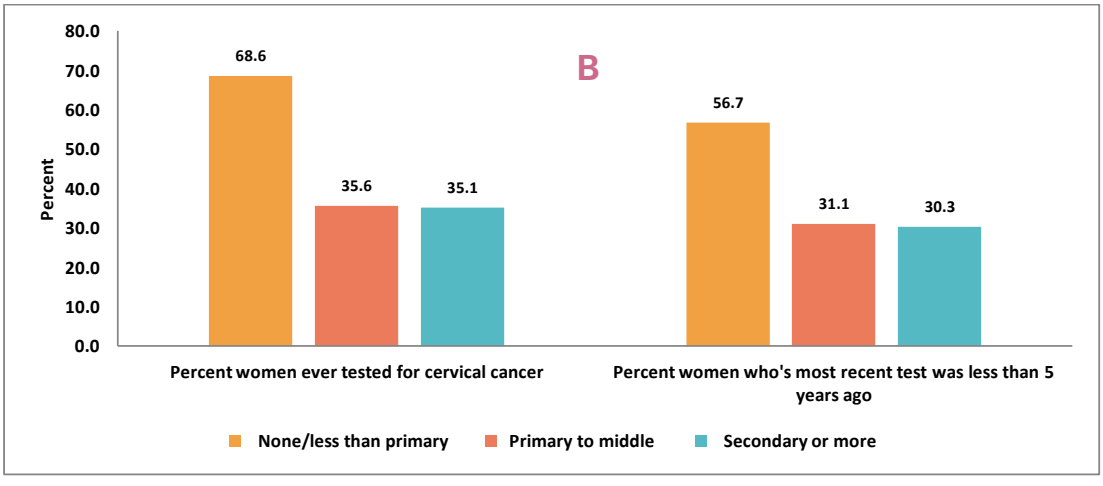


Figure 93: Percentage of women (15-69 years) with most recent test within the last 5 years by wealth (A) and by education (B).

14.2 Sources of Care for Cervical Cancer

The largest proportion of females 15-69 years in Bhutan received their most recent test for cervical cancer at Basic Health UnitII (BHUII) or sub-posts (33.9%) and hospitals (33.1%).

Patterns by background characteristic (Table 14.4)

- About 49.2% of rural women received testing at BHUII or Sub-post while urban women received testing mostly at hospitals (41.4%) and regional referral hospitals (29.6%)
- More women in the western region received their test in regional referral hospitals (24.6%) and hospitals (38.8%) than other facilities, while woman from central and eastern regions were more likely to receive their tests at BHUII (44.2%) or sub-posts (46.7%) (Table 14.4).

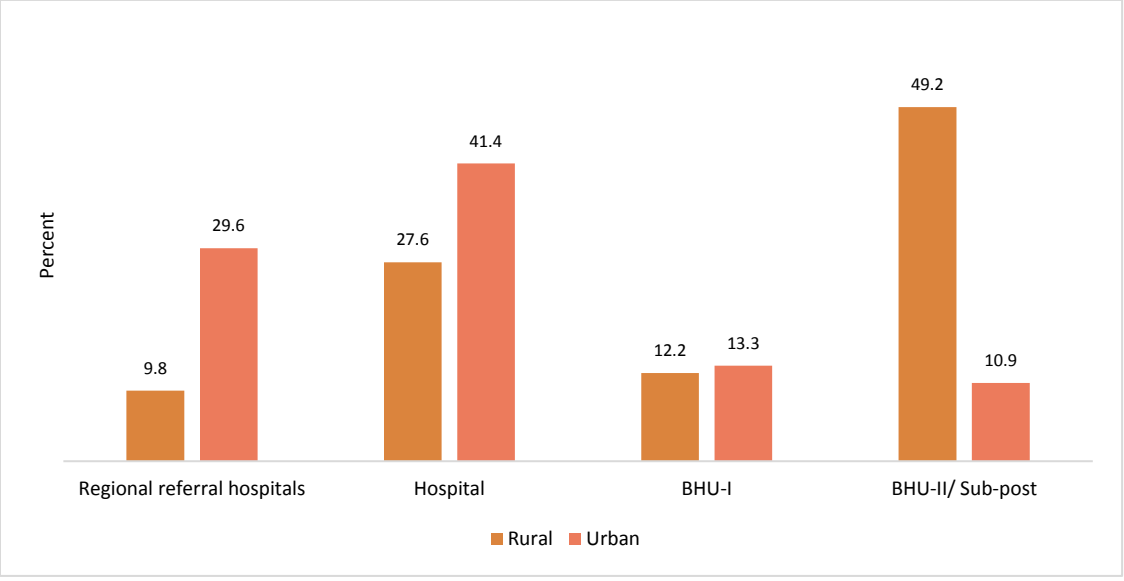


Figure 94: Differentials in sources of care for cervical testing by residence amongst women (15-69 years).

14.3 Treatment for Cervical Cancer

Amongst women who have undergone cervical cancer test; 88.4% with abnormal or inconclusive test results reported receiving treatment and 40.8% reported receiving treatment in the same visit. As a result of the test, 42.1% of women reported having a follow-up visit (Table 14.5).

Patterns by background characteristics:

- Younger women were least likely to receive follow-up visits (9.2%) and almost universally received treatment (99.2%) and were most likely to receive treatment in the same visit (45.5%). The opposite relationship is seen for women aged 50-69 years (Figure 95).
- Women residing in the urban or from the western region were more likely to receive both treatment and follow up visit during the same visit
- A higher percentage of women who were more educated received treatment compared to those women who were less educated.

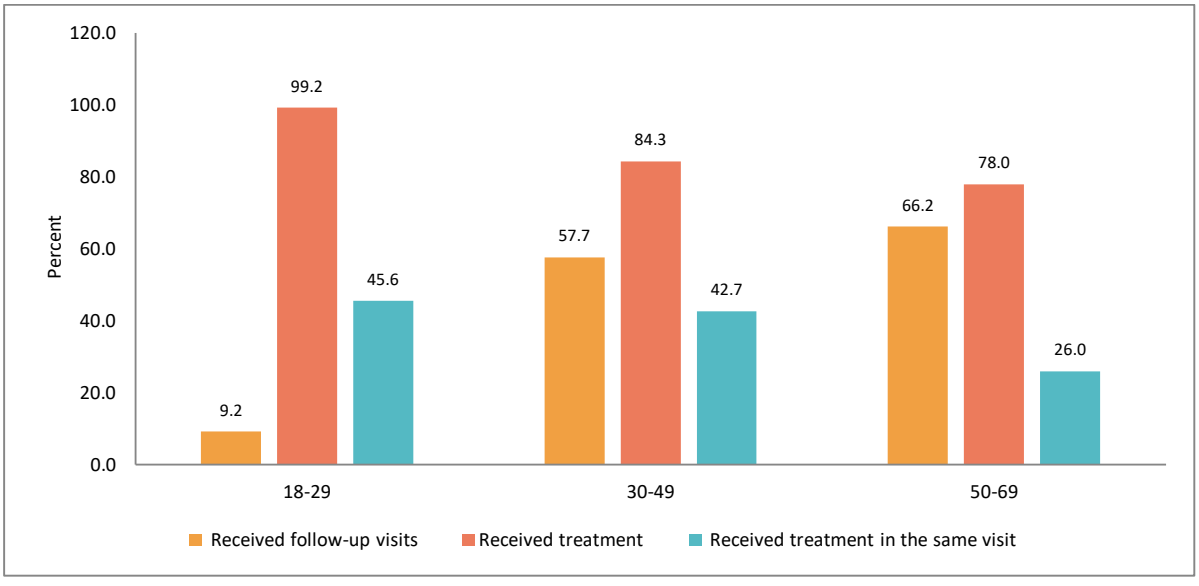


Figure 95: Differentials in follow-up, treatment and time of treatment for cervical cancer amongst women (15-69 years), by age group.

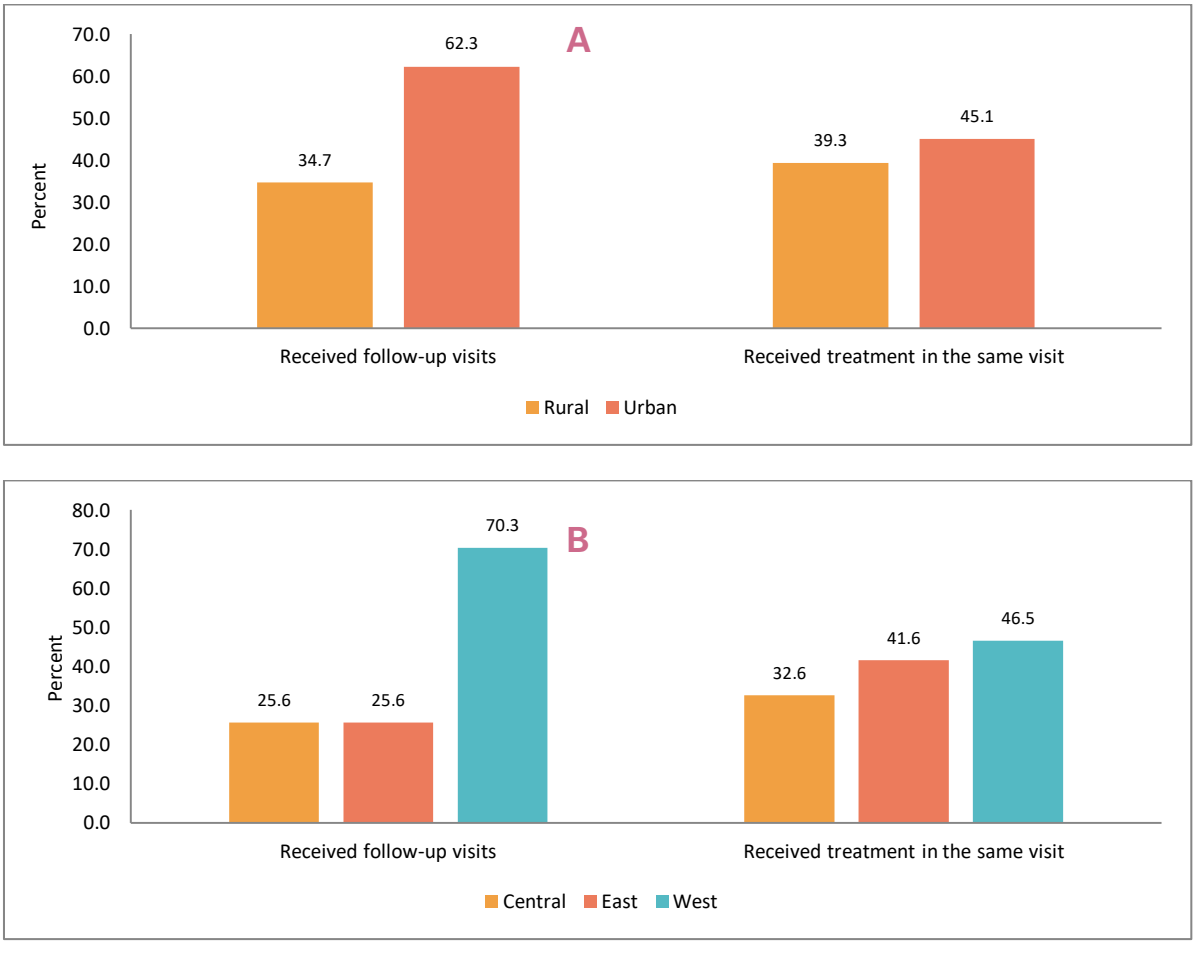


Figure 96: Differentials in follow-up vs time of treatment for cervical cancer by place of residence (A) and by regions (B).

14.4 Trends between 2014 and 2019 Survey (respondents 18-69)

The percentage of women aged 30-49 years, who have ever tested for cervical cancer, increased to 82.1% from 64.1% in 2014 and to 54.8% from 50.7% amongst women aged 18- 69 years for the same period (Figure 97).

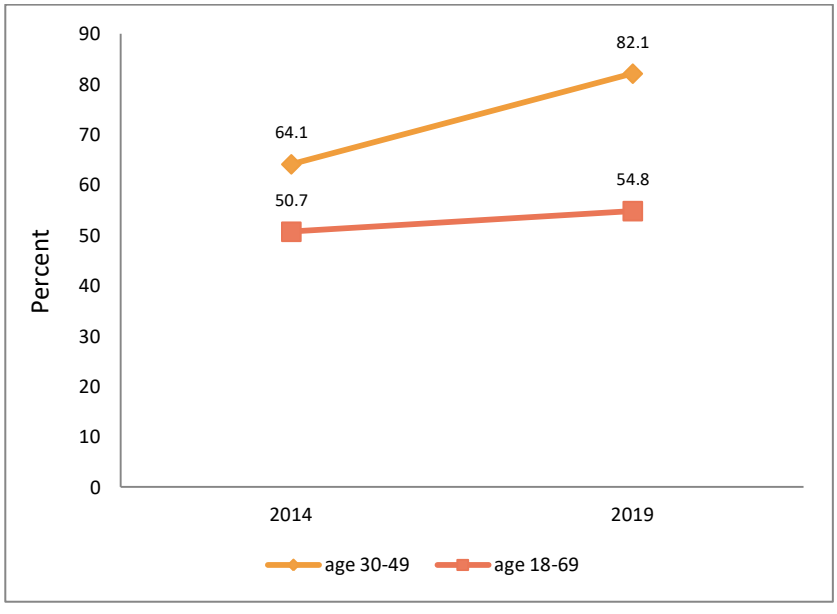


Figure 97: Trends in the percentage of women ever tested for cervical cancer by age group in 2014 and 2019.

CHAPTER 15:
ORAL HEALTH

Key Findings

Care seeking for oral health issues

- Almost half the respondents (49.7%) reported visiting a dentist in the past.
- A third (33.6%) visited within the last one year, 36.6% visited between 1-5 years and rest (29.9%) visited more than 5 years ago.
- Majority of the respondents (95.1%) visited for consultation or treatment while 8.5% visited for preventive services.

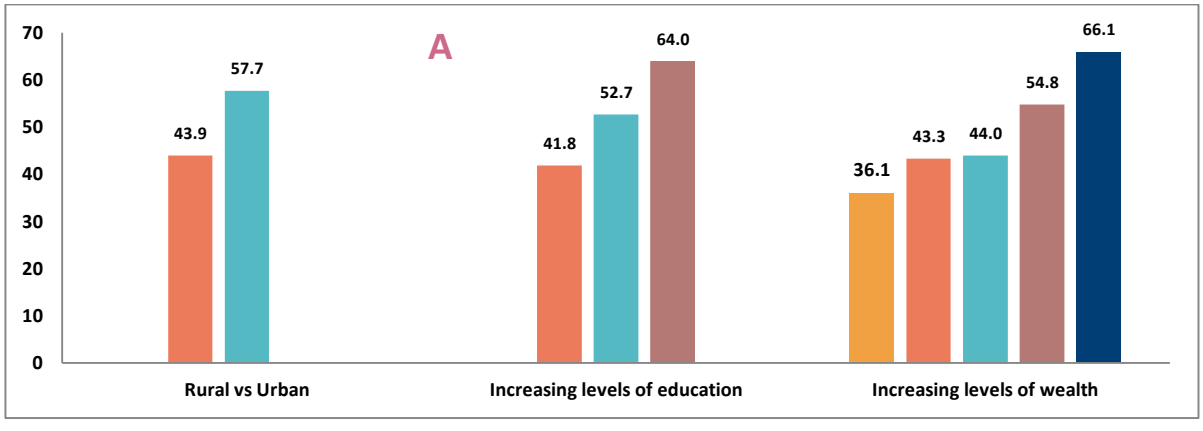
This chapter focuses on access to and usage of oral health services. This information will help Bhutan assess trends and progress of the national oral health status as well as the evaluation of current policies and programs in place that are related to oral health.

15.1 Oral Health Care

Almost half the respondents (49.7%) ever visited the dentist in the past, with one in three (33.6%) visiting within one year. Majority visited primarily for the treatment of oral health issues rather than prevention (Table 15.1).

Patterns by background characteristics

- Respondents living in urban areas with higher levels of education and from the wealthier quintile are more likely to have ever visited a dentist compared to those living in rural areas and with lower levels of education and from the lower wealth quintile.
- Higher proportion of respondents from age group 15-24 years, who are men, residing in the urban area with higher level of education and from the wealthier quintile stated visiting dentist for preventive measure



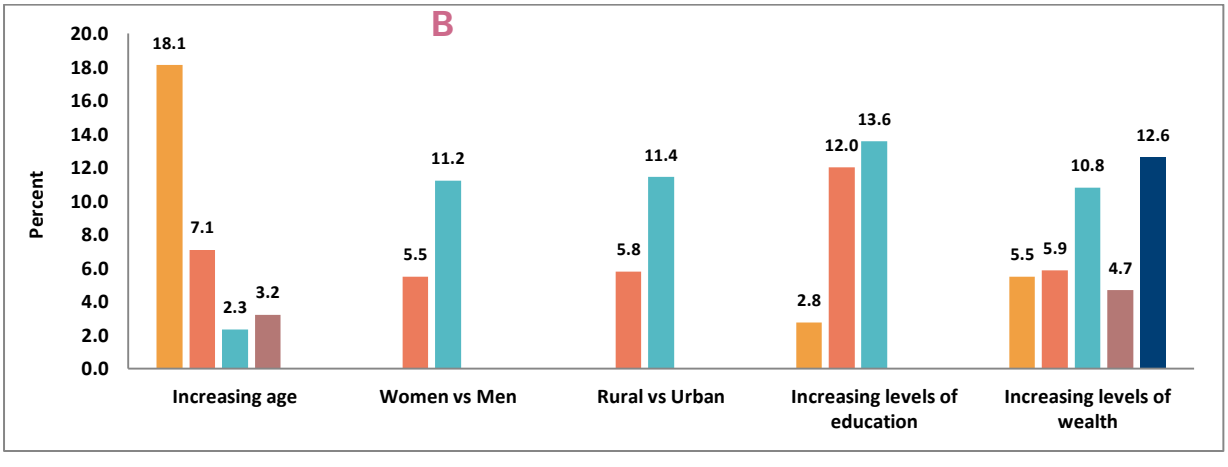


Figure 98: Differentials in percentage of respondents, whoever visited (A) and for preventative services (B) by age, sex, residence, education and wealth.

CHAPTER 16:
MENTAL HEALTH

Key Findings

Suicidal ideation and attempts

- Seriously considered attempting suicide: 1.2% of respondents (1.7% women, 0.8% men)
- Ever attempted suicide: 0.7% of respondents (0.9% women, 0.6% men)
- Close family members who have ever attempted suicide: 2.4% of respondents
- Close family members who have ever died from suicide: 3.4% of respondents

Perceptions of magnitude and causes of suicide

- About 32.2% reported that suicide is "somewhat" a problem in their community, followed by 30.3% reporting "very much" a problem, and 29.3% reporting "not at all".
- About 52.4% reported cause of suicide in the community are due to social-family, relationship and extramarital reasons; 21.2% due to emotional or psychological reasons and 15.8% due to economic hardships.

Depression and Anxiety

- **Depression:** Based on Patient Health Questionnaire 9 scores (PHQ-9), 0.4% of respondents have moderately severe depression, 1.6% have moderate depression and 12.3% have mild depression.
- **Anxiety:** Based on Generalized Anxiety Disorder 7 items scale (GAD-7), 0.2% of respondents have severe anxiety, 1.5% has moderate anxiety and 7.5% have mild anxiety.

Mental health is an integral part of the comprehensive definition of health. The World Health Organization defines mental health as "a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can contribute to his or her community". In Bhutan, anxiety and depression together form the majority of mental health cases. Retrospective survey on suicide, 2013, found psychological factor as one of the major causes of suicide in the country.

This chapter focuses on indicators related to suicidal ideation, suicidal attempts, perception of the cause of suicide and prevalence of depression and anxiety (using PHQ-9 and GAD-7). This information will help Bhutan to guide future policy interventions and programs to prevent suicides in the country. The National Mental Health Strategy (2015-2023) and Suicide Prevention in Bhutan - A Five Year Action Plan (2018-2023) are in place to guide evidence-based interventions to reduce mental health burden and suicide cases in the country.

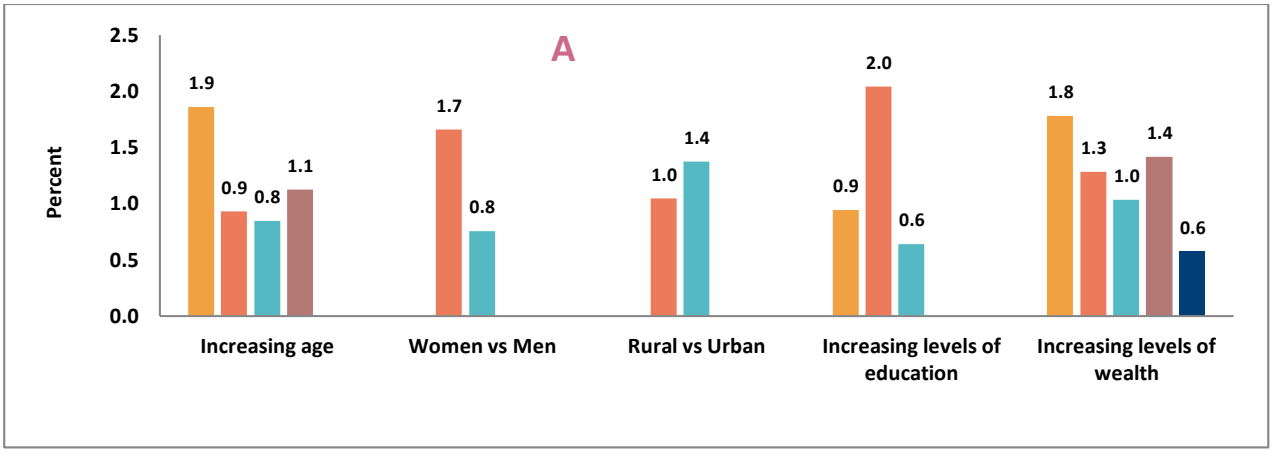
16.1 Suicidal Ideation and Attempts

Overall 1.2% respondents reported having seriously considered attempting suicide; 0.7% reported having made a plan to commit suicide, and 0.7% reported ever attempted suicide.

When asked about close family members including mother, father, brother, sister or children, 2.4% of a close family member had attempted suicide and 3.4% of a close family member ever died from suicide.

Patterns by background characteristics (Table 16.1)

- Respondents aged 15-24 years, who are women, residing in the urban areas with primary to middle school level education, and lower household wealth were most likely to report seriously considering attempting suicide.
- Similar trends are seen for the percentage of respondents who made a plan on how to commit suicide and respondents who have ever attempted suicide (Figure 99).
- Respondents residing in the urban area, with higher levels of education and wealth were more likely to report attempted suicide or death due to suicide of a close family (Figure 100).



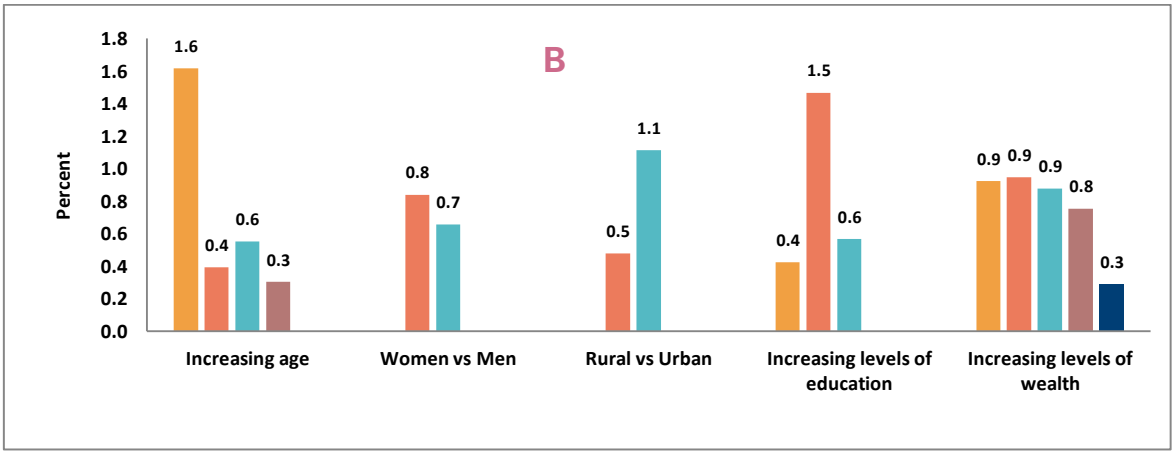
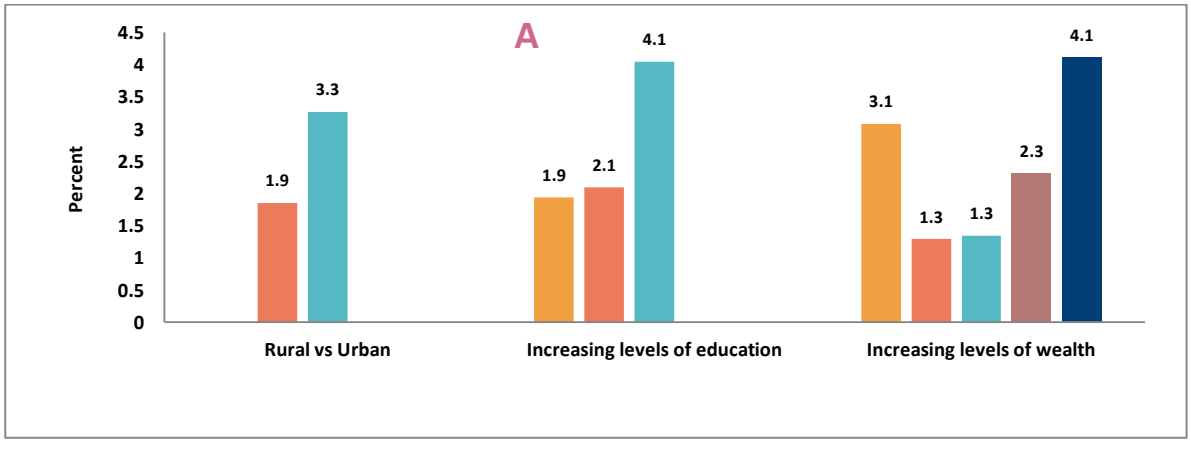


Figure 99: Differentials in suicide ideation (A: Seriously considered attempting B: made plans to commit suicide, C: Ever attempted Suicide) by age, sex, resident, education and wealth.



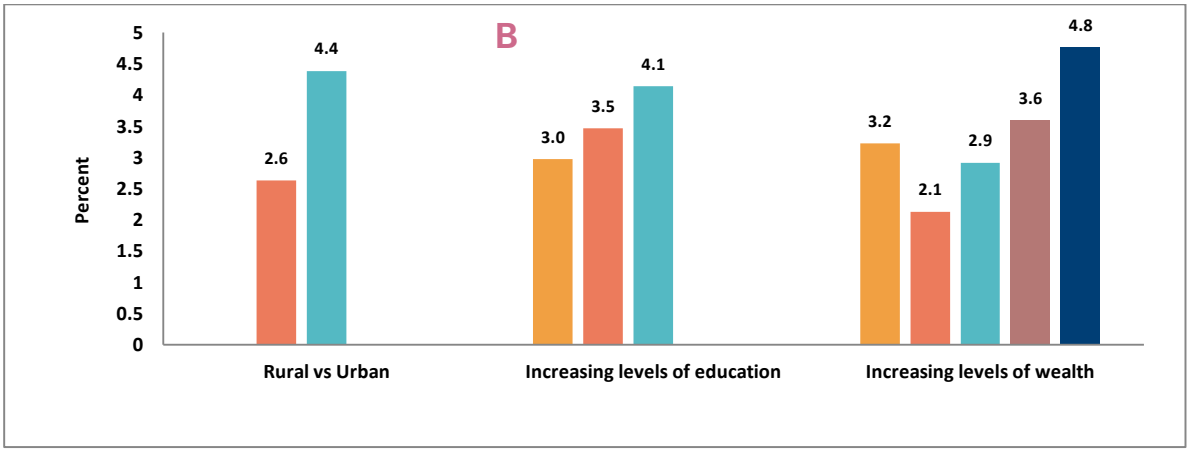


Figure 100: Differentials amongst close family's suicide ideation (A: close family attempted suicide and B: close family died from suicide) by residence, education and wealth.

16.2 Perceptions of Magnitude and Causes of Suicide

When asked whether respondents think suicide is a problem in their community, 32.2% of respondents responded "somewhat", 30.3% responded "very much", 29.3% responded "not at all" and 8.3% responded "don't know" (Figure 101) (Table 16.2).

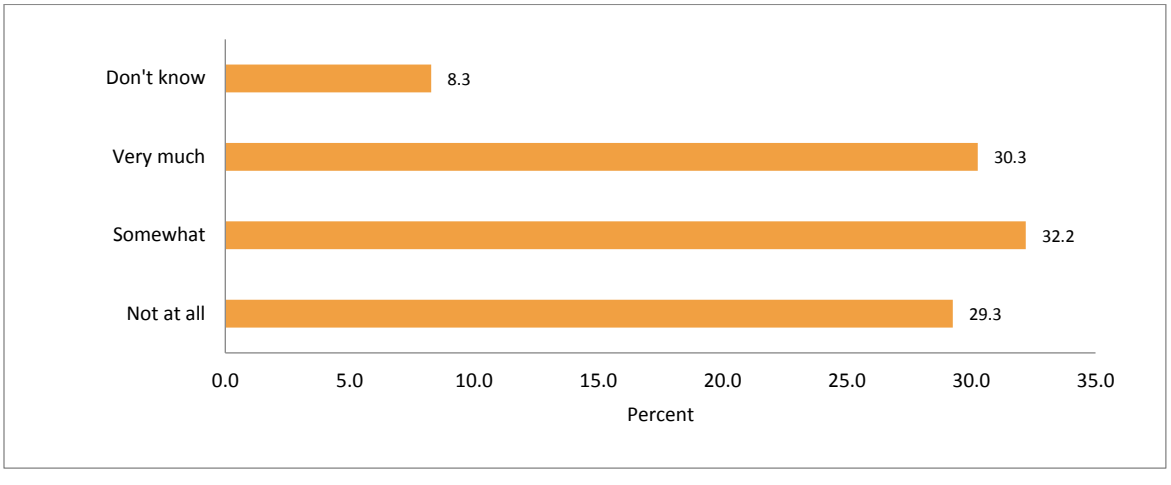


Figure 101: Perception of the magnitude of suicide in one's community.

When asked about the causes of suicide in the community, 52.4% reported social-family, relationship or extramarital reasons, 21.2% reported emotional or psychological reasons, and 15.8% reported economic reasons (Figure 102).

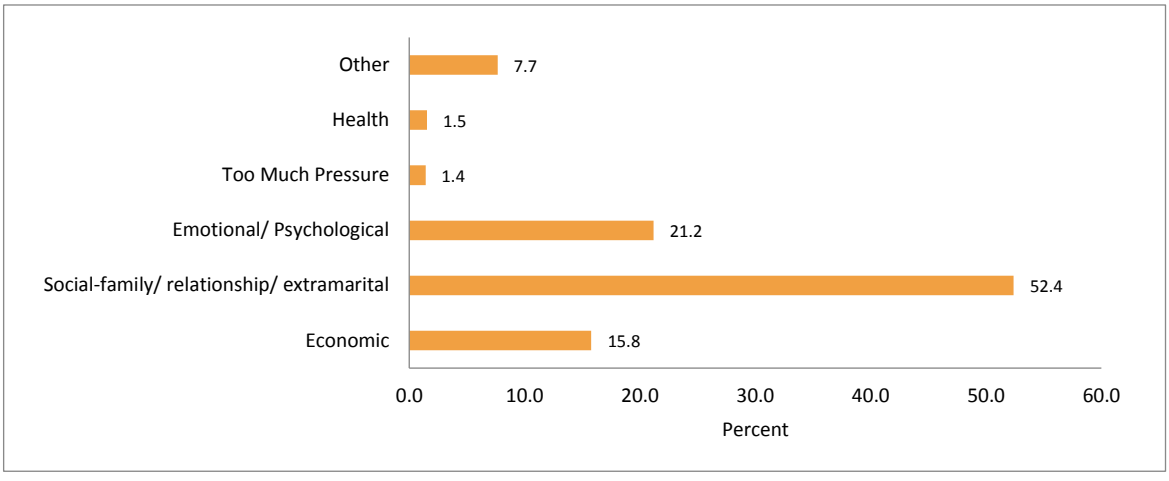


Figure 102: Perception of the main causes of suicide in one's community.

16.3 Depression and Anxiety

- Based on Patient Health Questionnaire 9 scores (PHQ-9), 0.4% of respondents have moderately severe depression, 1.6% have moderate depression and 12.3% have mild depression (Table 16.3) (Figure 103).
- Based on Generalized Anxiety Disorder 7 items scale (GAD-7), 0.2% of respondents have severe anxiety, 1.5% have moderate anxiety and 7.5% have mild anxiety (Figure 104) and Table 16.3).

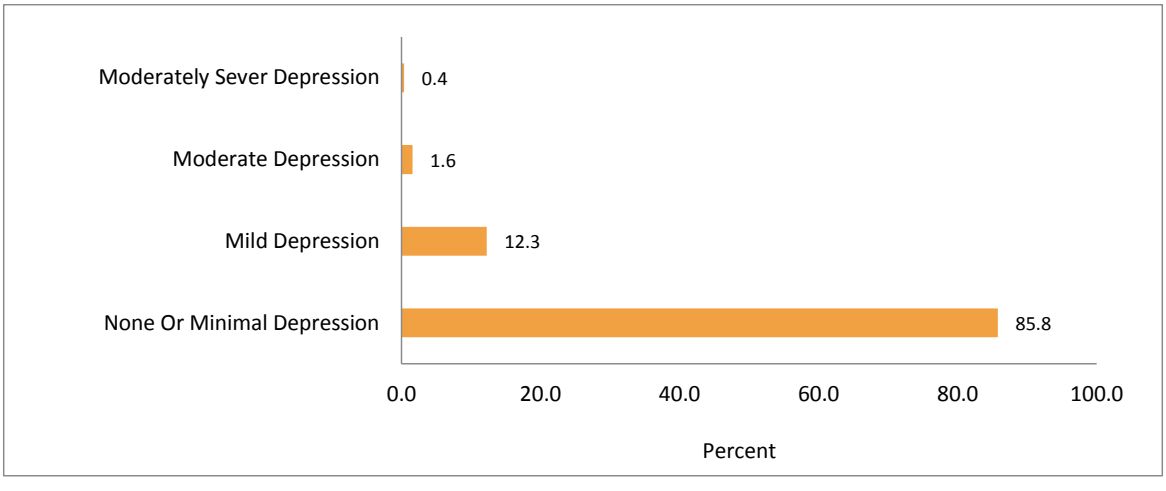


Figure 103: Percentage of respondents aged 15-69 years with different levels of depression based on Phq-9 score.

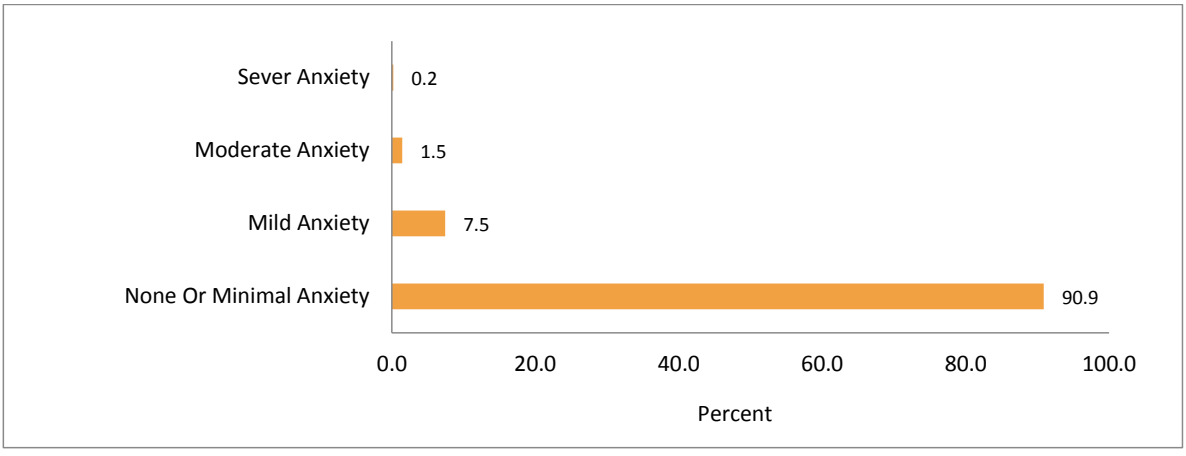
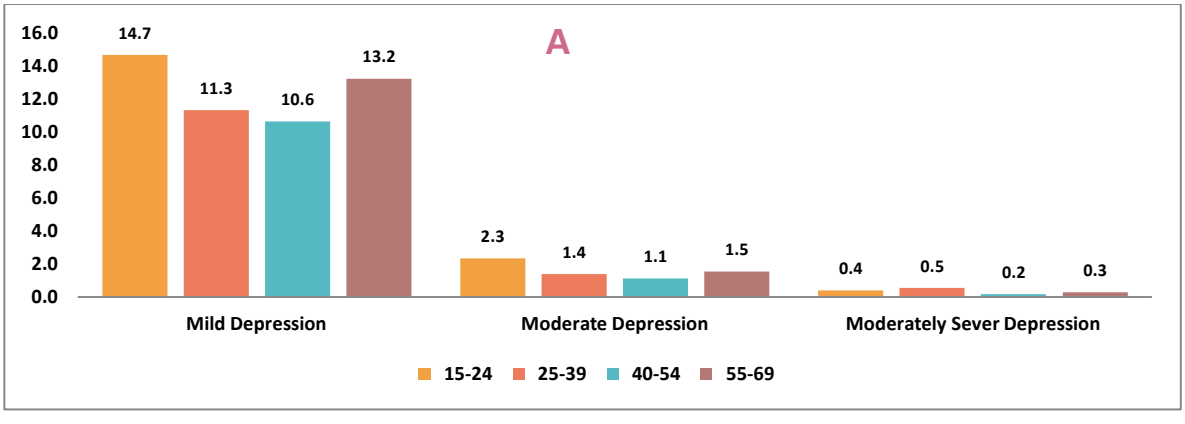


Figure 104: Percentage of respondents aged 15-69 years with different levels of anxiety based on the GAD-7 scale.

Patterns by background characteristics (Table 16.3)

- Respondents aged 15-24 years were more likely to have mild and moderate depression followed by those aged 55-69 years.
- More women and urban residents had some level of depression or anxiety (Figure 105).
- The relationship between depression and anxiety was differential across education (Figure 106).



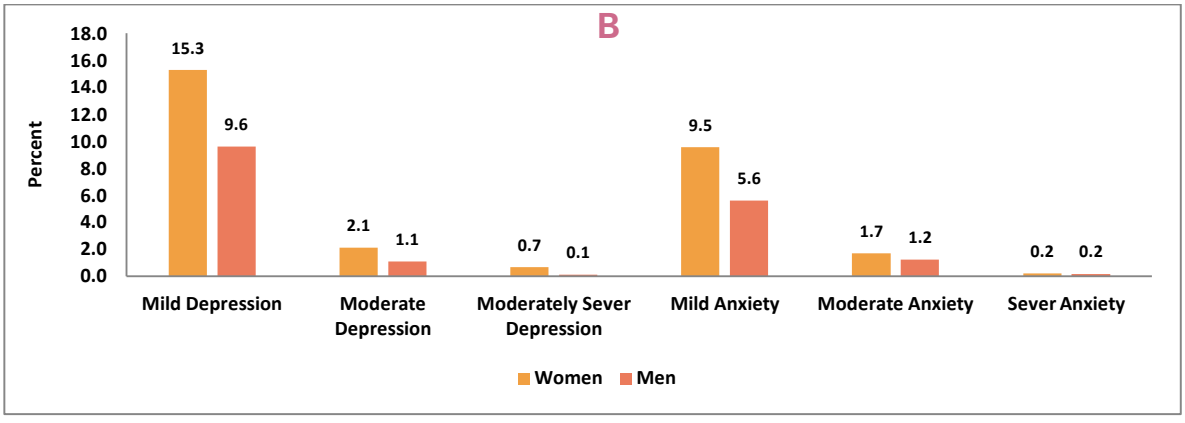


Figure 105: Differentials in levels of depression and anxiety amongst respondents aged 15-69 years by age (A), gender (B).

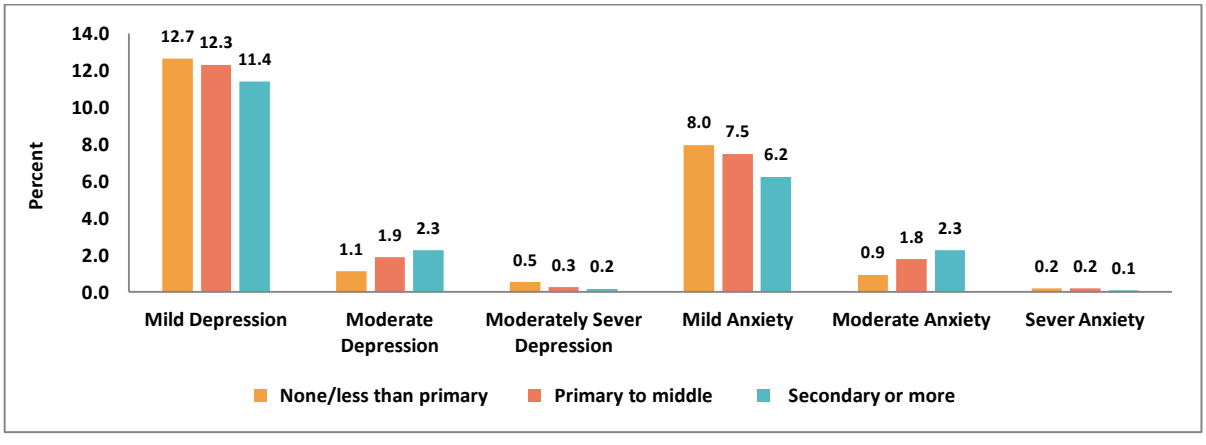


Figure 106: Differentials in levels of depression by education.

16.4 Comparative Analysis between 2014 & 2019 STEPS Survey

Respondents aged 18-69 years who reported having seriously considered suicide or made a plan about how to commit suicide increased (2.4% in 2019 from 1.3% in 2014 and 1.3% from 0.8%) in the same period. However, respondents who reported ever attempted suicide decreased (0.6% from 0.8%) (Figure 107).

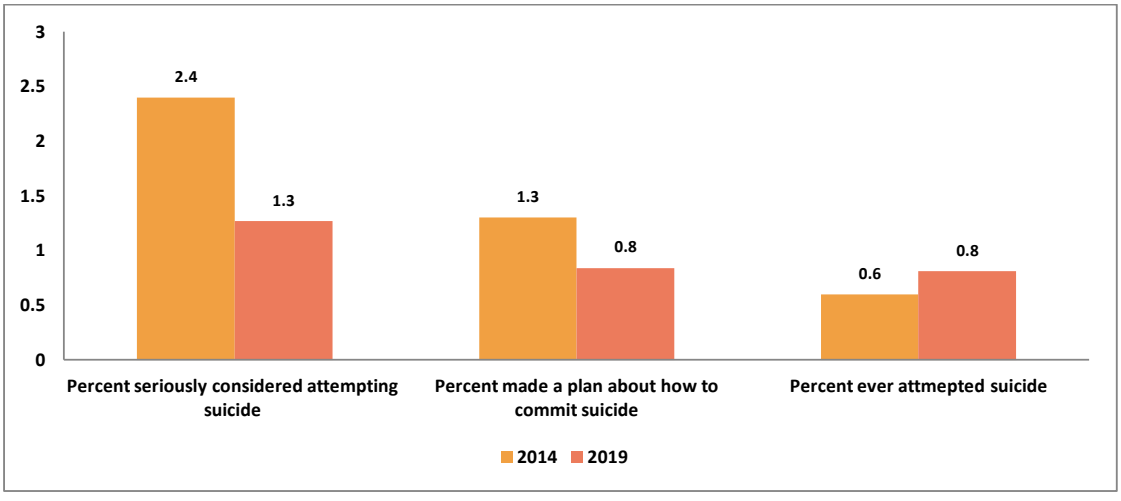


Figure 107: Trends between 2014 and 2019 in suicidal ideation amongst respondents aged 18-69 years.

In contrast, the percentage in whose close family someone ever committed suicide increased to 2.4% from 1.5% and someone ever died from suicide increased to 3.3% from 1.8% (Figure 108)

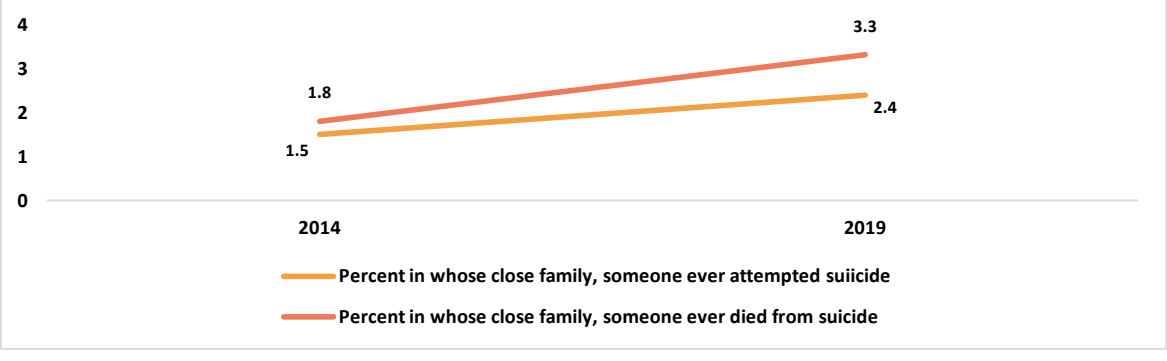


Figure 108: Trends between 2014 and 2019 in suicidal ideation amongst respondents' close family.

CHAPTER 17:
VIOLENCE AND INJURY

Key Findings

Unintentional Injuries (in the past 12 months)

- Road traffic injuries: About 3.2% respondents reported being involved in a road traffic injury as a driver, passenger, pedestrian or cyclist and 0.5% respondents reported being involved in a serious road traffic injury as a driver, passenger, pedestrian or cyclist that required medical attention.
- Accidental injuries: About 3.8% of respondents reported being involved in other serious accidental injuries (fall, burn, and poisoning, cut, near-drowning, animal bite) that required medical attention.

Practices of road safety measures (in the past 30 days)

- Use of seat belts: About 16.4 % of respondents (10.5% in women, 21.7% in men) reported using seat belt while in a motor vehicle either as a driver or a passenger.
- Use of helmets: About 22.5% of respondents (7.5% in women, 36.0% in men) reported using helmet while on a motorcycle or motor-scooter either as a driver or a passenger.

Violence and injuries are major contributors to global mortality and morbidity and accounted for 8.0% of total deaths (4.48 million deaths) in 2017[37]. Injuries can be categorized into road traffic injuries, unintentional injuries and self-harm and interpersonal injuries (Figure 109) [1]. The largest proportion of injury deaths were attributed by road traffic injuries in 2017 (27.7% of all injury deaths, 1.24 million deaths) and is now the 6th leading cause of deaths world wide[1].

This is the first time Bhutan collected data on violence and injuries as part of the STEP survey and has prioritized the collection of information on the self-reported incidence of road traffic injuries in the past 12 months, practices around road traffic safety measures (drink driving, use of helmet and seat belts), the self-reported incidence of other unintentional injuries and violence and its cause and context. The information presented in this chapter will help Bhutan assess trends and progress towards the reduction in violence and injuries and evaluate current policies and programs.

Different causes of death due to violence and injury*

Road Traffic injuries:
- Pedestrian road injuries
- Cyclist road injuries
- Motorcyclist road injuries
- Other road and transport injuries

Unintentional injuries:
- Falls
- Drowning
- Fire, heat and hot substances
- Poisonings
- Exposure to mechanical forces
- Animal bites
- Natural disasters
- Other unintentional injuries

Self-harm and interpersonal:
- Self-harm
- Interpersonal violence
- Conflict and terrorism

*Not a complete list, please see original source for detail

Figure 109: Different causes of death due to violence and injury.

17.1 Road Traffic Injuries and Accidental Injuries

In the past 12 months, 3.2% of respondents aged 15-69 years reported being involved in a road traffic injury either as a driver (34.3%), passenger (47.5%), pedestrian (8.0%) or cyclist (9.2%) (Figure 110) Overall, 0.5% of respondents (or 16.0% of those who were involved in road traffic injury) reported suffering serious road traffic injuries requiring medical attention. (Table 17.1)

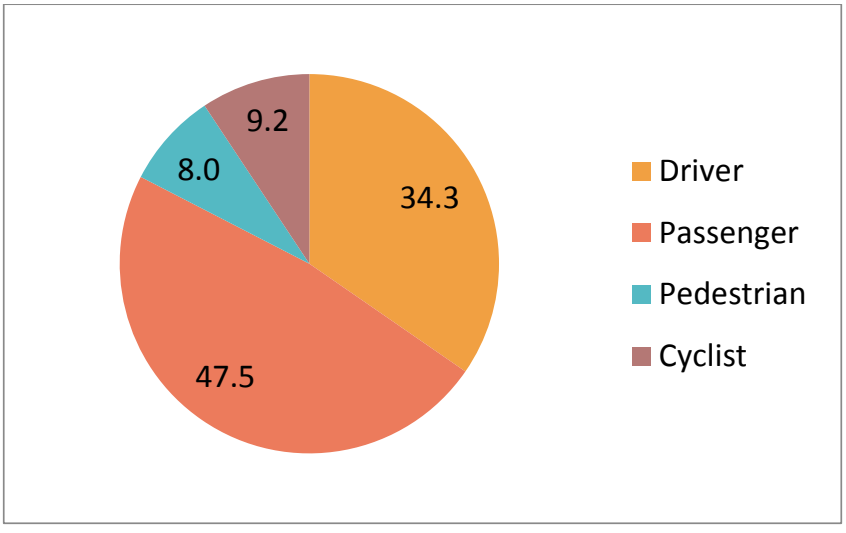


Figure 110: Percent breakdown of the type of involvement amongst those who reported being involved in a road traffic injury.

The prevalence of serious accidental injuries, excluding road traffic accident was 3.8%. The most common cause was fall (68.0%) followed cut (28.1%), animal bite (2.3%), burn (1.4%) Figure 111).

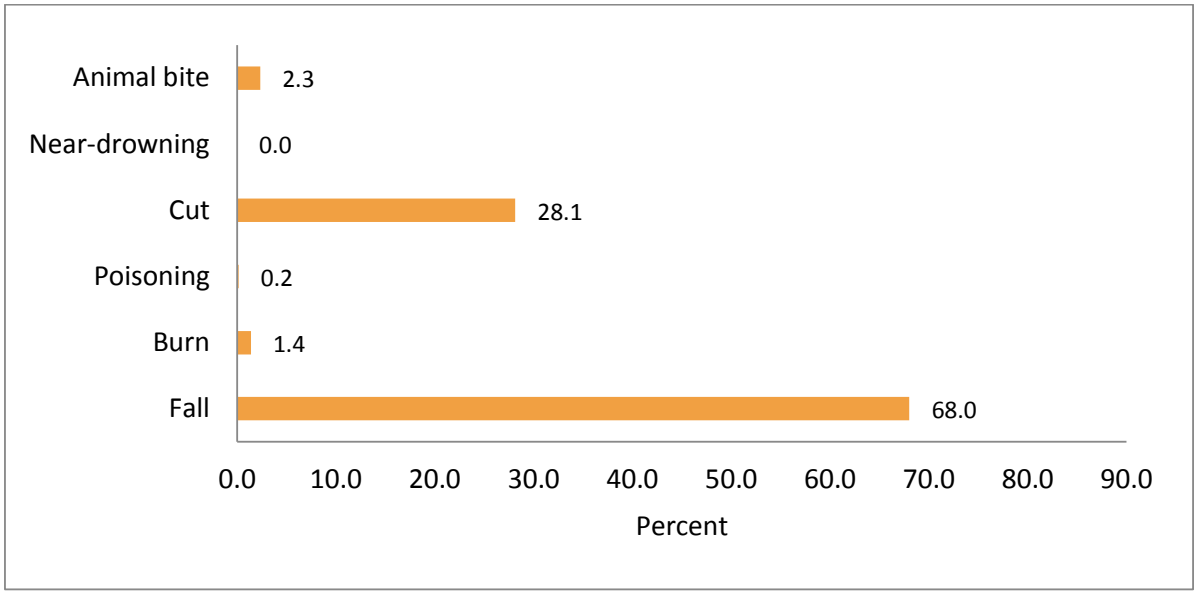


Figure 111: Causes of accidental injuries (excluding road traffic injuries) among respondents who were involved in an accident in the past 12 months.

Patterns by background characteristics

- The prevalence of reported road traffic injuries was highest amongst the age group 15-24 years at 4.1% with men, who are urban residents, with higher education level and wealth quintile compared to their counterparts. Similar patterns were observed for road traffic injuries requiring medical attention except across the levels of education (Figure 112).

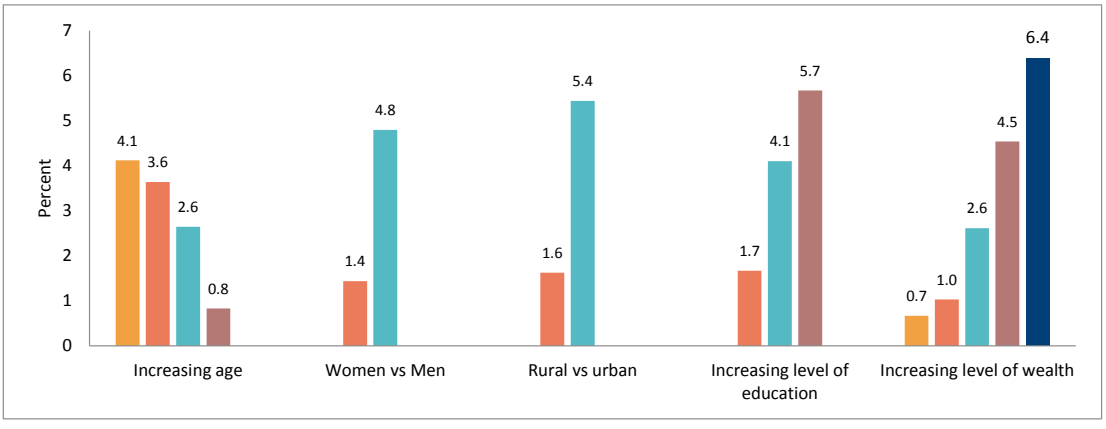


Figure 112: Differentials in the prevalence of reported road traffic injuries.

17.2 Practices of Road Safety Measures

Amongst respondents who have been in a vehicle, only 16.4% reported always or sometimes using seat belts while the majority (82.9%) reported never using a seat belt either as a passenger or as a driver. And only 0.6% reported not having a seat belt in the vehicle (Table 17.2).

Amongst respondents who have been on a motorcycle or motor scooter, 22.5% reported using helmet either as a passenger or a driver while 1% reported not having a helmet.

Patterns by background characteristic

- Higher proportion of respondents within the age group 25-39 years were most likely to use seat belts (21.1%) compared to respondents aged 15-24 years who were least likely to use seat belts (11.2%) while in a vehicle.
- The prevalence of seat belt users were higher in the western region, followed by central and eastern region.
- Men, urban residents, and with higher levels of education and wealth, were more likely to use seat belts (Figure 113).
- Older respondents with the lowest level of education and wealth were least likely to use helmets while on a motorcycle or motor scooter (Figure 114) and a much higher percentage of men (36.0%) used helmets than women (7.5%).

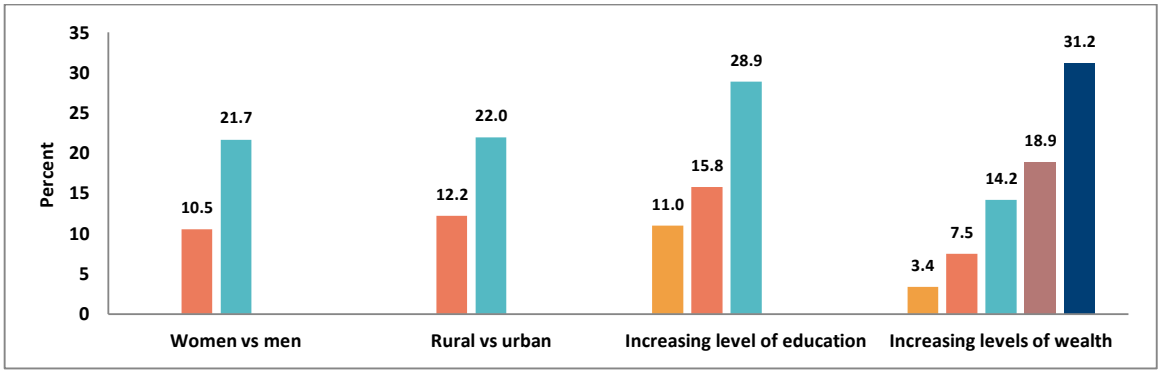


Figure 113: Differentials in percentage (15-69 years) who sometimes or always use seat belts by sex, residence, education and wealth.

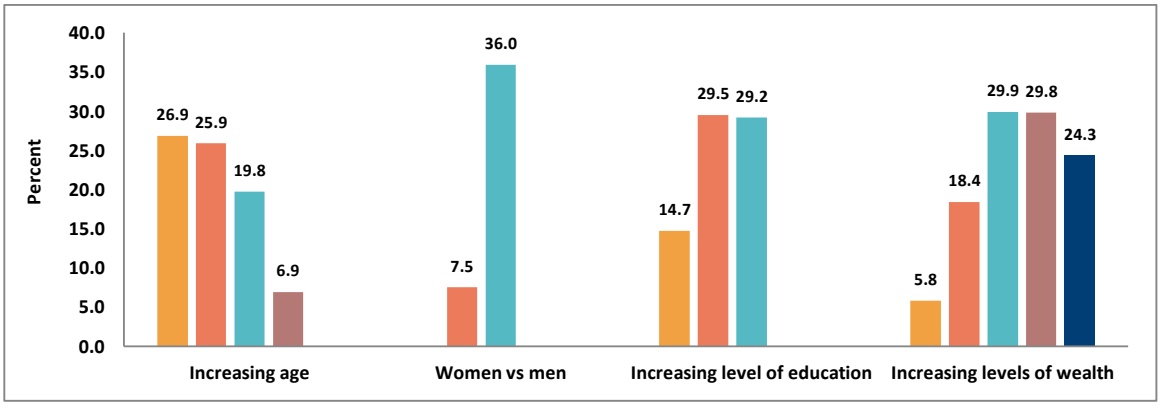


Figure 114: Differentials in percentage of respondents aged 15-69 years who always or sometimes use helmets on a motorcycle or motor scooter by sex, education and wealth

CHAPTER 18:
WATER, SANITATION AND HYGIENE

Key Findings

Water

- Overall, 99.4% of households used an improved water source.
- Overall, 98.7%of households used piped water source.
- Overall, 95.9% percent of households used at least a basic service; that is, an improved source within 30 minutes' round trip to collect water.

Sanitation

- Overall, 95.2% of households had improved sanitation facilities.
- Overall, 72.0% of households used on-site sanitation facilities, where wastes are disposed in situ.
- Overall, 84.4% of households used at least a basic sanitation service (improved sanitation facilities which are not shared with others), 11.3% of households used limited sanitation services and 4.2% of households used unimproved sanitation facility and 0.7% of households practised open defecation.

Hygiene

- Overall, 99.6% of households had a handwashing facility on-premise.
- Overall, 90.9% of households had basic handwashing facilities and 8.6% had limited hand washing facilities.

Bhutan is committed to improving the living standards of people by making water and sanitation facilities accessible and safe for all. The Royal Government of Bhutan started giving priority to drinking water since the start of the planned development in the 1960s. The activities enhanced with the start of the Rural Water Supply and Sanitation Programme (RWSS) in 1974.

While more than 90% of households had toilets since the early 2000s, the use of improved sanitation facilities was found to be only 58.4% in 2010 when it was estimated for the first time. Therefore, Bhutan has been investing a considerable amount of resources for making water and sanitation facilities accessible and safe for all. One notable intervention undertaken to increase the coverage of improved sanitation facilities was the Rural Sanitation and Hygiene Program (RSAHP) which was piloted in the selected gewogs of Lhuentse, Pema Gatshel, Sarpang and Gasa dzongkhags way back in 2008. The pilot was up-scaled in the whole of Lhuentse dzongkhag which resulted in a drastic increase in improved sanitation coverage from 27% in 2010 to 85% in 2011. Over the years, the RSAHP has gradually expanded and covered 16 dzongkhags by the end of 2019.

Sustainable Development Goals (SDGs) related WASH indicators are aligned with National Key Result Areas (NKRA) for the 12th Five-Years-Plan (FYP) to monitor the progress in achieving SDGs 6.1 & 6.2. However, Bhutan doesn't have national baseline data for some of the key new SDG related WASH indicators to track the SDG 2030 targets.

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) produces estimates for a total of 26 indicators related to water, sanitation, and hygiene. Therefore, estimates for the JMP's nine primary indicators and 17 secondary indicators related to water, sanitation, and hygiene are produced in this report using primary data collected in the survey and one not only very reliable but also the only available surveillance data from the Royal Center for Disease Control, Ministry of Health. The survey includes data based on categories of residence (rural & urban), region (central, east & west) and wealth quintile (least wealthy, lower, middle, upper & wealthiest).

18.1 Water Supply

Most households were covered by improved water source (99.4%), piped water source (98.7%), basic drinking water (95.9%), improved source accessible on-premises (99.1%) and improved source when available (86.2%) (Table 18.1).

Patterns by background characteristics:

- There are no significant differences in the availability of water sources in rural and urban settings and by region (Figure 115).
- Although the difference is not significant, households of upper wealth quintiles have better water services compared to the households of lower wealth quintiles.

18.2 Sanitation

- Although improved sanitation coverage is quite high (95.2%), improved sanitation connected to sewer (17.0%), improved sanitation connected to the septic tank (63.5%) and improved latrines on site (14.6%) is rather low (Table 18.2).
- On the other spectrum, although low, unimproved sanitation facility (4.2%), open defecation (0.7%) and shared sanitation facility (10.8%) still exists.
- Majority of the sewers are disposed on-site (72.0%) and only 17.0% of sewers

are connected to a treatment plant and 3.5% have on-site sanitation facility that is connected to a treatment plant.

- However, majority of the households (82.4%) have safe sanitation services.

Patterns by background characteristics

- Although more urban households have improved sanitation facilities and sanitation facilities connected to a sewer treatment plant, households in the rural areas are better off in sanitation facilities (Figure 115).
- Although the overall coverage with improved sanitation facilities is high, at over 90% for both rural and urban, some disparities are seen in terms of connections to sewer treatment, onsite disposal of sewers, shared sanitation facilities, open defecation, unimproved sanitation facilities and other parameters.
- Households with higher wealth quintiles are better off on all sanitation parameters when compared with a household with lower wealth quintiles.

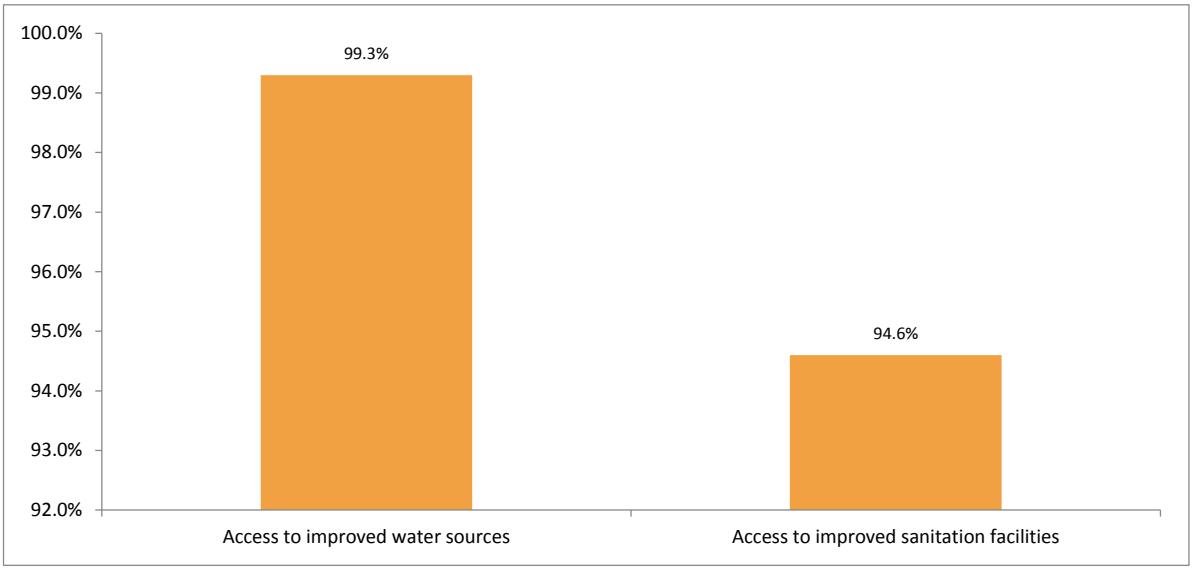


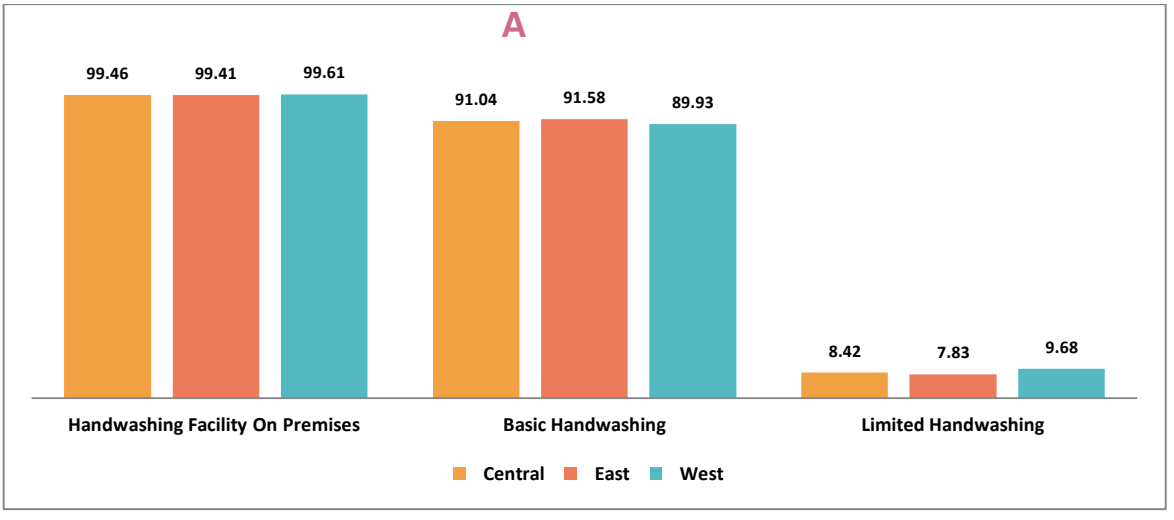
Figure 115: Percentage of population with access to an improved water source and improved sanitation.

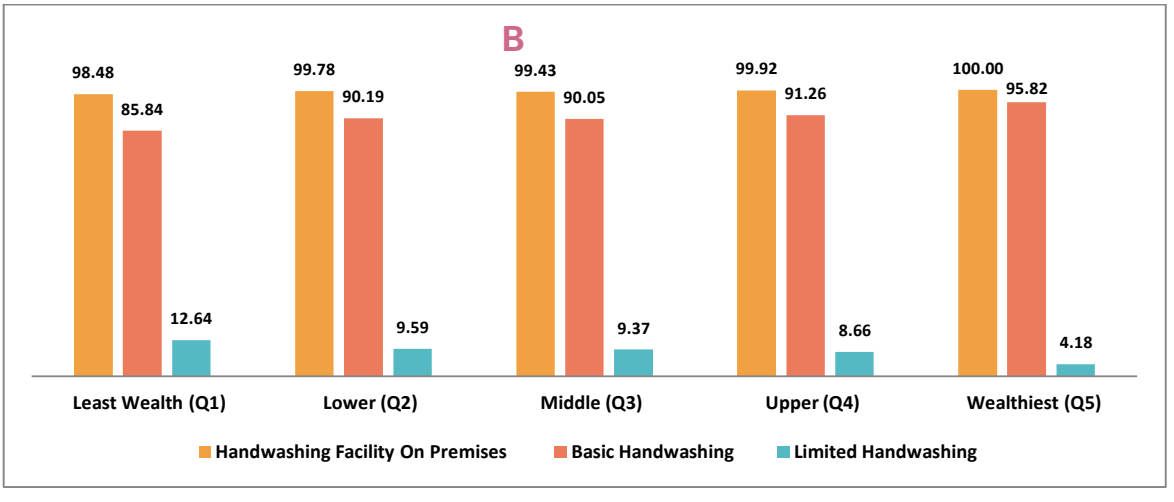
18.3 Hygiene Promotion

- Majority of households have handwashing facilities with 99.6% of households with hand washing facilities on site, 90.9% of households with basic handwashing facilities and only 8.6% of households with limited hand washing (Table 18.3).

Patterns by background characteristics

- There is not much regional or urban-rural disparity in terms of availability of handwashing facilities (Figure 116).
- Households of higher wealth quintiles have better handwashing facilities as compared to households of lower wealth quintiles.





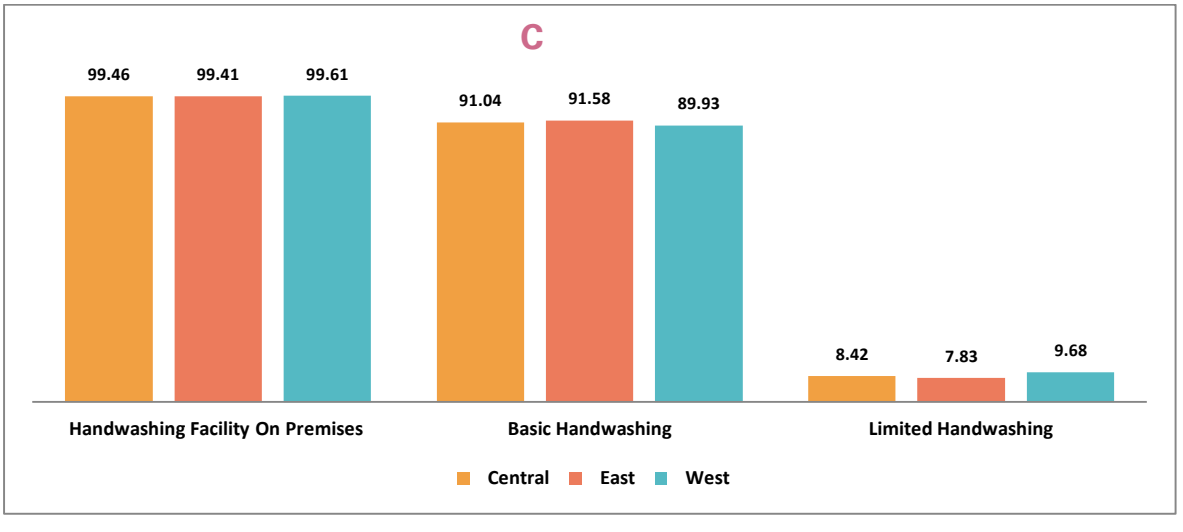


Figure 116: Differentials in percentage of households with the availability of hand washing facility, by region (A), wealth (B) and place of residence (C)

CHAPTER 19:
DISCUSSION, CONCLUSION & RECOMMENDATION

19.1 Discussion

The rise of NCDs has been driven primarily by four major risk factors: tobacco use, harmful use of alcohol, physical inactivity and unhealthy diets. Reducing these modifiable risk factors is essential in reducing the burden of NCDs in the country.

Harmful use of Alcohol

Alcohol is a toxic and psychoactive substance with dependence producing properties. Alcohol consumption contributes to 3 million deaths each year globally as well as to the disabilities and poor health of millions of people. Overall, the harmful use of alcohol is responsible for 5.1% of the global burden of disease. In the World Health Organization (WHO) South-East Asia Region (including Bhutan), 1 in 20 deaths were attributed to alcohol consumption[38]. Bhutan initiated numerous policies and interventions to curb the menace of alcohol[39]. These policies and community led actions were found to be useful in reducing alcohol consumption in the community[40]. Despite many initiatives, alcohol menace perpetuates across the country and society. The STEP survey, 2019 generated useful information to stock take the impact of current interventions and further strengthen, accelerate, innovate and expand the interventions.

More than two-fifths (43%) of respondents were current drinkers, 16% former drinkers while 41% had never consumed alcohol in their lifetime. From among the current drinkers, 51% were found to be heavy episodic drinkers and the eastern region predominates the drinking population. Beer seems to be the common alcoholic beverage among the Bhutanese population with 45% of the drinkers consuming beer. Of more concern to society is alcohol dependence: more than 12% reported that they are not able to stop drinking once started; 4% needed a drink first thing in the morning; and 5% failed to perform tasks that were expected of them on a monthly or more frequent basis. The high alcohol consumption was prevalent despite 76% of respondents having saw/heard messages that discouraged alcohol consumption. Alcohol-related violence, injuries, conflict with law and regulation was frequent as revealed by the study. Survey data speak the impact of interventions and approaches, as reductions are remarkable.

In comparison to 2014, the percentage of current drinkers had decreased by 7% (from 50% in 2014 to 43% in 2019). Similarly, the proportion of heavy episodic drinking had decreased from 22% in 2014 to 18% in 2019 while unrecorded alcohol users had also decreased from 25% in 2014 to 12% in 2019. With regards to alcohol dependence, those who were not able to stop drinking once started decreased from 24% in 2014 to 12% in 2019, those needing a drink first thing in the morning decreased from 7% in 2014 to 4% in 2019. The proportion of those who failed to perform tasks that were expected of them on a monthly or more frequent basis had decreased from 6% in 2014 to 5% in 2019.

The survey findings of heavy episodic drinking among men (22%) particularly in the younger age group (25-39 years) provide evidence of the harmful use of alcohol. This brings credence to the fact that young people engaged in heavy episodic drinking usually results in a high

level of road traffic accidents and fatalities among the youths of the country. This finding corroborates with the GBS study. As per the Report on Bhutan Global School-Based Student Health Survey 2016,[41] almost one-quarter (24.2%) of students reported that they currently consumed alcohol.

While the government had put in place various measures to curb alcohol menaces, more emphasis is required as promulgated by WHO using high-impact, evidence-based, cost-effective interventions such as the SAFER initiative to reduce death, disease and injuries caused by the harmful use of alcohol. While many systems are in place, the implementation bottlenecks need to be ironed out and implementation approaches should be strengthened across all sectors as indicated by alcohol pricing and taxation review[42].

Tobacco use:

Tobacco use is a leading modifiable behavioural risk factor contributing to NCDs. Tobacco use kills more than 8 million people each year. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke.[43] It claims 1.6 million lives in the WHO South-East Asia Region (SEAR) alone as the Region is amongst the largest producers and consumers of tobacco products. Some SEAR countries are among the highest tobacco users globally[44]. As a signatory to FCTC, Bhutan has also taken steps to monitor the use of tobacco, protect people from further or continued use, offer assistance in quitting, raise awareness about the dangers of tobacco and curtail the creation of new demand by enforcing bans on promotions and by putting a complete ban on all tobacco products.

The 2019 STEPS survey revealed that 23% of all respondents currently used tobacco products of any kind. One in three males was using tobacco products as compared to only one in 8 females using tobacco. Differentials in the smoking pattern were seen with socio-economic status: with younger generations and those with higher education and higher wealth quintile preferred smoking while the older group with lower wealth quintile and non/less the primary level education used smokeless tobacco products. Global Youth Tobacco Survey (GYTS) among 7-9 grade students of Bhutan, conducted in 2013,[45] found that overall 30.3% used any tobacco products. Similarly, as per the Report on Bhutan Global School-Based Student Health Survey 2016,[45] the prevalence of tobacco use (any tobacco product smokeless or smoking) was estimated at 29.4%, with the prevalence of cigarette smoking.

The 2019 STEPS survey also found that one out of two Bhutanese were indulging in chewing both betel and areca nut products (doma & paan). The Report on Bhutan Global School-Based Student Health Survey 2016[45] found even higher results with almost two-thirds of the students (65.8%) reporting that they consumed betel or betel nut products. The rising trend of tobacco use in Bhutan is despite adopting the Framework Convention on Tobacco Control (FCTC) and carrying out the interventions as recommended.

It is critical that Bhutan as a signatory to FCTC enforce the MPOWER policy package of monitoring the use of tobacco, protect people from further or continued use, offer assistance in quitting, raise awareness about the dangers of tobacco and curtail the creation of new demand by enforcing bans on promotions and by putting a complete ban on all tobacco products. Bhutan should take special note of the younger generation indulging in addictive substances like smoking and chewing doma & paan, which would have a greater impact as they grow old and also to the larger society. Although this report has not captured the use of E-cigarettes, considering the global growth in the use of this, preventive intervention should also include the use of E-cigarettes in Bhutan.

Dietary Habits

The global community is grappling with multiple burdens of malnutrition. Overweight and obesity are increasing in almost every country and are a real concern in many low and middle-income countries, not just high-income ones[46]. Good dietary habits evolve and are determined by various social and economic factors that interact in a complex manner to shape individual dietary patterns. The factors include economic, beliefs, culture, geography and environment.

Bhutan STEPS survey 2019 found that average servings of fruits and vegetables consumed per day are 3.0 servings and 86.4% of respondents have insufficient fruits and vegetable intake. Overall, 98.6% use vegetable oil as cooking oil. Dietary Assessment 2017 conducted by School Health and Nutrition Division of MoE, showed that school meals were a poor source of energy and proteins. They lacked diversity and were a poor source of micronutrients. While the data speaks for itself, there is a need to further drive into these changing dietary habits despite economic development. One possible reason could be the changing dietary habits of the younger generation. Bhutan Global School-Based Student Health Survey 2016[45] found that 40% of students drink carbonated soft drinks at least once a day and 32.2% of the students reported eating fast food at least four times in a week.

Promoting healthy food and dietary habits requires implementing strategies through multiple sector approaches including government, public and private sector. While this survey found high unhealthy dietary habits, there is a need for further studies to determine the changing dietary habits and nutrition of Bhutanese population, in light of the changing population dynamics and socioeconomic status.

Dietary Salt Intake

Excessive salt intake is a major risk factor for hypertension, which is a major cause of premature deaths worldwide. WHO recommends consuming less than 2 grams of sodium or 5 grams of salt per day to reduce blood pressure and the risk of cardiovascular disease, stroke and coronary heart disease.[17] The 2019 STEPS survey, based on the spot urine testing, the average population (95% CI) salt intake was estimated at 8.3 grams per day (9.1 g/d men, 7.4g/d women). Globally, Asia has the highest intake (4.3 g/day of sodium), followed by Europe (4.0 g/day of sodium)[17].

This is a slight reduction as compared to 2014 findings which was 9 grams/day. Despite high salt intake, 65% of respondents perceived that the level of their salt intake was "Just right", and only 34% of the respondents were able to correctly tell the recommended salt limit. This is a concern for preventive activities. An added concern is that 2.2% reported adding tasting powder/monosodium glutamate (MSG) always during food preparation while 16% reported adding sometimes only. When compared to 2014, there are reductions in actual in salt intake and improvement in knowledge on salt intake risks.

Global School-Based Student Health Survey 2016[45] found that many students eat junk food; 40% of students drink carbonated soft drinks at least once a day and 32.2% of the students reported eating fast food at least four times in a week, which may contain high salt content. Further, Dietary Assessment 2017[47] conducted by School Health and Nutrition Division of MoE, showed that school meals were a poor source of energy and proteins. The school meals lacked diversity and were a poor source of micronutrients.

Bhutan has committed to 30% relative reduction in mean population intake of salt/sodium by 2025 relative to 2010 levels as one of the nine voluntary global targets set under WHO global action plan[15]. However, much needs to be done, considering the Bhutanese delicacies of Suja, Ema datsi and other dishes containing salt ingredients. The preventive actions on behavioural

change for low salt and dietary habits have to be inbuilt from a very young age. The investment in the young age group would not only reach to more than one-third of the population group (35% of the population in Bhutan is adolescents and youth) but also bring in the triple dividend of benefits for youths now (present), for their future adult lives, and the next generations.[48]

Physical Activity

Insufficient physical activity and sedentary behaviour is a leading risk factor for NCD related mortality and has major implications for the rising prevalence of NCDs[49]. Globally, 1 in 4 respondents is not active enough and more than 80% of the world's adolescent population is insufficiently physically active[50]. This survey showed a median time spent on physical activity of moderate 240 minutes per day amongst the population aged 15-69 years. However, 29% of adolescents aged 15-17 years have insufficient levels of physical activity. Global School-Based Student Health Survey 2016[45] found only 23.5% students being physically active, while about 30% of students reported sedentary activities.

The main contribution to physical activity was by work (69%), travelling between places (16%) and recreational activities (15%). On the contrary, the average time spent sitting idly or reclining on a typical day was 146 minutes while half the respondents spent 120 minutes or more on sedentary activities per day.

To encourage people to do physical exercises, outdoor gym equipment had been installed in public places in all 20 Dzongkhags and 4 major Thromdes. During the survey, it was found that only 19% of the respondents had ever used the outdoor gym equipment, 61% of respondents who had used the outdoor gyms reported using it less than once a month while 57% of respondents never used outdoor gyms as it was not available.

Physical activity is a critical protective factor for preventing chronic diseases. The low level of physical activity and high sedentary activities poses a major NCD risk factor. As such, there is an urgent need to build community-based activities at the grass-root level. Getting people to move more is a key strategy for reducing the burden of NCDs, as articulated in WHO's Global Action Plan for the Prevention and Control of NCDs 2013-2020. The plan strives to achieve a 10% reduction in physical inactivity by 2025, which contributes to achieving the Sustainable Development Goals (SDGs).52 Bhutan should revise the current multi-sectoral NCD action plan with amended policies and actions based on this survey.

Physical measurements

The lancet study,[51] with pooled data set from more than 200 countries, predicted that if obesity trends continue, by 2025 global obesity prevalence will reach 18% in men and surpass 21% in women; severe obesity will surpass 6% in men and 9% in women. As per STEPS survey 2019, the mean population body-mass index (BMI) has slightly increased from 24 kg/m^2 in 2014 to 24.8 kg/m^2 in 2019. While there is a minimal decrease in the prevalence of underweight respondents from 3.4% in 2014 to 3.1% in 2019, there is an increase in the proportion of overweight (26.7% to 33.5%) and obesity (6.2% to 11.4%). Between 2014 and 2019, the prevalence of high waist circumference (WC) and high waist-hip ratio (WHR) increased much more among women than men. Further, the proportion of respondents with normal risk decreased from 65.2% in 2014 to 53% in 2019. These trends increase the risk of NCD. Obesity is a chronic lifelong condition that results from the interaction between heritable factors with environmental influences, often as a result of energy imbalance between calories consumed and calories expended with increase intake of energy-dense foods that are high in fat and sugars; and an increase in physical inactivity due to the increasingly sedentary lifestyle. To halt the increasing trend of BMI multipronged approaches, including creating conducive environment for physical exercises and behavioural change for dietary habits.

These approaches should target both young and old as the behaviour and lifestyle adopted at a very young age will have severe impact on the later part of life.

Raised Blood Pressure

Raised blood pressure is often called as "silent killer" and is a major cause of premature death, with most people not even aware of the disease. Worldwide, an estimated 1.13 billion people have hypertension, most (two-thirds) living in low- and middle-income countries[52]. The findings indicate that nearly one in every four Bhutanese (28%) have raised blood pressure with 65% of them not even aware of their raised blood pressure. Further, even among those aware of their blood pressure, 20% are not on treatment due to various reasons. With such prevalence in high blood pressure, there is a need for concerted effort.

The prevalence of raised blood pressure among respondents decreased from 35.7 % in 2014 to 28% (prevalence in 15-69 years) in 2019. Despite the reduction, there is a need to further accelerate the approaches. The acceleration of prevention and control of hypertension and other NCDs can be achieved through strong political will and allocation of adequate budget along with deployment of dedicated and competent health workers at health facilities.

Raised Blood Sugar

Both the number of cases and the prevalence of diabetes have been steadily increasing over the past few decades across the globe. Hence, a global target to halt the rise in diabetes and obesity by 2025[53]. The findings from 2019 STEPS survey suggest that around 2% of Bhutan's adult population is diabetic, which is similar to the 2014 survey. However, among those with raised blood sugar level, 43% reported that were not aware of the diagnosis and 6% reported that they had raised blood sugar but were not on treatment. Of those on treatment, 14% have not controlled sugar level while 36% have controlled sugar level.

This finding on the treatment gaps reflects a need to reorient the health facility that is more people centered so that those who are tested for blood sugar are given adequate information and people are on treatment and compliance on treatment is improved.

Raised Cholesterol

WHO recommends a reduction in serum cholesterol and states that 10% reduction in serum cholesterol in men aged 40 years has been reported to result in a 50% reduction in heart disease within 5 years; the same serum cholesterol reduction for men aged 70 years can result in an average 20% reduction in heart disease occurrence in the next 5 years.[35] The 11% prevalence of raised total cholesterol among the STEPS survey participants was marginally less than the 2014 prevalence of 12.5%. Serum cholesterol level also much lower than the global and WHO-SEARO region[35]. However, from among those with raised blood cholesterol, 91% were not aware of their diagnosis while 3% were aware but was not put on treatment. Of those who were put on treatment, 0.7% reported no-control. The proportion of respondents who had ever had their blood cholesterol level measured increased from 3.2% in 2014 to 10% in 2019. Of the respondents, 21% reported that they were told by health workers that they have raised blood cholesterol level. In the past 12 months, 59% of respondents have been told by a health worker that they have raised blood cholesterol level, of which only 20% reported being on medication.

While the overall percentage of people with raised serum cholesterol level has dropped, the health sector gaps in terms of access to testing facilities, providing adequate information and treatment needs to be strengthened, expanded and accelerated.

Cardiovascular Diseases

In line with global targets, Bhutan has committed to achieving a 25% relative reduction in risk of premature mortality from NCDs[54]. This survey provides the status of these goals. The survey showed, 3.7% of respondents aged 40-69 years have a predicted 30% or more chance of having a fatal or nonfatal major cardiovascular event (myocardial infarction or stroke) in the next 10 years based on WHO/ISH risk prediction charts. Not surprisingly, the CVD has increased from the 2014 survey which showed 1.8%. This is validated by the proportion of respondents aged 18-69 years, who reported ever having a CVD event in 2019 was four times higher compared to 2014 (3.6% vs 0.8%). On the contrary, the survey showed a sub-optimal level of advice on the NCD risk factors reduction with only 33.8% receiving advice on tobacco cessation and 36.9 % on reducing sugary beverages.

The WHO-PEN HEARTS tools have been piloted and rolled out and these need to be strengthened with particular focus on audit tools as recommended. For these, health workers need to be constantly motivated through training, re-training, mentoring and coaching. Only then, the program would be in a better position to achieve the goals and reduce premature deaths from NCDs.

Cervical Cancer

With cervical cancer elimination as one of the flagship programs for the 12FYP, Bhutan is at the forefront of promoting women's health. To achieve elimination, a comprehensive approach to prevent, screen and treat, has been initiated. This survey found that more than half (54%) of women (15-69 years) reported that they had undergone cervical cancer testing. The most common reasons cited for not testing were, "did not know where to get tested", embarrassment, fear, time factor, etc.

It is encouraging to note that 59% of women were tested as part of a routine examination. 91% of women received the result of their most recent test on time and 88% with abnormal or inconclusive test result received treatment. Almost all cervical cancer cases (99%) are linked to infection with high-risk human papillomaviruses (HPV) and recommends an effective primary (HPV vaccination) and secondary prevention approaches (screening for and treating precancerous lesions) to prevent most cervical cancer cases[39].

The survey noted an increase in the percentage of women aged 30-49 years, who have ever tested for cervical cancer, from 64.1% to 82.1% between 2014 and 2019 and from 50.7% to 54.8% amongst women aged 18-69 years for the same period. With more focus in the coming years, the percentage is likely to increase and achieve cervical elimination in Bhutan and it is recommended to strengthen the services to reach the unreached population.

Oral Health

Oral health is the most neglected public health program, despite an estimated 3·5 billion people have oral diseases globally[55]. A survey conducted in Bhutan[56] showed more than 80% of children had untreated decay in primary teeth. The STEPS survey 2019 found more than half of the respondents (50%) reported visiting a dentist in the past. It is those in the urban areas and those with increasing levels of education and increasing wealth quintiles that visited hospitals for dental services. A majority (96%) visited the dentist for consultation or treatment while 9% visited for preventive services.

Oral health diseases are often chronic and progressive, starting in early childhood and progressing throughout adolescence and adulthood and into later life. Increasing consumption of free sugars is causing an increase in dental caries, as well as other NCDs such as obesity and

diabetes. Visiting dentist for preventive reason are differentials with males, urban residents and respondents with a higher level of education more frequently visiting dentist. There is a need to provide much-needed focus on oral health among other NCDs.

Mental Health

To accelerate the implementation and results of WHO 13th General Programme of Work (GPW13), and to achieve UHC in mental health, WHO has launched a special Initiative for Mental Health[57] Mental health conditions contribute to poor health outcomes, premature death, human rights violations, and global and national economic loss. To this cause, this survey results on mental health should augment the global initiatives and direct the country progress.

This survey reported that 0.7% of respondents have ever attempted suicide while 1.2% of respondents seriously considered attempting suicides. The survey showed 0.4% of respondents have moderately severe depression, 1.6% has moderate depression and 12.3% have mild depression. Further, 0.2% of respondents have severe anxiety, 1.5% has moderate anxiety and 7.5% have mild anxiety. Socio- economic factors are an important component of mental health with respondents aged 15-24 years who are women, live in urban areas, have a primary to middle school level education, and lower household wealth, most likely to report seriously considering attempting suicide.

The gravity of the problem as per the community perception was even higher with more than 30% of respondents thinking mental health is "somewhat", or "very much", a problem in Bhutan. The annual health Bulletin also reported an increasing depression Incidence (per 10,000 populations) as 6.0 in 2017, 9.6 in 2018 and 10.4 in 2019[58]. These trends warrant an acceleration of prevention approaches. Mental health is one of the important domains of GNH. Without addressing the mental health, Bhutan's path in making GNH a real goal is at stake. Therefore, the government must adopt a collaborative approach in addressing mental health issues and gaps in Bhutan.

Violence and Injury

With rapid urban development, increasing population and rapid motorization, the road traffic accident would increase globally and also in Bhutan and if proper safety measure is not instituted, the situations would deteriorate[59].

The 2019 STEPS survey revealed a prevalence of 3.2% road traffic accidents and was more predominant among the economically productive age group (15- 39 years). The percentage of people using a seat belt was 16% while the use of a helmet while riding a motorcycle was 23%. Wearing a seat-belt reduces the risk of death among drivers and front-seat occupants by 45–50%, and the risk of death and serious injuries among rear seat occupants by 25%. A requirement that both front and rear occupants use seat-belts is a key criterion for best practice[60]. Therefore, it would be recommended that Bhutan adopt the best practices sooner than later as the road traffic accidents are bound to increase.

Water, Sanitation and Hygiene

Bhutan WASH program was established in 2006 although the rural water supply was established since the 1970s. Since its inception, Bhutan has made many strides in making the WASH facilities available and accessible in Bhutan.

This survey found that more than 99% of households have improved water sources and piped water sources. Similarly, 95% of the households had improved sanitation facilities and

handwashing facilities in the premises. The Population and Housing Census, 2017, also found that 98% of Bhutanese households have piped water as the main source of drinking water and 81.0% of all houses have reliable sources of water supply.

19.2 Conclusions

Bhutan is witnessing an increased burden of NCDs both in terms of morbidity and mortality. While programmatic interventions are being rolled out, the burden is likely to exacerbate due to the population's easy vulnerability to the risk factors. The 2019 STEPS survey revealed that the prevalence of modifiable behavioural and biological NCD risk factors are apparently very high among Bhutanese respondents and therefore require urgent action both at the policy level and ground level. The survey also included new indicators and extra modules, which would serve as the basis for future surveys. The STEPS survey is a measure of NCD indicators, and it is recommended to conduct this type of survey every five years. More importantly, based on these findings, the Ministry of Health should immediately develop policy briefs and actionable interventions to address NCD risks in Bhutan. Besides, the data may be further analysed to understand the depth and extend of the risk factors under each thematic group and publish as academic learning, and to provide insightful recommendations for policy shifts.

REFERENCES

1. https://www.who.int/health-topics/noncommunicable-diseases#tab=tab_1 Accessed on 27/6/2020
2. Gyambo Sithey, Anne Marie Thow et al, Taking action on prevention and control of Noncommunicable diseases in Bhutan by strengthening gross national happiness; Bhutan Health Journal, 2018 November | Vol. 4 | Issue 2
3. World Health Organization. Noncommunicable Diseases (NCD) Factsheet, 2018. Available from: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases. Accessed on 27/6/2020
4. Ministry of Health. Annual Health Bulletin, 2020.
5. World Health Organization. Noncommunicable Diseases (NCD) Country Profiles, 2018.Available from:https://www.who.int/nmh/countries/btn_en.pdf?ua=1. Accessed on 27/6/2020
6. United Nations. Transforming our world: the 2030 Agenda for Sustainable Development [Internet] 2015 [Accessed on 2019 Oct 22] Available from: https://sustainabledevelopment.un.org/post2015/transformingourworld. Accessed on 27/6/2020
7. World Health Organization. Global action plan for the prevention and control of NCDs 2013-2020. Geneva.
8. Ministry of Health. The Multi-sectoral Action Plan for the Prevention and Control of Non-communicable Diseases in Bhutan (2015-20), 2015.
9. World Health Organization. WHO STEPS surveillance manual: The WHO STEPwise approach to chronic disease risk factor surveillance. Geneva: World Health Organization, 2017.
10. Kawasaki T, Itoh K, Uezono K, Sasaki H. A simple method for estimating 24 h urinary sodium and potassium excretion from second morning voiding urine specimen in adults. Clin Exp Pharmacol Physiol.1993; 20(1):7-14.
11. Brown IJ, Dyer AR, Chan Q, et al. Estimating 24-Hour Urinary Sodium Excretion From Casual Urinary Sodium Concentrations in Western Populations. American Journal of Epidemiology. 2013; 177(11):1180-1192. doi:10.1093/aje/kwt066
12. Tanaka T, Okamura T, Miura K, et al. A simple method to estimate population 24-h urinary sodium and potassium excretion using a casual urine specimen. J Hum Hypertens. 2002; 16(2):97-103.doi:10.1038/sj.jhh.1001307
13. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/alcohol. Accessed on 27/6/2020
14. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/tobacco. Accessed on 27/6/2020
15. World Health Organization. World Health Organization. Global action plan for the prevention and control of NCDs 2013-2020. Geneva.
16. Joint WHO/FAO Consultation on Diet, Nutrition and the Prevention of Chronic Diseases (2002: Geneva, Switzerland) Diet, nutrition and the prevention of chronic diseases: report of a joint WHO/FAO expert consultation, Geneva, 28 January – 1 February 2002.
17. World Health Organization. Guideline: Sodium intake for adults and children. Geneva, World Health Organization (WHO), 2012.
18. Ministry of Health. The Multi-sectoral Action Plan for the Prevention and Control of Non-communicable Diseases in Bhutan (2015-20). Royal Government of Bhutan, 2015.
19. Brown IJ, Dyer AR, Chan Q, et al. Estimating 24-Hour Urinary Sodium Excretion From Casual Urinary Sodium Concentrations in Western Populations. American Journal of Epidemiology.

2013; 177(11):1180-1192. doi:10.1093/aje/kwt066

20. Lee I-M, Shiroma EJ et al. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. The Lancet. 2012; 380(9838):219-229. Doi:10.1016/S0140-6736(12)61031-9.
21. Ding D, Lawson KD, Kolbe-Alexander TL, et al. The economic burden of physical inactivity: a global analysis of major non-communicable diseases. The Lancet. 2016; 388(10051):1311-1324. doi:10.1016/S0140-6736(16)30383-X
22. Reiner M, Niermann C, et al. Long-term health benefits of physical activity – a systematic review of longitudinal studies. BMC Public Health. 2013; 13(1):813. doi:10.1186/1471-2458-13-813
23. Ekelund U, Steene-Johannessen J, et al. Does physical activity attenuate, or even eliminate, then detrimental association of sitting time with mortality? A harmonised meta-analysis of data from more than 1 million men and women. The Lancet. 2016; 388(10051):1302-1310. doi:10.1016/S0140-6736(16)30370-1
24. Warburton DER. Health benefits of physical activity: the evidence. Canadian Medical Association Journal. 2006; 174(6):801-809. doi:10.1503/cmaj.051351
25. World Health Organization. The Global action plan for the prevention and control of NCDs 2013-2020.Geneva.
26. Armstrong T, Bull F. Development of the World Health Organization Global Physical Activity Questionnaire (GPAQ). J Public Health 2006; 14:66-70.
27. World Health Organization. Waist circumference and waist-hip ratio: report of a WHO expert-consultation, Geneva, 2008.
28. Lear SA, James PT, et al. Appropriateness of waist circumference and waist-to-hip ratio cut-offs for different ethnic groups. Eur J Clin Nutr. 2010; 64(1):42-61. doi:10.1038/ejcn.2009.70
29. World Health Organization. Obesity: preventing and managing the global epidemic: report a WHO consultation. Geneva, 2000.
30. Alberti KGMM, Zimmet P, et al. Metabolic syndrome-a new world-wide definition. A Consensus Statement from the International Diabetes Federation. Diabet Med. 2006; 23(5):469-480. doi:10.1111/j.1464-5491.2006.01858.x
31. National Institutes of Health. National Heart, Lung, and Blood Institute. NIH Publication Number 00-4084. October 2000. NHLBI Obesity Education Initiative.
32. World Health Organization. https://www.who.int/gho/ncd/risk_factors/cholesterol_text/en/ Accessed on 27/6/2020
33. World Health Organization. https://www.who.int/health-topics/cardiovascular-diseases/#tab=tab_1
34. Mendis S, Lindholm LH, Mancia G, et al. World Health Organization (WHO) and International Society of Hypertension (ISH) risk prediction charts: assessment of cardiovascular risk for prevention and control of cardiovascular disease in low and middle-income countries: Journal of Hypertension. 2007; 25(8):1578-1582. doi:10.1097/HJH.0b013e3282861fd3
35. World Health Organization. https://www.who.int/health-topics/cervical-cancer#tab=tab_1. Accessed on 27/6/2020
36. World Health Organization. Comprehensive cervical cancer control: a guide to essential practices – 2 nd ed. 2014 World Health Organization: Geneva, Switzerland.
37. Roth GA, Abate D, Abate KH, et al. Global, regional and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. The Lancet. 2018; 392(10159):1736-1788. Doi: 10.1016/S0140-6736(18)32203-7. Accessed on 27/6/2020
38. World Health Organization. https://www.who.int/health-topics/alcohol#tab=tab_1 Accessed on 27/6/2020
39. Royal Government of Bhutan. National Policy and Strategic Framework to Reduce Harmful Use of Alcohol 2015-2020
40. Dil K. Subba, Mongal S. Gurung et al Community action to reduce harmful use of alcohol: a

pilot study in the remote villages of eastern Bhutan, Bhutan Health Journal, Vol 4 No 2 (2018): Nov-Issue, 2018

41. World Health Organization. Regional Office for South-East Asia. (2018). Report on Bhutan global school-based student health survey 2016. World Health Organization. Regional Office for South-East Asia. https://apps.who.int/iris/handle/10665/272768. License: CC BY-NC-SA 3.0 IGO
42. World Health Organization. Alcohol Pricing and Taxation in Bhutan, 2019.
43. World Health Organization. WHO report on the global tobacco epidemic, 2019
44. World Health Organization. https://www.who.int/southeastasia/health-topics/tobacco . Accessed on 27/6/2020
45. World Health Organisation; Global Youth Tobacco Survey (GYTS) Bhutan Report, 2013
46. Development Initiatives Poverty Research Ltd, https://globalnutritionreport.org/reports/2017-global-nutrition-report/ Accessed on 27/6/2020
47. Ministry of Education, Dietary Assessment 2017. Unpublished report.
48. George C Patton, Susan M Sawyer, John S Santelli, et al , Our future: a Lancet commission on adolescent health and wellbeing; Lancet 2016; 387: 2423–7.
49. Lee I-M, Shiroma EJ, et al. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. The Lancet. 2012; 380(9838):219-229. Doi: 10.1016/S0140-6736(12)61031-9.
50. World Health Organization. https://www.who.int/en/news-room/fact-sheets/detail/physical-activity. Accessed on 27/6/2020
51. NCD Risk Factor Collaboration (NCD-Risks), Trends in adult body-mass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19·2 million participants,Lancet 2016; 387: 1377–96
52. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/hypertension . Accessed on 27/6/2020
53. World Health Organization. https://www.who.int/health-topics/diabetes#tab=tab_1. Accessed on 27/6/2020
54. Ministry of Health. The multisectoral national action plan for the prevention and control of non-communicable diseases, 2015-2020
55. Marco A Peres, Lorna M D Macpherson and et al, Series 1, Oral diseases: a global public health challenge,Lancet 2019; 394: 249–60
56. Dorji Phurpa, Sonam Ngyedup et al, A report on the Oral Health Status of 3 to 5 Year-old Children Attending Early Childhood Care and Development Centers in Bhutan: A Pilot Study, 2019, unpublished report
57. World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/310981/WHO-MSD-19.1- eng.pdf?sequence=1&isAllowed=y . Accessed on 27/6/2020
58. Ministry of Health. Annual Health Bulletin, 2020.
59. World Health Organization. Global status report on road safety 2018, https://apps.who.int/iris/bitstream/handle/10665/277370/WHO-NMH-NVI-18.20-eng.pdf?ua=1 Accessed on 27/6/2020
60. World Health Organization. Global status report on road safety 2018, https://apps.who.int/iris/bitstream/handle/10665/277370/WHO-NMH-NVI-18.20-eng.pdf?ua=1 Accessed on 27/6/2020

Bhutan STEPS SURVEY, 2019 FACTSHEET

The STEPS Survey of non-communicable diseases (NCD) risk factors in Bhutan was carried out from April to June 2019. A cross-sectional national survey was conducted to obtain data representative of population, aged 15 to 69 years, in Bhutan. The survey interviewed the participants to assess behavioural risk factors and health history related to NCDs; performed physical measurements to assess blood pressure, height and weight, and waist and hip circumference; and carried out blood chemistry rapid diagnostic tests to assess fasting blood glucose and total cholesterol using Cardio Check spot testing equipment. In addition, mean sodium intake of the adult population was estimated by measuring urinary sodium. A multistage sample design was used to produce representative data for the age range in Bhutan. A total of 5,575 people were interviewed.

Results of adults aged 15-69 years	Both sexes (% & 95% CI)	Male (% & 95% CI)	Female (% & 95% CI)
Alcohol Consumption			
Percentage who are lifetime abstainers	40.7 [38.3-43.1]	32.7 [29.6-35.9]	49.7 [46.7-52.6]
Percentage who are past 12 month abstainers (former drinker)	16.4 [14.5-18.4]	17.2 [14.7-20.0]	15.4 [13.7-17.4]
Percentage who currently drink (drank alcohol in the past 12 months)	42.9 [40.8-45.1]	50.1 [47.0-53.2]	34.9 [32.4-37.4]
Percentage who currently drink (drank alcohol in the past 30 days)	33.1 [31.1-35.0]	40.1 [37.3-43.1]	25.1 [23.0-27.4]
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days) among current drinkers	51.2 [47.3-55.1]	66.7 [61.2-71.8]	33.8 [29.1-38.8]
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days) (overall population)	17.5 [15.7-19.4]	24.4 [21.7-27.3]	7.9 [6.7-9.4]
Percentage who reported consuming unrecorded alcohol in past 7 days among current drinkers (past 30 days)	35.9 [31.6-39.6]	33.4 [29.0-38.1]	37.8 [33.0 -42.8]
Tobacco Use			
Percentage who currently use tobacco (smoked/ smokeless)	23.9 [21.4-26.6]	32.9 [29.4-36.4]	11.8 [10.1-13.7]
Percentage who currently smoke any tobacco	10.6 [9.2-12.3]	15.2 [13.0-17.7]	3.7 [2.7-5.0]
Percentage who currently smoke tobacco daily	5.8 [4.8-7.0]	8.0 [6.6-9.7]	2.0 [1.4-2.8]
Percentage who currently smoke cigarettes (manufactured/hand rolled cigarettes)	10.0 [8.6 - 11.7]	14.3 [12.1 - 16.8]	3.4 [2.5 - 4.8]

Results of adults aged 15-69 years	Both sexes (% & 95% CI)	Male (% & 95% CI)	Female (% & 95% CI)
Percentage who currently use smokeless tobacco	14.7 [12.9-16.7]	20.3 [17.6-23.3]	8.3 [7.0-10.0]
Average age at initiation of smoking (years) among those who smoke daily	20.1 [19.2 - 21.1]	19.9 [18.9-21.0]	20.4 [18.9-21.8]
Betel and areca nut use			
Percentage who currently use betel and/or areca nut (*Doma* and *Paan*)	51.8 [49.2 - 54.5]	52.2 [48.8 - 55.5]	51.5 [48.2 - 54.2]
Percentage who currently use betel and/or areca nut on daily basis	20.2 [18.3-22.2]	21.3 [19.1-23.7]	18.9 [16.7-21.4]
Mean number of betel and/or areca nut consumed per week	32.7 [29.4 - 36.0]	39.1 [33.9 - 44.5]	25.4 [22.4 - 28.4]
Dietary Habits			
Mean number of servings of fruit and/or vegetables consumed on average per day	3.0 [2.9 - 3.2]	3.0 [2.9 - 3.2]	3.0 [2.9 - 3.2]
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	86.4 [84.2 - 88.2]	86.1 [83.6 - 88.2]	86.7 [84.2 - 88.9]
Mean number of serving of legumes consumed on average per day	0.7 [0.7-0.8]	0.8 [0.7-0.8]	0.7 [0.7-0.8]
Percent of population self-reported as vegetarian	13.7 [11.8-15.8]	11.8 [9.6-14.3]	15.8 [13.7-18.2]
Dietary Salt Intake			
Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	11.6 [8.8 - 15.1]	10.9 [8.1 - 14.5]	12.3 [9.2 - 16.3]
Percentage who always or often eat processed foods high in salt	11.5 [9.8 - 13.4]	11.2 [9.3 - 13.5]	11.7 [9.7 - 14.1]
Percentages who are doing something on regular basis to control salt intake (e.g. avoid/minimize consumption of processed food, avoid eating food prepared outside of home, etc)	68.0 [64.0 - 71.7]	69.1 [64.6 - 73.2]	66.7 [62.6 - 70.6]
Percentage whose household always or often drink salted tea	12.7 [10.7-15.1]	12.8 [10.3-15.9]	12.6 [10.5-15.1]
Mean intake of salt per day (in grams) (based on spot urine examination*(based on Intersalt equation for North America)	8.3 [8.2-8.4]	9.1 [8.9-9.2]	7.4 [7.3-7.5]
Physical Activity			
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)	7.3 [6.2-8.5]	6.5 [5.3-8.1]	8.2 [6.7-10.0]
Median time spent in vigorous activity on an average per day (minutes) (1st and 3rd quartile)	17.1 [0 - 137.1]	42.9 [0 - 180.0]	0 [0 - 77.1]
Median time spent in moderate physical activity on average per day (minutes) (1st and 3rd quartile)	111.4 [47.1 - 240]	102.9 [45 - 240]	120 [50 - 240]
Median time spent on sedentary activity on a typical day	120 [60 - 180]	120 [60 - 180]	120 [60 - 180]

Results of adults aged 15-69 years	Both sexes (% & 95% CI)	Male (% & 95% CI)	Female (% & 95% CI)
Oral Health			
Percentage of who saw a dentist in last 12 month	33.6 [30.8-36.4]	32.8 [29.0 - 36.9]	34.4 [31.5 - 37.5]
Mental Health			
Percentage seriously considered attempting suicide in the past 12 months	1.2 [0.8-1.7]	0.8 [0.4-1.5]	1.7 [1.2-2.3]
Percentage made a plan about how to commit suicide in the past 12months	0.7 [0.5-1.2]	0.7 [0.3-1.5]	0.8 [0.5-1.3]
Percentage ever attempted suicide in the past 12 months	0.7 [0.5-1.1]	0.6 [0.3-1.2]	0.9 [0.6-1.3]
Percentage who thought suicide is a very much common problem in their community	30.3 [26.3- 34.5]	32.1 [27.6 -36.9]	28.2 [24.3- 32.6]
Percentage with moderate to moderately severe depression	2.0 [1.4-2.7]	1.3 [0.7 -2.2]	2.8 [2.0-3.9]
Percentage with moderate to moderately severe anxiety	1.7 [1.1-2.5]	1.4 [0.7-2.7]	1.9 [1.2 -2.9]
Violence and Injuries			
Percentage involved in road traffic crash in the past 12 months	3.2 [2.4-4.4]	4.8 [3.4-6.8]	1.4 [1.0-2.0]
Percentage who wear seatbelt all the times or sometimes when being in a driver or passenger in a motor vehicle (among those who were in vehicle in the past 30 days)	16.4 [15.0-18.0]	21.7 [19.3 - 24.3]	10.5 [9.3 - 12.0]
Percentage who wore helmet all the times or sometimes when drove or rode as a passenger on a motorcycle or motor-scooter	22.5 [18.6-27.1]	36.0 [29.2 - 43.2]	7.5 [5.6 - 10.0]
BMI and Obesity			
Mean body mass index - BMI (kg/m^2)	24.8 [24.7 - 25.0]	24.4 [24.2 - 24.5]	25.4 [25.2 - 25.6]
Percentage who are overweight (BMI ≥ 25 kg/m^2 & <30 kg/m^2)	33.5 [32.0-35.0]	31.7 [29.5-34.0]	35.4 [33.5-37.4]
Percentage who are obese (BMI ≥ 30 kg/m^2)	11.4 [10.5-12.5]	8.4 [7.1-9.8]	14.9 [13.5-16.3]
Percentage of who are underweight (BMI <18 kg/m^2)	3.1 [2.5-3.8]	2.3 [1.6-3.3]	3.9 [3.0-5.0]
Percent adults with high WHR (>=0.85 women, >=0.90 men)	52.9 [50.6-55.3]	44.5 [41.1-47.9]	62.4 [60.1-64.8]
Raised Blood Pressure, Raised Blood Sugar and Raised Cholesterol Level			
Prevalence of raised BP: Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	28 [26.5-29.6]	31.6 [29.2-34.1]	24 [22.1-26.0]
Percentage of people (40-69 years of age) who ever got their BP measured from a health worker	89.1 [87.4-90.6]	86.1 [83.4-88.4]	92.4 [90.5-93.9]

Results of adults aged 15-69 years	Both sexes (% & 95% CI)	Male (% & 95% CI)	Female (% & 95% CI)
Percentage of people measured to have raised BP and/or on medications and who were on treatment but not controlled	9.3 [7.8 -11.0]	6.8 [5.1-9.2]	12.1 [9.9-14.6]
Percentage of people measured to have raised BP and/or on medications and who were on treatment and controlled	5.7 [4.5-7.2]	4.2 [2.7-6.5]	7.3 [5.6-9.4]
Prevalence of raised blood sugar: Percentage with raised fasting blood glucose(fasting blood glucose ≥ 126 mg/dl) or currently on medication for raised blood glucose	1.9 [1.5-2.6]	1.8 [1.2-2.8]	2.1 [1.6-2.8]
Percentage of people (40-69 years) who ever got their blood sugar measure from a health worker	48.0 [44.8-51.2]	44.2 [40.3-48.1]	52.3 [48.4-56.2]
Percentage of people measured to have raised blood glucose and on treatment, but not controlled	13.6 [7.7-22.9]	14.5 [6.2-30.3]	12.7 [7.0-21.8]
Percentage of people measured to have raised blood glucose and on treatment and controlled	37.5 [28.1-47.9]	21.1 [10.4-37.9]	55.9 [41.9-60.0]
Percentage with raised total cholesterol (≥ 5 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	11 [9.7-12.5]	9.9 [8.0-12.1]	12.3 [10.7-14.1]
Cardiovascular Disease (CVD) Risk			
Percentage aged 40-69 years with a 10-yar CVD risk ≥ 30%, or with existing CVD	3.7 [2.9 - 4.8]	3.0 [2.0 - 4.5]	4.6 [3.3 - 6.3]
Cervical cancer			
Percentage women ever tested for cervical cancer, aged 30 to 49 years	-	-	82.1 [79.6 - 84.4]
Percentage women ever tested for cervical cancer, aged 25 to 65 years	-	-	72.0 [69.2 - 74.7]
Water, Sanitation & Hygiene	**Households**	**Urban**	**Rural**
Percentage of households with access to improved water sources not exceeding 30 minutes collection time (basic drinking water services)	95.9 [94.4,97.1]	94.7 [92.1-96.5]	96.8 [94.8-98.1]
Percentage of the households having improved water source	99.4 [98.8 - 99.7]	99.4 [98.1 - 99.8]	99.3 [98.5 - 99.7]
Percentage of the households using piped water source	98.7 [98.0 - 99.2]	98.0 [97.8 - 99.5]	98.6 [97.5 - 99.2]
Percentage of household with access to improved sanitation services which are not shared (basic sanitation service)	84.4 [81.9-86.6]	83.2 [78.9-86.8]	85.2 [82.0-87.9]
Percentage of the households having improved sanitation facilities	95.2 [93.3 - 96.5]	98.2 [96.1 - 99.1]	93.0 [89.9 - 95.2]
Percentage of the household having improved sanitation facilities connected to sewers	17.0 [13.4 - 21.4]	34.1 [26.0 - 43.1]	4.9 [2.7 - 8.8]
Percentage of the households having improved sanitation facilities connected to septic tanks	63.5 [58.4 - 68.3]	56.8 [48.3 - 65.0]	68.2 [62.0 - 73.8]
Percentage of the households practicing open defecation	0.7 [0.4 - 1.0]	0.2 [0.1 - 0.3]	1.0 [0.7 - 1.6]

Percentage of the households having hand washing facility on premises on the day of visit	99.6 [99.2 - 99.8]	99.8 [99.3-99.9]	99.4 [98.8-99.7]
Percentage of the households having basic hand washing facilities (hand washing facility on premises with soap and water available) on the day of visit	90.9 [88.9 - 92.6]	89.1 [85.2- 92.1]	92.2 [90.0 - 94.0]
Percentage of the households having limited hand washing facilities (hand washing station in the home lacking soap and/or water) on the day of visit	8.6 [7.0 - 10.6]	10.7 [7.7 - 14.6]	7.2 [5.5 - 9.3]

TABLES

Demographic Information

Table 3.1 Percentage distribution of respondents aged 15-69 years by selected background characteristics

Background characteristics	Women		Men		Total	
	Weighted percent	N	Weighted percent	N	Weighted percent	N
Age						
15-24	27.2 [27.2-27.2]	418	26.0 [26.0-26.0]	262	26.5 [26.5-26.5]	680
25-39	38.8 [38.8-38.8]	1532	40.5 [40.5-40.5]	785	39.7 [39.7-39.7]	2317
40-54	21.6 [21.6-21.6]	955	21.9 [21.9-21.9]	686	21.8 [21.8-21.8]	1641
55-69	12.4 [12.4-12.4]	511	11.7 [11.7-11.7]	426	12.0 [12.0-12.0]	937
Residence						
Rural	59.0 [55.7-62.2]	2128	57.9 [53.7-62.1]	1367	58.4 [55.0-61.7]	3495
Urban	41.0 [37.8-44.3]	1288	42.1 [37.9-46.3]	792	41.6 [38.3-45.0]	2080
Region						
Central	28.7 [23.7-34.4]	872	28.9 [23.3-35.2]	535	28.8 [23.8-34.5]	1407
East	20.5 [17.9-23.3]	845	20.4 [17.9-23.2]	550	20.5 [18.1-23.0]	1395
West	50.8 [45.6-55.9]	1699	50.7 [45.2-56.2]	1074	50.7 [45.7-55.7]	2773
Marital status						
Never married	18.9 [17.2-20.8]	368	26.9 [25.0-28.9]	360	23.1 [21.9-24.5]	728
Currently married	72.4 [70.4-74.3]	2622	70.2 [68.2-72.2]	1699	71.3 [69.8-72.7]	4321
Ever married[1]	8.6 [7.6-9.8]	423	2.6 [2.0-3.4]	98	5.4 [4.8-6.1]	521
Education						
None/less than primary	57.1 [54.7-59.5]	2237	44.9 [41.7-48.0]	1178	50.6 [48.2-53.0]	3415
Primary to middle	26.6 [24.6-28.7]	712	28.4 [25.8-31.1]	472	27.5 [25.6-29.5]	1184
Secondary or more	16.3 [14.3-18.5]	465	26.8 [23.7-30.1]	508	21.8 [19.8-24.0]	973

Wealth quintile						
Lowest	16.9 [14.6-19.5]	660	16.6 [14.0-19.5]	457	16.7 [14.5-19.2]	1117
Second	20.1 [17.5-23.0]	672	19.2 [16.6-22.1]	435	19.6 [17.5-22.0]	1107
Middle	20.5 [18.1-23.2]	707	21.6 [19.1-24.3]	446	21.1 [19.1-23.2]	1153
Fourth	20.2 [18.1-22.5]	715	20.0 [17.3-23.0]	412	20.1 [18.1-22.3]	1127
Highest	22.3 [19.3-25.6]	662	22.7 [19.4-26.4]	409	22.5 [19.7-25.6]	1071
Total (15-69)		**3416**		**2159**		**5575**

Table 3.2 Percentage distribution of educational and occupational status of respondents aged 15-69 years by selected background characteristics

Background characteristics	Education			Occupation						Total
	None/ less than primary	Primary to middle	Secondary or more	Employed[1]	Farmers	Student	Homemaker	Unemployed[2]	Others[3]	N
Age										
15-24	16.6 [13.0-20.9]	54.4 [49.4-59.3]	29.0 [24.7-33.8]	22.7 [18.1-28.1]	13.9 [10.5-18.3]	40.9 [36.2-45.8]	13.0 [10.6-15.9]	9.0 [6.4-12.5]	0.4 [0.1-1.6]	680
25-39	46.8 [42.8-50.7]	23.8 [21.3-26.5]	29.5 [26.2-33.0]	49.9 [46.6-53.2]	26.5 [22.9-30.5]	0.3 [0.2-0.6]	20.2 [18.2-22.3]	2.2 [1.4-3.5]	0.9 [0.5-1.5]	2317
40-54	77.9 [74.7-80.7]	13.2 [11.2-15.5]	8.9 [7.2-11.0]	33.5 [29.6-37.7]	41.5 [37.5-45.6]	0.5 [0.2-1.4]	22.3 [19.2-25.8]	0.9 [0.5-1.8]	1.3 [0.8-2.0]	1641
55-69	89.5 [86.9-91.6]	6.5 [5.0-8.5]	4.0 [2.5-6.3]	10.8 [8.1-14.2]	57.2 [51.5-62.7]	0.0 [0.0-0.3]	23.5 [19.4-28.1]	2.3 [1.4-3.9]	6.2 [1.4-3.9]	937
Sex										
Women	57.1 [54.7-59.5]	26.6 [24.6-28.7]	16.3 [14.3-18.5]	23.1 [20.6-25.8]	28.8 [25.7-32.1]	8.2 [6.9-9.8]	36.9 [33.8-40.1]	2.7 [2.0-3.6]	0.4 [0.2-0.6]	3416
Men	44.9 [41.7-48.0]	28.4 [25.8-31.1]	26.8 [23.7-30.1]	44.6 [40.9-48.3]	31.3 [28.0-34.8]	13.7 [11.7-15.8]	3.3 [2.2-5.1]	4.7 [3.4-6.6]	2.5 [1.8-3.4]	2159
Residence										
Rural	64.1 [61.0-67.2]	23.7 [21.2-26.4]	12.2 [10.5-14.1]	20.8 [18.1-23.8]	47.4 [43.6-51.2]	8.0 [6.4-9.8]	19.4 [16.7-22.4]	2.8 [1.9-4.2]	1.6 [1.1-2.4]	3495
Urban	31.7 [27.4-36.3]	32.9 [29.6-36.5]	35.4 [31.1-40.0]	53.5 [48.5-58.5]	5.8 [2.1-14.9]	15.5 [13.1-18.2]	18.8 [16.7-20.9]	5.1 [3.8-6.9]	1.3 [0.8-2.0]	2080
Region										
Central	55.2 [50.7-59.7]	29.1 [25.5-33.0]	15.6 [12.9-18.8]	28.5 [23.5-34.2]	31.9 [25.0-39.7]	9.8 [7.4-12.9]	25.6 [21.2-30.6]	2.9 [1.7-4.8]	1.3 [0.6-2.7]	1407
East	64.6 [59.9-69.0]	20.0 [16.4-24.2]	15.4 [12.8-18.4]	25.3 [21.5-29.6]	55.1 [50.6-59.4]	6.2 [4.1-9.4]	8.3 [6.3-10.8]	2.6 [1.1-6.1]	2.5 [1.6-3.8]	1395
West	42.4 [38.5-46.4]	29.7 [26.6-32.9]	27.9 [24.5-31.7]	41.5 [37.6-45.4]	19.0 [15.6-23.0]	13.8 [11.7-16.2]	19.8 [17.5-22.4]	4.7 [3.6-6.2]	1.2 [0.8-1.7]	2773
Marital status										
Never married	13.9 [10.5-18.0]	48.5 [42.9-54.1]	37.7 [32.8-42.9]	25.9 [20.7-31.9]	10.6 [8.1-13.7]	46.6 [41.4-51.8]	3.5 [2.2-5.4]	12.0 [8.7-16.2]	1.5 [0.8-2.9]	728

Currently married	60.6 [57.8-63.3]	21.4 [19.6-23.3]	18.0 [15.9-20.3]	38.0 [35.1-40.9]	35.1 [31.7-38.5]	0.3 [0.1-0.6]	24.3 [22.1-26.6]	1.0 [0.7-1.5]	1.5 [1.1-2.0]	4321
Ever married[4]	78.0 [72.1-83.0]	17.6 [12.9-23.6]	4.4 [2.6-7.3]	25.1 [20.2-30.7]	49.4 [42.8-56.0]	0.0	19.0 [15.1-23.7]	4.9 [2.2-10.7]	1.6 [0.8-3.3]	521
Wealth quintile										
Lowest	87.0 [83.6-89.8	11.0 [8.5-14.2]	2.0 [0.9-4.0]	6.3 [4.5-8.6]	71.0 [65.4-75.9]	4.3 [2.5-7.3]	15.6 [11.6-20.8]	1.4 [0.9-2.4]	1.4 [0.8-2.5]	1117
Second	68.2 [64.0-72.0]	22.9 [19.7-26.5]	9.0 [6.5-12.2]	17.7 [14.2-21.9]	51.3 [46.0-56.6]	7.8 [5.2-11.6]	19.5 [15.1-24.7]	2.2 [1.2-3.9]	1.4 [0.7-2.9]	1107
Middle	53.0 [48.6-57.3]	32.8 [28.7-37.0]	14.3 [11.4-17.8]	33.8 [29.6-38.2]	27.3 [22.6-32.5]	11.4 [8.3-15.5]	22.9 [19.8-26.4]	3.8 [2.3-6.0]	0.8 [0.4-1.5]	1153
Fourth	36.0 [32.1-40.1]	39.7 [35.9-43.7]	24.3 [20.8-28.1]	46.6 [42.9-50.3]	8.5 [6.3-11.3]	15.9 [12.7-19.6]	21.3 [18.4-24.6]	5.7 [3.9-8.4]	2.1 [1.2-3.5]	1127
Highest	19.2 [15.9-23.0]	28.1 [24.3-32.3]	52.7 [49.2-56.2]	59.7 [55.1-64.1]	3.2 [1.8-5.4]	14.5 [11.4-18.2]	15.9 [13.6-18.6]	5.1 [3.0-8.6]	1.7 [1.0-2.7]	1071
Total (15-69)	**50.6 [48.2-53.0]**	**27.5 [25.6-29.5]**	**21.8 [19.8-24.0]**	**34.4 [31.8-37.2]**	**30.1 [27.3-33.1]**	**11.1 [9.9-12.4]**	**19.1 [17.4-21.0]**	**3.8 [3.0-4.8]**	**1.5 [1.1-2.0]**	**5575**

Table 3.3 Percentage distribution of residence and wealth quintiles of respondents aged 15-69 years by selected background characteristics

Household characteristic	Residence		Wealth quintile					Total	
	Rural	Urban	Lowest	Second	Middle	Fourth	Highest	weighted percent	N
Wall material									
Cane/palm/ trunks/bamboo	1.4 [0.9-2.2]	0.5 [0.2-1.0]	3.2 [1.9-5.3]	1.0 [0.5-2.0]	0.9 [0.4-1.9]	0.3 [0.1-1.0]	0.1 [0.0-0.9]	1.0 [0.7-1.5]	71
Bamboo with mud	7.9 [5.7-10.8]	3.1 [2.0-4.8]	11.6 [8.4-15.8]	8.6 [5.7-12.8]	7.8 [5.2-11.4]	2.5 [1.3-4.8]	0.5 [0.1-1.9]	5.9 [4.4-7.8]	348
Stone with mud	39.6 [33.8-45.7]	3.9 [2.5-6.0]	61.9 [54.2-69.1]	43.3 [36.3-50.6]	18.2 [14.5-22.8]	7.3 [5.1-10.2]	2.7 [1.6-4.4]	24.8 [4.4-7.8]	1492
Plywood	1.1 [0.7-1.7]	4.1 [2.1-7.6]	0.4 [0.2-1.1]	2.9 [1.6-5.4]	4.6 [2.2-9.5]	2.7 [1.5-4.9]	0.7 [0.4-1.5]	2.3 [1.4-3.8]	109
Cardboard	0.2 [0.1-0.7]	0.1 [0.0-0.3]	0.0 [0.0-0.3]	0.1 [0.0-0.3]	0.3 [0.1-1.4]	0.4 [0.1-1.9]	0.1 [0.0-0.4]	0.2 [0.1-0.4]	10
Cement RCC wall	10.9 [7.4-15.6]	47.4 [41.4-53.5]	0.6 [0.2-1.2]	6.4 [3.0-13.3]	17.8 [12.6-24.6]	37.9 [31.9-44.4]	59.1 [51.8-66.1]	26.0 [22.3-30.2]	1175
Stone with lime/ cement	12.7 [9.8-16.2]	14.0 [10.1-19.1]	4.3 [2.7-6.8]	12.6 [8.8-17.7]	14.9 [11.5-19.0]	19.0 [14.7-24.2]	13.7 [9.4-19.5]	13.2 [10.8-16.1]	747
Bricks	5.4 [3.1-9.4]	13.4 [9.5-18.6]	0.7 [0.3-1.5]	3.0 [1.7-5.1]	9.8 [6.4-14.7]	14.5 [10.5-19.7]	13.6 [9.4-19.2]	8.7 [6.5-11.7]	499
Cement blocks	1.8 [1.1-3.2]	2.7 [1.6-4.6]	0.6 [0.1-2.5]	1.7 [0.9-3.3]	2.6 [1.2-5.5]	1.9 [1.2-3.0]	3.7 [2.1-6.3]	2.2 [1.5-3.2]	122
Wood planks	9.8 [7.9-12.3]	6.7 [4.8-9.4]	11.2 [7.9-15.6]	12.1 [9.0-16.1]	12.7 [9.7-16.5]	6.1 [4.2-8.8]	1.7 [0.8-3.4]	8.5 [7.1-10.3]	522
Rammed earth	4.0 [2.5-6.5]	1.7 [0.8-3.5]	1.3 [0.6-3.0]	3.4 [1.7-6.5]	4.8 [2.8-8.1]	3.6 [2.0-6.4]	2.0 [1.1-3.6]	3.1 [2.0-4.6]	237
Mud blocks	4.4 [1.9-10.1]	2.2 [1.2-4.2]	2.5 [1.1-5.8]	4.2 [1.6-10.7]	5.0 [2.3-10.6]	3.7 [1.9-6.8]	2.1 [1.1-3.8]	3.5 [1.8-6.6]	209
Roofing material									
Metal sheet	97.2 [95.7-98.2]	96.6 [92.8-98.4]	95.1 [91.7-97.1]	97.0 [94.7-98.3]	98.9 [97.8-99.4]	99.0 [98.2-99.5]	94.7 [88.2-97.7]	97.0 [95.4-98.0]	5403
Others [1]	2.8 [1.8-4.3]	3.4 [1.6-7.2]	4.9 [2.9-8.3]	3.0 [1.7-5.3]	1.2 [0.6-2.2]	1.0 [0.5-1.8]	5.3 [2.3-11.8]	3.0 [2.0-4.6]	172
Floor material									
Tiles/ marbles	0.9 [0.5-1.5]	11.0 [7.8-15.3]	0.0	0.1 [0.0-0.4]	0.4 [0.2-1.1]	3.8 [2.4-6.0]	18.8 [13.8-25.1]	5.1 [3.7-7.0]	223

Concrete/ Cement/ Terrazzo	34.9 [28.8-41.6]	53.2 [46.0-60.2]	12.9 [9.2-17.6]	33.6 [26.5-41.4]	52.5 [44.6-60.3]	60.3 [53.2-67.0]	47.1 [39.6-54.8]	42.5 [37.8-47.4]	2312
Clay/ Earthen	8.6 [5.8-12.5]	0.2 [0.1-0.6]	19.6 [13.6-27.4]	8.0 [4.6-13.3]	1.2 [0.6-2.4]	0.1 [0.0-0.5]	0.0	5.1 [3.5-7.4]	316
Planks/ Shingles	54.9 [46.3-63.2]	32.5 [26.3-39.3]	67.3 [57.6-75.7]	58.3 [48.7-67.2]	45.4 [37.5-53.6]	34.4 [27.9-41.6]	28.6 [23.2-34.7]	45.6 [39.9-51.4]	2655
Bamboo	0.1 [0.0-0.2]	0.0	0.2 [0.1-0.7]	0.0	0.0	0.0	0.0	0.0 [0.0-0.1]	3
Floor material									
Tiles/ marbles	0.9 [0.5-1.5]	11.0 [7.8-15.3]	0.0	0.1 [0.0-0.4]	0.4 [0.2-1.1]	3.8 [2.4-6.0]	18.8 [13.8-25.1]	5.1 [3.7-7.0]	223
Concrete/ Cement/ Terrazzo	34.9 [28.8-41.6]	53.2 [46.0-60.2]	12.9 [9.2-17.6]	33.6 [26.5-41.4]	52.5 [44.6-60.3]	60.3 [53.2-67.0]	47.1 [39.6-54.8]	42.5 [37.8-47.4]	2312
Clay/ Earthen	8.6 [5.8-12.5]	0.2 [0.1-0.6]	19.6 [13.6-27.4]	8.0 [4.6-13.3]	1.2 [0.6-2.4]	0.1 [0.0-0.5]	0.0	5.1 [3.5-7.4]	316
Planks/ Shingles	54.9 [46.3-63.2]	32.5 [26.3-39.3]	67.3 [57.6-75.7]	58.3 [48.7-67.2]	45.4 [37.5-53.6]	34.4 [27.9-41.6]	28.6 [23.2-34.7]	45.6 [39.9-51.4]	2655
Bamboo	0.1 [0.0-0.2]	0.0	0.2 [0.1-0.7]	0.0	0.0	0.0	0.0	0.0 [0.0-0.1]	3
Polished wood	0.6 [0.3-1.3]	3.2 [1.5-6.6]	0.0	0.1 [0.0-0.6]	0.5 [0.2-1.6]	1.4 [0.6-3.2]	5.6 [2.7-11.0]	1.7 [0.9-3.1]	66
Household possessions									
Sofa set	35.5 [31.7-39.4]	73.0 [68.6-77.0]	3.7 [2.1-6.3]	16.8 [13.1-21.2]	49.7 [44.6-54.8]	76.4 [72.2-80.2]	94.9 [92.4-96.6]	51.1 [48.0-54.1]	2670
Computer or laptop or tab	13.7 [11.4-16.3]	45.1 [40.4-49.9]	0.3 [0.1-0.9]	2.6 [1.7-4.2]	11.3 [27.7-36.3]	31.9 [27.7-36.3]	77.3 [73.3-80.8]	26.7 [24.3-29.3]	1279
Fixed Telephone	1.3 [0.8-2.1]	4.5 [3.4-6.0]	0.0 [0.0-0.3]	0.5 [0.1-1.8]	0.8 [0.4-1.6]	1.7 [0.9-3.2]	9.1 [7.1-11.6]	2.7 [2.1-3.4]	148
Mobile phone (smart phone)	74.9 [71.8-77.8]	91.3 [87.3-94.1]	44.2 [38.2-50.3]	80.0 [76.7-82.9]	85.9 [80.6-89.9]	92.7 [89.6-94.9]	97.4 [95.2-98.6]	81.7 [79.4-83.8]	4307
Mobile phone (simple phone)	49.0 [45.1-52.9]	27.6 [22.4-33.4]	67.6 [62.1-72.6]	51.7 [46.4-57.0]	38.7 [32.7-45.1]	28.9 [24.1-34.3]	20.9 [17.9-24.2]	40.1 [37.1-43.2]	2311
Electric/ coal iron	17.8 [14.4-21.8]	56.8 [50.7-62.7]	2.3 [1.4-3.9]	9.0 [6.6-12.1]	21.9 [17.6-26.8]	44.9 [40.0-49.8]	81.1 [76.5-85.0]	34.0 [30.5-37.6]	1723
Rice cooker/ curry cooker	97.6 [96.4-98.4]	99.1 [97.9-99.6]	92.5 [89.1-94.8]	98.8 [97.0-99.5]	98.9 [97.3-99.5]	99.7 [98.5-99.9]	100.0 [99.7-100.0]	98.2 [97.5-98.7]	5456
Refrigerator/ Fridge	61.3 [56.6-65.7]	90.8 [88.2-92.8]	14.6 [11.7-18.1]	56.4 [49.6-62.9]	86.5 [83.5-89.1]	96.6 [95.2-97.7]	99.5 [98.7-99.8]	73.5 [70.4-76.4]	3902

Water boiler	81.5 [78.3-84.3]	96.5 [94.6-97.8]	53.8 [48.6-58.9]	85.5 [81.7-88.6]	93.8 [91.0-95.8]	98.1 [96.5-99.0]	99.9 [99.6-100.0]	87.7 [85.7-89.5]	4823
Micro-wave oven	8.6 [7.0-10.4]	32.3 [27.7-37.2]	0.7 [0.3-1.8]	1.8 [1.0-3.0]	4.5 [3.1-6.4]	18.2 [14.9-22.1]	59.4 [54.0-64.6]	18.4 [16.2-20.9]	923
Jewelry	41.2 [36.7-45.8]	55.0 [50.0-59.8]	20.5 [15.4-26.7]	33.4 [26.7-40.9]	41.0 [36.3-45.8]	51.2 [46.8-55.5]	80.1 [75.8-83.8]	46.9 [43.4-50.4]	2545
Machinery	17.0 [13.1-21.7]	4.7 [3.4-6.5]	14.3 [10.3-19.5]	19.2 [13.4-26.9]	11.0 [7.9-15.0]	6.6 [4.7-9.3]	9.1 [6.8-12.0]	11.9 [9.5-14.7]	651
Washing machine	20.6 [17.0-24.8]	52.2 [46.7-57.6]	0.9 [0.3-3.0]	6.0 [4.0-8.9]	19.4 [15.0-24.6]	40.0 [34.7-45.5]	90.2 [87.1-92.6]	33.7 [30.5-37.1]	1744
Vacuum cleaner	2.1 [1.5-3.0]	14.9 [12.1-18.2]	0.3 [0.0-1.5]	0.7 [0.3-1.5]	0.8 [0.4-1.9]	2.1 [1.3-3.3]	29.5 [25.2-34.2]	7.4 [6.1-8.9]	370
Television	76.5 [73.1-79.6]	92.3 [88.7-94.8]	36.9 [31.9-42.2]	77.9 [71.5-83.2]	93.3 [90.6-95.2]	97.9 [96.6-98.7]	99.1 [97.9-99.6]	83.1 [80.7-85.2]	4541
DTH or cable line	61.5 [56.6-66.2]	89.5 [85.5-92.5]	16.7 [13.0-21.2]	61.9 [54.6-68.7]	83.6 [78.5-87.7]	92.7 [90.2-94.6]	97.7 [95.8-98.8]	73.2 [70.0-76.1]	3943
VCR/ VCD/ DVD	20.3 [16.2-25.1]	23.9 [19.1-29.5]	9.5 [7.0-12.9]	17.8 [13.6-23.0]	17.4 [12.7-23.3]	19.1 [14.5-24.7]	41.0 [34.2-48.2]	21.8 [18.6-25.4]	1115
Kitchen grinder machine	19.0 [15.7-22.7]	45.7 [41.2-50.2]	2.0 [1.0-4.1]	9.3 [6.5-13.2]	14.9 [11.7-18.8]	35.6 [31.6-39.9]	78.3 [73.8-82.1]	30.1 [27.2-33.1]	1565
Wrist watch	28.9 [24.9-33.3]	50.8 [46.4-55.2]	13.8 [10.6-17.9]	25.2 [19.4-32.1]	33.4 [28.7-38.6]	42.0 [37.5-46.6]	68.0 [63.1-72.6]	38.0 [34.7-41.5]	2021
Means of transport									
Family car	25.5 [22.4-28.9]	48.8 [44.6-52.9]	2.4 [1.5-3.8]	13.5 [10.5-17.3]	26.6 [22.8-30.8]	43.2 [38.3-48.2]	79.3 [75.0-83.1]	35.2 [32.5-37.9]	1830
Other Vehicle (commercial)	5.6 [4.4-7.3]	7.9 [6.3-10.0]	0.5 [0.2-1.1]	3.0 [1.5-6.0]	6.5 [4.6-9.1]	10.1 [7.6-13.2]	11.2 [8.9-14.0]	6.6 [5.6-7.8]	329
Motor bike, scooter, gear bicycle	4.1 [3.0-5.5]	9.9 [6.5-14.7]	1.2 [0.4-3.0]	4.3 [2.1-8.6]	4.9 [3.2-7.6]	7.0 [4.4-10.7]	13.5 [10.6-16.9]	6.5 [4.8-8.7]	292
Ownership of domestic animal[1]	66.4 **[61.5-70.9]**	7.8 **[3.3-17.2]**	83.7 **[77.3-88.6]**	71.7 **[66.1-76.8]**	41.7 **[36.2-47.3]**	18.7 **[14.4-23.8]**	6.3 **[4.2-9.3]**	42.0 **[38.1-46.0]**	2442

Table 3.4. Percentage distribution of respondents aged 15-69 years in different wealth quintiles by residence and region

Residence /Region	Wealth quintile				
	Lowest	Second	Middle	Fourth	Highest
Residence					
Rural	27.9 [24.2-31.8]	28.4 [25.4-31.5]	21.9 [19.6-24.3]	14.7 [12.2-17.7]	7.2 [5.3-9.7]
Urban	1.1 [0.6-1.9]	7.3 [4.7-11.]	20.0 [16.6-23.9]	27.6 [24.4-31.1]	44.1 [38.3-50.0]
Region					
Central	15.2 [10.6-21.3]	23.9 [19.5-28.9]	26.0 [22.5-29.8]	21.5 [17.6-26.0]	13.4 [9.6-18.4]
East	36.8 [31.2-42.8]	24.6 [21.1-28.4]	18.0 [14.4-22.1]	11.7 [9.4-14.3]	9.0 [6.7-12.0]
West	9.5 [7.0-12.7]	15.2 [12.2-18.9]	19.5 [16.7-22.7]	22.7 [19.5-26.2]	33.1 [28.3-38.3]

Alcohol Consumption

Table 4.1. Percentage of respondents aged 15-69 years who are life abstainers, former drinkers and current drinkers by background characteristics

Background characteristic	Never consumed alcohol (Life-time abstainers)	Former drinkers (consumed alcohol in past 12 months)	Current drinkers (consumed alcohol in the past 12 month)	Consumed alcohol in past 12 months			Current drinker (consumed alcohol in past 30 days)	Number of Persons
				Daily or almost daily	1 - 4 days/ week	1-3 days/ months or < than a month		
Age								
15-24	55.4 [50.9-59.9]	14.2 [10.0-19.8]	30.4 [25.9-35.3]	1.0 [0.5-2.0]	9.1 [6.5-12.6]	20.2 [16.6-24.4]	19.4 [15.9-23.4]	680
25-39	34.4 [31.5-37.4]	13.9 [11.9-16.1]	51.7 [48.9-54.6]	6.9 [5.6-8.5]	16.0 [14.0-18.3]	28.8 [25.9-31.9]	41.0 [38.2-43.8]	2317
40-54	37.5 [33.8-41.3]	19.1 [16.4-22.0]	43.5 [40.1-46.9]	8.8 [7.1-10.8]	13.8 [11.7-16.2]	21.0 [18.4-23.7]	34.5 [31.0-38.1]	1641
55-69	34.8 [29.3-40.7]	24.6 [20.7-28.9]	40.7 [35.4-46.2]	10.4 [8.2-13.0]	17.3 [14.1-21.1]	13.0 [10.2-16.4]	34.7 [30.0-39.9]	937
Sex								
Women	49.7 [46.7-52.6]	15.4 [13.7-17.4]	34.9 [32.4-37.4]	2.8 [2.2-3.6]	9.1 [7.9-10.6]	23.0 [21.1-24.9]	25.1 [23.0-27.4]	3416
Men	32.7 [29.6-35.9]	17.2 [14.7-20.0]	50.1 [47.0-53.2]	9.1 [7.8-10.6]	18.1 [15.9-20.6]	22.9 [20.4-25.6]	40.1 [37.3-43.1]	2159
Residence								
Rural	44.7 [41.6-47.9]	16.5 [14.5-18.7]	38.8 [35.8-41.9]	7.5 [6.2-9.0]	14.2 [12.4-16.2]	17.2 [15.4-19.3]	30.7 [27.8-33.6]	3495
Urban	35.1 [31.6-38.7]	16.3 [12.9-20.2]	48.7 [45.4-51.9]	4.4 [3.4-5.6]	13.4 [11.4-15.8]	30.9 [27.7-34.4]	36.5 [33.8-39.3]	2080
Region								
Central	46.0 [40.8-51.4]	15.6 [12.1-19.9]	38.4 [34.3-42.6]	7.2 [5.2-9.8]	14.3 [11.9-17.0]	17.0 [14.2-20.1]	30.3 [26.3-34.6]	1407
East	24.8 [20.5-29.7]	25.6 [21.6-30.0]	49.6 [43.8-55.4]	8.8 [6.9-11.1]	19.0 [15.7-22.8]	21.9 [18.5-25.6]	38.1 [32.7-43.8]	1395
West	44.1 [40.4-47.8]	13.1 [10.5-16.2]	42.8 [39.7-46.0]	4.6 [3.6-5.8]	11.6 [9.7-13.8]	26.7 [24.2-29.5]	32.6 [30.0-35.4]	2773
Education								
None/less than primary	40.0 [37.0-43.0]	19.2 [17.0-21.5]	40.9 [37.8-44.0]	8.6 [7.3-10.2]	14.8 [12.9-16.9]	17.5 [15.5-19.7]	33.1 [30.3-36.1]	3415
Primary to middle	48.6 [44.6-52.7]	15.2 [11.7-19.6]	36.2 [32.5-40.0]	3.5 [2.5-5.0]	13.0 [10.6-16.0]	19.6 [16.9-22.6]	26.8 [23.7-30.2]	1184
Secondary or more	32.4 [28.1-37.0]	11.3 [8.6-14.7	56.3 [51.9-60.6]	3.8 [2.7-5.3]	12.8 [10.1-16.0]	39.7 [35.3-44.3]	40.9 [36.7-45.1]	973
Wealth quintile								
Lowest	34.0 [28.6-39.7]	16.4 [13.3-20.1]	49.6 [44.2-55.1]	12.5 [9.7-15.8]	21.0 [16.6-26.1]	16.2 [13.1-19.9]	39.6 [34.0-45.5]	1117
Second	44.9 [40.5-49.5]	14.4 [12.0-17.1]	40.7 [36.3-45.3]	7.4 [5.4-10.2]	14.3 [11.0-18.3]	19.1 [16.2-22.3]	33.0 [28.9-37.3]	1107
Middle	44.6 [39.8-49.5]	20.2 [15.7-25.5]	35.3 [31.2-39.5]	5.4 [4.1-7.1]	11.8 [9.6-14.4]	18.1 [15.2-21.4]	26.9 [23.4-30.8]	1153
Fourth	40.8 [36.4-45.4]	18.6 [15.1-22.7]	40.5 [36.8-44.3]	3.2 [2.2-4.7]	11.8 [9.5-14.6]	25.5 [22.1-29.3]	30.4 [26.9-34.2]	1127
Highest	38.3 [33.7-43.0]	12.5 [9.5-16.2]	49.2 [45.2-53.3]	3.8 [2.7-5.3]	12.0 [9.6-15.0]	33.4 [30.0-37.1]	36.4 [33.0-39.9]	1071
Age (old)								
18-39	41.2 [38.3-44.1]	13.0 [11.0-15.2]	45.9 [43.1-48.7]	4.7 [3.9-5.7]	14.2 [12.2-16.5]	27.0 [24.4-29.7]	34.5 [32.0-37.2]	2700
40-69	36.5 [32.8-40.4]	21.0 [18.5-23.7]	42.5 [39.0-46.0]	9.3 [7.8-11.1]	15.1 [13.0-17.3]	18.1 [15.9-20.6]	34.6 [31.3-38.0]	2254
Total 15-69	**40.7** [38.3 -43.1]	**16.4** [14.5 -18.4]	**42.9** [40.8-45.1]	**6.3** [5.4-7.2]	**14.5** [13.0 -16.1]	**24.0** [22.1 -26.0]	**34.5** [32.5 -36.7]	**5575**

[1] who have never consumed alcohol; [2] persons who ever drank alcoholic beverages but have not done so in the past 12 months; [3] includes both the lifetime abstainers and former drinkers.

Table 4.2. Percentage of respondents aged 15-69 years who engaged in heavy episodic drinking (drank six or more standard drinks in a single occasion) in the past 30 days by background characteristics

	In total population		Among current drinkers in the last 30 days	
Background characteristic	All (%)	N	All (%)	N
Age				
15-24	8.4 [6.2-11.4]	658	46.4 [37.9-55.1]	127
25-39	22.1 [19.5-24.9]	2214	53.6 [48.7-58.5]	748
40-54	16.4 [13.7-19.5]	1563	51.2 [45.0-57.4]	479
55-69	17.1 [13.5-21.4]	893	53.5 [46.0-60.8]	271
Sex				
Women	7.9 [6.7-9.4]	3283	33.8 [29.1-38.8]	825
Men	24.4 [21.7-27.3]	2045	66.7 [61.2-71.8]	800
Residence				
Rural	15.1 [12.9-17.7]	3340	50.5 [45.0-56.0]	919
Urban	18.7 [16.2-21.5]	1988	51.9 [45.8-58.0]	706
Region				
Central	15.1 [11.7-19.3]	1330	53.4 [43.7-62.9]	347
East	19.0 [15.6-23.0]	1358	48.1 [41.8-54.5]	494
West	16.5 [14.2-19.1]	2640	51.7 [45.8-57.5]	784
Education				
None/less than primary	16.1 [13.8-18.6]	3260	51.6 [46.5-56.5]	950
Primary to middle	12.7 [10.1-15.7]	1143	44.2 [36.5-52.1]	321
Secondary or more	23.1 [19.5-27.0]	923	57.3 [49.6-64.6]	354
Wealth quintile				
Lowest	20.3 [16.3-25.0]	1057	54.2 [45.8-62.4]	377
Second	15.3 [12.3-18.9]	1055	48.8 [40.5-57.2]	290
Middle	14.3 [11.6-17.5]	1114	51.9 [43.3-60.4]	297
Fourth	17.0 [13.9-20.7]	1078	54.9 [46.3-63.2]	316
Highest	16.9 [13.9-20.4]	1024	47.1 [39.9-54.5]	345
Age (old)				
18-39	17.9 [15.7-20.2]	2748	51.0 [46.2-55.8]	870
40-69	16.7 [14.2-19.5]	2456	52.0 [46.9-57.1]	750
Total 15-69	**17.5** [15.7-19.4]	**5328**	**51.3** [47.4-55.3]	**1625**

Table 4.3. Percentage of respondents aged 15-69 years who reported consuming alcohol in past 30 days and mentioned a specific alcohol as most often consumed alcohol by background characteristics.

Background characteristic	Beer	Wine	Spirit (Whiskey, vodka, gin)	Ara*	Other home brewed**	Any traditional (ara and other homebrewed)	Total	Number of Persons
Age								
15-24	48.2 [38.1-58.4]	14.1 [8.8-21.8]	7.6 [3.8-14.5]	16.1 [8.3-29.0]	14.0 [9.0-21.1]	30.1	100.0	149
25-39	48.7 [44.0-53.4]	9.2 [7.3-11.5]	6.3 [4.6-8.6]	22.2 [17.7-27.5]	13.6 [10.0-18.3]	35.8	100.0	852
40-54	42.8 [37.4-48.5]	5.1 [3.2-8.0]	7.9 [5.7-11.0]	27.0 [22.3-32.3]	17.2 [12.5-23.2]	44.2	100.0	557
55-69	30.3 [23.7-37.8]	1.1 [0.4-3.2]	13.2 [9.0-19.0]	38.4 [30.0-47.5]	17.1 [10.4-26.8]	55.4	100.0	315
Sex								
Women	33.5 [28.9-38.4]	16.8 [12.9-21.7]	3.9 [2.5-6.0]	26.5 [21.2-32.5]	19.3 [15.1-24.4]	45.8	100.0	959
Men	55.4 [49.8-60.8]	1.4 [0.8-2.3]	11.3 [8.8-14.4]	21.0 [16.3-26.6]	11.0 [7.8-15.3]	32.0	100.0	914
Residence								
Rural	36.8 [31.5-42.4]	4.2 [2.5-6.9]	7.4 [5.4-9.9]	32.2 [25.7-39.5]	19.5 [14.2-26.1]	51.7	100.0	1074
Urban	54.8 [49.8-59.6]	13.8 [10.4-18.1]	8.4 [5.9-11.7]	13.5 [9.6-18.7]	9.6 [6.9-13.2]	23.1	100.0	799
Region								
Central	45.7 [37.2-54.5]	4.3 [2.3-7.8]	6.0 [3.9-9.0]	26.8 [17.0-39.7]	17.2 [10.2-27.4]	44.0	100.0	424
East	34.0 [27.1-41.7]	1.7 [0.9-3.2]	3.2 [1.5-6.6]	49.2 [39.1-59.5]	11.8 [5.5-23.8]	61.1	100.0	531
West	49.8 [45.3-54.2]	14.2 [10.9-18.2]	10.9 [8.2-14.4]	10.1 [8.0-12.6]	15.1 [11.6-19.3]	25.2	100.0	918
Education								
None/less than primary	33.8 [29.3-38.6]	2.0 [1.2-3.4]	7.9 [5.9-10.5]	38.1 [31.5-45.1]	18.2 [13.1-24.6]	56.3	100.0	1106
Primary to middle	52.7 [44.8-60.5]	14.2 [9.8-20.2]	9.3 [5.7-14.9]	10.9 [7.8-15.1]	12.9 [8.6-19.0]	23.8	100.0	362
Secondary or more	59.4 [53.3-65.1]	16.0 [12.0-20.9]	6.3 [3.5-11.0]	8.1 [5.5-11.9]	10.2 [6.6-15.7]	18.4	100.0	404
Wealth quintile								
Lowest	20.5 [15.0-27.4]	0.0	7.8 [4.5-13.0]	45.3 [35.8-55.2]	26.4 [17.8-37.2]	71.7	100.0	437
Second	38.3 [28.8-48.7]	3.8 [1.4-9.8]	8.2 [5.0-13.2]	33.8 [23.9-45.2]	15.9 [10.4-23.6]	49.7	100.0	342
Middle	53.3 [46.4-60.2]	6.2 [3.1-11.8]	7.1 [4.5-11.1]	20.0 [14.8-26.5]	13.4 [9.0-19.5]	33.4	100.0	336
Fourth	60.2 [52.5-67.3]	10.1 [6.5-15.5]	7.7 [5.0-11.7]	11.6 [8.5-15.7]	10.4 [6.3-16.6]	22.0	100.0	365
Highest	53.9 [47.7-59.9]	20.7 [15.2-27.4]	8.1 [4.9-13.1]	8.4 [5.8-12.0]	9.0 [5.7-13.8]	17.3	100.0	393
Age (old)								
18-39	48.7 [43.7-53.8]	11.0 [8.4-14.3]	6.9 [4.9-9.7]	19.7 [14.8-25.6]	13.6 [10.4-17.6]	33.3	100.0	995
40-69	38.4 [33.6-43.4]	3.7 [2.4-5.6]	9.8 [7.3-13.0]	31.0 [26.1-36.4]	17.2 [12.2-23.6]	48.2	100.0	872
Total 15-69	**45.2 [41.5-49.1]**	**8.5 [6.6-10.9]**	**7.9 [6.3-9.9]**	**23.5 [19.2-28.4]**	**14.8 [11.6-18.7]**	**38.5**	**100.0**	**1873**

**Ara is a traditional alcoholic beverage brewed from rice or maize, whose production is legal for self-consumption, but sale is prohibited; ** Other homebrewed alcohol includes (changkoe, Bangchang, Shingchang)*

Table 4.4. Percentage of respondents aged 15-69 years who reported consuming unrecorded alcohol* in the past seven days by background characteristics.

Background characteristic	In total population		Among current drinkers* who drank unrecorded alcohol in past 7 days		
	All (%)	N	All (%)	Mean percentage of total unrecorded alcohol out of total alcohol drank in the last 7 days	N
Age					
15-24	4.2 [2.9-6.0]	680	22.9 [16.2-31.5]	37.8 [11.8-63.7]	149
25-39	14.3 [12.2-16.7]	2317	34.8 [30.3-39.5]	29.3 [22.5-36.1]	852
40-54	13.9 [11.5-16.8]	1641	41.5 [35.7-47.6]	37.0 [28.9-45.1]	557
55-69	19.2 [15.1-24.1]	937	54.6 [46.4-62.6]	51.5 [35.1-67.8]	315
Sex					
Women	9.8 [8.4-11.5]	3416	37.8 [33.0-42.8]	37.6 [28.9-46.3]	959
Men	14.2 [12.1-16.6]	2159	33.4 [29.0-38.1]	34.4 [21.0-47.7]	914
Residence					
Rural	15.1 [12.5-18.0]	3495	47.3 [41.2-53.4]	51.9 [36.6-67.04]	1074
Urban	8.0 [6.8-9.5]	2080	21.7 [18.2-25.7]	17.6 [12.99-22.2]	799
Region					
Central	12.2 [8.7-16.8]	1407	12.2 [8.7-16.8]	56.7 [27.7-85.6]	424
East	20.6 [16.1-26.1]	1395	20.6 [16.1-26.1]	47.4 [36.8-58.0]	531
West	8.7 [7.2-10.4]	2773	8.7 [7.2-10.4]	19.3 [14.5-24.1]	892
Education					
None/less than primary	16.9 [14.2-20.0]	3415	49.9 [43.6-56.2]	54.4 [37.97-70.8]	1106
Primary to middle	6.8 [5.3-8.7]	1184	25.6 [19.7-32.5]	24.9 [6.9-16.7]	362
Secondary or more	7.8 [6.0-10.0]	973	17.6 [13.6-22.5]	11.8 [6.9-16.7]	404
Wealth quintile					
Lowest	27.7 [22.4-33.7]	1117	67.6 [60.1-74.3]	68.3 [53.7-82.9]	437
Second	14.9 [11.8-18.7]	1107	40.1 [31.8-49.0]	59.0 [25.6-92.2]	342
Middle	8.5 [6.7-10.6]	1153	31.8 [25.1-39.3]	24.7 [16.3-33.0]	336
Fourth	6.2 [4.9-8.0]	1127	22.1 [17.1-28.1]	18.3 [11.6-25.05]	365
Highest	6.8 [5.2-9.0]	1071	17.6 [13.6-22.4]	10.8 [5.89-15.7]	393
Age (old)					
18-39	10.7 [9.1-12.4]	2700	30.1 [25.8-34.8]	32.7 [20.9-44.4]	995
40-69	15.8 [13.2-18.9]	2254	46.2 [40.7-51.8]	42.2 [33.6-50.8]	872
Total 15-69	**12.4 [10.8-14.3]**	**5575**	**35.5 [31.6-39.6]**	**35.9**	**1873**

**Current drinkers are people who consumed alcohol in the past 30 days*

Table 4.5. Percentage of respondents aged 15-69 years who consumed alcohol in the past 12 months and showed symptoms of alcohol dependence by background characteristics

	Not able to stop once started			Need alcohol first thing in the morning			Failed to do normally expcted tasks			
Background characteristic	Monthly or more frequently	Less than monthly	Never	Monthly or more frequently	Less than monthly	Never	Monthly or more frequently	Less than monthly	Never	N
Age										
15-24	7.6 [3.4-15.8]	9.1 [5.0-16.0]	83.4 [75.0-89.3]	1.1 [0.3-4.3]	3.1 [1.6-5.9]	95.8 [92.4-97.8]	3.5 [1.8-6.9]	7.6 [4.1-13.5]	88.9 [82.9-93.0]	231
25-39	12.4 [10.0-15.3]	5.6 [4.1-7.6]	82.0 [78.5-85.0]	2.8 [1.6-5.0]	2.8 [1.9-4.3]	94.4 [92.1-96.0]	4.1 [2.8-6.0]	5.5 [4.2-7.2]	90.4 [88.1-92.2]	1115
40-54	14.2 [11.2-17.8]	6.2 [4.3-8.7]	79.7 [75.6-83.2]	5.8 [3.9-8.5]	2.9 [1.8-4.4]	91.4 [88.5-93.6]	5.9 [4.1-8.4]	5.6 [4.0-7.8]	88.5 [85.4-91.0]	699
55-69	17.5 [13.6-22.3]	3.0 [1.7-5.4]	79.5 [74.4-83.7]	9.2 [6.5-12.9]	4.0 [2.2-7.1]	86.8 [82.6-90.1]	5.5 [3.5-8.7]	5.7 [3.5-9.3]	88.8 [84.6-91.9]	371
Sex										
Women	6.8 [5.4-8.6]	3.3 [2.4-4.5]	89.9 [87.9-91.6]	2.6 [1.7-3.8]	1.8 [1.2-2.9]	95.6 [94.0-96.8]	2.9 [2.0-4.2]	3.3 [2.5-4.4]	93.8 [92.1-95.1]	1307
Men	16.9 [13.3-21.1]	9.1 [6.3-12.8]	74.1 [68.9-78.6]	4.8 [3.5-6.6]	4.1 [2.9-5.8]	91.1 [88.8-92.9]	6.0 [4.4-8.1]	8.6 [6.2-11.8]	85.4 [81.8-88.5]	1109
Residence										
Rural	13.9 [11.8-16.3]	6.5 [4.5-9.3]	79.6 [76.2-82.7]	5.1 [3.9-6.6]	3.2 [2.4-4.4]	91.7 [89.9-93.2]	4.8 [3.5-6.6]	6.3 [4.6-8.5]	88.9 [86.4-91.1]	1354
Urban	10.1 [6.8-14.9]	6.2 [4.0-9.6]	83.7 [78.4-87.9]	2.2 [1.3-3.8]	2.8 [1.8-4.6]	94.9 [92.8-96.4]	4.2 [2.9-6.2]	5.9 [3.9-8.9]	89.9 [86.3-92.6]	1062
Region										
Central	13.6 [8.3-21.4]	4.7 [2.5-8.9]	81.7 [74.6-87.1]	5.7 [3.6-8.9]	3.9 [2.3-6.5]	90.4 [86.7-93.2]	2.8 [1.5-5.0]	5.0 [3.1-8.0]	92.2 [89.0-94.6]	542
East	12.6 [10.0-15.8]	5.0 [3.7-6.6]	82.4 [78.8-85.5]	5.9 [4.3-8.0]	3.0 [1.9-4.7]	91.1 [88.5-93.2]	5.2 [3.6-7.6]	6.0 [4.2-8.6]	88.8 [85.6-91.3]	693
West	11.1 [8.9-13.8]	7.8 [5.2-11.5]	81.1 [76.3-85.0]	1.8 [1.2-2.7]	2.6 [1.7-3.9]	95.6 [94.1-96.8]	5.1 [3.6-7.3]	6.7 [4.5-9.8]	88.2 [84.5-91.0]	1181
Education										
None/ less than primary	17.5 [14.0-21.6]	5.8 [4.4-7.6]	76.7 [72.7-80.3]	6.7 [5.3-8.3]	3.3 [2.3-4.6]	90.1 [88.0-91.8]	5.4 [4.0-7.2]	5.3 [3.8-7.2]	89.4 [86.9-91.4]	1360

Primary to middle	8.3 [5.8-11.6]	7.1 [3.8-12.6]	84.7 [78.8-89.2]	2.1 [0.9-4.8]	2.4 [1.2-4.7]	95.5 [92.7-97.3]	3.8 [2.2-6.4]	8.4 [5.1-13.5]	87.8 [82.8-91.5]	500
Secondary or more	6.5 [4.3-9.5]	6.7 [3.8-11.5]	86.9 [81.5-90.9]	0.3 [0.1-1.1]	3.2 [1.8-5.6]	96.5 [94.1-97.9]	3.8 [2.1-6.8]	5.4 [3.1-9.4]	90.8 [86.0-94.0]	555
Wealth quintile										
Lowest	18.3 [14.6-22.8]	6.7 [4.5-9.9]	74.9 [70.3-79.0]	10.3 [7.6-13.7]	5.2 [3.3-8.0]	84.6 [80.6-87.9]	7.3 [4.8-10.8]	8.2 [5.2-12.8]	84.5 [79.2-88.7]	536
Second	16.6 [9.7-27.0]	6.3 [3.2-12.0]	77.1 [67.2-84.7]	4.0 [2.2-7.4]	3.2 [1.7-6.0]	92.8 [89.2-95.2]	2.8 [1.6-5.0]	5.9 [3.4-10.1]	91.3 [86.9-94.3]	429
Middle	11.6 [8.8-15.2]	10.0 [5.6-17.0]	78.4 [71.8-83.8]	3.6 [1.9-6.7]	3.9 [2.2-6.7]	92.6 [88.9-95.1]	4.8 [3.1-7.4]	9.7 [5.5-16.4]	85.5 [78.7-90.4]	429
Fourth	9.7 [6.7-13.9]	4.9 [2.9-8.2]	85.4 [80.4-89.3]	0.6 [0.2-2.0]	1.1 [0.5-2.6]	98.2 [96.6-99.1]	4.6 [2.5-8.2]	4.1 [2.5-6.8]	91.3 [87.2-94.1]	490
Highest	6.0 [4.0-9.1]	4.7 [2.5-8.6]	89.3 [84.8-92.6]	1.0 [0.3-3.5]	2.1 [1.0-4.4]	96.9 [94.1-98.4]	3.4 [1.9-6.0]	3.6 [2.2-5.8]	93.0 [89.9-95.2]	532
Age (old)										
18-39	10.8 [7.9-14.5]	7.0 [4.9-9.8]	82.3 [78.1-85.8]	2.1 [1.3-3.6]	3.0 [2.1-4.5]	94.8 [93.0-96.2]	4.0 [2.8-5.7]	6.6 [4.7-9.4]	89.4 [86.3-91.8]	1330
40-69	15.4 [12.9-18.3]	5.0 [3.7-6.8]	79.6 [76.3-82.5]	7.0 [5.2-9.2]	3.3 [2.3-4.6]	89.8 [87.3-91.8]	5.8 [4.3-7.7]	5.6 [4.3-7.4]	88.6 [86.0-90.7]	1070
Total 15-69	**12.3 [10.2-14.8]**	**6.3 [4.8-8.3]**	**81.4 [78.5-84.0]**	**3.8 [3.0-4.8]**	**3.1 [2.4-4.1]**	**93.1 [91.8-94.3]**	**4.5 [3.5-5.8]**	**6.1 [4.7-7.8]**	**89.4 [87.3-91.1]**	**2,416**

Table 4.6. Percentage of respondents aged 15-69 years who consumed alcohol in the past 12 months and showed at least one symptom of alcohol dependence and who reported family problems due to someone else drinking by background characteristics

Background Characteristic	People who showed at least one symptom of alcohol dependence on monthly or more basis *		Had family/partner problems due to someone else drinking			
	%	N	Monthly or more frequently	Less than monthly	Never	N
Age						
15-24	9.1 [4.7-17.1]	231	0.9 [0.3-2.9]	6.0 [4.2-8.4]	93.1 [90.5-95.0]	680
25-39	13.6 [11.0-16.5]	1115	1.2 [0.7-2.3]	4.1 [3.1-5.3]	94.7 [93.2-95.9]	2317
40-54	16.4 [13.0-20.4]	699	0.5 [0.3-1.1]	3.2 [2.3-4.4]	96.3 [95.0-97.2]	1641
55-69	20.9 [16.6-26.1]	371	0.4 [0.1-1.4]	2.3 [1.1-4.5]	97.3 [94.9-98.6]	937
Sex						
Women	8.2 [6.6-10.1]	1307	1.0 [0.5-1.9]	3.8 [3.0-4.8]	95.2 [94.1-96.1]	3416
Men	18.9 [15.3-23.2]	1109	0.8 [0.4-1.7]	4.5 [3.4-5.9]	94.7 [93.2-95.8]	2159
Residence						
Rural	15.7 [13.3-18.4]	1354	0.8 [0.5-1.4]	4.0 [3.2-5.1]	95.1 [94.0-96.1]	3495
Urban	11.8 [8.4-16.4]	1062	1.0 [0.4-2.4]	4.4 [3.2-6.0]	94.6 [92.9-95.9]	2080
Region						
Central	16.0 [10.5-23.5]	542	0.5 [0.2-1.2]	4.1 [2.8-5.9]	95.4 [93.7-96.7]	1407
East	14.5 [11.8-17.8]	693	1.3 [0.6-2.6]	4.0 [2.8-5.6]	94.8 [92.9-96.1]	1395
West	12.5 [10.2-15.3]	1181	1.0 [0.5-2.0]	4.3 [3.2-5.7]	94.7 [93.1-95.9]	2773
Education						
None/less than primary	19.8 [16.2-24.0]	1360	0.8 [0.5-1.2]	3.3 [2.5-4.4]	95.9 [94.7-96.8]	3415
Primary to middle	9.3 [6.7-12.8]	500	1.1 [0.4-2.9]	5.0 [3.5-7.1]	93.8 [91.4-95.6]	1184
Secondary or more	7.9 [5.4-11.2]	555	0.9 [0.3-3.2]	5.1 [3.5-7.4]	94.0 [91.5-95.8]	973
Wealth quintile						
Lowest	21.5 [17.4-26.2]	536	1.1 [0.5-2.5]	4.6 [3.0-7.1]	94.3 [91.7-96.1]	1072
Second	17.8 [10.8-27.9]	429	0.6 [0.3-1.3]	5.5 [3.5-8.4]	93.9 [91.1-95.9]	1127
Middle	14.3 [11.0-18.4]	429	0.7 [0.4-1.5]	4.0 [2.7-6.0]	95.3 [93.1-96.7]	1153
Fourth	10.8 [7.6-15.0]	490	1.4 [0.5-3.9]	3.3 [2.2-5.0]	95.3 [92.9-96.9]	1107
Highest	7.1 [4.9-10.2]	532	0.8 [0.2-3.1]	3.6 [2.4-5.3]	95.6 [93.6-97.0]	1116
Age (old)						
18-39	12.1 [9.2-15.8]	1330	1.1 [0.6-2.0]	4.7 [3.6-6.0]	94.2 [92.8-95.4]	2700
40-69	18.0 [15.2-21.2]	1070	0.5 [0.3-0.9]	2.8 [2.1-3.8]	96.6 [95.6-97.5]	2254
Total 15-69	**14.1 [11.9-16.6]**	**2,416**	**0.9 [0.5-1.5]**	**4.0 [3.3-5.0]**	**95.1 [94.1-95.9]**	**5575**

[1] who have never consumed alcohol; [2] persons who ever drank alcoholic beverages but have not done so in the past 12 months; [3] includes both the lifetime abstainers and former drinkers.

Table 4.7. Percentage of respondents aged 15-69 years who reported obtaining alcohol as difficult or very difficult and was refused to sell alcohol due to any reason by background characteristics

Background characteristic	Difficult or very difficult to obtain alcohol	Shop/bar refused to sell alcohol for any reason	Number of person	Among those, to whom shop/bar refused to sell alcohol: reason for refusal				Number of Persons
				Dry-day	Sale restriction time	Under-age	Intoxicated person	
Age								
15-24	10.3 [7.7-13.7]	6.4 [4.1-9.9]	336	4.1 [2.5-6.8]	0.6 [0.2-2.6]	2.1 [0.9-4.7]	0.6 [0.1-2.7]	337
25-39	8.9 [7.0-11.2]	9.0 [6.7-11.9]	1395	6.7 [5.0-8.9]	1.3 [0.5-3.5]	0.8 [0.3-2.1]	1.1 [0.5-2.4]	1386
40-54	12.1 [9.6-15.2]	7.4 [5.5-9.9]	853	5.3 [3.8-7.6]	0.7 [0.2-2.2]	1.3 [0.6-3.1]	0.8 [0.4-1.8]	852
55-69	14.2 [10.8-18.4]	7.4 [4.5-11.8]	426	5.0 [2.8-8.7]	0.9 [0.3-2.5]	0.2 [0.0-1.4]	0.4 [0.1-2.5]	427
Sex								
Women	11.9 [9.7-14.5]	6.0 [4.2-8.3]	1709	4.4 [3.1-6.2]	0.4 [0.2-1.0]	0.8 [0.4-1.4]	0.7 [0.3-1.5]	1708
Men	9.4 [7.5-11.8]	9.4 [7.4-11.7]	1301	6.5 [5.1-8.2]	1.4 [0.6-3.2]	1.5 [0.8-3.0]	0.9 [0.4-2.1]	1294
Residence								
Rural	14.3 [11.4-17.9]	7.0 [5.0-9.7]	1758	4.7 [3.4-6.4]	1.1 [0.4-2.9]	0.6 [0.2-1.7]	0.8 [0.3-2.2]	1757
Urban	5.3 [4.0-7.0]	8.7 [6.5-11.6]	1252	6.5 [4.9-8.8]	0.7 [0.3-1.7]	2.0 [1.1-3.4]	0.8 [0.3-2.0]	1245
Region								
Central	6.2 [3.7-10.3]	8.2 [5.8-11.6]	860	6.6 [4.5-9.6]	0.9 [0.4-1.8]	1.6 [0.8-3.2]	0.3 [0.1-0.7]	860
East	14.1 [10.2-19.1]	6.6 [3.4-12.6]	577	3.4 [1.8-6.4]	1.9 [0.4-8.3]	0.0	0.8 [0.3-2.7]	570
West	11.6 [9.1-14.7]	7.8 [5.7-10.5]	1573	5.5 [4.1-7.3]	0.7 [0.2-2.3]	1.3 [0.7-2.5]	1.2 [0.5-2.7]	1572
Education								
None/less than primary	14.6 [12.1-17.7]	7.5 [5.7-9.9]	1719	4.7 [3.6-6.2]	1.3 [0.5-2.9]	1.0 [0.4-2.1]	0.7 [0.3-1.5]	1712
Primary to middle	8.0 [5.7-11.0]	7.9 [5.7-10.8]	700	5.9 [4.1-8.3]	0.7 [0.2-2.1]	1.1 [0.4-2.6]	0.6 [0.2-1.9]	700
Secondary or more	4.6 [3.1-6.6]	8.2 [5.6-11.8]	590	6.8 [4.6-9.9]	0.6 [0.1-2.8]	1.8 [0.7-4.5]	1.4 [0.5-4.0]	589
Wealth quintile								
Lowest	23.1 [18.2-28.7]	7.5 [4.6-11.9]	624	2.8 [1.5-5.0]	0.7 [0.2-2.9]	1.2 [0.2-6.7]	0.4 [0.1-1.4]	482
Second	13.2 [10.0-17.3]	6.7 [4.7-10.0]	637	4.4 [2.6-7.3]	1.5 [0.4-5.4]	0.2 [0.1-0.9]	1.7 [0.6-5.0]	602
Middle	9.5 [7.4-12.2]	8.6 [5.5-13.1]	663	6.1 [3.8-9.5]	1.0 [0.2-6.8]	0.4 [0.1-1.8]	0.3 [0.1-0.9]	663
Fourth	5.4 [3.6-7.9]	9.6 [7.0-13.0]	607	8.2 [5.7-11.7]	0.8 [0.3-2.5]	1.8 [0.8-3.9]	0.5 [0.1-2.1]	633
Highest	4.6 [2.8-7.3]	6.5 [4.2-10.0]	479	5.3 [3.5-8.0]	0.6 [0.1-2.4]	2.3 [1.0-4.9]	1.1 [0.3-3.4]	622
Age (old)								
18-39	9.1 [7.3-11.2]	8.6 [6.4-11.3]	1559	6.1 [4.6-8.0]	1.1 [0.5-2.8]	1.4 [0.7-2.8]	1.0 [0.4-2.2]	1668
40-69	12.9 [10.4-15.7]	7.4 [5.7-9.5]	1089	5.2 [3.9-7.0]	0.8 [0.3-1.7]	0.9 [0.4-2.0]	0.7 [0.3-1.5]	1279
Total 15-69	**10.3 [8.6-12.4]**	**7.8 [6.2-9.6]**	**3010**	**5.8 [4.6-7.2]**	**1.0 [0.5-2.1]**	**1.2 [0.7-2.1]**	**0.8 [0.4-1.6]**	**3002**

among people who were refused a sale during the past 30 days. For reasons of refusals - sale of homebrewed alcohol is prohibited, sales near monasteries is prohibited, drink driving is illegal, the combined responses were less than 0.2%, not included in the table above

Table 4.8. Percentage of respondents aged 15-69 years who reported being aware of different regulation in Bhutan to reduce harmful use of alcohol by background characteristics

Background characteristic	Noticed any advertisements/ signs promoting alcohol in any of the media	Notices advertisements or offered free/ discounted alcohol during events	Saw/heard a message that discouraged to drink alcohol in any of media channels	Total person (N) For different variable N is different
Age				
15-24	11.4 [8.4-15.4]	16.2 [12.1-21.3]	79.3 [75.2-82.9]	680
25-39	11.4 [9.0-14.4]	23.9 [19.5-29.0]	76.2 [73.0-79.1]	2317
40-54	6.6 [4.5-9.6]	23.2 [18.3-29.0]	72.7 [68.4-76.6]	1641
55-69	4.1 [2.5-6.6]	20.1 [14.1-27.8]	71.8 [66.4-76.6]	937
Sex				
Women	8.3 [6.4-10.7]	19.7 [16.0-24.0]	73.8 [70.3-77.0]	3416
Men	10.5 [8.3-13.2]	22.6 [17.9-28.1]	77.5 [74.1-80.6]	2159
Residence				
Rural	7.1 [5.1-9.9]	22.7 [17.7-28.6]	74.9 [70.5-78.8]	3495
Urban	12.8 [9.7-16.6]	19.2 [13.2-27.0]	77.0 [73.6-80.0]	2080
Region				
Central	11.6 [7.2-18.3]	34.4 [23.0-48.0]	84.3 [79.3-88.2]	1407
East	1.1 [0.5-2.2]	21.4 [14.4-30.6]	76.4 [68.9-82.6]	1395
West	11.8 [9.4-14.8]	14.3 [10.6-19.2]	70.6 [66.5-74.4]	2773
Education				
None/less than primary	5.5 [3.8-7.8]	21.5 [16.4-27.6]	71.8 [67.7-75.6]	3415
Primary to middle	10.2 [7.3-14.0]	19.5 [14.9-25.1]	78.2 [74.5-81.6]	1184
Secondary or more	17.7 [14.3-21.6]	23.1 [18.5-28.5]	81.8 [78.5-84.7]	973
Wealth quintile				
Lowest	2.3 [1.2-4.6]	19.1 [13.8-25.7]	66.5 [59.2-73.0]	1117
Second	4.8 [3.4-6.8]	24.1 [17.8-31.9]	74.0 [68.8-78.6]	1107
Middle	10.1 [6.7-14.9]	20.5 [15.5-26.7]	80.0 [76.0-83.6]	1153
Fourth	12.8 [9.6-16.8]	21.4 [16.1-27.8]	75.9 [71.4-79.9]	1127
Highest	15.3 [11.8-19.7]	21.0 [16.2-26.7]	80.0 [76.3-83.2]	1071
Age (old)				
18-39	11.0 [8.8-13.6]	22.1 [17.9-26.9]	77.6 [74.6-80.3]	2700
40-69	5.7 [4.1-7.9]	22.1 [17.2-27.9]	72.4 [68.3-76.1]	2254
Total 15-69	**9.2 [7.4-11.4]**	**22.1 [17.9-26.9]**	**75.8 [72.8-78.6]**	**5575**

among people who reported consuming alcohol in the past 30 days

Table 4.9. Percentage of respondents aged 15-69 years who reported exposure to drink driving or exposed to countermeasures taken to discourage drink driving by background characteristics.

Background characteristics	Ridden a vehicle where driver is apparently drunk		Stopped or checked by traffic police while driving	
	Percent	N	Percent	N
Age				
15-24	7.6 [5.5-10.5]	680	15.5 [10.8-21.8]	278
25-39	8.7 [6.9-10.8]	2317	18.5 [15.3-22.2]	1253
40-54	5.2 [3.8-7.1]	1641	16.5 [13.1-20.4]	808
55-69	4.9 [3.0-8.0]	937	9.2 [6.1-13.6]	404
Sex				
Women	4.6 [3.4-6.1]	3416	10.4 [8.1-13.3]	1384
Men	9.5 [7.8-11.5]	2159	21.2 [17.6-25.4]	1359
Residence				
Rural	6.8 [5.3-8.8]	3495	14.2 [11.0-18.1]	1517
Urban	7.7 [6.1-9.7]	2080	18.7 [14.5-23.7]	1172
Region				
Central	8.2 [5.9-11.5]	1407	21.6 [15.6-29.2]	674
East	6.9 [4.5-10.6]	1395	9.9 [6.2-15.4]	459
West	6.7 [5.3-8.4]	2773	14.9 [11.6-18.9]	1610
Education				
None/less than primary	5.3 [4.1-6.9]	3415	11.8 [9.2-15.1]	1480
Primary to middle	8.8 [6.7-11.5]	1184	20.7 [15.7-26.7]	592
Secondary or more	9.6 [7.2-12.6]	973	18.9 [14.6-24.0]	668
Wealth quintile				
Lowest	6.5 [4.2-9.9]	1072	7.0 [4.1-11.8]	718
Second	6.2 [4.3-8.7]	1127	15.5 [10.1-23.1]	574
Middle	6.6 [4.8-9.1]	1153	11.4 [8.1-15.8]	507
Fourth	8.1 [5.9-11.2]	1107	20.4 [16.1-25.5]	487
Highest	8.2 [6.0-11.1]	1116	21.7 [16.8-27.6]	457
Age (old)				
18-39	8.3 [6.8-10.0]	2700	17.5 [14.2-21.4]	1450
40-69	5.1 [3.7-6.9]	2254	13.9 [11.1-17.2]	1115
Total 15-69	**7.2 [6.0-8.6]**	**5575**	**16.3 [13.5-19.5]**	**2743**

**among people who reported consuming alcohol in the past 30 days*

Table 4.10. Percentage of respondents aged 15-69 years who reported aware on existing alcohol regulations to reduce harm by background characteristics

Background characteristic	Awareness on existing alcohol regulations										N	Attended awareness program	Awareness any existing alcohol regulations	N
	Dry-day (Tuesday)	Sale restriction time	Awareness about restriction in sale before 1pm and after 10 pm	Under-age	Sale of alcohol to intoxicated person prohibition	Prohibition of sale of home-brewed alcohol	Sale of alcohol near monasteries and schools is prohibited	Drink driving is illegal	Only bar license holder can sell alcohol	Others				
Age														
15-24	42.3 [36.9-48.0]	5.9 [3.8-9.1]	12.1 [9.3-15.6]	36.0 [31.1-41.3]	1.5 [0.7-2.9]	2.3 [1.1-4.4]	5.6 [3.4-9.2]	21.0 [16.7-26.1]	13.1 [9.6-17.6]	1.1 [0.4-2.7]	680	26.9 [22.7-31.6]	60.6 [54.4-66.6]	680
25-39	50.3 [46.2-54.4]	6.8 [5.3-8.7]	20.6 [17.8-23.8]	37.0 [33.5-40.7]	1.9 [1.3-2.7]	3.5 [2.5-4.8]	6.7 [5.2-8.6]	19.9 [17.1-23.0]	14.4 [11.5-17.8]	1.7 [1.0-2.7]	2317	21.5 [19.1-24.1]	68.0 [64.4-71.4]	2313
40-54	38.5 [35.1-42.1]	6.8 [5.3-8.7]	15.1 [13.1-17.5]	27.1 [23.7-30.8]	1.7 [1.1-2.6]	4.5 [3.3-6.1]	4.6 [3.3-6.4]	14.7 [12.1-17.8]	12.5 [9.9-15.7]	2.5 [1.5-4.2]	1641	24.6 [21.6-27.9]	58.0 [54.5-61.5]	1639
55-69	19.7 [16.1-23.8]	3.6 [2.3-5.4]	8.0 [5.7-11.0]	15.0 [12.0-18.6]	1.0 [0.5-2.1]	4.5 [3.0-6.6]	2.1 [1.2-3.8]	6.2 [4.3-8.9]	8.7 [6.2-12.0]	3.8 [2.1-6.6]	937	23.1 [19.5-27.2]	38.5 [34.1-43.1]	932
Sex														
Women	35.6 [32.5-38.8]	3.8 [2.9-5.0]	11.9 [10.0-13.9]	24.6 [21.8-27.7]	1.3 [0.9-1.9]	3.7 [2.7-5.0]	4.9 [3.5-6.9]	13.9 [11.6-16.6]	11.0 [8.6-14.0]	2.1 [1.4-3.2]	3416	20.6 [18.6-22.8]	52.3 [48.9-55.6]	3406
Men	47.6 [43.7-51.5]	8.3 [6.5-10.5]	19.0 [16.7-21.6]	38.5 [34.8-42.2]	1.9 [1.4-2.7]	3.3 [2.3-4.7]	5.9 [4.4-7.7]	20.5 [17.8-23.6]	14.7 [11.8-18.1]	1.8 [1.1-3.0]	2159	26.6 [23.7-29.8]	67.6 [63.8-71.1]	2158
Residence														
Rural	33.8 [29.9-38.0]	5.0 [3.6-7.0]	12.8 [10.7-15.3]	25.9 [22.7-29.3]	1.2 [0.8-1.7]	4.3 [3.0-6.1]	6.1 [4.3-8.7]	11.5 [9.6-13.7]	14.2 [10.8-18.6]	2.4 [1.4-3.9]	3495	27.6 [24.8-30.6]	54.6 [50.6-58.5]	3487
Urban	53.3 [48.6-58.0]	7.9 [5.9-10.3]	19.6 [16.6-23.0]	40.5 [35.5-45.7]	2.3 [1.6-3.4]	2.4 [1.6-3.5]	4.4 [3.2-6.1]	25.8 [21.6-30.5]	11.1 [8.4-14.7]	1.4 [0.8-2.3]	2080	18.5 [15.9-21.5]	68.5 [64.0-72.6]	2077
Region														
Central	45.1 [39.0-51.3]	5.8 [4.4-7.7]	14.6 [11.7-18.1]	27.2 [21.9-33.2]	1.1 [0.6-2.2]	3.4 [2.4-4.7]	5.5 [3.4-8.8]	14.4 [10.7-19.1]	11.5 [7.3-17.6]	0.4 [0.2-0.9]	1407	24.3 [20.7-28.4]	58.4 [53.5-63.1]	1407
East	36.5 [30.0-43.4]	9.7 [5.9-15.6]	19.8 [14.8-25.9]	30.4 [26.0-35.3]	1.4 [0.8-2.5]	7.5 [4.2-13.0]	9.0 [5.0-15.8]	8.8 [6.8-11.2]	15.9 [9.3-25.9]	5.1 [2.7-9.6]	1395	37.9 [32.4-43.7]	61.3 [52.8-69.1]	1384
West	42.3 [38.0-46.8]	5.0 [3.6-6.8]	14.6 [12.4-17.1]	35.3 [31.3-39.4]	2.0 [1.4-2.9]	1.9 [1.3-2.7]	4.0 [3.0-5.3]	22.6 [19.3-26.2]	12.6 [10.0-15.7]	1.6 [1.0-2.6]	2773	17.9 [15.4-20.5]	61.1 [57.1-64.9]	2773

Education														
None/less than primary	27.7 [24.5-31.1]	3.7 [2.7-4.9]	11.0 [9.0-13.3]	16.1 [13.8-18.8]	1.0 [0.6-1.6]	4.5 [3.0-6.6]	3.1 [2.0-4.6]	9.3 [7.7-11.2]	10.7 [8.2-13.8]	2.8 [1.7-4.5]	3415	22.7 [19.8-25.9]	47.6 [44.0-51.2]	3407
Primary to middle	48.3 [43.9-52.6]	6.8 [4.7-9.7]	16.7 [13.9-20.0]	37.3 [33.6-41.2]	1.5 [1.0-2.3]	2.2 [1.4-3.4]	5.7 [3.9-8.1]	18.3 [14.6-22.6]	12.6 [9.5-16.5]	0.9 [0.3-2.5]	1184	24.0 [20.8-27.6]	66.3 [62.0-70.3]	1182
Secondary or more	67.1 [62.1-71.8]	11.2 [8.6-14.5]	25.1 [21.1-29.5]	62.0 [57.0-66.7]	3.3 [2.2-5.1]	2.8 [1.8-4.3]	10.6 [8.1-13.7]	35.1 [30.6-39.9]	18.7 [15.1-22.8]	1.4 [0.7-2.7]	973	26.1 [22.1-30.5]	82.5 [78.0-86.1]	972
Wealth quintile														
Lowest	20.3 [15.5-26.0]	2.5 [1.4-4.3]	6.8 [4.1-11.2]	12.9 [9.6-17.1]	0.6 [0.2-1.9]	6.8 [3.7-12.2]	3.8 [2.2-6.5]	5.2 [3.5-7.7]	11.0 [7.4-16.1]	5.2 [2.6-10.3]	1117	33.2 [27.1-39.9]	45.4 [39.7-51.3]	1110
Second	29.4 [25.1-34.0]	5.6 [3.3-9.4]	9.7 [7.6-12.3]	19.9 [16.5-23.8]	0.8 [0.4-1.6]	5.4 [3.7-7.9]	5.5 [3.3-8.8]	11.8 [9.1-15.2]	13.1 [9.0-18.7]	1.8 [0.9-3.4]	1107	26.0 [22.0-30.5]	51.0 [45.7-56.2]	1106
Middle	39.1 [47.4-56.3]	5.3 [3.9-7.4]	14.1 [11.3-17.6]	29.7 [25.1-34.7]	1.7 [1.0-2.8]	1.8 [1.0-3.3]	5.4 [3.3-8.6]	15.6 [11.3-21.2]	12.4 [9.0-17.0]	0.7 [0.4-1.5]	1153	21.1 [17.8-24.8]	57.3 [51.8-62.5]	1150
Fourth	51.9 [47.4-56.3]	5.9 [4.3-8.0]	20.9 [17.5-24.8]	37.9 [33.6-42.3]	2.1 [1.2-3.5]	1.9 [1.3-2.8]	5.5 [3.8-7.8]	18.6 [15.8-21.8]	13.5 [10.6-17.1]	0.8 [0.4-1.5]	1127	19.1 [15.6-23.1]	66.2 [61.8-70.4]	1127
Highest	62.8 [57.4-67.9]	10.5 [7.5-14.6]	24.1 [20.2-28.4]	53.5 [47.4-59.4]	2.7 [1.8-4.2]	2.3 [1.4-3.8]	6.6 [4.6-9.3]	32.0 [27.1-37.2]	14.2 [10.5-18.8]	1.9 [1.1-3.5]	1071	21.7 [17.7-26.2]	77.2 [71.9-81.7]	1071
Age (old)														
18-39	48.4 [44.2-52.6]	6.5 [5.0-8.4]	18.0 [15.5-20.8]	37.4 [33.8-41.2]	1.9 [1.3-2.7]	3.2 [2.2-4.5]	6.5 [4.8-8.8]	19.9 [17.1-22.9]	14.2 [11.3-17.7]	1.6 [1.0-2.5]	2700	22.2 [19.7-24.9]	65.4 [61.3-69.4]	2696
40-69	31.8 [29.1-34.6]	5.7 [4.5-7.0]	12.6 [10.9-14.5]	22.8 [20.2-25.7]	1.5 [1.0-2.1]	4.5 [3.3-6.0]	3.7 [2.7-5.1]	11.7 [9.6-14.2]	11.1 [8.9-13.9]	3.0 [1.8-4.8]	2254	24.1 [21.3-27.0]	51.1 [48.0-54.2]	2247
Total 15-69	**42.8** [39.5-46.1]	**6.2** [5.0-7.7]	**16.2** [14.3-18.2]	**32.5** [29.6-35.6]	**1.8** [1.3-2.3]	**3.6** [2.7-4.8]	**5.6** [4.2-7.3]	**17.1** [15.0-19.4]	**13.2** [10.7-16.1]	**2.0** [1.4-3.0]	**5575**	**22.8** [20.7-25.1]	**60.5** [57.4-63.7]	**5564**

*among people who reported consuming alcohol in the past 30 days

Table 4.11. Percentage of respondents aged 15-69 years who reported their households brewing alcohol at home, frequency and purpose of brewing by background characteristics

Background characteristic	Brew alcohol at home	N	Frequency of brewing alcohol among those who brew alcohol at home			Purpose of consumption among those who brew alcohol at home				N
			Weekly or more	monthly	less than monthly	For religious purpose	Self-consumption	Baby Shower	for sale	
Age										
15-24	27.9 [23.3-33.0]	680	11.2 [6.3-19.0]	24.0 [17.2-32.6]	64.8 [54.1-74.1]	67.0 [57.4-75.4]	35.5 [24.8-47.8]	2.4 [1.0-5.9]	4.1 [1.9-8.7]	198
25-39	28.0 [23.8-32.6]	2,317	14.9 [11.0-19.9]	24.8 [20.0-30.3]	60.3 [53.3-67.0]	56.2 [45.8-66.1]	43.3 [35.5-51.5]	3.7 [2.1-6.4]	1.9 [1.0-3.7]	619
40-54	36.7 [32.3-41.4]	1,641	13.3 [9.4-18.5]	24.5 [20.0-29.7]	62.2 [54.9-69.0]	69.9 [63.9-75.3]	46.7 [39.1-54.3]	0.8 [0.3-2.1]	2.0 [1.1-3.6]	631
55-69	45.9 [38.9-53.0]	937	14.0 [9.6-20.1]	27.4 [21.4-34.4]	58.6 [49.8-66.8]	61.2 [52.6-69.2]	48.3 [39.5-57.2]	1.0 [0.3-2.9]	2.8 [1.1-7.1]	434
Sex										
Women	34.4 [30.4-38.7]	3,416	12.0 [9.1-15.6]	25.9 [21.2-31.3]	62.1 [56.0-67.8]	62.0 [53.9-69.5]	39.6 [32.0-47.7]	3.2 [2.1-5.1]	3.0 [1.8-4.9]	1,204
Men	29.9 [26.1-34.0]	2,159	14.8 [10.9-19.7]	23.9 [19.1-29.5]	61.4 [54.4-67.9]	63.2 [56.3-69.7]	45.3 [37.5-53.2]	1.7 [0.7-3.7]	2.3 [1.2-4.2]	678
Residence										
Rural	47.8 [42.4-53.3]	3,495	15.2 [11.9-19.3]	24.5 [20.1-29.4]	60.3 [53.8-66.5]	66.0 [58.4-72.8]	43.2 [35.3-51.4]	1.2 [0.7-2.1]	2.3 [1.4-3.6]	1,689
Urban	9.8 [7.8-12.3]	2,080	2.1 [0.9-5.0]	27.3 [17.5-39.8]	70.6 [58.6-80.3]	41.1 [29.4-53.9]	38.6 [29.0-49.1]	10.2 [5.7-17.7]	4.8 [2.1-10.7]	193
Region										
Central	37.1 [28.3-46.9]	1,407	8.3 [4.6-14.6]	27.4 [17.8-39.7]	64.3 [51.4-75.4]	73.9 [62.4-82.8]	58.2 [44.1-71.1]	1.2 [0.5-2.9]	3.0 [1.6-5.8]	555
East	56.3 [49.8-62.6]	1,395	27.7 [21.4-34.9]	32.5 [26.8-38.7]	39.9 [31.7-48.6]	50.6 [37.7-63.5]	38.6 [30.3-47.7]	1.0 [0.3-3.0]	1.5 [0.5-4.2]	722
West	19.4 [15.7-23.6]	2,773	3.2 [1.6-6.3]	14.0 [9.6-19.8]	82.8 [76.7-87.6]	64.3 [55.6-72.2]	30.6 [24.1-38.0]	5.3 [3.2-8.6]	3.4 [1.7-6.6]	605
Education										
None/less than primary	44.9 [39.5-50.4]	3,415	15.6 [12.2-19.8]	26.2 [22.1-30.7]	58.2 [52.6-63.6]	62.2 [53.3-70.3]	45.3 [37.9-53.0]	1.5 [0.8-2.7]	2.2 [1.3-3.7]	1,513

Primary to middle	25.1 [21.5-29.1]	1,184	10.8 [6.2-18.1]	25.1 [17.8-34.2]	64.1 [53.8-73.3]	65.0 [55.1-73.7]	37.7 [27.5-49.1]	2.8 [1.5-5.4]	4.0 [1.7-9.0]	268
Secondary or more	10.9 [8.3-14.1]	973	3.9 [1.4-10.5]	13.8 [8.3-21.9]	82.3 [73.0-88.9]	59.6 [44.0-73.4]	34.2 [23.6-46.7]	8.4 [3.3-20.1]	1.5 [0.4-5.8]	100
Wealth quintile										
Lowest	65.5 [58.6-71.8	1,072	21.1 [15.7-27.9]	30.6 [25.1-36.7]	48.2 [40.5-56.1]	57.5 [48.9-65.7]	50.6 [42.2-59.0]	0.7 [0.3-1.8]	2.2 [1.0-5.0]	705
Second	48.4 [40.8-56.2]	1,127	15.6 [10.5-22.6]	19.7 [14.6-26.0]	64.7 [56.6-72.0]	66.2 [56.5-74.8]	45.2 [35.0-55.7]	1.6 [0.6-4.3]	1.5 [0.8-2.7]	536
Middle	31.6 [27.0-36.5]	1,153	7.5 [3.8-14.5]	27.7 [19.1-38.4]	64.7 [53.4-74.6]	66.4 [55.7-75.7]	35.6 [25.4-47.2]	1.3 [0.5-3.5]	3.9 [2.1-7.2]	364
Fourth	14.7 [11.9-18.2]	1,107	0.8 [0.1-5.6]	21.6 [14.5-31.0]	77.6 [68.2-84.9]	68.6 [57.5-77.9]	31.1 [21.7-42.3]	5.2 [2.7-9.8]	5.8 [2.3-13.8]	178
Highest	8.8 [6.8-11.2]	1,116	2.6 [0.8-8.1]	14.9 [7.0-28.9]	82.5 [68.5-91.1]	51.4 [36.6-66.0]	29.4 [19.4-41.9]	14.0 [6.7-26.7]	0.7 [0.1-5.1]	99
Age (old)										
18-39	28.3 [24.6-32.4]		13.7 [10.0-18.4]	24.0 [19.1-29.7]	62.3 [55.4-68.8]	61.6 [53.6-69.1]	41.4 [33.0-50.2]	3.2 [2.0-5.1]	2.0 [1.2-3.5]	782
40-69	40.0 [35.1-45.0]		13.6 [9.9-18.2]	25.6 [21.1-30.5]	60.9 [54.0-67.4]	66.8 [61.0-72.1]	47.2 [40.0-54.6]	0.9 [0.4-1.8]	2.3 [1.2-4.1]	1065
Total 15-69	**32.3 [28.5-36.2]**	**5,575**	**13.6 [10.6-17.4]**	**24.5 [20.3-29.3]**	**61.8 [55.9-67.5]**	**63.4 [56.6-69.7]**	**43.4 [36.1-50.9]**	**2.4 [1.5-3.7]**	**2.1 [1.4-3.3]**	**1,882**

**among people who reported consuming alcohol in the past 30 days*

Tobacco Use

Table 5.1. Percentage of respondents aged 15-69 years who currently use any tobacco products, any smoked/smokeless tobacco product by background characteristics

Background characteristics	Currently use any tobacco product	Currently smoke any tobacco product	Currently use any smokeless tobacco product	Currently use both smoking and smokeless tobacco product	Number of respondents
Age					
15-24	21.1 [16.7-26.2]	14.9 [11.6-19.0]	8.8 [5.9-12.8]	2.6 [1.3-5.2]	680
25-39	26.2 [23.5-29.1]	11.3 [9.3-13.7]	15.8 [13.8-18.1]	0.9 [0.5-1.5]	2317
40-54	20.7 [18.0-23.7]	4.2 [3.1-5.6]	18.1 [15.6-20.9]	1.6 [1.0-2.6]	1641
55-69	20.2 [16.5-24.6]	3.5 [2.2-5.4]	17.6 [14.0-21.7]	0.8 [0.3-2.1]	937
Sex					
Women	11.8 [10.1-13.7]	3.7 [2.7-5.0]	8.3 [7.0-10.0]	0.2 [0.1-0.5]	3416
Men	32.9 [29.4-36.4]	15.2 [13.0-17.7]	20.3 [17.6-23.3]	2.7 [1.7-4.0]	2159
Residence					
Rural	21.4 [18.8-24.2]	7.1 [5.8-8.8]	15.7 [13.6-18.1]	1.5 [0.9-2.3]	3495
Urban	25.1 [20.9-29.8]	13.5 [11.1-16.3]	13.2 [10.0-17.1]	1.6 [0.8-3.1]	2080
Region					
Central	26.7 [21.3-32.9]	9.4 [7.2-12.2]	18.6 [14.4-23.8]	1.3 [0.7-2.5]	1407
East	9.9 [7.3-13.4]	3.4 [2.3-5.1]	6.8 [4.8-9.7]	0.4 [0.2-0.8]	1395
West	26.1 [23.0-29.4]	12.5 [10.4-15.1]	15.6 [13.3-18.2]	2.0 [1.2-3.4]	2773
Education					
None/less than primary	21.5 [18.5-24.8]	4.2 [3.2-5.5]	18.4 [15.6-21.7]	1.2 [0.7-2.0]	3415
Primary/Middle	23.3 [19.8-27.1]	13.3 [10.4-16.7]	12.5 [10.3-15.1]	2.5 [1.2-4.8]	1184
Secondary and higher	26.0 [22.1-30.2]	18.3 [14.7-22.4]	8.7 [6.8-11.1]	1.0 [0.5-1.9]	973
Wealth quintile					
Lowest	21.3 [17.2-26.2]	4.4 [3.0-6.4]	18.7 [14.8-23.4]	1.7 [0.8-3.6]	1117
Second	24.7 [20.0-30.1]	7.6 [5.3-10.7]	18.4 [14.2-23.4]	1.3 [0.7-2.4]	1107
Middle	24.9 [21.4-28.8]	9.6 [7.0-13.1]	17.4 [14.2-21.0]	2.0 [0.8-5.3]	1153
Fourth	20.5 [17.1-24.5]	11.0 [8.1-14.7]	11.2 [8.8-14.1]	1.7 [0.8-3.2]	1127
Highest	22.9 [19.1-27.2]	14.7 [11.7-18.5]	9.0 [7.1-11.4]	0.9 [0.4-1.9]	1071
Age groups					
15-39	24.1 [21.4-27.1]	12.7 [10.8-14.9]	13.0 [11.1-15.2]	1.6 [1.0-2.6]	2997
40-69	20.5 [18.0-23.4]	3.9 [3.1-5.0]	17.9 [15.6-20.6]	1.3 [0.8-2.1]	2578
Age groups (2014 report)					
18-39	25.6 [22.7-28.9]	14.0 [11.9-16.5]	13.0 [11.0-15.5]	1.4 [0.9-2.3]	2872
40-69	20.5 [18.0-23.4]	3.9 [3.1-5.0]	17.9 [15.6-20.6]	1.3 [0.8-2.1]	2578
Total (15-69)	**23.9 [21.4-26.6]**	**10.6 [9.2-12.3]**	**14.7 [12.8-16.9]**	**1.4 [1.0-2.0]**	**5575**

Table 5.2. Percentage of respondents aged 15-69 years who currently use any tobacco product daily or non-daily, percentage who formerly smoked tobacco daily or non-daily, and percentage never smoker among all respondents and among current smokers by background characteristics

Background characteristics	Among all respondents							Among current smokers		Number of respondents	Among former smokers		Number of respondents
	Currently smoke tobacco		Formerly smoke tobacco		Never smoked tobacco	Total	Number of respondents	Daily	Non-daily		Daily	Non-daily	
	Daily	Non-daily	Daily	Non-daily									
Age													
15-24	6.3 [4.3-9.1]	8.6 [6.0-12.4]	4.1 [2.5-6.8]	14.7 [11.8-18.2]	66.2 [60.9-71.2]	100.0	680	41.0 [25.4-58.7]	59.0 [41.3-74.6]	81	24.9 [17.5-34.1]	75.1 [65.9-82.5]	115
25-39	7.0 [5.3-9.3]	4.3 [3.3-5.5]	9.5 [7.9-11.5]	9.7 [7.9-11.8]	69.5 [66.4-72.4]	100.0	2317	63.4 [54.2-71.6]	36.7 [28.4-45.8]	203	45.5 [38.8-52.4]	54.5 [47.6-61.2]	373
40-54	2.3 [1.5-3.4]	1.9 [1.2-3.0]	7.7 [6.2-9.6]	7.0 [5.5-9.0]	81.1 [78.0-83.9]	100.0	1641	68.2 [57.3-77.4]	31.8 [22.6-42.7]	58	51.5 [43.3-59.6]	48.5 [40.4-56.7]	222
55-69	1.9 [1.1-3.2]	1.6 [0.9-3.0]	17.3 [14.2-20.9]	7.4 [5.6-9.7]	71.8 [67.4-75.8]	100.0	937	54.9 [36.0-72.5]	45.1 [27.5-64.0]	28	69.7 [62.5-76.0]	30.3 [24.0-37.5]	219
Sex													
Women	2.0 [1.4-2.8]	1.6 [0.9-3.0]	4.5 [3.7-5.4]	5.6 [4.5-6.9]	86.3 [83.8-88.5]	100.0	3416	63.2 [51.6-73.4]	36.8 [26.6-48.4]	112	41.8 [35.3-48.7]	58.2 [51.3-64.7]	342
Men	8.0 [6.6-9.7]	7.2 [5.7-9.1]	12.3 10.4-14.6]	14.3 [12.2-16.7]	58.2 [54.7-61.6]	100.0	2159	52.4 [45.8-58.9]	47.6 [41.1-54.2]	258	46.4 [40.9-52.0]	53.6 [48.0-59.1]	587
Residence													
Rural	3.8 [2.9-4.9]	3.4 [2.4-4.6]	8.1 [6.8-9.5]	7.7 [6.3-9.5]	77.1 [73.9-79.9]	100.0	3495	57.6 [48.7-66.0]	42.4 [34.0-51.3]	175	48.3 [43.0-53.6]	51.7 [46.4-57.0]	515
Urban	7.1 [5.5-9.2]	6.3 [4.7-8.5]	9.4 [7.5-11.8]	13.6 [11.5-16.1]	63.5 [59.7-67.2]	100.0	2080	57.4 [46.2-67.8]	42.7 [32.2-53.8]	195	40.5 [34.7-46.5]	59.5 [53.5-65.3]	414
Region													
Central	4.6 [3.0-7.1]	4.7 [3.2-6.9]	7.8 [6.1-9.9]	9.8 [7.3-13.2]	73.0 [68.8-76.9]	100.0	1407	54.3 [40.5-67.4]	45.7 [32.6-59.5]	88	42.9 [36.0-50.1]	57.1 [49.9-64.0]	230
East	1.6 [0.9-3.0]	1.8 [1.1-2.9]	6.8 [5.1-9.0]	10.6 [7.7-14.4]	79.2 [73.5-83.9]	100.0	1395	58.3 [40.2-74.4]	41.7 [25.6-59.8]	41	36.0 [29.1-43.6]	64.0 [56.4-70.9]	205
West	6.9 [5.5-8.7]	5.6 [4.2-7.5]	9.8 [8.2-11.8]	10.2 [8.6-12.1]	67.4 [63.8-70.8]	100.0	2773	58.7 [48.9-67.9]	41.3 [32.1-51.1]	241	47.3 [41.6-53.1]	52.7 [46.9-58.4]	494
Education													
None/less than primary	2.2 [1.5-3.1]	2.0 [1.4-2.9]	8.8 [7.1-10.8]	6.4 [5.2-7.8]	80.6 [77.6-83.3]	100.0	3415	55.2 [45.4-64.5]	44.8 [35.5-54.6]	117	53.7 [47.9-59.5]	46.3 [40.5-52.1]	463

Primary/Middle	7.2 [5.2-9.8]	6.1 [4.2-8.7]	6.5 [5.0-8.4]	13.7 [10.9-17.0]	66.6 [62.4-70.5]	100.0	1184	65.0 [54.4-74.3]	35.0 [25.7-45.6]	114	33.9 [26.7-41.9]	66.1 [58.1-73.3]	232
Secondary and higher	9.6 [7.5-12.1]	8.7 [5.8-12.7]	11.0 [8.6-13.9]	14.6 [11.7-18.1]	56.2 [51.6-60.7]	100.0	973	52.0 [39.5-64.2]	48.0 [35.8-60.5]	139	41.7 [32.7-51.2]	58.3 [48.8-67.3]	234
Wealth quintile													
Lowest	2.7 [1.5-4.6]	1.7 [1.0-2.8]	8.6 [6.4-11.5]	6.9 [4.8-9.7]	80.2 [75.5-84.1]	100.0	1117	56.5 [37.7-73.6]	43.5 [26.4-62.3]	40	52.2 [42.8-61.4]	47.8 [38.6-57.2]	156
Second	4.8 [3.1-7.4]	2.8 [1.4-5.3]	5.8 [4.3-7.9]	7.5 [5.5-10.2]	79.0 [74.7-82.8]	100.0	1107	58.5 [41.9-73.4]	41.5 [26.6-58.1]	55	43.3 [33.1-54.2]	56.7 [45.8-66.9]	149
Middle	4.0 [2.8-5.8]	5.6 [3.4-8.9]	7.4 [5.2-10.5]	10.9 [8.0-14.7]	72.1 [67.4-76.3]	100.0	1153	63.8 [51.1-74.8]	36.2 [25.2-48.9]	83	38.5 [29.0-49.0]	61.5 [51.0-71.0]	193
Fourth	6.1 [4.0-9.3]	4.9 [3.5-6.8]	9.9 [7.8-12.5]	13.0 [9.8-17.0]	66.1 [61.7-70.3]	100.0	1127	61.5 [47.9-73.6]	38.5 [26.4-52.1]	86	41.0 [31.8-50.9]	59.0 [49.1-68.2]	206
Highest	7.6 [5.8-9.9]	7.1 [4.7-10.7]	11.1 [8.8-13.8]	11.8 [9.2-14.9]	62.4 [57.7-67.0]	100.0	1071	50.7 [37.3-64.1]	49.3 [35.9-62.7]	106	48.0 [39.2-56.9]	52.0 [43.1-60.8]	225
Age groups													
15-39	6.7 [5.5-8.3]	6.0 [4.7-7.7]	7.4 [6.0-9.0]	11.7 [10.0-13.7]	68.2 [64.9-71.2]	100.0	2997	54.4 [45.8-62.8]	45.6 [37.2-54.2]	284	37.3 [32.1-42.7]	62.7 [57.3-67.9]	488
40-69	2.1 [1.5-2.9]	1.8 [1.3-2.6]	11.1 [9.5-13.0]	7.2 [5.9-8.6]	77.8 [75.0-80.3]	100.0	2578	63.5 [53.8-72.2]	36.5 [27.8-46.2]	86	58.0 [52.1-63.6]	42.0 [36.4-47.9]	441
Age groups (2014 report)													
18-39	7.7 [6.2-9.4]	6.4 [4.9-8.3]	7.5 [6.2-8.9]	11.6 [9.8-13.7]	66.9 [63.5-70.1]	100.0	2872	55.8 [47.0-64.3]	44.2 [35.7-53.0]	280	37.8 [31.9-43.9]	62.2 [56.1-68.1]	469
40-69	2.1 [1.5-2.9]	1.8 [1.3-2.6]	11.1 [9.5-13.0]	7.2 [5.9-8.6]	77.8 [75.0-80.3]	100.0	2578	63.5 [53.8-72.2]	36.5 [27.8-46.2]	86	58.0 [52.1-63.6]	42.0 [36.4-47.9]	441
Total (15-69)	**5.8 [4.8-7.0]**	**4.8 [3.8-6.1]**	**8.7 [7.6-9.9]**	**10.1 [8.8-11.6]**	**70.6 [68.0-73.1]**	**100.0**	**5575**	**58.4 [51.7-64.8]**	**41.6 [35.2-48.3]**	**370**	**44.6 [40.3-48.9]**	**55.4 [51.1-59.7]**	**929**

Table 5.3. Percentage of respondents aged 15-69 years who currently use smokeless tobacco product daily or non-daily, percentage who formerly used smokeless tobacco products daily or non-daily, and percentage who never used smokeless tobacco among all respondents and among current users by background characteristics

Background characteristics	Among all respondents							Among current users of smokeless tobacco		Number of respondents	Among former users of smokeless tobacco		Number of respondents
	Currently use smokeless tobacco products		Formerly used smokeless tobacco products		Never used smokeless tobacco products	Total	Number of respondents	Daily	Non-daily		Daily	Non-daily	
	Daily	Non-daily	Daily	Non-daily									
Age													
15-24	7.2 [4.6-11.0]	1.6 [0.6-4.4]	3.0 [1.7-5.2]	2.8 [1.6-4.8]	85.5 [81.0-89.0]	100.0	680	77.6 [53.8-91.2]	22.4 [8.8-46.2]	45	51.6 [30.3-72.2]	48.4 [27.8-69.7]	29
25-39	14.5 [12.6-16.6]	1.4 [0.9-2.1]	3.4 [2.5-4.5]	1.9 [1.3-2.9]	78.8 [76.3-81.2]	100.0	2317	89.3 [84.0-93.0]	10.7 [7.0-16.0]	297	64.6 [53.1-74.6]	35.4 [25.4-46.9]	108
40-54	14.8 [12.6-17.3]	3.4 [2.4-4.8]	7.0 [5.7-8.7]	3.2 [1.9-5.1]	71.7 [68.1-75.0]	100.0	1641	81.0 [74.5-86.2]	19.0 [13.8-25.5]	292	69.0 [58.6-77.8]	31.0 [22.2-41.4]	170
55-69	15.0 [11.6-19.1]	2.6 [1.6-4.1]	9.2 [7.2-11.8]	4.8 [3.5-6.6]	68.4 [63.7-72.7]	100.0	937	85.8 [77.7-91.3]	14.2 [8.7-22.3]	163	66.0 [58.1-73.1]	34.0 [26.9-41.9]	136
Sex													
Women	6.9 [5.6-8.4]	1.5 [1.1-2.0]	3.8 [3.1-4.7]	2.1 [1.6-2.9]	85.7 [83.9-87.4]	100.0	3416	80.6 [68.9-88.6]	19.4 [11.4-31.1]	330	62.5 [49.2-74.1]	37.5 [25.9-50.8]	236
Men	17.8 [15.3-20.6]	2.5 [1.7-3.8]	5.6 [4.5-7.0]	3.3 [2.4-4.7]	70.7 [67.1-74.1]	100.0	2159	87.0 [80.5-91.6]	13.0 [8.4-19.5]	467	62.0 [52.8-70.5]	38.0 [29.5-47.2]	207
Residence													
Rural	13.5 11.6-15.6]	2.2 [1.6-3.1]	4.9 [4.0-6.1]	3.1 [2.2-4.4]	76.2 [72.8-79.3]	100.0	3495	82.4 [74.4-88.3]	17.6 [11.7-25.6]	563	59.6 [49.3-69.2]	40.4 [30.8-50.7]	310
Urban	11.5 [8.4-15.4]	1.7 [0.9-3.1]	4.5 [3.4-6.0]	2.3 [1.5-3.4]	80.0 [76.2-83.3]	100.0	2080	86.9 [76.3-93.1]	13.1 [6.9-23.7]	234	65.5 [52.0-76.9]	34.5 [23.1-48.0]	133
Region													
Central	17.3 [13.2-22.4]	1.3 [0.8-2.3]	4.9 [3.6-6.5]	2.7 [1.7-4.2]	73.8 [68.0-78.8]	100.0	1407	92.3 [86.8-95.6]	7.7 [4.4-13.2]	246	58.7 [43.0-72.8]	41.3 [27.2-57.0]	120
East	5.5 [3.8-7.9]	1.3 [0.8-2.3]	4.4 [3.2-6.1]	4.1 [2.4-7.1]	84.6 [79.6-88.5]	100.0	1395	65.8 [45.1-81.8]	34.2 [18.2-54.9]	81	49.1 [35.8-62.6]	50.9 [37.4-64.2]	120
West	12.9 [10.8-15.2]	2.7 [1.8-3.9]	4.9 [3.7-6.3]	2.2 [1.5-3.3]	77.3 [74.3-80.1]	100.0	2773	80.7 [71.7-87.3]	19.3 [12.7-28.3]	470	69.0 [57.6-78.5]	31.0 [21.5-42.4]	203

Education													
None/less than primary	15.7 [13.0-18.9]	2.7 [2.0-3.6]	6.2 [5.1-7.4]	2.9 [2.1-4.0]	72.5 [68.9-75.8]	100.0	3415	84.9 [77.6-90.1]	15.1 [9.9-22.4]	571	68.9 [60.4-76.3]	31.1 [23.7-39.6]	332
Primary/ Middle	10.9 [8.9-13.3]	1.6 [0.6-4.0]	3.2 [2.0-5.2]	3.2 [2.1-4.8]	81.1 [77.9-84.0]	100.0	1184	86.6 [72.1-94.2]	13.4 [5.8-27.9]	141	46.4 [30.0-63.6]	53.6 [36.4-70.0]	65
Secondary and higher	7.7 [5.9-10.0]	1.0 [0.5-2.1]	3.5 [2.3-5.5]	2.0 [1.0-3.8]	85.8 [82.4-88.6]	100.0	973	73.4 [46.2-89.9]	26.6 [10.1-53.8]	85	69.2 [50.0-83.4]	30.8 [16.6-50.0]	46
Wealth quintile													
Lowest	17.1 [13.4-21.7]	1.6 [0.9-2.7]	5.6 [4.2-7.4]	3.5 [2.3-5.5]	72.2 [67.0-76.8]	100.0	1117	93.1 [88.2-96.0]	6.9 [4.0-11.8]	200	65.6 [55.1-74.8]	34.4 [25.2-44.9]	115
Second	15.6 [11.6-20.5]	2.8 [1.8-4.2]	4.9 [3.5-6.8]	2.9 [1.8-4.6]	73.9 [68.6-78.5]	100.0	1107	80.7 [66.4-89.9]	19.3 [10.1-33.6]	198	60.4 [42.6-75.7]	39.6 [24.3-57.4]	88
Middle	14.0 [11.1-17.6]	3.3 [1.8-6.1]	4.1 [2.9-5.9]	3.3 [1.8-6.1]	75.2 [70.8-79.2]	100.0	1153	81.1 [66.9-90.1]	18.9 [9.9-33.1]	183	47.4 [31.3-64.0]	52.6 [36.0-68.7]	88
Fourth	9.8 [7.7-12.6]	1.3 [0.7-2.6]	4.0 [2.7-6.0]	2.7 [1.7-4.2]	82.1 [78.9-84.9]	100.0	1127	87.8 [77.0-94.0]	12.2 [6.0-23.0]	123	58.1 [41.2-73.2]	41.9 [26.8-58.8]	86
Highest	8.0 [6.2-10.2]	1.1 [0.5-2.2]	5.3 [3.7-7.7]	1.7 [0.9-3.1]	84.0 [80.6-86.8]	100.0	1071	77.4 [52.0-91.5]	22.6 [8.5-48.0]	93	79.0 [65.7-88.0]	21.0 [12.0-34.3]	66
Age groups													
15-39	11.5 [9.7-13.7]	1.5 [0.9-2.4]	3.2 [2.4-4.3]	2.3 [1.6-3.3]	81.5 [79.0-83.8]	100.0	2997	84.6 [74.9-91.1]	15.4 [8.9-25.1]	342	59.4 [47.0-70.6]	40.6 [29.4-53.0]	137
40-69	14.8 [12.7-17.3]	3.1 [2.3-4.2]	7.8 [6.6-9.2]	3.7 [2.7-5.1]	70.5 [67.2-73.7]	100.0	2578	82.7 [77.4-87.0]	17.3 [13.0-22.6]	455	67.9 [60.7-74.4]	32.1 [25.6-39.3]	306
Age groups (2014 report)													
18-39	11.8 [9.8-14.1]	1.3 [0.8-2.0]	3.4 [2.5-4.6]	2.0 [1.4-3.0]	81.5 [78.8-84.0]	100.0	2872	85.9 [76.7-91.8]	14.1 [8.2-23.3]	336	61.8 [49.0-73.0]	38.2 [27.0-51.0]	131
40-69	14.8 [12.7-17.3]	3.1 [2.3-4.2]	7.8 [6.6-9.2]	3.7 [2.7-5.1]	70.5 [67.2-73.7]	100.0	2578	82.7 [77.4-87.0]	17.3 [13.0-22.6]	455	67.9 [60.7-74.4]	32.1 [25.6-39.3]	306
Total (15-69)	**12.8 [11.0-14.9]**	**1.9 [1.5-2.5]**	**4.9 [4.1-5.8]**	**2.6 [2.0-3.4]**	**77.8 [75.2-80.1]**	**100.0**	**5575**	**84.8 [78.8-89.3]**	**15.2 [10.7-21.2]**	**797**	**63.8 [55.3-71.6]**	**36.2 [28.4-44.7]**	**443**

Table 5.4. Percentage of respondents aged 15-69 years who currently use different smoking tobacco products daily or weekly among all respondents and among current smokers by background characteristics

Background characteristics	Among all respondents						Among current smokers				
	Cigarette (manufactured or hand-rolled)	*Bidis*	Cigars/ Cheroots/ Cigarellos	Other	Any product	Number of respondents	Cigarette (manufactured or hand-rolled)	*Bidis*	Cigars/ Cheroots/ cigarellos	Other	Number of respon-dents
Age											
15-24	14.9 [11.6-18.9]	2.8 [1.3-5.7]	0.6 [0.2-1.5]	0.7 [0.3-1.9]	14.9 [11.6-18.9]	680	98.9 [95.4-99.7]	22.7 [8.2-49.1]	3.3 [1.3-7.8]	4.7 [1.5-13.8]	81
25-39	10.6 [8.6-12.9]	1.7 [1.0-2.7]	0.7 [0.3-1.4]	0.6 [0.3-1.4]	10.8 [8.8-13.2]	2317	92.8 [87.9-95.8]	12.8 [8.1-19.6]	4.7 [2.4-8.9]	4.0 [1.8-8.9]	203
40-54	3.4 [8.6-12.9]	1.1 [0.6-2.0]	0.0 [0.0-0.2]	0.1 [0.0-0.4]	3.8 [2.8-5.2]	1641	78.7 [64.8-88.2]	23.5 [11.5-42.2]	0.5 [0.1-3.5]	3.3 [0.7-14.4]	58
55-69	2.4 [1.4-4.0]	1.7 [0.9-3.3]	0.1 [0.0-0.9]	0.0	3.1 [1.9-4.9]	937	64.8 [46.5-79.6]	51.3 [31.5-70.7]	2.6 [0.4-15.5]	0.0	28
Sex											
Women	3.4 [2.5-4.8]	0.9 [0.3-2.6]	0.1 [0.0-0.2]	0.1 [0.0-0.5]	3.7 [2.7-5.0]	3416	88.5 [80.3-93.6]	25.0 [13.7-41.0]	1.6 [0.5-4.6]	3.0 [0.9-9.6]	112
Men	14.3 [12.1-16.8]	2.7 [1.9-3.8]	0.8 [0.4-1.5]	0.7 [0.4-1.4]	14.6 [12.4-17.1]	2159	87.6 [82.1-91.5]	20.1 [14.6-27.0]	4.6 [2.5-8.2]	4.0 [2.2-7.2]	258
Residence											
Rural	6.3 [5.1-7.8]	2.2 [1.5-3.3]	0.3 [0.1-0.7]	0.2 [0.1-0.4]	6.7 [5.4-8.3]	3495	78.5 [70.4-84.9]	35.7 [25.9-46.8]	2.9 [1.4-6.0]	2.3 [0.8-6.6]	175
Urban	13.2 [10.8-16.1]	1.3 [0.6-2.9]	0.6 [0.3-1.4]	0.8 [0.4-1.7]	13.3 [10.9-16.2]	2080	95.6 [91.8-97.7]	11.8 [4.9-25.7]	3.3 [1.6-6.9]	4.6 [2.2-9.3]	195
Region											
Central	8.1 [6.1-10.8]	2.4 [1.4-3.9]	0.3 [0.1-1.0]	0.3 [0.1-0.8]	8.5 [6.4-11.1]	1407	84.7 [73.7-91.6]	27.6 [15.0-45.1]	2.1 [0.8-5.5]	1.2 [0.4-3.9]	88
East	2.9 [2.0-4.3]	1.1 [0.5-2.8]	0.1 [0.0-0.4]	0.0	3.2 [2.1-4.9]	1395	78.3 [59.8-89.7]	29.3 [13.4-52.6]	0.9 [0.1-6.6]	0.0	41
West	12.3	1.8 [1.0-3.3]	0.6 [0.3-1.3]	0.7 [0.4-1.4]	12.5 [10.3-15.1]	2773	90.6 [84.7-94.4]	19.3 [11.3-31.0]	3.9 [2.1-7.1]	5.0 [2.6-9.6]	241
Education											
None/less than primary	3.2 [2.4-4.2]	1.5 [1.0-2.3]	0.2 [0.1-0.6]	0.2 [0.0-0.5]	3.6 [2.7-4.8]	3415	69.3 [59.2-77.8]	39.9 [28.8-52.0]	3.1 [1.4-6.9]	1.2 [0.4-3.6]	117

Primary/Middle	13.5 [10.6-16.9]	2.4 [1.3-4.3]	0.6 [0.3-1.2]	0.3 [0.1-0.9]	13.6 [10.8-17.1]	1184	97.4 [92.1-99.2]	11.8 [6.8-19.9]	3.4 [1.5-7.3]	4.8 [1.6-13.0]	114
Secondary and higher	17.6 [14.0-21.7]	1.8 [0.6-5.7]	0.8 [0.3-2.1]	1.3 [0.5-2.9]	17.7 [14.2-21.9]	973	96.7 [93.5-98.4]	16.0 [5.9-36.9]	3.0 [1.1-7.5]	4.6 [2.1-10.1]	139
Wealth quintile											
Lowest	3.4 [2.2-5.3]	1.8 [0.9-3.6]	0.3 [0.0-2.3]	0.0	4.0 [2.6-5.9]	1117	69.4 [52.0-82.6]	36.0 [20.4-55.3]	2.0 [0.3-13.2]	0.0	40
Second	7.1 [4.9-10.2]	3.1 [1.7-5.5]	0.4 [0.1-1.3]	0.6 [0.2-1.5]	7.4 [5.2-10.5]	1107	80.8 [66.3-90.0]	42.4 [27.3-59.1]	4.2 [1.6-10.6]	4.9 [2.0-11.4]	55
Middle	8.9 [6.3-12.2]	2.2 [1.3-3.8]	0.6 [0.3-1.3]	0.2 [0.0-0.6]	9.2 [6.7-12.7]	1153	83.9 [68.8-92.4]	35.5 [21.8-52.0]	5.5 [2.5-11.6]	3.4 [0.7-15.5]	83
Fourth	10.5 [7.6-14.1]	0.7 [0.3-2.0]	0.3 [0.1-1.3]	0.5 [0.1-2.1]	10.6 [7.8-14.3]	1127	91.0 [80.8-96.0]	6.1 [2.4-14.7]	2.2 [0.5-9.0]	2.9 [0.8-9.9]	86
Highest	14.4 [11.3-18.2]	1.4 [0.3-5.5]	0.5 [0.2-1.8]	0.9 [0.3-2.3]	14.4 [11.3-18.2]	1071	98.0 [94.5-99.3]	14.1 [4.2-38.2]	2.5 [0.9-7.0]	5.0 [1.9-12.7]	106
Age groups											
15-39	12.3 [10.4-14.5]	2.1 [1.3-3.3]	0.6 [0.3-1.2]	0.6 [0.3-1.2]	12.4 [10.6-14.6]	2997	95.3 [92.2-97.1]	16.7 [9.5-27.8]	4.1 [2.3-7.2]	4.3 [2.2-8.4]	284
40-69	3.0 [2.4-3.9]	1.3 [0.8-2.1]	0.1 [0.0-0.3]	0.1 [0.0-0.3]	3.6 [2.8-4.6]	2578	73.8 [62.9-82.4]	33.4 [21.4-48.1]	1.2 [0.3-5.4]	2.1 [0.4-9.5]	86
Age groups (2014 report)											
18-39	13.6 [11.5-16.0]	2.5 [1.6-4.0]	0.7 [0.4-1.4]	0.7 [0.4-1.4]	13.7 [11.6-16.2]	2872	95.2 [92.1-97.1]	17.3 [9.9-28.4]	4.3 [2.4-7.5]	4.5 [2.3-8.6]	280
40-69	3.0 [2.4-3.9]	1.3 [0.8-2.1]	0.1 [0.0-0.3]	0.1 [0.0-0.3]	3.6 [2.8-4.6]	2578	73.8 [62.9-82.4]	33.4 [21.4-48.1]	1.2 [0.3-5.4]	2.1 [0.4-9.5]	86
Total (15-69)	**10.0 [8.6-11.7]**	**2.1 [1.4-3.1]**	**0.5 [0.3-0.9]**	**0.5 [0.3-1.0]**	**10.3 [8.9-12.0]**	**5575**	**88.0 [83.5-91.3]**	**22.7 [15.9-31.4]**	**3.2 [1.9-5.4]**	**3.7 [2.0-6.7]**	**370**

Note: Use of different smoking tobacco products with denominator of all respondents; the total across different products may not add to 100% due to dual use; dont' know and missing observations are excluded from analysis

Table 5.5. Percentage of respondents aged 15-69 years who currently use different smokeless tobacco products daily or weekly, among all respondents and among current users by background characteristics

Background characteristics	Among all respondents					Among current smokeless tobacco users				
	Snuff by mouth or nose	Chewing tobacco	Betel leves with tobacco	Any product	Number of respondents	Snuff by mouth or nose	Chewing tobacco	Betel leves with tobacco	Other	Number of respondents
Age										
15-24	2.6 [1.3-5.5]	8.3 [5.5-12.3]	0.2 [0.0-1.4]	8.7 [5.9-12.8]	680	38.5 [19.5-61.9]	76.5 [53.1-90.3]	1.3 [0.2-8.9]	13.1 [3.7-37.3]	45
25-39	5.5 [4.2-7.4]	14.1 [12.2-16.2]	0.4 [0.2-1.0]	15.4 [13.4-17.6]	2317	35.5 [27.6-44.3]	86.7 [79.8-91.5]	2.5 [1.2-5.3]	5.2 [2.8-9.6]	297
40-54	5.2 [3.7-7.3]	15.1 [12.9-17.7]	0.5 [0.2-1.4]	16.9 [14.5-19.6]	1641	28.4 [21.2-37.0]	81.3 [75.9-85.8]	3.0 [1.2-7.3]	2.9 [1.2-6.6]	292
55-69	3.7 [2.4-5.5]	14.7 [11.3-18.8]	0.3 [0.1-0.9]	16.2 [12.8-20.3]	937	21.0 [13.4-31.4]	83.1 [74.0-89.5]	2.1 [0.7-5.5]	0.5 [0.1-3.5]	163
Sex										
Women	2.5 [1.9-3.4]	6.6 [5.5-8.0]	0.2 [0.1-0.5]	7.6 [6.4-9.2]	3416	36.1 [24.0-50.2]	75.1 [62.6-84.4]	2.0 [1.0-3.8]	6.2 [1.9-18.5]	330
Men	6.2 [4.6-8.4]	18.4 [15.7-21.3]	0.5 [0.2-1.1]	19.7 [17.0-22.8]	2159	30.3 [22.9-38.9]	89.0 [84.7-92.1]	2.5 [1.1-5.3]	6.2 [2.7-13.6]	467
Residence										
Rural	4.5 [3.3-6.3]	13.4 [11.4-15.6]	0.4 [0.2-0.9]	14.9 [12.8-17.3]	3495	32.5 [22.8-44.0]	80.5 [72.3-86.7]	2.3 [1.2-4.4]	5.5 [2.0-13.8]	563
Urban	4.4 [2.9-6.7]	12.1 [9.1-16.0]	0.3 [0.1-0.9]	12.8 [9.7-16.7]	2080	34.0 [23.2-46.9]	85.9 [72.5-93.4]	2.1 [0.7-6.0]	7.7 [2.7-19.7]	234
Region										
Central	4.7 [3.0-7.2]	15.5 [11.6-20.5]	0.3 [0.1-1.0]	17.6 [13.3-22.9]	1407	31.0 [18.7-46.7]	79.9 [68.4-88.0]	1.4 [0.6-3.6]	3.7 [1.8-7.7]	246
East	0.5 [0.2-1.3]	6.1 [4.2-8.6]	0.1 [0.0-0.4]	6.1 [4.2-8.6]	1395	6.7 [2.3-18.0]	72.8 [45.6-89.5]	1.1 [0.2-5.1]	0.0	81
West	5.9 [4.3-8.2]	14.1 [11.9-16.6]	0.5 [0.2-1.1]	15.2 [12.9-17.8]	2773	39.2 [29.5-49.8]	86.0 [78.0-91.4]	3.1 [1.5-6.1]	9.3 [3.9-20.6]	470
Education										
None/less than primary	5.7 [4.1-7.9]	15.9 [13.2-19.1]	0.3 [0.1-0.6]	17.6 [14.7-20.9]	3415	31.6 [23.5-41.0]	81.4 [73.6-87.3]	1.4 [0.6-3.0]	2.1 [1.0-4.3]	571
Primary/Middle	3.6 [2.5-5.3]	11.2 [9.0-14.0]	0.4 [0.1-1.0]	11.8 [9.6-14.6]	1184	34.3 [20.1-52.2]	89.2 [80.1-94.4]	2.7 [1.1-6.6]	9.9 [3.2-26.4]	141
Secondary and higher	2.6 [1.7-4.1]	7.8 [6.0-10.1]	0.6 [0.2-1.8]	8.5 [6.6-10.9]	973	38.4 [20.3-60.4]	74.7 [46.6-90.9]	6.4 [2.1-17.9]	22.8 [7.3-52.6]	85

Wealth quintile										
Lowest	6.7 [4.1-10.6]	15.6 [12.3-19.6]	0.4 [0.1-1.3]	18.0 [14.3-22.6]	1117	40.6 [26.7-56.2]	76.1 [59.5-87.4]	2.5 [0.8-7.9]	2.0 [0.8-5.0]	200
Second	4.6 [3.2-6.5]	16.7 [12.5-21.9]	0.5 [0.2-1.3]	18.1 [13.9-23.2]	1107	26.9 [17.8-38.4]	81.3 [66.6-90.5]	2.0 [0.7-5.3]	0.7 [0.2-2.7]	198
Middle	4.4 [2.6-7.5]	15.4 [12.3-19.0]	0.4 [0.1-1.2]	16.2 [13.1-19.8]	1153	22.9 [13.0-37.0]	88.5 [80.7-93.4]	1.7 [0.6-4.8]	8.6 [2.6-25.0]	183
Fourth	3.1 [1.9-4.8]	10.3 [8.0-13.1]	0.2 [0.0-1.3]	10.8 [8.5-13.7]	1127	23.4 [14.4-35.6]	91.5 [82.3-96.1]	1.0 [0.1-7.3]	7.4 [3.3-16.0]	123
Highest	4.1 [2.7-6.1]	7.3 [5.7-9.5]	0.5 [0.1-1.4]	8.3 [6.5-10.5]	1071	57.8 [40.5-73.4]	74.1 [50.4-89.0]	4.4 [1.4-13.1]	15.7 [4.0-45.9]	93
Age groups										
15-39	4.4 [3.2-6.0]	11.8 [9.9-13.9]	0.3 [0.2-0.7]	12.7 [10.7-14.9]	2997	36.7 [26.4-48.4]	82.6 [72.7-89.5]	2.0 [1.0-4.2]	8.4 [3.8-17.6]	342
40-69	4.6 [3.4-6.3]	15.0 [12.8-17.4]	0.5 [0.2-1.0]	16.6 [14.3-19.2]	2578	25.8 [19.6-33.1]	82.0 [77.5-85.7]	2.7 [1.3-5.3]	2.0 [0.9-4.4]	455
Age groups (2014 report)										
18-39	4.3 [3.2-5.6]	11.8 [9.8-14.1]	0.4 [0.2-0.8]	12.7 [10.7-15.2]	2872	35.7 [25.9-47.0]	82.0 [72.1-89.0]	2.2 [1.0-5.0]	6.6 [2.9-14.7]	336
40-69	4.6 [3.4-6.3]	15.0 [12.8-17.4]	0.5 [0.2-1.0]	16.6 [14.3-19.2]	2578	25.8 [19.6-33.1]	82.0 [77.5-85.7]	2.7 [1.3-5.3]	2.0 [0.9-4.4]	455
Total (15-69)	**4.5 [3.4-5.8]**	**12.8 [11.1-14.8]**	**0.4 [0.2-0.7]**	**14.0 [12.2-16.1]**	**5575**	**33.0 [25.4-41.6]**	**82.4 [76.0-87.4]**	**2.2 [1.3-3.9]**	**6.2 [3.0-12.3]**	**797**

Table 5.6. Mean and median age at initiation of smoking among respondents aged 15-69 years who currently use any smoked tobacco products by background characteristics

Background characteristics	Mean age at initiation of smoking	Median age at initiation of smoking	Number of respondents (Current smokers)
Age			
15-24	16.8 [15.9-17.6]	16 [8-25]	81
25-39	21.5 20.7-22.3]	20 [10-38]	202
40-54	21.7 [18.8-24.6]	20 [8-46]	56
55-69	20.2 [16.7-23.6]	18 [10-55]	27
Sex			
Women	20.3 [18.9-21.8]	20 [8-40]	111
Men	19.9 [18.9-21.01]	18 [8-55]	255
Residence			
Rural	20.1 [18.5-21.7]	20 [8-55]	173
Urban	20.1 [19.05-21.2]	19 [8-46]	193
Region			
Central	19.7 [17.5-21.9]	20 [8-38]	85
East	19.1 [16.6-21.6]	20 10-37.5]	41
West	20.4 [19.5-21.4]	19 [8-55]	240
Education			
None/less than primary	20.2 [17.7-22.7]	18 [8-55]	113
Primary/Middle	20.3 19.1-21.5]	18 [8-43]	114
Secondary and higher	19.9 [19.2-20.6]	20 [8-31]	139
Wealth quintile			
Lowest	20.8 [17.4-24.1]	18 [8-55]	40
Second	19.5 [17.2-21.9]	18 [10-45]	53
Middle	18.6 [16.3-20.9]	18 [8-38]	82
Fourth	21.4 [19.6-23.1]	20 [10-46]	85
Highest	20.1 [19.3-20.9]	19 [8-43]	106
Age groups			
15-39	19.6 [19.0-20.2]	19 [8-38]	283
40-69	21.1 [18.7-23.6]	20 [8-55]	83
Age groups (2014 report)			
18-39	19.7 [19.1-20.3]	19 [8-38]	279
40-69	21.1 [18.7-23.6]	20 [8-55]	83
Total (15-69)	**20.1** [19.2-21.1]	**19** [8-55]	**366**

Note: excluded observations with age at smoking less than 7 years of age and more than or equal to 70; age at started smoking if don't know in T3, then responses replaced from T4; excluded observations who are don't know for t3 (=77) and also either missing or don't know for t4/t4type; excluded observations where age at initiation of smoking is more than the current age.

Table 5.7. Percentage of current smokers aged 15-69 years who tried to stop smoking and who were advised to quit smoking during their visit to a doctor or health worker in the past 12 months by background characteristics

Background characteristics	Tried to stop smoking	Number of respondents	Advised to quit smoking	Number of respondents
Age				
15-24	78.2 [62.4-88.6]	81	5.9 [2.5-13.3]	61
25-39	77.4 [69.1-84.0]	203	16.5 [10.4-25.2]	160
40-54	73.6 [59.9-83.9]	58	36.5 [20.9-55.4]	46
55-69	65.1 [43.7-81.8]	28	38.8 [19.7-62.1]	20
Sex				
Women	77.2 [66.1-85.4]	112	16.9 [9.4-28.7]	88
Men	73.7 [66.6-79.7]	258	24.0 [17.6-31.9]	199
Residence				
Rural	72.3 [62.5-80.4]	175	29.8 [21.1-40.2]	139
Urban	77.7 [69.1-84.5]	195	12.6 [7.7-20.1]	148
Region				
Central	81.1 [71.2-88.1]	88	23.7 [14.6-36.1]	73
East	72.3 [43.9-89.7]	41	27.1 [13.8-46.4]	32
West	73.2 [64.7-80.3]	241	18.6 [12.7-26.3]	182
Education				
None/less than primary	69.3 [58.2-78.6]	117	35.8 [25.5-47.4]	94
Primary/Middle	76.4 [65.0-85.0]	114	15.1 [8.7-25.0]	85
Secondary and higher	80.1 [70.9-86.9]	139	11.0 [5.6-20.3]	108
Wealth quintile				
Lowest	76.1 [55.2-89.1]	40	46.1 [26.0-67.6]	27
Second	65.1 [46.6-79.9]	55	33.8 [19.8-51.3]	43
Middle	83.2 [72.4-90.4]	83	27.8 [14.7-46.2]	65
Fourth	77.9 [64.9-87.1]	86	12.7 [6.3-23.8]	72
Highest	72.3 [59.9-82.0]	106	8.6 [3.8-18.2]	80
Age groups				
15-39	77.7 [70.6-83.5]	284	12.3 [8.1-18.1]	221
40-69	70.6 [58.4-80.4]	86	37.3 [25.0-51.5]	66
Age groups (2014 report)				
18-39	77.2 [70.1-83.0]	280	12.5 [8.3-18.4]	218
40-69	70.6 [58.4-80.4]	86	37.3 [25.0-51.5]	66
Total (15-69)	**75.3 [69.0-80.7]**	**370**	**20.9 [15.9-26.8]**	**287**

Note: no visit to the health care provider during the past 12 months is treated as missing; no question asked on cessation attempts and HW advise for smokeless tobacco

Table 5.8. Percentage of respondents aged 15-69 years who were exposed to secondhand smoke at home and at work (among those who work in a closed area of work) in the past 30 days by background characteristics

Background characteristics	Someone smoked in home in their presence	Number of respondents	Someone smoke in closed areas in workplace	Number of respondents
Age				
15-24	18.9 [15.2-23.3]	680	49.6 [43.6-55.6]	680
25-39	14.4 [12.6-16.3]	2317	44.8 [41.1-48.5]	2317
40-54	7.3 [5.9-9.0]	1641	33.0 [29.3-37.0]	1641
55-69	6.5 [4.7-9.0]	937	26.8 [22.7-31.4]	937
Sex				
Women	12.8 [11.1-14.7]	3416	36.7 [33.4-40.1]	3416
Men	13.4 [11.3-15.7]	2159	45.5 [41.4-49.8]	2159
Residence				
Rural	11.4 [9.8-13.3]	3495	31.8 [27.2-36.8]	3495
Urban	15.4 [12.9-18.3]	2080	54.8 [49.8-59.7]	2080
Region				
Central	14.7 [12.1-17.8]	1407	50.9 [44.3-57.4]	1407
East	5.4 [3.9-7.5]	1395	20.9 [17.0-25.4]	1395
West	15.2 [13.1-17.6]	2773	44.2 [39.3-49.3]	2773
Education				
None/less than primary	8.2 [6.9-9.6]	3415	30.3 [27.0-33.9]	3415
Primary/Middle	16.9 [13.8-20.6]	1184	52.3 [46.9-57.7]	1184
Secondary and higher	19.7 [16.5-23.4]	973	53.1 [47.8-58.4]	973
Wealth quintile				
Lowest	7.3 [5.1-10.2]	1117	20.1 [16.2-24.7]	1117
Second	12.6 [9.3-16.8]	1107	34.8 [29.5-40.6]	1107
Middle	15.5 [12.1-19.5]	1153	43.9 [38.3-49.6]	1153
Fourth	12.5 [10.0-15.6]	1127	48.4 [43.2-53.7]	1127
Highest	16.1 [13.2-19.5]	1071	54.3 [48.4-60.0]	1071
Age groups				
15-39	16.2 [14.3-18.3]	2997	46.7 [42.8-50.7]	2997
40-69	7.0 [5.8-8.4]	2578	30.8 [27.4-34.5]	2578
Age groups (2014 report)				
18-39	17.2 [15.1-19.5]	2872	46.5 [42.5-50.6]	2872
40-69	7.0 [5.8-8.4]	2578	30.8 [27.4-34.5]	2578
Total (15-69)	**13.1 [11.7-14.6]**	**5575**	**41.4 [38.1-44.8]**	**5575**

Note: don't know treated as missing; no questions asked on frequency of SHS exposure at home or exposure to SHS at other areas such as restaurants, public transport, educational facilities or health facilities

Table 5.9. Percentage of respondents aged 15-69 years who noticed information about the dangers of smoking cigarettes or that encourages quitting in different media in the past 30 days by background characteristics.

Background characteristics	Television	Radio	Newspaper or magazines	Posters or Banners or Sign Board	Any electronic media (Radio or TV)	On any media	Number of respondents
Age							
15-24	75.2 [70.9-79.0]	19.9 [15.9-24.6]	32.5 [27.7-37.6]	58.2 [53.1-63.1]	76.1 [71.9-79.9]	85.9 [81.8-89.2]	680
25-39	69.7 [65.5-73.7]	30.2 [26.6-34.1]	27.0 [24.0-30.1]	51.1 [47.5-54.6]	74.8 [70.9-78.3]	82.7 [79.6-85.4]	2317
40-54	66.4 [62.1-70.5]	33.6 [29.5-37.9]	16.2 [13.6-19.3]	36.0 [32.1-40.0]	73.2 [69.2-76.9]	77.8 [73.9-81.2]	1641
55-69	59.7 [53.6-65.4]	35.4 [29.8-41.4]	8.8 [6.6-11.7]	22.1 [17.9-27.1]	69.4 [64.5-73.9]	71.7 [66.9-76.0]	937
Sex							
Women	66.8 [63.2-70.2]	27.3 [23.9-31.0]	19.3 [16.7-22.1]	40.8 [37.5-44.1]	71.8 [68.5-74.9]	78.3 [75.3-81.1]	3416
Men	71.5 [68.1-74.6]	30.2 [26.6-34.1]	28.1 [25.2-31.2]	51.0 [47.6-54.5]	76.2 [73.1-79.1]	83.6 [81.1-85.9]	2159
Residence							
Rural	64.5 [59.5-69.2]	36.7 [32.0-41.6]	18.7 [15.7-22.3]	38.1 [34.2-42.1]	71.8 [67.5-75.8]	77.3 [73.6-80.7]	3495
Urban	76.0 [72.8-78.8]	17.8 [14.7-21.3]	31.2 [27.7-34.9]	57.6 [53.4-61.6]	77.4 [74.3-80.3]	86.5 [83.4-89.1]	2080
Region							
Central	76.7 [70.9-81.7]	40.8 [33.5-48.5]	25.9 [21.3-31.0]	52.9 [47.4-58.3]	81.4 [76.3-85.6]	86.5 [81.8-90.2]	1407
East	55.7 [47.8-63.3]	25.6 [19.0-33.5]	14.2 [11.1-18.0]	33.2 [28.9-37.9]	66.0 [58.6-72.7]	74.8 [68.6-80.1]	1395
West	70.5 [66.6-74.1]	23.3 [19.8-27.3]	26.7 [23.4-30.3]	47.6 [43.5-51.8]	73.3 [69.7-76.7]	80.7 [77.2-83.7]	2773
Education							
None/less than primary	61.4 [56.7-65.9]	34.6 [30.7-38.8]	7.6 [6.1-9.4]	29.4 [26.1-32.8]	70.2 [66.1-74.0]	74.3 [70.6-77.6]	3415
Primary/Middle	78.4 [74.6-81.8]	23.6 [19.7-28.0]	34.0 [30.0-38.2]	58.9 [54.1-63.6]	79.7 [75.9-83.0]	87.4 [84.2-90.0]	1184
Secondary and higher	75.9 [72.0-79.4]	21.9 [18.1-26.3]	49.1 [44.4-53.9]	69.2 [64.8-73.3]	76.4 [72.4-79.9]	89.3 [86.5-91.5]	973
Wealth quintile							
Lowest	34.6 [28.7-41.1]	36.0 [29.5-43.1]	6.2 [3.9-9.5]	19.8 [15.6-24.9]	54.3 [47.9-60.5]	60.0 [53.9-65.8]	1117
Second	68.5 [62.7-73.8]	37.0 [30.9-43.6]	16.4 [13.0-20.6]	39.4 [35.0-44.1]	72.6 [67.0-77.6]	78.5 [73.7-82.6]	1107
Middle	78.8 [74.6-82.4]	27.8 [23.4-32.7]	21.5 [17.6-25.9]	49.0 [44.3-53.7]	80.2 [76.0-83.8]	86.1 [82.7-88.9]	1153
Fourth	76.9 [72.7-80.7]	24.5 [20.4-29.2]	28.7 [24.8-33.0]	51.7 [46.7-56.7]	79.0 [74.7-82.7]	86.2 [82.5-89.2]	1127
Highest	79.8 [76.3-83.0]	21.1 [16.9-26.0]	41.7 [36.9-46.6]	64.2 [59.2-68.9]	80.3 [76.8-83.4]	90.0 [87.3-92.2]	1071
Age groups							
15-39	71.9 [68.7-75.0]	26.1 [22.9-29.5]	29.2 [26.2-32.3]	53.9 [50.8-57.0]	75.3 [72.3-78.1]	84.0 [81.5-86.2]	2997
40-69	64.0 [59.8-68.1]	34.2 [30.1-38.6]	13.6 [11.4-16.1]	31.0 [27.6-34.8]	71.9 [68.1-75.4]	75.6 [72.0-78.9]	2578
Age groups (2014 report)							
18-39	72.1 [68.7-75.3]	27.8 [24.4-31.4]	29.3 [26.2-32.6]	55.0 [51.9-58.2]	75.5 [72.3-78.4]	84.1 [81.4-86.5]	2872
40-69	64.0 [59.8-68.1]	34.2 [30.1-38.6]	13.6 [11.4-16.1]	31.0 [27.6-34.8]	71.9 [68.1-75.4]	75.6 [72.0-78.9]	2578
Total (15-69)	**69.3 [66.1-72.2]**	**28.8 [25.7-32.2]**	**23.9 [21.6-26.4]**	**46.2 [43.4-49.0]**	**74.2 [71.3-76.8]**	**81.1 [78.7-83.4]**	**5575**

Note: people who responded "don't know are counted as "no"

Table 5.10. Percentage of current tobacco smokers aged 15-69 years who noticed health warnings on cigarette/ bidi/smokeless tobacco product packages in the past 30 days by background characteristics

Background characteristics	Noticed health warning on tobacco package	Number of respondents	Among current tobacco smokers who noticed graphic health warning	
			Thought about quitting because of package warnings	Number of respondents
Age				
15-24	75.9 [70.6-80.5]	546	84.3 [73.0-91.5]	77
25-39	62.4 [58.6-66.0]	1687	78.1 [69.6-84.8]	179
40-54	41.4 [36.5-46.5]	975	86.1 [72.5-93.6]	44
55-69	27.6 [22.3-33.6]	545	91.3 [71.8-97.8]	12
Sex				
Women	47.3 [43.4-51.3]	2227	87.1 [78.8-92.4]	90
Men	66.1 [62.2-69.7]	1526	79.6 [71.6-85.8]	222
Residence				
Rural	49.1 [44.0-54.1]	2169	82.7 [72.9-89.4]	134
Urban	67.2 [62.8-71.4]	1584	83.4 [76.3-88.7]	178
Region				
Central	51.1 [45.1-57.1]	1090	86.8 [71.8-94.4]	68
East	43.5 [33.5-54.1]	602	78.3 [54.5-91.5]	35
West	63.9 [59.5-68.2]	2061	82.3 [76.5-86.9]	209
Education				
None/less than primary	38.1 [33.6-42.8]	2057	80.7 [68.3-89.0]	77
Primary/Middle	71.9 [67.2-76.2]	891	87.5 [79.8-92.6]	107
Secondary and higher	77.1 [72.9-80.9]	802	80.3 [71.4-86.9]	128
Wealth quintile				
Lowest	30.1 [24.3-36.7]	619	85.9 [65.7-95.1]	26
Second	49.8 [44.1-55.5]	731	80.0 [60.0-91.4]	44
Middle	61.9 [56.0-67.5]	797	86.2 [75.3-92.7]	70
Fourth	64.4 [58.5-69.9]	790	86.6 [75.3-93.2]	76
Highest	68.4 [63.6-72.9]	816	79.3 [69.8-86.4]	96
Age groups				
15-39	67.8 [64.1-71.2]	2233	80.6 [74.4-85.6]	256
40-69	36.5 [32.3-40.9]	1520	88.0 [77.7-93.9]	56
Age groups (2014 report)				
18-39	67.8 [64.2-71.2]	2133	80.0 [73.7-85.0]	252
40-69	36.5 [32.3-40.9]	1520	88.0 [77.7-93.9]	56
Total (15-69)	**57.2 [53.8-60.5]**	**3753**	**83.1 [77.7-87.4]**	**312**

Note: people who did not see any tobacco packages are excluded and coded as 'missing'; don't know was recoded same as 'no'; only among current smokers

Table 5.11. Mean monthly expenditure (in Nu.) incurred by current cigarette smokers aged 15-69 years by background characteristics

Background characteristics	Mean Price per 20 cigarettes	Mean number of cigarette smoked each month	Expenditures per month on cigarettes among cigarettes smokers (in Nu.)	Annual expenditure on cigarette as percentage of GDP per Capita
Age				
15-24	290.3 [267.6-312.8]	72.2 [36.8-107.7]	607.0 [332-882]	3%
25-39	271.4 [240.3302.5]	117.7 [101.7-133.6]	1656.7 [1299.1-2014.2]	8%
40-54	228.2 [159.3-297.1]	143.0 [103.8-182.2]	2059.4 [1193.7-2924.9]	10%
55-69	121.3 [89.7-1153.0]	119.5 [53.2-185.9]	1085.5 [457.6-1713.4]	5%
Sex				
Women	238.3 [206.7-269.8]	100.8 [77.6-124]	1321.5 [864.6-1778.5]	7%
Men	258.6 [229.6-287.5]	120.7 [97.6-143.8]	1490.4 [1168.7-1812.1]	7%
Residence				
Rural	208.1 [175.8-240.4]	123.7 [93.9-153.5]	1427.7 [998.2-1857.2]	7%
Urban	277.4 [241.6-313.1]	103.7 [84.5-122.9]	1410.4 [1040.5-1780.3]	7%
Region				
Central	231.0 [170.8-291.1]	111.1 [80.9-141.4]	1158.7 [838-1479.4]	6%
East	337.2 [289-385.4]	89.5 [56.3-122.7]	1754.5 [1080.6-2428.6]	9%
West	248.3 [224.8-271.8]	112.8 [90.2-135.5]	1489.0 [1110-18670827]	7%
Education				
None/less than primary	204.9 [164.3-245.5]	116.6 [78.3-154.9]	1629.5 [986.7-2272.3]	8%
Primary/Middle	226.0 [190.7-261.3]	121.4 [96.5-146.2]	1085.7 [795.5-1375.9]	5%
Secondary and higher	310.0 [282.5-337.5]	96.9 [75.8-188.1]	1658.1 [1137.2-2179.0]	8%
Wealth quintile				
Lowest	295.7 [193.3-398.1]	93.7 [47.1-140.3]	1332.7 [276.4-2389]	7%
Second	250.7 [196.8-304.6]	128.3 [69.8-186.8]	1770.1 [952.7-2587.6]	9%
Middle	217.8 [155.7-279.9]	148.6 [87.2-210.0]	1445.0 [871.3-2018.6]	7%
Fourth	198.9 [152.4-245.5]	116.0 [93.4-138.7]	1170.9 [899.8-1441.9]	6%
Highest	296.5 [268.1-324.9]	87.1 [68.6-105.4]	1487.2 [984.4-1990.02	7%
Age groups				
15-39	278.9 [256.6-301.2]	99.5 [80.3-118.6]	1236.1 [979.2-1493]	6%
40-69	190.2 [144.8-235.6]	134.7 [99.1-170.2]	1843.9 [[1162.9-2525]	9%

Age groups (2014 report)				
18-39	278.4 [255.6-301.2]	101.7 [82.4-121]	1253.6 [996.9-1510.2]	6%
40-69	190.2 [144.8-235.6]	134.7 [99.1-170.2]	1843.9 [1163.1-2524.8]	9%
Total (15-69)	249.0 [224.4-273.6]	**111.3** **[95.1-127.6]**	**1416.3** **[1120.3-1712.4]**	**7%**

Note: GDP source as per World Bank data for the year 2018 given in the following link: Bhutan 2018 GDP rate was 3360.3 USD https://data.worldbank.org/indicator/ny.gdp.pcap.cd; Exchange rate is for Aug 6 2019 reported by Royal Monetary Authority of Bhutan; don't know and refused responses has been considered as missing; since most brands in Bhutan do not cost more than 30 Nu. per cig, we have excluded all those with values >=50 Nu.

Table 5.12. Percentage of respondents aged 15-69 years who reported about access to tobacco products and how easy or difficult to get by background characteristics

Background characteristics	Access to tobacco products			How easy or difficult to access tobacco products			Number of respondents
	Within Bhutan	Outside Bhutan	Refused to respond	Easy/ very easy	Difficult/ very difficult	Don't know	
Age							
15-24	36.8 [31.8-42.1]	50.3 [44.4-56.2]	12.9 [10.0-16.5]	33.0 [28.7-37.7]	51.8 [46.9-56.7]	15.1 [11.8-19.2]	680
25-39	30.4 [26.8-34.2]	52.2 [48.1-56.2]	17.4 [15.3-19.7]	30.1 [26.7-33.7]	55.4 [51.8-59.0]	14.5 [12.6-16.6]	2317
40-54	23.2 [19.7-27.1]	53.4 [49.2-57.5]	23.5 [20.6-26.6]	24.5 [21.1-28.2]	56.6 [52.6-60.5]	18.9 [16.6-21.4]	1641
55-69	21.1 [17.3-25.6]	45.8 [41.2-50.5]	33.0 [29.0-37.3]	20.7 [16.9-25.1]	52.2 [47.2-57.1]	27.2 [23.7-30.9]	937
Sex							
Women	27.6 [24.5-31.0]	45.5 [42.2-48.9]	26.9 [24.3-29.6]	23.6 [21.1-26.3]	54.7 [51.8-57.6]	21.7 [19.8-23.7]	3416
Men	31.0 [27.4-34.9]	56.2 [52.1-60.2]	12.7 [10.9-14.8]	32.9 [29.1-36.9]	54.0 [50.2-57.7]	13.1 [11.0-15.5]	2159
Residence							
Rural	25.9 [22.6-29.5]	50.2 [46.1-54.3]	23.9 [21.2-26.9]	21.9 [18.6-25.5]	59.3 [55.7-62.8]	18.8 [16.8-21.0]	3495
Urban	34.4 [29.4-39.7]	52.6 [47.2-57.9]	13.1 [11.0-15.4]	37.9 [33.7-42.2]	47.3 [42.7-52.0]	14.8 [12.5-17.3]	2080
Region							
Central	32.5 [25.9-39.7]	47.3 [40.3-54.3]	20.3 [16.8-24.3]	23.5 [17.9-30.3]	58.4 [51.9-64.7]	18.1 [15.4-21.0]	1407
East	16.4 [16.8-24.3]	57.1 [50.8-63.2]	26.5 [22.4-31.0]	14.0 [11.0-17.8]	64.0 [59.6-68.1]	22.0 [18.9-25.4]	1395
West	33.0 [28.2-38.1]	51.0 [45.6-56.4]	16.0 [13.8-18.6]	37.2 [33.3-41.3]	48.1 [44.1-52.2]	14.7 [12.6-17.1]	2773
Education							
None/less than primary	22.8 [20.0-25.8]	49.4 [45.9-52.8]	27.8 [25.0-30.8]	21.4 [18.1-25.2]	57.1 [53.3-60.8]	21.4 [19.4-23.6]	3415
Primary/Middle	33.7 [29.0-38.8]	53.6 [48.1-59.0]	12.7 [10.3-15.6]	31.3 [27.4-35.6]	53.9 [49.9-57.9]	14.8 [11.6-18.5]	1184
Secondary and higher	39.5 [33.9-45.4]	52.3 [46.3-58.3]	8.2 [6.1-11.0]	41.5 [37.2-45.9]	48.3 [43.7-52.9]	10.2 [7.6-13.7]	973
Wealth quintile							
Lowest	21.4 [17.8-25.6]	45.3 [38.8-52.0]	33.3 [27.7-39.4]	15.3 [11.6-19.9]	62.4 [57.2-67.3]	22.4 [19.0-26.1]	1117
Second	29.0 [24.2-34.3]	48.0 [42.8-53.2]	23.0 [19.7-26.7]	22.9 [17.7-28.9]	59.6 (53.3-65.6]	17.5 [14.9-20.5]	1107
Middle	24.8 [21.2-28.8]	53.8 [48.2-59.2]	21.5 [17.9-25.5]	26.1 [22.1-30.5]	55.1 [50.8-59.3]	18.9 [15.4-23.0]	1153
Fourth	31.3 [26.3-36.8]	55.2 [49.7-60.6]	13.5 [11.0-16.4]	33.2 [29.5-37.1]	52.6 [47.8-57.4]	14.2 [11.6-17.3]	1127
Highest	38.4 [32.1-45.1]	52.3 [45.1-59.4]	9.3 [7.2-12.0]	41.4 [36.5-46.5]	44.6 [39.3-50.1]	13.9 [10.8-17.8]	1071
Age groups							
15-39	33.0 [29.6-36.6]	51.4 [47.6-55.3]	15.6 [13.6-17.8]	31.3 [28.2-34.5]	54.0 [50.8-57.2]	14.8 [12.9-16.9]	2997
40-69	22.4 [19.3-25.9]	50.7 [47.0-54.4]	26.9 [24.3-29.6]	23.1 [20.0-26.5]	55.0 [51.3-58.7]	21.8 [19.8-24.0]	2578
Total (15-69)	**29.4** [26.4 - 32.3]	**51.2** [48.0 - 54.6]	**19.5** [17.5- 21.6]	**28.5** [25.8 - 31.4]	**54.3** [51.4 - 57.3]	**17.1** [15.6 - 18.8]	**5575**

Note: don't know are treated same as no

Table 5.13. Percentage of respondents aged 15-69 years who currently use betel nut or areca nut products daily or non-daily, percentage who formerly used betel nut or areca nuts products daily or non-daily, and percentage who never used betel or areca nut products among all respondents and among current users by background characteristics

Background characteristics	Among all respondents							Among current users of betel or areca nut products		Number of respondents	Among former users of betel or areca nut products		Number of respondents
	Currently use betel or areca nut products		Formerly used betel or areca nut products		Never used betel or areca nut products	Total	Number of respondents	Daily	Non-daily		Daily	Non-daily	
	Daily	Non-daily	Daily	Non-daily									
Age													
15-24	8.5 [6.4-11.3]	42.1 [37.4-46.9]	1.2 [0.6-2.4]	11.1 [8.5-14.4]	37.0 [32.0-42.3]	100.0	680	16.8 [12.7-21.9]	83.2 [78.1-87.3]	362	9.2 [4.4-18.3]	90.8 [81.7-95.6]	79
25-39	23.1 [20.5-25.8]	40.5 [37.7-43.4]	2.4 [1.7-3.4]	8.8 [7.4-10.5]	25.2 [22.7-27.8]	100.0	2317	36.0 [32.5-39.7]	64.0 [60.3-67.5]	1445	21.9 [16.3-28.8]	78.1 [71.2-83.7]	256
40-54	27.2 [24.2-30.5]	30.1 [27.3-33.1]	5.6 [4.3-7.2]	9.1 [7.7-10.8]	27.9 [24.5-31.6]	100.0	1641	47.5 [43.2-51.8]	52.5 [48.2-56.8]	955	38.2 [31.5-45.3]	61.8 [54.7-68.5]	253
55-69	23.5 [19.3-28.4]	23.7 [19.8-28.0]	5.6 [4.0-7.9]	11.4 [9.0-14.4]	35.7 [31.2-40.6]	100.0	937	49.6 [42.5-56.8]	50.4 [43.2-57.5]	449	33.1 [25.1-42.1]	66.9 [57.9-74.9]	164
Sex													
Women	18.9 [16.7-21.4]	37.0 [34.5-39.6]	2.7 [2.0-3.5]	9.7 [8.3-11.3]	31.7 [28.8-34.8]	100.0	3416	33.8 [30.5-37.2]	66.2 [62.8-69.5]	1962	19.8 [15.2-25.5]	80.2 [74.5-84.8]	439
Men	21.3 [19.1-23.7]	36.3 [33.5-39.3]	3.6 [2.9-4.6]	9.9 [8.3-11.8]	28.8 [25.6-32.3]	100.0	2159	36.2 [33.0-39.5]	63.8 [60.5-67.0]	1249	26.6 [21.5-32.4]	73.4 [67.6-78.5]	313
Residence													
Rural	20.3 [17.6-23.4]	36.0 [33.2-39.0]	2.8 [2.2-3.6]	9.5 [8.1-11.0]	31.3 [27.8-35.0]	100.0	3495	35.9 [32.0-39.9]	64.1 [60.1-68.0]	2004	22.0 [17.3-27.5]	78.0 [72.5-82.7]	441
Urban	19.9 [17.9-22.2]	37.5 [34.4-40.7]	3.7 [2.8-4.8]	10.3 [8.7-12.2]	28.6 [25.2-32.2]	100.0	2080	33.9 [30.5-37.5]	66.1 [62.5-69.5]	1207	25.1 [19.9-31.1]	74.9 [68.9-80.1]	311
Region													
Central	19.5 [16.0-23.6]	37.2 [33.3-41.2]	2.8 [1.8-4.3]	6.9 [5.3-8.9]	33.5 [29.0-38.5]	100.0	1407	33.9 [28.7-39.4]	66.1 [60.6-71.3]	811	28.1 [18.8-39.8]	71.9 [60.2-81.2]	153
East	13.2 [9.4-18.0]	40.4 [34.7-46.4]	2.7 [1.9-3.9]	15.1 [12.6-17.9]	28.7 [22.6-35.7]	100.0	1395	24.5 [18.4-31.8]	75.5 [68.2-81.6]	764	14.6 [10.2-20.5]	85.4 [79.5-89.8]	245
West	23.4 [20.9-26.0]	34.8 [31.9-37.8]	3.6 [2.8-4.5]	9.4 [7.9-11.0]	28.9 [25.6-32.3]	100.0	2773	39.6 [35.9-43.3]	60.4 [56.7-64.1]	1636	26.2 [21.2-32.0]	73.8 [68.0-78.8]	354
Education													
None/less than primary	22.6 [19.9-25.5]	33.9 [31.1-36.7]	4.2 [3.3-5.1]	10.5 [8.9-12.3]	28.9 [25.7-32.4]	100.0	3415	40.2 [36.4-44.1]	59.8 [55.9-63.6]	1940	27.8 [22.8-33.5]	72.2 [66.5-77.2]	496

Primary/ Middle	17.7 [15.0-20.8]	38.0 [34.1-42.2]	1.7 [1.1-2.6]	8.4 [6.4-10.9]	34.2 [30.3-38.3]	100.0	1184	30.6 [26.0-35.8]	69.4 [64.2-74.0]	700	15.1 [9.4-23.4]	84.9 [76.6-90.6]	130
Secondary and higher	17.7 [14.6-21.2]	41.4 [37.5-45.4]	2.8 [1.8-4.3]	10.1 [7.7-13.1]	28.0 [24.0-32.4]	100.0	973	28.6 [24.1-33.6]	71.4 [66.4-75.9]	570	21.3 [14.4-30.5]	78.7 [69.5-85.6]	125
Lowest	14.8 [11.4-18.9]	36.9 [31.8-42.2]	2.9 [2.0-4.3]	9.9 [7.7-12.5]	35.6 [30.1-41.5]	100.0	1117	28.5 [22.9-34.9]	71.5 [65.1-77.1]	572	22.5 [15.7-31.0]	77.5 [69.0-84.3]	153
Wealth quintile													
Lowest	14.8 [11.4-18.9]	36.9 [31.8-42.2]	2.9 [2.0-4.3]	9.9 [7.7-12.5]	35.6 [30.1-41.5]	100.0	1117	28.5 [22.9-34.9]	71.5 [65.1-77.1]	572	22.5 [15.7-31.0]	77.5 [69.0-84.3]	153
Second	20.0 [16.6-23.9]	37.0 [32.6-41.6]	1.7 [1.1-2.6]	10.3 [7.7-13.7]	31.0 [25.9-36.6]	100.0	1107	35.1 [29.9-40.7]	64.9 [59.3-70.1]	655	12.0 [7.6-18.6]	88.0 [81.4-92.4]	134
Middle	22.4 [18.9-26.4]	38.3 [33.9-43.0]	3.3 [2.2-4.9]	11.6 [8.6-15.5]	24.4 [20.9-28.3]	100.0	1153	36.3 [31.0-42.0]	63.7 [58.0-69.0]	711	21.8 [14.3-31.8]	78.2 [68.2-85.7]	147
Fourth	20.1 [17.1-23.5]	35.4 [32.2-38.7]	4.1 [3.0-5.6]	8.2 [6.3-10.6]	32.2 [28.4-36.2]	100.0	1127	35.7 [31.1-40.5]	64.3 [59.5-68.9]	670	32.2 [23.6-42.3]	67.8 [57.7-76.4]	157
Highest	22.3 [19.2-25.6]	35.7 [31.3-40.4]	3.8 [2.7-5.3]	9.1 [7.1-11.6]	29.1 [24.9-33.7]	100.0	1071	37.6 [32.6-42.9]	62.4 [57.1-67.4]	603	27.5 [20.3-36.1]	72.5 [63.9-79.7]	161
Age groups													
15-39	17.2 [15.3-19.4]	41.1 [38.3-44.0]	2.0 [1.4-2.6]	9.7 [8.3-11.4]	29.9 [27.1-32.9]	100.0	2997	28.3 [25.3-31.5]	71.7 [68.5-74.7]	1807	16.8 [12.6-22.0]	83.2 [78.0-87.4]	335
40-69	25.9 [23.1-29.0]	27.8 [25.3-30.5]	5.6 [4.5-6.9]	9.9 [8.6-11.5]	30.7 [27.5-34.1]	100.0	2578	48.2 [44.1-52.4]	51.8 [47.6-55.9]	1404	36.4 [31.0-42.1]	63.6 [57.9-69.0]	417
Age groups (2014 report)													
18-39	17.7 [15.7-19.9]	42.9 [39.9-45.9]	2.1 [1.6-2.9]	9.4 [8.0-11.1]	27.8 [24.9-31.0]	100.0	2872	28.3 [25.3-31.5]	71.7 [68.5-74.7]	1763	18.3 [13.6-24.2]	81.7 [75.8-86.4]	320
40-69	25.9 [23.1-29.0]	27.8 [25.3-30.5]	5.6 [4.5-6.9]	9.9 [8.6-11.5]	30.7 [27.5-34.1]	100.0	2578	48.2 [44.1-52.4]	51.8 [47.6-55.9]	1404	36.4 [31.0-42.1]	63.6 [57.9-69.0]	417
Total (15-69)	**20.2 [18.3-22.2]**	**36.7 [34.5-38.8]**	**3.2 [2.7-3.8]**	**9.8 [8.7-11.0]**	**30.2 [27.7-32.8]**	**100.0**	**5575**	**65.0 62.2-67.6]**	**35.0 [32.4-37.8]**	**3211**	**24.4 [20.6-28.7]**	**75.6 [71.3-79.4]**	**752**

Table 5.14. Percentage of respondents aged 15-69 years who currently use betel or areca nut products daily or weekly by background characteristics

Background characteristics	Among all respondents				Among current users			
	Betel nut (*Doma and Paan*)	*Supari and other products*	Any betel nut and its products	Number of respondents	Betel nut (*Doma and Paan*)	*Supari and other products*	Any betel nut and its products	Number of respondents
Age								
15-24	41.9 [36.9-47.1]	26.7 [22.6-31.2]	48.6 [43.3-53.9]	680	82.3 [76.5-86.9]	52.5 [46.4-58.4]	95.6 [92.1-97.6]	362
25-39	59.1 [56.0-62.1]	15.0 [12.9-17.4]	61.5 [58.5-64.5]	2317	92.4 [90.2-94.1]	23.4 [20.2-27.0]	96.2 [94.8-97.2]	1445
40-54	55.4 [51.5-59.3]	6.8 [5.3-8.7]	56.2 [52.3-60.1]	1641	95.3 [93.2-96.7]	11.8 [9.1-15.2]	96.7 [94.7-97.9]	955
55-69	43.4 [38.1-48.9]	2.8 [1.8-4.4]	44.3 [39.0-49.7]	937	91.6 [87.5-94.5]	5.9 [3.7-9.4]	93.6 [89.6-96.1]	449
Sex								
Women	51.5 [48.2-54.8]	13.1 [11.4-15.1]	54.1 [50.8-57.3]	3416	91.3 [88.8-93.3]	23.5 [20.5-26.9]	96.0 [94.6-97.0]	1962
Men	52.2 [48.8-55.5]	16.4 [14.0-19.1]	55.6 [52.3-58.9]	2159	89.3 [86.1-91.9]	29.2 [25.7-32.9]	95.7 [93.8-97.0]	1249
Residence								
Rural	52.7 [48.9-56.4]	11.0 [9.1-13.2]	54.2 [50.4-58.0]	3495	92.7 [90.3-94.5]	20.0 [16.8-23.6]	95.6 [93.9-96.9]	2004
Urban	50.7 [47.0-54.3]	20.3 [17.4-23.4]	55.8 [52.3-59.2]	2080	86.9 [82.8-90.1]	35.6 [31.4-40.0]	96.1 [94.1-97.4]	1207
Region								
Central	51.2 [46.7-55.6]	13.6 [10.5-17.4]	53.6 [49.0-58.3]	1407	89.7 [85.7-92.7]	24.6 [19.7-30.2]	94.4 [91.5-96.4]	811
East	48.1 [40.6-55.8]	9.4 [6.9-12.7]	49.2 [41.6-56.9]	1395	89.6 [84.4-93.2]	18.3 [14.2-23.2]	91.8 [86.7-95.0]	764
West	53.7 [50.4-57.0]	17.8 [15.3-20.5]	57.9 [54.7-61.0]	2773	90.8 [87.5-93.3]	30.6 [26.5-35.0]	98.1 [97.1-98.8]	1636
Education								
None/less than primary	53.6 [49.9-57.2]	7.2 [5.9-8.7]	54.4 [50.8-58.0]	3415	93.8 [91.9-95.3]	12.8 [10.6-15.4]	95.4 [93.6-96.7]	1940
Primary/ Middle	49.5 [45.5-53.5]	21.4 [17.9-25.3]	54.3 [50.1-58.5]	1184	87.4 [82.4-91.1]	39.1 [33.9-44.6]	96.6 [93.8-98.2]	700
Secondary and higher	50.8 [46.1-55.5]	24.5 [20.7-28.6]	56.7 [52.1-61.2]	973	85.6 [80.4-89.5]	42.2 [36.4-48.3]	95.9 [93.5-97.4]	570
Wealth quintile								
Lowest	45.9 [39.3-52.8]	7.2 [5.4-9.7]	47.4 [40.7-54.2]	1117	88.3 [82.7-92.3]	14.6 [11.0-19.2]	91.4 [86.1-94.8]	572
Second	53.2 [48.0-58.3]	11.3 [8.2-15.3]	55.7 [50.6-60.7]	1107	91.7 [87.0-94.8]	20.3 [14.8-27.2]	96.5 [94.1-97.9]	655
Middle	56.2 [51.1-61.1]	15.5 [12.2-19.4]	58.8 [53.5-63.8]	1153	91.6 [86.5-94.9]	26.1 [21.4-31.4]	96.1 [92.7-98.0]	711
Fourth	52.4 [48.2-56.5]	15.9 [13.4-18.7]	55.4 [51.4-59.3]	1127	93.1 [90.1-95.3]	28.7 [24.4-33.3]	98.6 [97.4-99.3]	670
Highest	50.6 [45.8-55.3]	22.1 [18.5-26.3]	55.6 [50.9-60.3]	1071	86.4 [80.8-90.5]	38.7 [33.3-44.5]	95.6 [93.2-97.2]	603
Age groups								
15-39	52.2 [49.2-55.2]	19.7 [17.4-22.2]	56.4 [53.3-59.4]	2997	88.3 [85.5-90.7]	35.1 [31.7-38.6]	96.0 [94.5-97.0]	1807
40-69	51.1 [47.5-54.7]	5.4 [4.2-6.8]	52.0 [48.4-55.6]	2578	94.0 [91.9-95.6]	9.7 [7.6-12.4]	95.6 [93.6-97.0]	1404
Age groups (2014 report)								
18-39	54.9 [51.6-58.2]	20.2 [17.8-22.8]	58.4 [55.1-61.7]	2872	89.9 [87.2-92.1]	33.8 30.3-37.4]	95.9 [94.2-97.0]	1763
40-69	51.1 [47.5-54.7]	5.4 [4.2-6.8]	52.0 [48.4-55.6]	2578	94.0 [91.9-95.6]	9.7 [7.6-12.4]	95.6 [93.6-97.0]	1404
Total (15-69)	**51.8 [49.2-54.5]**	**14.9 [13.2-16.7]**	**54.9 [52.2-57.5]**	**5575**	**90.2 [88.1-92.0]**	**26.5 [24.0-29.2]**	**95.8 [94.6-96.8]**	**3211**

Table 5.15. Mean number of betel nut and/or its products used per week by respondents aged 15-69 years who currently use betel nut and its products by background characteristics

Background characteristics	Mean number of betel nut used per week	Mean number of betel nut products (supari, etc.) used per week	Mean number of any betel nut and its products used per week	Number of respondents
Age				
15-24	11.6 [8.8-14.4]	5.7 [3.3-8.1]	13.1 [9.9-16.1]	362
25-39	33.2 [28.4-38.0]	5.9 [4.7-7.1]	33.3 [28.7-37.9]	1445
40-54	48.1 [40.5-55.7]	9.7 [6.6-12.8]	48.6 [41.1-56.1]	955
55-69	49.8 [37.1-62.6]	10.8 [3.6-18.1]	49.5 [37.0-62.0]	449
Sex				
Women	25.5 [22.4-28.5]	7.9 [5.4-10.3]	26.1 [23.0-29.3]	1962
Men	39.1 [33.9-44.5]	6.7 [5.6-7.9]	39.5 [34.4-44.6]	1249
Residence				
Rural	32.6 [28.2-36.9]	6.1 [5.0-9.5]	33.3 [28.9-37.6]	2004
Urban	32.9 [27.4-38.1]	8.3 [5.9-10.8]	33.1 28.0-38.2]	1207
Region				
Central	31.7 [24.8-38.6]	7.1 [4.6-9.5]	32.4 [25.4-39.5]	811
East	23.7 [19.1-28.3]	6.0 [4.1-7.8]	24.9 [20.2-30.0]	764
West	36.5 [31.8-41.3]	7.6 [5.7-9.6]	36.5 [31.9-41.1]	1636
Education				
None/less than primary	39.7 [34.2-45.2]	8.5 [5.7-11.3]	40.3 [34.8-45.9]	1940
Primary/Middle	26.3 [21.8-30.7]	7.5 [5.2-9.8]	27.2 [22.7-31.7]	700
Secondary and higher	24.1 [18.6-30.0]	5.5 [3.9-7.0]	24.4 [19.4-29.3]	570
Wealth quintile				
Lowest	30.9 [20.0-42.0]	6.4 [4.2-8.5]	31.1 [20.3-41.8]	572
Second	31.5 [24.6-39.0]	5.7 [3.8-7.6]	31.7 [24.8-38.7]	655
Middle	29.7 [24.7-34.7]	7.0 [5.2-8.8]	30.8 [25.6-36.0]	711
Fourth	36.2 [28.6-43.8]	9.7 [4.7-14.7]	37.2 [23.4-45.1]	670
Highest	35.1 [29.0-41.2]	7.0 [4.7-9.2]	34.8 [29.2-40.5]	603
Age groups				
15-39	24.6 [21.4-27.7]	5.8 [4.7-6.9]	25.2 [22.1-28.3]	1807
40-69	48.7 [41.5-55.9]	10.1 [6.9-13.3]	48.9 [41.9-56.0]	1404
Age groups (2014 report)				
18-39	24.9 [21.4-28.1]	6.1 [4.8-7.3]	25.7 [22.6-28.9]	1763
40-69	48.7 [41.5-55.9]	10.1 [6.9-13.3]	48.9 [41.9-56.0]	1404
Total (15-69)	**32.7 [29.4-36.0]**	**7.3 [5.9-8.6]**	**33.2 [30.0-36.5]**	**3211**

Dietary Habits

Table Diet 6.1 Mean number of servings of fruit and vegetable intake per day of respondents aged 15-69, by background characteristics

Background characteristic	Mean servings of fruit intake per day:				Mean servings of vegetable intake per day:				Mean servings of fruit and vegetable intake per day*:			
	Mean	95% CI		Number of respondents (N)	Mean	95% CI		Number of respondents (N)	Mean	95% CI		Number of respondents (N)
Age												
15-24	0.8	0.8	0.9	632	2.1	1.9	2.2	675	2.8	2.7	3.0	677
25-39	0.9	0.8	1.0	2178	2.3	2.2	2.5	2301	3.2	3.0	3.3	2307
40-54	0.9	0.8	1.0	1495	2.3	2.2	2.4	1622	3.1	2.9	3.3	1631
55-69	0.8	0.7	1.0	835	2.1	2.0	2.2	921	2.9	2.7	3.1	926
Sex												
Women	0.9	0.8	1.0	3138	2.2	2.1	2.3	3375	3.0	2.9	3.2	3390
Men	0.9	0.8	0.9	2002	2.3	2.1	2.4	2144	3.0	2.9	3.2	2151
Residence												
Rural	0.9	0.8	1.0	3168	2.2	2.1	2.4	3451	3.0	2.8	3.2	3469
Urban	0.9	0.8	1.0	1972	2.2	2.1	2.4	2068	3.1	2.9	3.3	2072
Region												
Central	0.9	0.8	1.1	1259	2.2	2.0	2.4	1387	3.0	2.7	3.3	1392
East	1.0	0.8	1.1	1277	2.3	2.0	2.6	1378	3.2	2.9	3.5	1387
West	0.8	0.7	0.9	2604	2.2	2.1	2.4	2754	3.0	2.9	3.1	2762
Education												
None/less than primary	0.8	0.7	0.9	3095	2.2	2.1	2.3	3368	2.9	2.8	3.1	3388
Primary to middle	0.9	0.8	1.0	1109	2.2	2.0	2.3	1180	3.0	2.9	3.2	1180
Secondary or more	1.0	0.9	1.1	933	2.4	2.2	2.5	968	3.3	3.1	3.5	970
Wealth quintile												
Lowest	0.7	0.6	0.9	1002	2.1	1.9	2.3	1099	2.7	2.5	3.0	1107
Second	0.8	0.7	0.9	995	2.2	2.0	2.3	1091	2.9	2.7	3.1	1099
Middle	0.8	0.7	0.9	1051	2.2	2.1	2.4	1143	3.0	2.8	3.2	1145
Fourth	0.8	0.7	0.9	1054	2.2	2.1	2.4	1121	3.0	2.9	3.2	1123
Highest	1.1	1.0	1.2	1038	2.4	2.2	2.5	1065	3.4	3.2	3.6	1067
Age (previous)												
18-39	0.9	0.8	1.0	2692	2.3	2.2	2.4	2852	3.1	3.0	3.2	2860
40-69	0.8	0.8	0.9	2330	2.2	2.1	2.3	2543	3.0	2.9	3.2	2557
Total (18-69)	**0.9**	**0.8**	**0.9**	**5022**	**2.3**	**2.2**	**2.4**	**5395**	**3.1**	**2.9**	**3.2**	**5417**
Total (15-69)	**0.9**	**0.8**	**0.9**	**5140**	**2.2**	**2.1**	**2.3**	**5519**	**3.0**	**2.9**	**3.2**	**5541**

Table Diet 6.2 Percentage of respondents aged 15-69 years who reported inadequate consumption of fruits and vegetables by background characteristics

Background characteristic	Total			Men			Women		
	<5 servings/ day	>= 5 servings/day	Number of respondents (N)	<5 servings/ day	>= 5 servings/day	Number of respondents (N)	<5 servings/ day	> =5 servings/ day	Number of respondents (N)
Age									
15-24	89.4 [85.9-91.9]	10.7 [8.1-14.1]	677	91.4 [87.3-94.3]	8.6 [5.7-12.7]	260	87.0 [82.2-90.7]	13.0 [9.3-17.8]	417
25-39	87.2 [81.1-88.5]	16.2 [13.9-18.9]	2307	83.7 [79.9-86.9]	16.3 [13.1-20.1]	784	83.9 [80.5-86.8]	16.1 [13.2-19.5]	1523
40-54	85.7 [83.0-89.1]	13.7 [10.9-17.0]	1631	84.0 [78.7-88.1]	16.0 [11.9-21.3]	684	89.0 [85.7-91.6]	11.0 [8.4-14.3]	947
55-69	87.4 [84.7-91.3]	11.6 [8.7-15.3]	926	86.3 [81.1-90.2]	13.7 [9.8-18.9]	423	90.6 [86.3-93.7]	9.4 [6.3-13.7]	503
Sex									
Women	86.7 [84.2-88.9]	13.3 [11.1-15.8]	3390	N/A	N/A	N/A	N/A	N/A	N/A
Men	86.1 [83.6-88.2]	13.9 [11.8-16.4]	2151	N/A	N/A	N/A	N/A	N/A	N/A
Residence									
Rural	85.7 [82.5-88.3]	14.3 [11.7-17.5]	3469	85.3 [81.7-88.3]	14.7 [11.7-18.3]	1363	86.1 [82.5-89.1]	13.9 [10.9-17.5]	2106
Urban	87.3 [84.6-89.7]	12.7 [10.3-15.4]	2072	87.1 [83.9-89.8]	12.9 [10.2-16.1]	788	87.5 [84.0-90.4]	12.5 [9.6-16.0]	1284
Region									
Central	84.5 [79.9-88.2]	15.5 [11.8-20.1]	1392	83.7 [78.1-88.0]	16.3 [12.0-21.9]	533	85.5 [80.8-89.2]	14.5 [10.8-19.2]	859
East	83.2 [76.1-88.5]	16.8 [11.5-23.9]	1387	82.6 [75.3-88.0]	17.5 [12.0-24.7]	548	83.8 [74.7-90.1]	16.2 [9.9-25.3]	839
West	88.7 [86.4-90.6]	11.3 [9.4-13.6]	2762	88.9 [86.0-91.2]	11.1 [8.8-14.0]	1070	88.5 [85.8-90.8]	11.5 [9.2-14.2]	1692
Education									
None/less than primary	87.5 [84.6-89.9]	12.5 [10.1-15.4]	3388	86.2 [82.4-89.3]	13.8 [10.7-17.6]	1173	88.7 [85.6-91.1]	11.3 [8.9-14.4]	2215

Primary to middle	86.5 [83.1-89.1]	13.7 [10.9-16.9]	1180	87.7 [83.7-90.8]	12.3 [9.2-16.3]	470	84.7 [80.0-88.5]	15.3 [11.5-20.0]	710
Secondary or more	83.8 [80.4-86.6]	16.2 [13.4-19.6]	970	84.2 [79.9-87.8]	15.8 [12.2-20.1]	507	82.9 [77.6-87.1]	17.1 [12.9-22.4]	463
Wealth quintile									
Lowest	89.4 [85.5-92.4]	10.6 [7.6-14.5]	1107	88.6 [83.4-92.4]	11.4 [7.6-16.6]	455	90.3 [85.7-93.5]	9.7 [6.5-14.3]	652
Second	87.2 [82.4-90.6]	13.0 [9.4-17.6]	1099	85.9 [80.3-90.1]	14.1 [9.9-19.7]	433	88.2 [81.6-92.7]	11.8 [7.3-18.4]	666
Middle	85.7 [82.0-88.7]	14.3 [11.3-18.0]	1145	84.0 [78.8-88.2]	16.0 [11.8-21.2]	444	87.6 [83.4-90.8]	12.4 [9.2-16.6]	701
Fourth	87.4 [84.3-90.0]	12.6 [10.0-15.7]	1123	87.5 [83.3-90.9]	12.5 [9.1-16.7]	411	87.3 [83.2-90.5]	12.7 [9.5-16.8]	712
Highest	83.2 [79.9-86.0]	16.8 [14.0-20.1]	1067	84.9 [80.7-88.4]	15.1 [11.6-19.3]	408	81.2 [76.4-85.2]	18.8 [14.8-23.6]	659
Age (previous)									
18-39	85.4 [82.9-87.5]	14.6 [12.5-17.1]	2860	86.0 [82.8-88.7]	14.0 [11.3-17.2]	985	84.6 [81.0-87.6]	15.4 [12.4-19.0]	1875
40-69	87.1 [84.4-89.4]	12.9 [10.6-15.6]	2557	84.8 [81.0-87.9]	15.2 [12.1-19.0]	1107	89.6 [86.6-92.0]	10.4 [8.0-13.4]	1450
Total (18-69)	85.9 [83.7-87.9]	14.1 [12.1-16.3]	5417	85.6 [83.0-87.8]	14.4 [12.2-17.0]	2092	86.3 [83.6-88.6]	13.7 [11.4-16.4]	3325
Total (15-69)	**86.4 [84.2-88.2]**	**13.6 [11.8-15.8]**	**5541**	**86.1 [83.6-88.2]**	**13.9 [11.8-16.4]**	**2151**	**86.7 [84.2-88.9]**	**13.3 [11.1-15.8]**	**3390**

Table Diet 6.3 Percentage of respondents aged 15-69 years who responded to using different types of oils/fat for meal preparation, by background characteristics

Background characteristic	Percentage of respondents who responded to using different types of oils/fat for meal preparation:			
	Vegetable oil	Butter or Ghee	lard / suet, other or none in particular	Number of respondents (N)
Age				
15-24	99.1 [97.8-99.7]	0.5 [0.2-1.3]	0.3 [0.0-2.4]	680
25-39	99.0 [98.2-99.4]	0.6 [0.3-1.4]	0.4 [0.2-0.9]	2316
40-54	97.9 [96.7-98.7]	1.4 [0.8-2.6]	0.6 [0.3-1.4]	1640
55-69	97.5 [95.8-98.6]	1.5 [0.8-3.1]	0.9 [0.4-2.2]	937
Sex				
Women	98.8 [97.8-99.3]	1.0 [0.5-2.0]	0.2 [0.1-0.5]	3414
Men	98.5 [97.7-99.0]	0.8 [0.5-1.3]	0.7 [0.4-1.4]	2159
Residence				
Rural	98.3 [97.2-99.0]	1.2 [0.6-2.3]	0.5 [0.2-1.1]	3493
Urban	99.0 [98.4-99.4]	0.5 [0.2-0.9]	0.5 [0.3-1.1]	2080
Region				
Central	99.1 [97.9-99.6]	0.6 [0.2-2.2]	0.4 [0.1-1.0]	1407
East	97.5 [94.5-98.9]	2.2 [0.9-5.4]	0.3 [0.1-0.7]	1394
West	98.8 [98.0-99.3]	0.5 [0.3-0.9]	0.7 [0.3-1.4]	2772
Education				
None/less than primary	98.3 [97.1-99.0]	1.3 [0.7-2.6]	0.4 [0.2-0.7]	3413
Primary to middle	99.2 [98.1-99.7]	0.3 [0.1-0.7]	0.5 [0.2-1.8]	1184
Secondary or more	98.7 [97.6-99.2]	0.6 [0.3-1.3]	0.7 [0.3-1.7]	973
Wealth quintile				
Lowest	96.3 [92.7-98.1]	2.9 [1.3-6.3]	0.8 [0.2-3.7]	1117
Second	99.3 [98.5-99.7]	0.6 [0.3-1.4]	0.1 [0.0-0.6]	1107
Middle	99.6 [99.1-99.8]	0.1 [0.0-0.2]	0.3 [0.1-0.8]	1152
Fourth	99.2 [98.2-99.6]	0.2 [0.1-0.8]	0.6 [0.2-1.6]	1127
Highest	98.4 [97.3-99.0]	0.9 [0.5-1.8]	0.7 [0.3-1.5]	1070
Age (previous)				
18-39	99.1 [98.5-99.5]	0.6 [0.3-1.3]	0.2 [0.1-0.5]	2871
40-69	97.8 [96.7-98.5]	1.5 [0.9-2.4]	0.7 [0.4-1.3]	2577
Total (18-69)	98.7 [98.0-99.1]	0.9 [0.5-1.6]	0.4 [0.2-0.7]	5448
Total (15-69)	98.6 [98.0-99.1]	0.9 [0.5-1.5]	0.5 [0.3-0.9]	5573

Table Diet 6.4 Percentage of respondents aged 15-69 years who choose low or reduced fat/oil foods: often/always, sometimes, rarely/never by background characteristics

Background characteristic	Percentage of respondents who choose low or reduced fat/oil foods:			
	often / always	sometimes	rarely / never	Number of respondents (N)
Age				
15-24	33.0 [27.8-38.8]	25.3 [20.1-31.3]	41.7 [35.8-47.9]	666
25-39	41.7 [37.6-45.9]	23.1 [19.9-26.6]	35.2 [30.5-40.2]	2266
40-54	47.4 [42.6-52.2]	19.2 [16.1-22.8]	33.4 [28.1-39.1]	1589
55-69	45.6 [39.7-51.6]	16.7 [12.7-21.6]	37.8 [31.3-44.7]	909
Sex				
Women	40.2 [36.3-44.3]	21.6 [19.0-24.4]	38.2 [33.6-42.9]	3313
Men	41.9 [37.8-46.0]	22.5 [19.1-26.2]	35.7 [30.7-40.9]	2117
Residence				
Rural	40.9 [36.4-45.7]	20.9 [17.3-25.0]	38.2 [31.9-44.9]	3397
Urban	41.3 [35.4-47.6]	23.7 [20.0-27.9]	34.9 [28.8-41.6]	2033
Region				
Central	33.5 [27.0-40.7]	19.1 [13.5-26.1]	47.5 [36.7-58.4]	1353
East	39.3 [32.0-47.2]	27.5 [21.9-34.0]	33.1 [22.9-45.2]	1367
West	46.1 [41.0-51.3]	21.6 [18.2-25.3]	32.4 [27.4-37.7]	2710
Education				
None/less than primary	42.1 [37.5-46.7]	18.7 [15.4-22.5]	39.2 [33.3-45.6]	3294
Primary to middle	35.5 [30.6-40.7]	23.4 [18.6-29.0]	41.1 [35.4-47.2]	1168
Secondary or more	45.9 [40.7-51.3]	28.0 [24.2-32.2]	26.0 [22.2-30.3]	965
Wealth quintile				
Lowest	39.4 [32.7-46.5]	20.5 [15.5-26.7]	40.1 [31.2-49.6]	1074
Second	35.8 [30.3-41.7]	22.6 [18.3-27.5]	41.6 [34.2-49.3]	1075
Middle	38.9 [33.0-45.2]	21.7 [17.3-26.8]	39.4 [32.6-46.6]	1121
Fourth	41.0 [35.2-47.0]	18.3 [14.5-22.9]	40.7 [34.7-47.1]	1104
Highest	49.0 [43.1-54.8]	26.4 [22.6-30.4]	24.7 [19.8-30.3]	1056
Age (previous)				
18-39	38.9 [34.9-42.9]	24.4 [21.3-27.8]	36.7 [32.2-41.5]	2809
40-69	46.8 [42.2-51.3]	18.3 [15.5-21.5]	34.9 [29.7-40.6]	2498
Total (18-69)	41.5 [37.9-45.3]	22.4 [19.8-25.2]	36.1 [31.6-40.9]	5307
Total (15-69)	**41.1 [37.4-44.9]**	**22.1 [19.4-25.0]**	**36.8 [32.3-41.6]**	**5430**

Table Diet 6.5 Mean number of servings of legumes consumed per day amongst respondents aged 15-69 years by background characteristics

Background characteristics	Mean servings of legumes consumed per day:			
	Mean	95% CI		Number of respondents (N)
Age				
15-24	0.7	0.6	0.7	648
25-39	0.8	0.7	0.8	2230
40-54	0.7	0.7	0.8	1513
55-69	0.7	0.6	0.8	847
Sex				
Women	0.7	0.6	0.7	3205
Men	0.8	0.7	0.8	2033
Residence				
Rural	0.7	0.6	0.7	3220
Urban	0.7	0.7	0.8	2018
Region				
Central	0.8	0.7	0.8	1333
East	0.8	0.8	0.9	1239
West	0.6	0.6	0.7	2666
Education				
None/less than primary	0.7	0.7	0.8	3150
Primary to middle	0.7	0.7	0.8	1139
Secondary or more	0.7	0.7	0.8	946
Wealth quintile				
Lowest	0.7	0.6	0.8	999
Second	0.6	0.6	0.7	1036
Middle	0.7	0.6	0.8	1093
Fourth	0.7	0.6	0.8	1072
Highest	0.8	0.7	0.9	1038
Age (previous)				
18-39	0.7	0.7	0.8	2759
40-69	0.7	0.7	0.8	2360
Total (18-69)	0.7	0.7	0.8	5119
Total (15-69)	**0.7**	**0.7**	**0.8**	**5238**

Table Diet 6.6 Percentage of respondents aged 15-69 years who are non-vegetarian, lacto-vegetarian, ovo-vegetarian, lacto-ovo-vegetarian, vegan, by background characteristics [Bhutan, 2019]

	Percentage of respondents who are:						
Background characteristics	Non-vegetarian	Lacto-vegetarian*	Ovo-vegetarian*	Lacto-ovo-vegetarian*	Vegan*	Total (%)	Number of respondents
Age							
15-24	81.5 [76.7-85.6]	7.0 [4.9-9.8]	2.1 [1.0-4.1]	6.5 [4.3-9.7]	2.9 [1.4-6.1]		
25-39	88.1 [85.8-90.1]	4.2 [3.3-5.2]	2.3 [1.4-3.7]	4.3 [3.2-5.6]	1.1 [0.6-2.1]	100	2317
40-54	86.7 [83.9-89.2]	5.9 [4.5-7.8]	1.2 [0.7-1.8]	5.0 [3.5-7.1]	1.2 [0.7-2.1]	100	1641
55-69	88.2 [85.1-90.7]	6.8 [5.0-9.0]	0.9 [0.4-1.9]	2.5 [1.5-4.1]	1.6 [0.8-3.2]	100	937
Sex							
Women	84.0 [81.6-86.1]	6.9 [5.6-8.4]	2.0 [1.3-3.0]	4.9 [3.9-6.2]	2.2 [1.4-3.6]	100	3416
Men	88.0 [85.4-90.1]	4.5 [3.5-5.8]	1.7 [1.0-2.8]	4.7 [3.2-6.8]	1.2 [0.6-2.4]	100	2159
Residence							
Rural	88.1 [85.0-90.6]	5.3 [4.2-6.6]	1.4 [0.8-2.6]	4.0 [2.7-5.9]	1.3 [0.7-2.3]	100	3495
Urban	83.3 [80.1-86.1]	6.1 [4.8-7.8]	2.4 [1.5-3.8]	5.9 [4.5-7.8]	2.2 [1.1-4.5]	100	2080
Region							
Central	88.0 [85.0-90.5]	6.0 [4.4-8.1]	0.3 [0.1-0.8]	4.4 [3.0-6.5]	1.3 [0.4-3.6]	100	1407
East	86.9 [79.1-92.0]	4.1 [2.9-5.7]	2.8 [1.3-6.2]	5.6 [2.8-10.8]	0.6 [0.2-1.6]	100	1395
West	84.7 [81.9-87.1]	6.0 [4.7-7.6]	2.3 [1.5-3.4]	4.7 [3.6-6.2]	2.3 [1.3-4.1]	100	2773
Education							
None/less than primary	89.8 [87.6-91.6]	4.7 [3.8-5.8]	1.5 [0.9-2.4]	3.3 [2.3-4.6]	0.8 [0.5-1.1]	100	3415
Primary to middle	81.7 [76.9-85.7]	6.8 [4.9-9.5]	2.2 [1.2-4.0]	5.5 [3.9-7.7]	3.8 [1.9-7.5]	100	1184
Secondary or more	83.0 [79.0-86.4]	6.3 [4.7-8.4]	2.1 [1.2-3.7]	7.4 [4.7-11.4]	1.2 [0.5-2.5]	100	973
Wealth quintile							
Lowest	91.1 [86.7-94.1]	4.6 [2.9-7.0]	1.3 [0.5-3.5]	2.8 [1.5-5.2]	0.3 [0.1-0.8]	100	1117
Second	90.1 [86.2-93.0]	4.2 [2.9-6.1]	1.7 [0.6-4.6]	2.7 [1.6-4.5]	1.3 [0.7-2.6]	100	1107
Middle	87.0 [83.6-89.8]	4.9 [3.4-7.0]	1.2 [0.6-2.4]	4.5 [3.1-6.6]	2.4 [0.9-5.8]	100	1153
Fourth	81.1 [76.6-85.0]	7.3 [4.9-10.7]	2.2 [1.2-4.0]	6.7 [4.6-9.6]	2.7 [1.3-5.8]	100	1127
Highest	82.5 [78.3-86.0]	6.8 [5.1-8.9]	2.5 [1.4-4.6]	6.8 [4.4-10.4]	1.4 [0.8-2.6]	100	1071
Age (previous)							
18-39	85.8 [83.0-88.2]	5.1 [4.1-6.4]	2.2 [1.4-3.6]	5.3 [3.9-7.2]	1.5 [0.8-2.8]	100	2872
40-69	87.3 [85.0-89.2]	6.2 [5.0-7.8]	1.1 [0.7-1.6]	4.1 [3.0-5.6]	1.3 [0.8-2.1]	100	2578
Total (18-69)	86.3 [84.1-88.2]	5.5 [4.6-6.5]	1.8 [1.2-2.7]	4.9 [3.8-6.4]	1.4 [0.9-2.3]	100	5450
Total (15-69)	86.1 [84.0-88.0]	5.6 [4.7-6.6]	1.8 [1.2-2.6]	4.8 [3.8-6.1]	1.7 [1.1-2.7]	100	5575

**'Non-vegetarian': a person who consumes animal products; 'Lacto-vegetarian': a person who consumes no animal products except for dairy, 'ovo-vegetarian':a person who consumes no animal products except for eggs; 'Lacto-ovo vegetarian: a person who consumes no animal products except for dairy and eggs; 'vegan': a person who consumes no animal products*

Table Diet 6.7 Percentage of respondents aged 15-69 years who check nutrition labels for sugar/fat/salt content and reasons for not checking nutrition labels, by background characteristics

			Percentage of respondents who report not checking nutrition labeling due to:						
Background characteristics	Percentage of respondents who check nutrition labels for sugar/fat/salt content:	No. of respondents (N)	No time	Difficult to understand	Did not feel the need to check*	Can't read**	Not aware/no knowledge	Others	No. of respondents(N)
Age									
15-24	24.8 [21.3-28.6]	642	5.8	12.0	65.3	15.0	1.3	0.6	454
25-39	22.3 [19.7-25.1]	2290	4.7	7.2	40.6	46.1	0.8	0.5	1802
40-54	13.4 [11.2-15.9]	1614	2.6	6.8	20.2	69.1	0.9	0.4	1428
55-69	8.0 [5.9-10.8]	923	1.5	3.4	9.3	84.4	1.2	0.2	860
Sex									
Women	17.8 [15.7-20.1]	3367	3.6	7.3	33.2	54.8	0.9	0.2	2851
Men	20.6 [18.3-23.2]	2102	4.7	8.5	44.1	40.9	1.1	0.7	1693
Residence									
Rural	14.8 [13.0-16.9]	3437	3.3	8.5	27.6	59.6	0.8	0.4	3042
Urban	25.6 [22.5-28.9]	2032	5.6	7.1	57.0	28.3	1.4	0.7	1502
Region									
Central	16.8 [14.3-19.8]	1370	4.7	10.7	31.0	51.9	1.1	0.6	1157
East	13.0 [10.4-16.1]	1390	3.1	5.9	30.9	60.0	0.1	0.0	1248
West	23.2 [20.6-26.1]	2709	4.3	7.2	47.6	38.9	1.4	0.7	2139
Education									

None/less than primary	7.5 [5.9-9.5]	3370	1.0	5.7	11.4	81.0	0.9	0.1	3163
Primary to middle	25.6 [22.2-29.3]	1137	7.9	13.5	72.1	4.8	1.3	0.5	816
Secondary or more	38.7 [34.7-42.9]	959	9.0	7.0	79.6	1.9	0.8	1.7	562
Wealth quintile									
Lowest	6.5 [4.6-9.1]	1110	1.2	7.3	10.7	79.6	1.0	0.3	1063
Second	12.4 [9.7-15.8]	1089	3.1	6.8	27.4	61.3	1.1	0.2	981
Middle	17.0 [13.5-21.2]	1134	4.8	6.1	42.1	45.8	0.5	0.6	972
Fourth	20.7 [17.5-24.3]	1087	5.0	11.2	52.1	30.1	1.3	0.2	866
Highest	35.7 [31.6-40.0]	1049	7.0	8.7	65.4	16.6	1.3	1.1	662
Age (previous)									
18-39	24.1 [21.6-26.7]	2823	5.2	8.6	49.9	34.9	0.8	0.6	2178
40-69	11.5 [9.7-13.5]	2537	2.2	5.6	16.3	74.6	1.0	0.4	2288
Total (18-69)	19.8 [18.1-21.7]	5360	4.2	7.6	38.5	48.3	0.9	0.5	4466
Total (15-69)	**19.3 [17.6-21.1]**	**5469**	**4.2**	**7.9**	**39.0**	**47.5**	**1.0**	**0.5**	**4544**

Dietary Salt Intake:

Table 7.1. Estimated average population salt intake amongst respondents aged 15-69 years based on spot urinary sodium by background characteristics

	Average daily salt intake (g/day)			
Background characteristic	Mean	95% CI		Number of respondents (N)
Age				
15-24	8.0	7.8	8.2	637
25-39	8.5	8.4	8.7	2149
40-54	8.4	8.3	8.6	1554
55-69	8.0	7.8	8.1	882
Sex				
Women	7.4	7.3	7.5	3188
Men	9.1	8.9	9.2	2034
Residence				
Rural	8.3	8.2	8.5	3232
Urban	8.2	8.1	8.4	1990
Region				
Central	8.1	7.9	8.4	1237
East	8.7	8.5	8.9	1342

West	8.2	8.1	8.3	2643
Education				
None/less than primary	8.2	8.1	8.3	3194
Primary to middle	8.4	8.2	8.6	1111
Secondary or more	8.3	8.1	8.6	914
Wealth quintile				
Lowest	8.3	8.1	8.5	1032
Second	8.4	8.1	8.6	1013
Middle	8.3	8.2	8.5	1093
Fourth	8.3	8.1	8.5	1071
Highest	8.2	8.0	8.4	1013
Age (previous)				
18-39	8.3	8.2	8.4	2670
40-69	8.3	8.2	8.4	2436
Total (18-69)	8.3	8.2	8.4	5106
Total (15-69)	8.3	8.2	8.4	5222

Table 7.2. Percentage distribution of respondents aged 15-69 years by frequency of adding salt or salty sauces to food while eating by background characteristics

Background characteristic	Percent of respondents who add salt to food while eating				Percent of respondents who add salty sauc-es to food while eating			Percent of respondents who always or often add either salt or salty sauces to food while eating		
	Often / always	Some-times	Rarely / never	Number of respondents (N)	Often / always	Some-times	Rarely / never	Number of respondents (N)	Often / always	Number of respondents (N)
Age										
15-24	10.4 [7.6-14.0]	26.0 [20.9-31.9]	63.6 [57.4-69.3]	679	2.4 [1.4-4.1]	18.6 [15.1-22.7]	79.1 [75.0-82.6]	678	12.1 [9.2-15.7]	680
25-39	11.7 [8.4-16.1]	21.5 [18.9-24.3]	66.8 [63.0-70.4]	2315	1.6 [1.0-2.5]	13.5 [11.7-15.5]	84.9 [82.7-86.9]	2314	12.8 [9.4-17.1]	2317
40-54	8.1 [5.7-11.5]	19.2 [16.4-22.3]	72.7 [68.8-76.3]	1639	1.2 [0.6-2.2]	8.9 [7.1-11.0]	90.0 [87.6-91.9]	1637	9.1 [6.6-12.4]	1640
55-69	10.6 [6.2-17.6]	18.4 [14.6-23.0]	70.9 [65.0-76.2]	935	0.3 [0.1-0.8]	4.6 [3.3-6.5]	95.1 [93.2-96.5]	931	10.9 [6.4-17.7]	935
Sex										
Women	11.1 [8.0-15.1]	20.8 [18.4-23.3]	68.1 [64.4-71.6]	3411	1.9 [1.3-2.8]	12.9 [11.2-14.8]	85.2 [83.1-87.1]	3406	12.3 [9.2-16.3]	3413
Men	9.8 [7.1-13.5]	22.8 [19.6-26.3]	67.4 [63.5-71.1]	2157	1.2 [0.7-2.1]	12.7 [10.8-14.7]	86.1 [83.9-88.0]	2154	10.9 [8.1-14.5]	2159
Residence										
Rural	12.4 [8.1-18.4]	21.5 [18.5-24.8]	66.1 [61.5-70.5]	3489	1.3 [0.8-2.1]	10.0 [8.4-12.0]	88.7 [86.7-90.4]	3484	13.2 [8.9-19.0]	3493
Urban	7.7 [5.5-10.7]	22.3 [18.9-26.2]	70.0 [65.7-73.9]	2079	2.0 [1.2-3.1]	16.6 [14.1-19.5]	81.4 [78.3-84.2]	2076	9.3 [6.9-12.3]	2079
Region										
Central	4.1 [2.8-5.9]	24.3 [20.0-29.2]	71.6 [66.5-76.3]	1406	0.8 [0.3-2.1]	12.1 [9.8-14.9]	87.1 [84.1-89.6]	1401	4.6 [3.2-6.6]	1406
East	8.8 [4.9-15.5]	18.7 [14.8-23.4]	72.4 [65.9-78.2]	1393	1.0 [0.5-2.3]	6.1 [4.3-8.5]	92.9 [90.4-94.8]	1393	9.5 [5.6-15.8]	1394
West	14.7 [9.8-21.5]	21.7 [18.4-25.4]	63.6 [58.3-68.6]	2769	2.2 [1.5-3.2]	15.9 [13.6-18.4]	81.9 [79.2-84.4]	2766	16.3 [11.3-22.9]	2772
Education										
None/less than primary	11.3 [7.6-16.5]	20.2 [17.3-23.4]	68.5 [64.2-72.5]	3411	0.9 [0.6-1.4]	5.9 [4.8-7.3]	93.2 [91.8-94.4]	3402	12.0 [8.3-17.1]	3412

Primary to middle	8.5 [6.1-11.7]	24.5 [20.7-28.8]	67.0 [62.5-71.3]	1181	1.1 [0.6-2.0]	18.5 [15.5-22.0]	80.4 [76.9-83.5]	1183	9.1 [6.6-12.2]	1184
Secondary or more	10.9 [8.0-14.6]	22.2 [18.8-26.0]	66.9 [62.3-71.3]	973	3.7 [2.3-5.8]	21.4 [18.3-24.9]	74.9 [71.3-78.3]	972	13.7 [10.6-17.6]	973
Wealth quintile										
Lowest	15.9 [10.0-24.2]	19.5 [15.1-24.6]	64.7 [57.4-71.4]	1114	0.2 [0.0-0.5]	5.4 [3.5-8.2]	94.5 [91.6-96.4]	1108	15.8 [10.0-24.1]	1116
Second	14.5 [9.3-22.0]	21.5 [17.3-26.4]	64.0 [57.9-69.6]	1106	1.2 [0.6-2.5]	6.8 [5.1-9.1]	91.9 [89.4-93.9]	1105	15.2 [10.0-22.6]	1106
Middle	8.3 [5.4-12.5]	25.3 [21.3-29.7]	66.4 [61.5-71.0]	1152	0.9 [0.4-2.3]	12.5 [10.1-15.4]	86.6 [83.4-89.2]	1151	8.8 [5.9-13.0]	1153
Fourth	7.0 [5.0-9.7]	22.2 [18.1-26.9]	70.9 [65.9-75.4]	1125	2.3 [1.4-4.0]	16.0 [13.0-19.5]	81.7 [78.2-84.7]	1126	8.7 [6.5-11.5]	1127
Highest	8.0 [5.9-10.7]	20.4 [17.2-23.9]	71.7 [67.7-75.4]	1071	2.8 [1.7-4.5]	20.8 [17.6-24.4]	76.4 [72.6-79.9]	1070	10.3 [8.0-13.2]	1071
Age (previous)										
18-39	11.4 [8.5-15.0]	23.3 [20.3-26.5]	65.4 [61.5-69.1]	2870	2.2 [1.5-3.1]	15.0 [12.9-17.4]	82.9 [80.4-85.1]	2868	12.9 [10.0-16.5]	2872
40-69	9.0 [6.1-13.1]	18.9 [16.4-21.8]	72.1 [68.2-75.7]	2574	0.9 [0.5-1.5]	7.4 [6.1-8.9]	91.8 [90.2-93.2]	2568	9.7 [6.8-13.7]	2575
Total (18-69)	10.4	21.7	67.7	5444	1.7	12.4	85.9	5436	11.8	5447
Total (15-69)	**10.4 [7.7-14.0]**	**21.8 [19.5-24.3]**	**67.7 [64.5-70.8]**	**5568**	**1.6 [1.1-2.2]**	**12.8 [11.3-14.3]**	**85.7 [84.0-87.2]**	**5560**	**11.6 [8.8-15.1]**	**5572**

Table 7.3. Percentage of respondents aged 15-69 years who perceive their salt or salty sauce intake to be far too much/too much; just right; far too little/too little by background characteristics

Background characteristic	Perceived salt or salty sauces intake				Number of respondents (N)
	Far too much / too much	Just right	Far too little/ too little	Don't know	
Age					
15-24	15.8 [12.6-19.6]	69.7 [65.2-73.8]	14.4 [11.2-18.3]	0.1 [0.0-0.9]	680
25-39	17.1 [14.9-19.5]	64.8 [61.3-68.1]	17.7 [15.4-20.3]	0.4 [0.2-0.9]	2317
40-54	11.8 [9.8-14.1]	63.6 [60.2-66.9]	23.5 [20.6-26.7]	1.1 [0.6-1.8]	1641
55-69	8.4 [6.4-10.9]	60.4 [56.3-64.3]	30.8 [26.9-35.0]	0.4 [0.1-1.2]	937
Sex					
Women	13.8 [12.3-15.5]	65.6 [63.5-67.7]	19.9 [17.8-22.1]	0.7 [0.4-1.0]	3416
Men	15.1 [12.7-18.0]	65.0 [61.8-68.1]	19.5 [17.1-22.1]	0.4 [0.2-0.7]	2159
Residence					
Rural	14.5 [12.3-17.1]	63.8 [60.7-66.8]	21.2 [19.1-23.4]	0.5 [0.3-0.8]	3495
Urban	14.5 [12.3-17.1]	67.4 [64.2-70.5]	17.6 [14.5-21.1]	0.5 [0.2-1.0]	2080
Region					
Central	16.1 [12.3-20.8]	61.0 [56.2-65.7]	22.3 [19.1-26.0]	0.6 [0.3-1.1]	1407
East	15.0 [12.7-17.6]	65.9 [60.9-70.6]	18.4 [15.1-22.1]	0.7 [0.4-1.4]	1395
West	13.5 [11.5-15.7]	67.5 [64.8-70.1]	18.7 [16.2-21.4]	0.4 [0.2-0.7]	2773
Education					
None/less than primary	12.7 [10.9-14.9]	63.6 [60.9-66.2]	23.0 [20.6-25.7]	0.6 [0.4-0.9]	3415
Primary to middle	16.5 [14.0-19.5]	68.3 [64.1-72.2]	14.8 [12.1-18.0]	0.4 [0.2-1.0]	1184
Secondary or more	16.1 [13.2-19.4]	65.5 [61.2-69.5]	18.0 [15.2-21.3]	0.4 [0.1-1.1]	973
Wealth quintile					
Lowest	11.8 [9.4-14.5]	65.2 [60.9-69.2]	22.0 [18.5-26.1]	1.0 [0.6-1.8]	1117
Second	14.4 [11.5-18.0]	62.9 [58.0-67.5]	22.5 [19.0-26.5]	0.2 [0.1-0.6]	1107
Middle	16.4 [12.8-20.8]	65.8 [60.7-70.6]	17.3 [14.6-20.3]	0.5 [0.2-1.1]	1153
Fourth	14.2 [11.7-17.1]	67.2 [63.1-71.0]	18.2 [15.1-21.7]	0.4 [0.1-1.1]	1127
Highest	15.2 [12.5-18.4]	65.3 [61.5-69.0]	19.0 [15.7-22.8]	0.5 [0.2-1.1]	1071
Age (previous)					
18-39	16.3 [13.8-19.0]	66.3 [63.2-69.3]	17.1 [15.1-19.4]	0.3 [0.1-0.5]	2872
40-69	10.6 [9.1-12.2]	62.5 [59.5-65.3]	26.1 [23.4-29.1]	0.9 [0.5-1.3]	2578
Total (18-69)	14.3	65.0	20.2	0.5	5450
Total (15-69)	**14.5 [12.9-16.3]**	**65.3 [63.1-67.5]**	**19.7 [17.9-21.5]**	**0.5 [0.3-0.7]**	**5575**

Table 7.4. Percentage distribution of respondents aged 15-69 years by frequency of adding salt seasoning, salty sauces or MSG during food preparation by background characteristics

Background characteristic	Percent of respondents who add tasting powder (MSG) during food preparation				Percent of respondents who add salty seasoning or salty sauces during food preparation*			
	Often / always	Some-times	Rarely / never	Number of respondents (N)	Often / always	Some-times	Rarely / never	Number of respondents (N)
Age								
15-24	3.6 [2.4-5.4]	22.2 [17.7-27.5]	74.2 [69.1-78.8]	678	3.6 [2.3-5.7]	21.5 [17.3-26.3]	74.9 [70.1-79.1]	676
25-39	1.6 [1.1-2.5]	16.5 [13.9-19.3]	81.9 [78.9-84.6]	2311	3.4 [2.4-4.9]	16.1 [13.8-18.7]	80.5 [77.6-83.1]	2315
40-54	1.5 [1.0-2.3]	13.8 [11.8-16.0]	84.7 [82.3-86.8]	1635	1.7 [1.0-3.0]	12.2 [9.7-15.3]	86.1 [82.7-88.9]	1637
55-69	2.3 [1.4-3.8]	7.9 [5.9-10.4]	89.9 [87.1-92.1]	931	1.6 [0.8-3.0]	8.3 [5.8-11.6]	90.2 [86.6-92.9]	930
Sex								
Women	2.8 [2.1-3.6]	15.8 [14.0-17.8]	81.5 [79.3-83.4]	3398	2.8 [1.9-4.1]	15.9 [13.7-18.3]	81.3 [78.6-83.8]	3407
Men	1.7 [1.1-2.6]	16.9 [14.4-19.7]	81.4 [78.5-84.0]	2157	3.0 [2.0-4.4]	15.6 [13.0-18.6]	81.4 [78.2-84.3]	2151
Residence								
Rural	2.6 [1.9-3.5]	15.7 [13.3-18.4]	81.8 [78.9-84.3]	3476	2.3 [1.3-4.0]	11.8 [9.4-14.7]	85.9 [82.6-88.6]	3485
Urban	1.7 [1.1-2.5]	17.3 [14.4-20.8]	81.0 [77.7-83.9]	2079	3.7 [2.7-5.1]	21.3 [17.7-25.4]	75.0 [70.6-78.9]	2073
Region								
Central	3.1 [2.1-4.6]	20.6 [17.2-24.5]	76.2 [72.3-79.8]	1396	3.7 [1.9-7.3]	11.7 [9.2-14.9]	84.6 [80.7-87.8]	1399
East	1.7 [1.0-3.0]	16.8 [12.8-21.6]	81.5 [76.8-85.5]	1391	0.5 [0.2-1.1]	8.6 [6.1-12.0]	90.9 [87.5-93.4]	1393
West	1.8 [1.3-2.7]	13.8 [11.2-16.9]	84.4 [81.4-87.0]	2768	3.4 [2.5-4.5]	20.9 [17.3-25.0]	75.7 [71.3-79.7]	2766
Education								
None/less than primary	2.1 [1.5-2.8]	14.3 [12.2-16.8]	83.6 [81.0-85.9]	3396	1.8 [1.0-3.0]	9.5 [7.6-11.9]	88.7 [86.1-90.9]	3403
Primary to middle	2.5 [1.6-4.0]	19.9 [15.9-24.5]	77.6 [73.1-81.5]	1184	4.0 [2.6-6.0]	20.4 [16.6-24.9]	75.6 [70.8-79.9]	1181
Secondary or more	2.0 [1.1-3.7]	16.6 [13.4-20.4]	81.3 [77.4-84.6]	972	4.1 [2.9-5.9]	24.3 [20.5-28.4]	71.6 [67.3-75.5]	971
Wealth quintile								
Lowest	2.5 [1.7-3.8]	15.1 [11.8-19.2]	82.3 [77.9-86.0]	1102	2.9 [1.3-6.2]	7.3 [5.0-10.6]	89.8 [85.4-93.0]	1106
Second	2.1 [1.2-3.8]	16.0 [12.7-20.0]	81.8 [77.7-85.3]	1103	1.2 [0.4-3.2]	9.5 [6.9-12.8]	89.3 [85.9-92.0]	1107
Middle	2.6 [1.6-4.4]	20.5 [16.5-25.0]	76.9 [72.2-81.0]	1153	2.6 [1.6-4.4]	15.6 [12.6-19.3]	81.7 [78.0-85.0]	1151
Fourth	2.5 [1.6-3.9]	17.7 [14.6-21.4]	79.7 [76.1-82.9]	1127	3.7 [2.5-5.6]	16.6 [13.1-20.7]	79.7 [74.9-83.8]	1124
Highest	1.3 [0.6-2.8]	12.5 [9.7-15.8]	86.3 [82.8-89.1]	1070	3.8 [2.5-5.7]	26.8 [22.4-31.6]	69.4 [64.5-73.9]	1070
Age (previous)								
18-39	2.6 [1.9-3.5]	17.4 [14.9-20.2]	80.0 [77.1-82.7]	2865	3.7 [2.6-5.1]	17.8 [15.3-20.6]	78.5 [75.5-81.3]	2869
40-69	1.8 [1.3-2.5]	11.7 [10.1-13.4]	86.6 [84.7-88.2]	2566	1.7 [1.0-2.7]	10.8 [8.7-13.4]	87.5 [84.7-89.9]	2567
Total (18-69)	2.3 [1.8-3.0]	15.4 [13.6-17.5]	82.2 [80.2-84.2]	5431	3.0 [2.2-4.1]	15.4 [13.4-17.7]	81.6 [79.0-83.9]	5436
Total (15-69)	**2.2 [1.7-2.8]**	**16.4 [14.5-18.5]**	**81.4 [79.3-83.4]**	**5555**	**2.9 [2.1-3.9]**	**15.7 [13.6-18.1]**	**81.4 [78.8-83.7]**	**5558**

Table 7.5. Percentage distribution of respondents aged 15-69 years by frequency of salted tea consumption by background characteristics

Background characteristic	Percent of respondents who drink salted tea in the household			
	Often	Some-times	Rarely / never	Number of respondents (N)
Age				
15-24	12.3 [9.0-16.6]	38.8 [33.9-43.9]	48.9 [43.5-54.3]	680
25-39	11.8 [9.6-14.4]	33.4 [30.3-36.7]	54.9 [51.3-58.4]	2317
40-54	14.6 [12.2-17.5]	25.9 [22.7-29.4]	59.5 [55.4-63.4]	1640
55-69	13.5 [10.3-17.6]	24.8 [21.0-29.0]	61.7 [56.3-66.8]	937
Sex				
Women	12.6 [10.5-15.1]	30.8 [28.3-33.4]	56.6 [53.4-59.8]	3415
Men	12.8 [10.3-15.9]	33.4 [30.1-36.8]	53.8 [50.2-57.3]	2159
Residence				
Rural	16.5 [13.4-20.2]	32.4 [29.2-35.8]	51.1 [46.6-55.7]	3494
Urban	7.4 [5.8-9.5]	31.9 [28.3-35.7]	60.7 [57.0-64.2]	2080
Region				
Central	17.0 [11.7-23.9]	27.0 [22.6-31.8]	56.1 [48.9-63.0]	1406
East	5.1 [2.8-9.1]	37.9 [32.7-43.4]	57.0 [50.6-63.2]	1395
West	13.4 [10.8-16.5]	32.8 [29.8-36.0]	53.8 [49.8-57.7]	2773
Education				
None/less than primary	15.6 [12.9-18.9]	27.9 [24.9-31.2]	56.5 [52.4-60.5]	3414
Primary to middle	10.6 [8.0-14.0]	39.2 [35.4-43.1]	50.3 [46.0-54.5]	1184
Secondary or more	8.8 [6.4-12.0]	33.2 [29.5-37.2]	58.0 [53.6-62.2]	973
Wealth quintile				
Lowest	16.9 [12.8-22.0]	34.0 [29.1-39.2]	49.1 [43.3-55.0]	1116
Second	19.8 [15.3-25.2]	30.9 [25.9-36.3]	49.4 [43.5-55.2]	1107
Middle	13.8 [10.4-17.9]	31.7 [27.8-36.0]	54.5 [49.4-59.6]	1153
Fourth	5.5 [4.1-7.5]	35.5 [31.1-40.1]	59.0 [54.3-63.6]	1127
Highest	8.9 [6.7-11.9]	29.5 [25.8-33.4]	61.6 [57.2-65.9]	1071
Age (previous)				
18-39	12.1 [9.8-14.9]	34.8 [31.8-37.9]	53.1 [49.5-56.8]	2872
40-69	14.2 [12.0-16.9]	25.5 [22.7-28.5]	60.2 [56.6-63.8]	2577
Total (18-69)	12.8 [10.7-15.3]	31.6 [29.1-34.3]	55.5 [52.3-58.7]	5449
Total (15-69)	**12.7** [10.7-15.1]	**32.2** [29.8-34.7]	**55.1** [52.0-58.1]	**5574**

Table 7.6 Percentage of respondents aged 15-69 years who often to always, sometimes, never to rarely eat processed foods high in salt by background characteristics

Background characteristic	Total				Men				Women			
	Often / always	Some-times	Rarely / never	Number of respondents (N)	Often / always	Some-times	Rarely / never	Number of men (N)	Often / always	Some-times	Rarely / never	Number of women (N)
Age												
15-24	16.3 [12.7-20.7]	56.9 [52.0-61.6]	26.8 [22.7-31.4]	680	16.0 [11.2-22.5]	58.9 [51.0-66.4]	25.1 [19.6-31.5]	262	16.6 [12.4-21.9]	54.7 [48.7-60.6]	28.7 [22.4-35.9]	262
25-39	12.2 [10.0-14.8]	50.4 [47.2-53.5]	37.4 [34.0-40.9]	2317	11.3 [8.7-14.7]	51.7 [47.1-56.2]	37.0 [32.5-41.7]	785	13.2 [10.7-16.3]	48.9 [45.4-52.3]	37.9 [33.9-42.0]	785
40-54	6.8 [5.2-8.8]	43.8 [40.2-47.5]	49.4 [45.1-53.7]	1639	7.4 [5.4-10.0]	45.1 [40.1-50.2]	47.5 [42.0-53.1]	686	6.1 [4.0-9.1]	42.4 [38.3-46.5]	51.5 [47.0-56.0]	686
55-69	6.8 [5.0-9.3]	34.6 [30.3-39.1]	58.6 [53.7-63.4]	936	7.5 [4.8-11.5]	36.1 [30.6-42.1]	56.4 [50.6-62.0]	426	6.1 [4.1-9.1]	32.9 [27.8-38.5]	61.0 [54.6-67.0]	426
Sex												
Women	11.7 [9.7-14.1]	47.1 [44.3-49.9]	41.2 [37.7-44.8]	3413	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Men	11.2 [9.3-13.5]	50.3 [47.0-53.6]	38.5 [35.3-41.7]	2159	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Residence												
Rural	10.3 [7.9-13.2]	46.6 [43.5-49.7]	43.1 [39.1-47.2]	3493	10.3 [7.8-13.4]	47.6 [43.6-51.6]	42.1 [37.7-46.7]	1367	10.2 [7.4-13.9]	45.6 [41.7-49.4]	44.2 [39.4-49.2]	2126
Urban	13.2 [10.9-15.9]	51.8 [48.1-55.6]	35.0 [31.3-38.9]	2079	12.5 [9.6-16.1]	54.1 [48.3-59.6]	33.4 [28.9-38.3]	792	13.9 [11.2-17.3]	49.3 [45.3-53.2]	36.8 [31.6-42.4]	1287
Region												
Central	14.3 [10.2-19.7]	52.5 [48.3-56.7]	33.2 [28.0-38.8]	1405	13.3 [9.1-18.9]	55.9 [49.9-61.7]	30.9 [25.3-37.1]	535	15.5 [10.5-22.3]	48.7 [43.0-54.5]	35.8 [28.3-44.0]	870
East	4.9 [3.6-6.7]	58.3 [53.4-63.0]	36.8 [31.8-42.2]	1395	5.2 [3.3-8.0]	58.3 [50.7-65.5]	36.5 [29.2-44.6]	550	4.6 [3.2-6.5]	58.3 [52.7-63.6]	37.1 [31.4-43.3]	845
West	12.5 [10.5-14.9]	42.8 [39.2-46.5]	44.7 [40.6-48.8]	2772	12.5 [9.9-15.7]	43.9 [39.2-48.7]	43.6 [39.1-48.2]	1074	12.5 [10.2-15.2]	41.6 [37.7-45.6]	45.9 [41.0-50.9]	1698
Education												
None/less than primary	6.9 [5.1-9.2]	44.2 [41.2-47.4]	48.9 [45.2-52.6]	3412	6.9 [5.1-9.2]	44.2 [41.2-47.4]	48.9 [45.2-52.6]	1178	6.9 [5.0-9.4]	42.4 [39.2-45.8]	50.7 [46.9-54.6]	2234
Primary to middle	14.4 [11.5-17.9]	55.1 [50.6-59.6]	30.5 [26.5-34.8]	1184	14.4 [11.5-17.9]	55.1 [50.6-59.6]	30.5 [26.5-34.8]	472	16.5 [12.8-20.9]	54.0 [48.9-59.1]	29.5 [24.5-35.0]	712

Secondary or more	18.4 [15.6-21.7]	51.2 [46.8-55.6]	30.3 [26.5-34.4]	973	18.4 [15.6-21.7]	51.2 [46.8-55.6]	30.3 [26.5-34.4]	508	21.1 [16.0-27.3]	52.0 [46.1-57.7]	26.9 [20.8-34.0]	465
Wealth quintile												
Lowest	3.2 [1.8-5.8]	42.6 [37.7-47.7]	54.2 [48.5-59.8]	1115	3.2 [1.8-5.8]	42.6 [37.7-47.7]	54.2 [48.5-59.8]	457	3.2 [1.8-5.6]	44.8 [38.7-51.1]	52.0 [45.5-58.5]	658
Second	8.0 [5.5-11.5]	49.4 [44.9-53.9]	42.6 [37.7-47.6]	1107	8.0 [5.5-11.5]	49.4 [44.9-53.9]	42.6 [37.7-47.6]	435	6.4 [4.1-9.8]	42.9 [37.2-48.8]	50.7 [44.1-57.3]	672
Middle	11.5 [8.2-15.8]	52.9 [48.0-57.8]	35.6 [31.4-40.1]	1153	11.5 [8.2-15.8]	52.9 [48.0-57.8]	35.6 [31.4-40.1]	446	12.0 [7.3-19.1]	49.2 [43.5-55.0]	38.7 [33.1-44.7]	707
Fourth	14.6 [11.7-18.0]	49.4 [45.0-53.8]	36.1 [31.5-40.9]	1126	14.6 [11.7-18.0]	49.4 [45.0-53.8]	36.1 [31.5-40.9]	412	17.5 [13.9-21.8]	48.6 [43.5-53.8]	33.9 [28.8-39.4]	714
Highest	17.8 [14.6-21.6]	48.4 [43.0-53.8]	33.8 [28.7-39.2]	1071	17.8 [14.6-21.6]	48.4 [43.0-53.8]	33.8 [28.7-39.2]	409	17.6 [13.9-22.1]	49.2 [43.7-54.7]	33.2 [26.5-40.8]	662
Age (previous)												
18-39	14.2 [11.9-16.9]	52.2 [49.2-55.1]	33.7 [30.3-37.2]	2872	14.2 [11.9-16.9]	52.8 [49.2-55.1]	32.9 [30.3-37.2]	987	14.1 [11.5-17.3]	51.4 [47.9-54.8]	34.5 [30.2-39.0]	1885
40-69	6.8 [5.4-8.5]	40.5 [37.6-43.5]	52.7 [49.0-56.3]	2575	6.8 [5.4-8.5]	40.5 [37.6-43.5]	52.7 [49.0-56.3]	1112	6.1 [4.4-8.4]	38.9 [35.3-42.7]	55.0 [50.7-59.2]	1463
Total (18-69)	11.7 [9.9-13.7]	48.2 [45.7-50.7]	40.1 [37.1-43.1]	5447	11.7 [9.9-13.7]	48.2 [45.7-50.7]	40.1 [37.1-43.1]	2099	11.4 [9.3-13.9]	47.2 [44.3-50.1]	41.4 [37.7-45.2]	3348
Total (15-69)	**11.5 [9.8-13.4]**	**48.8 [46.4-51.2]**	**39.8 [37.0-42.6]**	**5572**	**11.2 [9.3-13.5]**	**50.3 [47.0-53.6]**	**38.5 [35.3-41.7]**	**2159**	**11.7 [9.7-14.1]**	**47.1 [44.3-49.9]**	**41.2 [37.7-44.8]**	**3413**

Table 7.7. Percentage of respondents aged 15-69 years who reported importance in lowering salt intake and who thinks too much salt can cause health consequence by background characteristics

Background characteristic	Percent who think lowering salt intake to be:		Percent who's knowledge on maximum salt intake per day is within WHO recommendations			Number of respondents (N)
	Very important/ somewhat important	Not important or unaware	Within recommendation (<=1 tsp or 5 g/ day)	Above recommendation (> 1tsp or 5g/day)	Don't know	
Age						
15-24	95.3 [93.1-96.8]	4.7 [3.2-6.9]	32.6 [27.4-38.3]	17.1 [14.0-20.8]	50.3 [44.1-56.4]	680
25-39	96.1 [95.0-97.0]	3.9 [3.0-5.0]	36.2 [32.4-40.1]	15.0 [12.2-18.1]	48.9 [44.1-53.8]	2317
40-54	96.8 [95.6-97.7]	3.2 [2.3-4.4]	33.0 [29.0-37.2]	15.9 [13.1-19.1]	51.1 [46.1-56.2]	1641
55-69	96.2 [94.6-97.3]	3.8 [2.7-5.4]	30.3 [25.1-36.1]	15.7 [11.4-21.1]	54.0 [46.7-61.2]	937
Sex						
Women	95.8 [94.7-96.8]	4.2 [3.2-5.3]	33.2 [29.6-37.1]	14.1 [11.7-16.8]	52.7 [47.9-57.5]	3416
Men	96.3 [95.1-97.2]	3.7 [2.8-4.9]	34.4 [30.4-38.5]	17.4 [14.6-20.6]	48.3 [43.2-53.3]	2159
Residence						
Rural	95.3 [94.1-96.2]	4.7 [3.8-5.9]	30.4 [26.1-35.2]	15.1 [12.0-18.7]	54.5 [48.1-60.6]	3495
Urban	97.2 [96.1-98.0]	2.8 [2.0-3.9]	38.6 [33.5-43.9]	16.8 [13.7-20.5]	44.6 [38.4-51.0]	2080
Region						
Central	96.0 [94.5-97.0]	4.0 [3.0-5.5]	21.8 [15.8-29.3]	5.1 [2.9-8.8]	73.1 [64.2-80.4]	1407
East	96.6 [94.7-97.8]	3.4 [2.2-5.3]	40.1 [34.5-46.0]	14.4 [10.9-18.7]	45.5 [37.7-53.5]	1395
West	95.9 [94.8-96.9]	4.1 [3.1-5.2]	38.1 [33.5-43.0]	22.5 [18.8-26.6]	39.4 [33.6-45.5]	2773
Education						
None/less than primary	96.0 [95.0-96.8]	4.0 [3.2-5.0]	30.1 [26.3-34.2]	14.9 [12.0-18.3]	55.0 [49.4-60.5]	3415
Primary to middle	95.2 [93.5-96.5]	4.8 [3.5-6.5]	31.8 [26.9-37.1]	14.8 [11.8-18.5]	53.4 [47.2-59.4]	1184
Secondary or more	97.4 [95.8-98.4]	2.6 [1.6-4.2]	45.0 [39.6-50.6]	19.2 [15.6-23.3]	35.8 [30.4-41.5]	973
Wealth quintile						
Lowest	93.9 [91.7-95.5]	6.1 [4.5-8.3]	27.0 [22.3-32.4]	22.2 [17.1-28.2]	50.8 [42.6-59.1]	1117
Second	96.6 [94.9-97.7]	3.4 [2.3-5.1]	30.9 [25.8-36.4]	14.2 [10.6-18.9]	54.9 [48.1-61.5]	1107
Middle	95.8 [94.1-97.1]	4.2 [2.9-5.9]	29.5 [25.0-34.5]	11.5 [8.8-14.9]	58.9 [53.1-64.5]	1153
Fourth	96.1 [94.2-97.4]	3.9 [2.6-5.8]	33.2 [28.1-38.7]	10.7 [8.4-13.5]	56.2 [50.0-62.1]	1127
Highest	97.5 [95.9-98.4]	2.5 [1.6-4.1]	46.0 [40.1-52.1]	21.1 [16.7-26.3]	32.9 [26.9-39.4]	1071
Age (previous)						
18-39	95.9 [94.8-96.8]	4.1 [3.2-5.2]	34.2 [30.6-37.9]	15.7 [13.3-18.5]	50.1 [45.5-54.8]	2872
40-69	96.6 [95.6-97.3]	3.4 [2.7-4.4]	32.0 [28.1-36.3]	15.8 [13.0-19.1]	52.2 [46.9-57.4]	2578
Total (18-69)	96.2 [95.4-96.8]	3.8 [3.2-4.6]	33.5 [30.1-37.0]	15.7 [13.4-18.3]	50.8 [46.3-55.3]	5450
Total (15-69)	**96.1 [95.3-96.7]**	**3.9 [3.3-4.7]**	**33.5 [13.6-18.4]**	**15.7 [13.6-18.4]**	**50.8 [45.8-54.9]**	**5575**

Table 7.8. Percentage of respondents aged 15-69 years who think too much salt is related to health consequence by background characteristics

Background characteristic	Percent who's correctly identified that salt intake is related to increased blood pressure or kidney diseases:			Percent who think that too much salt is related to:				
	Correct	Incorrect	Total (%)	No health consequences	Increased blood pressure / kidney disease'	Other consequences: asthma / cancer / tuberculosis/ others	Don't know	Number of respondents (N)
Age								
15-24	60.3 [54.6-65.7]	39.7 [34.3-45.4]	100.0	1.5 [0.8-2.7]	60.3 [54.6-65.7]	20.0 [16.5-24.1]	26.4 [22.2-31.1]	679
25-39	74.8 [71.8-77.5]	25.3 [22.5-28.2]	100.0	2.1 [1.5-3.1]	74.8 [71.8-77.5]	18.8 [16.2-21.8]	17.0 [14.4-19.9]	2315
40-54	71.9 [68.5-75.1]	28.1 [24.9-31.5]	100.0	3.3 [2.2-4.9]	71.9 [68.5-75.1]	18.4 [15.9-21.3]	18.3 [15.6-21.3]	1638
55-69	62.8 [58.1-67.2]	37.2 [32.8-41.9]	100.0	3.3 [2.0-5.5]	62.8 [58.1-67.2]	23.5 [19.4-28.2]	26.3 [22.3-30.8]	933
Sex								
Women	71.7 [68.7-74.5]	28.3 [25.5-31.3]	100.0	1.8 [1.2-2.6]	71.7 [68.7-74.5]	18.0 [15.7-20.6]	20.2 [17.8-22.7]	3410
Men	66.3 [63.2-69.3]	33.7 [30.7-36.8]	100.0	2.9 [2.1-4.0]	66.3 [63.2-69.3]	21.1 [18.4-24.0]	21.5 [19.1-24.1]	2155
Residence								
Rural	64.6 [61.2-67.7]	35.4 [32.3-38.8]	100.0	2.9 [2.0-4.2]	64.6 [61.2-67.7]	17.4 [14.8-20.4]	24.6 [21.9-27.5]	3486
Urban	74.9 [71.1-78.3]	25.1 [21.7-28.9]	100.0	1.6 [1.0-2.7]	74.9 [71.1-78.3]	22.8 [19.6-26.3]	15.7 [13.3-18.4]	2079
Region								
Central	70.4 [65.5-75.0]	29.6 [25.0-34.5]	100.0	1.4 [0.6-3.6]	70.4 [65.5-75.0]	12.0 [9.1-15.8]	24.1 [20.4-28.3]	1407
East	63.5 [58.7-68.1]	36.5 [31.9-41.3]	100.0	7.2 [4.9-10.4]	63.5 [58.7-68.1]	23.6 [19.0-28.9]	18.8 [15.0-23.4]	1385
West	70.1 [66.6-73.4]	29.9 [26.6-33.4]	100.0	1.0 [0.5-1.7]	70.1 [66.6-73.4]	22.4 [19.2-25.9]	19.9 [17.2-22.8]	2773
Education								
None/less than primary	63.0 [60.1-65.8]	37.0 [34.2-39.9]	100.0	3.0 [2.1-4.3]	63.0 [60.1-65.8]	19.2 [16.6-22.1]	25.0 [22.4-27.8]	3408
Primary to middle	69.5 [65.0-73.6]	30.5 [26.4-35.0]	100.0	1.3 [0.8-2.1]	69.5 [65.0-73.6]	19.0 [15.9-22.5]	20.6 [17.0-24.7]	1182
Secondary or more	81.6 [77.4-85.3]	18.4 [14.7-22.6]	100.0	2.1 [1.2-3.6]	81.6 [77.4-85.3]	21.5 [18.0-25.5]	11.8 [8.9-15.4]	972
Wealth quintile								
Lowest	52.0 [47.0-56.9]	48.0 [43.1-53.0]	100.0	5.4 [3.6-8.0]	52.0 [47.0-56.9]	20.2 [15.5-25.9]	30.9 [26.2-36.0]	1113
Second	60.6 [56.0-65.1]	39.4 [34.9-44.0]	100.0	2.7 [1.5-4.8]	60.6 [56.0-65.1]	18.8 [15.2-23.1]	27.0 [22.7-31.7]	1104
Middle	67.7 [62.6-72.4]	32.3 [27.6-37.4]	100.0	1.3 [0.8-2.3]	67.7 [62.6-72.4]	18.0 [14.0-22.8]	21.7 [18.1-25.8]	1151
Fourth	75.9 [71.6-79.7]	24.1 [20.3-28.4]	100.0	1.2 [0.7-2.1]	75.9 [71.6-79.7]	16.4 [13.8-19.4]	17.9 [14.6-21.9]	1126
Highest	83.5 [80.1-86.4]	16.5 [13.6-19.9]		1.8 [1.0-3.2]	83.5 [80.1-86.4]	24.4 [20.3-29.0]	10.0 [7.7-12.9]	1071
Age (previous)								
18-39	69.3 [66.2-72.2]	30.7 [27.8-33.8]	100.0	1.9 [1.3-2.7]	69.3 [66.2-72.2]	19.3 [16.9-22.1]	21.1 [18.6-23.9]	2869
40-69	68.7 [65.7-71.5]	31.3 [28.5-34.3]	100.0	3.3 [2.3-4.8]	68.7 [65.7-71.5]	20.3 [17.6-23.2]	21.1 [18.8-23.7]	2571
Total (18-69)	69.1 [66.7-71.4]	30.9 [28.6-33.3]	100.0	2.4 [1.7-3.2]	69.1 [66.7-71.4]	19.6 [17.5-22.0]	21.1 [19.1-23.3]	5440
Total (15-69)	68.9 [66.4-71.2]	**31.1 [28.8-33.6]**	**100.0**	**2.4 [1.7-3.2]**	**68.9 [66.4-71.2]**	**19.6 [17.5-21.9]**	**20.9 [18.9-23.0]**	**5565**

Table 7.9. Percentage of respondents aged 15-69 years who often to always, sometimes, never to rarely eat processed foods high in salt by background characteristics

Background characteristic	Percent who are currently doing something to control salt intakes:		Amongst respondents who are currently doing anything to controlling salt intake, percent of respondents that use the method of:						
	Percent	Number of respondents (N)	Avoid/ minimize consumption of processed foods	Look at the salt or sodium content on food label	Buy low salt/ sodium alternatives	Use spices other than salt when cooking	Avoid eating foods prepared outside of home	Other	Number of respondents (N)
Age									
15-24	63.7 [57.6-69.5]	680	75.9 [70.9-80.3]	31.2 [26.3-36.6]	28.9 [23.7-34.8]	37.2 [31.3-43.5]	39.4 [33.5-45.7]	9.6 [6.2-14.5]	430
25-39	70.0 [65.6-74.1]	2317	81.2 [77.5-84.3]	32.0 [28.4-35.9]	34.8 [30.9-38.9]	35.9 [31.5-40.6]	45.8 [41.1-50.5]	9.9 [7.2-13.4]	1646
40-54	70.1 [65.9-74.0]	1641	87.9 [85.0-90.4]	24.2 [20.2-28.7]	29.7 [24.5-35.4]	30.5 [26.1-35.3]	48.8 [43.9-53.7]	11.6 [8.4-15.7]	1142
55-69	66.6 [61.1-71.7]	937	85.5 [80.8-89.3]	19.9 [15.2-25.7]	27.4 [21.3-34.4]	30.2 [24.1-37.2]	48.3 [41.6-55.2]	10.6 [7.2-15.2]	624
Sex									
Women	66.7 [62.6-70.6]	3416	81.8 [79.1-84.1]	27.3 [24.2-30.6]	29.5 [25.7-33.6]	34.0 [30.1-38.1]	45.8 [41.5-50.2]	10.4 [7.8-13.7]	2346
Men	69.1 [64.6-73.2]	2159	81.8 [78.4-84.8]	29.9 [26.1-34.1]	32.8 [28.5-37.5]	34.7 [30.5-39.2]	44.4 [40.2-48.7]	10.1 [7.8-13.2]	1496
Residence									
Rural	63.2 [58.0-68.0]	3495	84.5 [81.2-87.3]	24.1 [20.3-28.5]	27.4 [22.1-33.5]	35.5 [29.8-41.5]	42.3 [36.5-48.4]	8.2 [5.3-12.5]	2264
Urban	74.7 [68.2-80.3]	2080	78.6 [74.9-81.8]	34.0 [30.4-37.9]	35.8 [31.4-40.4]	33.1 [28.9-37.7]	48.3 [44.1-52.5]	12.7 [9.4-16.8]	1578
Region									
Central	55.0 [45.6-64.0]	1407	83.9 [78.8-87.9]	22.5 [17.5-28.3]	15.8 [11.5-21.4]	30.1 [23.7-37.4]	36.8 [27.4-47.4]	14.8 [9.1-23.2]	826
East	68.8 [63.3-73.8]	1395	81.5 [75.5-86.3]	27.6 [21.0-35.4]	30.4 [22.6-39.5]	40.5 [29.6-52.5]	40.5 [33.0-48.6]	2.3 [1.0-5.4]	959
West	75.0 [69.7-79.6]	2773	81.0 [77.7-83.9]	31.6 [28.2-35.3]	37.9 [33.1-43.0]	33.9 [29.8-38.3]	50.1 [45.7-54.5]	11.3 [8.4-14.9]	2057
Education									
None/less than primary	63.6 [58.8-68.0]	3415	85.8 [83.0-88.2]	18.2 [14.8-22.2]	24.2 [19.8-29.2]	30.5 [25.4-36.0]	44.6 [39.6-49.7]	9.0 [6.3-12.8]	2251

Primary to middle	65.8 [59.9-71.2]	1184	77.9 [74.0-81.4]	34.3 [29.6-39.2]	30.7 [26.0-35.9]	39.3 [34.1-44.7]	47.9 [42.7-53.1]	9.2 [6.6-12.8]	812
Secondary or more	80.9 [76.6-84.6]	973	78.6 [73.8-82.7]	41.8 [37.1-46.6]	44.6 [39.2-50.1]	36.3 [31.1-42.0]	43.0 [37.7-48.4]	13.5 [10.2-17.7]	777
Wealth quintile									
Lowest	59.3 [53.3-65.1]	1117	84.1 [78.7-88.4]	17.9 [12.1-25.6]	21.6 [15.0-29.9]	34.7 [25.7-44.9]	40.6 [32.7-49.1]	7.0 [4.3-11.0]	669
Second	61.8 [55.0-68.2]	1107	86.0 [82.5-88.9]	18.8 [14.6-23.9]	22.3 [17.1-28.6]	33.5 [27.4-40.2]	41.0 [34.0-48.4]	7.6 [4.6-12.1]	695
Middle	66.2 [59.4-72.3]	1153	80.9 [76.1-84.9]	25.4 [21.2-30.2]	25.9 [21.2-31.3]	29.9 [24.2-36.4]	46.8 [41.0-52.7]	11.4 [7.2-17.7]	794
Fourth	68.6 [62.6-74.1]	1127	82.8 [78.0-86.8]	30.6 [25.9-35.7]	31.4 [26.1-37.2]	35.6 [30.7-40.9]	43.8 [38.4-49.5]	8.1 [5.3-12.0]	801
Highest	80.8 [75.6-85.1]	1071	77.5 [72.8-81.6]	42.2 [37.5-47.1]	46.5 [40.9-52.3]	37.3 [31.9-43.1]	49.8 [44.4-55.1]	14.6 [10.9-19.2]	883
Age (previous)									
18-39	68.0 [63.6-72.1]	2872	79.9 [76.6-82.8]	31.6 [28.4-35.0]	32.7 [29.0-36.6]	35.5 [31.4-39.8]	43.0 [38.7-47.5]	9.0 [6.7-11.9]	2001
40-69	68.9 [64.8-72.7]	2578	87.1 [84.3-89.5]	22.7 [19.1-26.7]	28.9 [24.0-34.3]	30.4 [26.0-35.3]	48.7 [43.9-53.5]	11.2 [8.3-15.0]	1766
Total (18-69)	68.3 [64.4-72.0]	5450	82.3 [79.7-84.6]	28.6 [25.8-31.6]	31.4 [27.7-35.4]	33.8 [30.1-37.6]	44.9 [41.0-48.9]	9.7 [7.5-12.6]	3767
Total (15-69)	**68.0 [64.0-71.7]**	**5575**	**81.8 [79.3-84.0]**	**28.7**	**31.2 [27.6-35.2]**	**34.4 [30.7-38.2]**	**45.1 [41.3-48.9]**	**10.3 [8.0-13.1]**	**3842**

Physical Activity

Table 8.1. Average and median time (minutes per day) spent on vigorous and moderate intensity physical activity amongst respondents aged 15-69 years by background characteristics

Background characteristic	Vigorous intensity physical activity (min. per day)				Total (N)	Moderate intensity physical activity (min. per day)				Total (N)	Total physical activity in minutes of moderate- intensity activity (min. per day) **				Total respondents (N)
	Average	Median	Interquartile range			Average	Median	Interquartile range			Average	Median	Interquartile range		
			p25	p75				p25	p75				p25	p75	
Age															
15-24	69.6	12.9	0.0	77.1	646	137.2	77.1	36.4	180.0	642	277.6	177.1	70.7	360.0	619
25-39	103.1	17.1	0.0	154.3	2211	180.0	124.3	51.4	257.1	2180	379.7	257.1	90.0	561.4	2113
40-54	131.1	34.3	0.0	210.0	1576	198.4	128.6	60.0	282.9	1553	451.7	342.9	124.3	660.0	1513
55-69	124.2	2.9	0.0	231.4	905	169.7	120.0	57.1	240.0	878	405.2	300.0	94.3	655.7	862
Sex															
Women	81.4	0.0	0.0	77.1	3307	172.8	120.0	50.0	240.0	3245	331.4	186.4	68.6	454.3	3172
Men	121.9	42.9	0.0	180.0	2031	170.1	102.9	45.0	240.0	2008	406.9	292.1	107.1	589.3	1935
Residence															
Rural	149.5	64.3	0.0	257.1	3337	177.5	120.0	57.1	244.3	3298	465.0	342.9	120.0	720.0	3202
Urban	36.6	0.0	0.0	25.7	2001	162.7	90.0	34.3	222.9	1955	237.0	148.6	60.0	330.0	1905

Region															
Central	99.6	38.6	0.0	137.1	1357	162.0	109.3	51.4	231.4	1329	359.9	251.4	107.1	510.0	1293
East	202.2	120.0	0.0	420.0	1353	170.1	128.6	60.0	240.0	1298	562.8	471.4	171.4	960.0	1278
West	63.2	0.0	0.0	51.4	2628	177.3	95.7	36.4	250.0	2626	299.8	180.0	64.3	411.4	2536
Education															
None/less than primary	151.2	60.0	0.0	300.0	3277	173.3	130.0	60.0	270.0	3205	479.2	386.4	122.9	757.1	3125
Primary to middle	61.1	8.6	0.0	60.0	1126	232.0	81.4	38.6	188.6	1122	277.1	171.4	70.0	357.9	1084
Secondary or more	43.2	5.7	0.0	42.9	932	172.4	94.3	42.9	218.6	923	242.3	162.9	68.6	342.9	895
Wealth quintile															
Lowest	214.2	154.3	17.1	411.4	1083	185.6	137.1	60.0	260.0	1046	599.2	540.0	214.3	960.0	1023
Second	153.9	77.1	0.0	265.7	1047	195.0	128.6	60.0	280.0	1033	495.4	392.1	150.0	735.7	1005
Middle	109.5	25.7	0.0	154.3	1094	154.4	94.3	38.6	205.7	1088	370.7	240.0	94.3	540.0	1052
Fourth	37.3	0.0	0.0	34.3	1085	160.4	90.0	42.9	214.3	1063	232.6	140.0	60.0	308.6	1036
Highest	27.4	0.0	0.0	25.7	1029	166.2	94.3	36.4	240.0	1023	220.4	140.7	60.0	304.3	991
Age (old)															
18-39	91.2	12.9	0.0	120.0	2738	168.2	120.0	47.1	240.0	2703	347.3	222.9	82.9	488.6	2618
40-69	128.7	25.7	0.0	214.3	2481	188.2	124.3	60.0	269.3	2431	435.2	321.4	111.4	660.0	2375
Total (15-17)	50.7	17.1	4.3	60.0	119	97.6	54.3	25.7	102.9	119	199.5	132.9	70.7	240.0	114
Total (18-69)	103.8	17.1	0.0	145.7	5219	174.9	120.0	50.0	244.3	5134	377.0	250.0	90.0	544.3	4,993
Total (15-69)	**102.8**	**17.1**	**0.0**	**137.1**	**5,338**	**161.5**	**111.4**	**47.1**	**240.0**	**5253**	**371.3**	**240.0**	**86.4**	**522.9**	**5,107**

**MET (Metabolic equivalent of task): for vigorous activity 1 minute equate to 8 units of MET; for moderate activity 1 minute equate to 4 units of MET. **Minutes spent on vigorous-intensity activities per day are multiplied by 2, to derive equivalent minutes of moderate-intensity activities, which is then summed up to derive total physical activity in minutes of moderate-intensity activity per day.*

Table 8.2. Percentage of respondents aged 15-69 years not meeting physical activity recommendations* by background characteristics

Background characteristic	Percentage respondents not meeting WHO physical activity recommendations:		Percentage women not meeting WHO physical activity recommendations:		Percentage men not meeting WHO physical activity recommendations:	
	Percentage	Total respondents (N)	Percentage	Total women (N)	Percentage	Total men (N)
Age						
15-24	9.5 [7.3-12.3]	619	11.2 [8.2-15.1]	385	7.9 [4.9-12.5]	234
25-39	7.2 [5.7-9.1]	2113	7.7 [5.6-10.4]	1423	6.8 [5.0-9.3]	690
40-54	5.1 [3.9-6.7]	1513	5.4 [3.8-7.6]	894	4.8 [3.1-7.4]	619
55-69	6.8 [4.9-9.5]	862	8.0 [5.1-12.4]	470	5.7 [3.6-9.0]	392
Residence						
Rural	4.3 [3.2-5.8]	3202	4.5 [3.1-6.5]	1968	4.1 [2.8-6.1]	1234
Urban	11.6 [9.7-13.8]	1905	13.5 [10.6-17.0]	1204	9.9 [7.6-12.9]	701
Region						
Central	5.1 [3.5-7.4]	1293	7.6 [4.8-11.8]	800	3.0 [1.8-5.0]	493
East	4.8 [3.1-7.3]	1278	4.6 [2.8-7.5]	783	4.9 [2.8-8.7]	495
West	9.6 [7.9-11.6]	2536	10.0 [7.7-12.8]	1589	9.3 [7.1-12.1]	947
Education						
None/less than primary	5.5 [4.4-6.9]	3125	5.9 [4.6-7.6]	2069	5.1 [3.6-7.0]	1056
Primary to middle	10.9 [8.8-13.5]	1084	13.9 [10.7-17.9]	663	8.4 [5.6-12.5]	421
Secondary or more	6.9 [5.1-9.3]	895	6.8 [4.2-10.7]	438	7.0 [4.7-10.2]	457
Wealth quintile						
Lowest	3.2 [1.9-5.4]	1023	2.5 [1.5-4.1]	603	3.8 [2.0-7.4]	420
Second	3.2 [2.1-4.8]	1005	3.1 [1.8-5.3]	628	3.2 [1.8-5.7]	377
Middle	7.1 [5.3-9.5]	1052	10.0 [6.9-14.4]	654	4.7 [2.6-8.1]	398
Fourth	10.7 [8.2-13.8]	1036	12.6 [9.3-16.8]	669	9.0 [5.7-14.0]	367
Highest	11.0 [8.5-14.1]	991	11.4 [8.0-15.9]	618	10.7 [7.3-15.5]	373
Age (old)						
18-39	6.0 [4.8-7.5]	2618	7.1 [5.3-9.4]	1749	5.0 [3.8-6.7]	869
40-69	5.7 [4.5-7.2]	2375	6.4 [4.7-8.5]	1364	5.1 [3.6-7.1]	1011
Total (18-69)	5.9 [5.0-7.0]	4993	6.9 [5.4-8.6]	3113	5.1 [4.1-6.3]	1880
Total (15-69)	**7.3 [6.2-8.5]**	**5107**	**8.2 [6.7-10.0]**	**3172**	**6.5 [5.2-8.1]**	**1935**

Table 8.3. Proportional share of total physical activity from work, travel and recreational activities amongst respondents aged 15-69 years who participated in some level of physical activity by background characteristics*

Background characteristic	Average Percentage contribution to overall physical activity from:			Total (%)	Total respondents (N)**
	Work	Travel from and to places	Recreational activities:		
Age					
15-24	58.5 [54.3-62.7]	17.1 [15.0-19.2]	24.4 [21.1-27.8]	100.0	609
25-39	70.3 68.0-72.5]	14.5 [13.0-16.0]	15.2 [13.7-16.8]	100.0	2051
40-54	76.0 [73.8-78.2]	14.6 [12.9-16.3]	9.4 [7.9-10.8]	100.0	1490
55-69	75.7 [72.2-79.2]	17.4 [14.5-20.4]	6.9 [5.3-8.5]	100.0	838
Sex					
Women	74.9 [72.8-77.0]	15.7 [14.2-17.3]	9.4 [8.2-10.6]	100.0	3092
Men	63.8 [61.3-66.3]	15.4 [13.9-16.9]	20.8 [18.9-22.7]	100.0	1896
Residence					
Rural	74.5 [71.9-77.0]	13.9 [12.1-15.6]	11.7 [10.1-13.2]	100.0	3163
Urban	61.1 [61.3-66.3]	18.0 [16.0-20.0]	20.9 [18.7-23.1]	100.0	1825
Region					
Central	67.7 [64.6-70.8]	17.6 15.8-19.3]	14.7 [12.1-17.4]		1273
East	76.7 [72.9-80.5]	9.4 [6.9-11.9]	13.9 [11.5-16.3]	100.0	1258
West	66.7 [63.6-69.7]	16.9 [14.7-19.1]	16.4 [14.6-18.2]	100.0	2457
Education					
None/less than primary	79.2 [77.1-81.3]	13.5 [11.8-15.2]	7.3 [6.1-8.4]	100.0	3061
Primary to middle	59.9 [56.4-63.4]	18.1 [16.02-20.1]	22.0 [19.3-24.8]	100.0	1057
Secondary or more	56.9 [53.0-60.9]	17.1 [14.8-19.5]	25.9 [22.8-29.1]	100.0	867
Wealth quintile					
Lowest	82.8 [79.8-85.9]	11.1 [8.5-13.7]	6.1 [4.5-7.6]	100.0	1009
Second	75.9 [72.8-79.0]	14.8 [12.4-17.3]	9.2 [7.7-10.8]	100.0	991
Middle	68.3 [64.4-72.2]	14.7 [12.8-16.6]	17.0 [13.7-20.2]	100.0	1028
Fourth	63.4 [60.3-66.6]	18.2 [16.0-20.4]	18.4 [15.8-21.0]	100.0	1003
Highest	58.3 [54.0-62.5]	18.0 [15.6-20.4]	23.7 [20.5-27.0]		957
Age (old)					
18-39	67.3 [64.7-69.8]	15.1 [13.7-16.6]	17.6 [15.9-19.3]	100.0	2547
40-69	75.9 [73.7-78.1]	15.6 [13.8-17.4]	8.5 [7.3-9.6]	100.0	2328
Total (15-17)	43.9 [36.4-51.4]	22.1 [17.5-26.8]	34.0 [26.9-41.1]	100.0	113
Total (18-69)	70.2 [68.1-72.2]	15.3 [14.0-16.6]	14.5 [13.3-15.8]		4,875
Total (15-69)	**69.1 [67.1-71.0]**	15.5 [14.3-16.9]	**15.4 [14.2-16.2]**	**100.0**	**4,988**

**proportion calculation based on amount of METs per activity among total amount of METs of total physical activity ** Respondents who reported no participation in any type of physical activities were excluded.*

Table 8.4. Average time (minutes per day) spent sitting or reclining among respondents aged 15-69 years by background characteristics

Background characteristic	Average	95% CI		Median p25	Interquartile range		Total respondents (N)
					p75		
Age							
15-24	165.8	153.3	178.2	120.0	60.0	240.0	680
25-39	148.4	138.6	158.1	120.0	60.0	180.0	2317
40-54	128.3	120.7	135.9	120.0	60.0	180.0	1641
55-69	127.4	117.3	137.6	120.0	60.0	180.0	937
Sex							
Women	142.8	135.6	150.1	120.0	60.0	180.0	3416
Men	149.0	140.2	157.9	120.0	60.0	180.0	2159
Residence							
Rural	131.6	123.9	139.2	120.0	60.0	180.0	3495
Urban	166.5	155.2	177.9	120.0	60.0	240.0	2080
Region							
Central	146.5	132.7	160.2	120.0	60.0	180.0	1407
East	136.2	126.8	145.6	120.0	60.0	180.0	1395
West	149.9	139.9	159.9	180.0	105.0	18.0	2773
Education							
None/less than primary	123.7	116.4	130.9	120.0	60.0	180.0	3415
Primary to middle	156.9	146.3	167.5	120.0	60.0	180.0	1184
Secondary or more	184.6	172.1	197.1	180.0	60.0	240.0	973
Wealth quintile							
Lowest	111.8	104.6	118.9	120.0	60.0	120.0	1117
Second	130.8	121.0	140.6	120.0	60.0	180.0	1107
Middle	138.9	126.8	150.9	120.0	60.0	180.0	1153
Fourth	158.1	148.4	167.9	120.0	60.0	210.0	1127
Highest	181.0	166.6	195.4	150.0	60.0	240.0	1071
Age (old)							
18-39	158.7	149.3	168.1	120.0	60.0	180.0	2872
40-69	128.0	121.0	135.0	120.0	60.0	180.0	2578
Total (15-17)	141.5	119.5	163.4	120.0	60.0	180.0	125
Total (18-69)	148.3	140.9	155.8	120.0	60.0	180.0	5450
Total (15-69)	**146.1**	**139.4**	**152.8**	**120.0**	**60.0**	**180.0**	**5575**

Table 8.5. Percentage of respondents aged 15-69 years who has ever used outdoor gyms, frequency of use and reasons for not using by background characteristics

Background characteristic	Percentage respondents who have ever used outdoor gyms	Number of respondents (N)	Amongst respondents who have ever used outdoor gyms, Percentage who use outdoor gyms:				Number of respondents (N)	Amongst respondents who have never used outdoor gyms, who reported reasons for not using due to:						Number of respondents (N)
			daily / almost daily	weekly	monthly	less than monthly		Not available	No time	Feel shy	Instruments broken	Not interested	Didn't know about it	
Age														
15-24	29.2 [24.5-34.5]	679	2.8 [1.0-7.6]	14.7 [9.4-22.2]	22.4 [15.7-30.9]	60.1 [50.3-69.2]	174	54.5 [47.2-61.6]	17.9 [13.7-23.0]	1.0 [0.4-2.4]	0.1 [0.0-0.7]	24.9 [20.3-30.1]	1.6 [0.8-3.2]	507
25-39	20.0 [16.8-23.6]	2309	8.9 [5.7-13.7]	17.5 [12.8-23.6]	16.3 [12.1-21.6]	57.3 [50.0-64.2]	377	57.5 [52.5-62.3]	26.3 [22.4-30.6]	0.6 [0.3-1.2]	0.6 [0.2-1.3]	12.0 [9.9-14.6]	3.0 [2.0-4.6]	1944
40-54	12.2 [9.9-15.0]	1639	10.1 [5.8-17.0]	12.2 [7.1-20.2]	15.1 [9.7-22.7]	62.6 [52.3-71.9]	160	60.9 [55.8-65.7]	20.1 [16.6-24.1]	0.7 [0.4-1.3]	0.2 [0.1-0.6]	11.9 [9.6-14.7]	6.1 [4.5-8.3]	1487
55-69	7.9 [5.7-10.9]	936	10.3 [3.2-28.7]	11.1 [4.9-23.1]	8.3 [3.0-20.8]	70.3 [54.4-82.4]	57	57.0 [50.3-63.4]	12.3 [8.5-17.5]	0.8 [0.3-1.8]	0.0	15.8 [12.4-19.9]	14.1 [10.7-18.4]	881
Sex														
Women	12.1 [10.3-14.0]	3408	7.7 [4.5-12.8]	14.0 [10.4-18.6]	13.4 [9.4-18.9]	64.9 [57.5-71.7]	334	54.4 [49.8-58.9]	19.8 [17.2-22.7]	1.1 [0.7-1.7]	0.1 [0.0-0.4]	18.0 [15.3-20.9]	6.6 [5.3-8.2]	3088
Men	25.8 [22.2-29.8]	2155	7.8 [5.4-11.1]	15.6 [11.9-20.3]	19.6 [14.9-25.3]	57.0 [51.1-62.8]	434	60.0 [54.9-64.9]	22.1 [18.0-26.8]	0.5 [0.2-1.0]	0.5 [0.2-1.0]	14.0 [11.5-17.0]	3.0 [2.0-4.3]	1731
Residence														
Rural	9.8 [6.9-13.6]	3495	4.6 [2.2-9.2]	9.5 [6.0-14.6]	14.5 [8.7-23.1]	71.5 [64.8-77.3]	218	73.2 [67.2-78.5]	12.8 [9.3-17.4]	0.5 [0.3-0.9]	0.1 [0.0-0.4]	7.8 [5.8-10.4]	5.6 [4.2-7.4]	3280
Urban	32.8 [28.7-37.0]	2068	8.9 [6.3-12.4]	16.8 [13.3-21.2]	17.5 [13.8-22.0]	56.8 [50.9-62.5]	550	28.4 [22.7-34.8]	36.1 [31.9-40.5]	1.3 [0.7-2.2]	0.7 [0.3-1.5]	30.6 [25.6-36.2]	2.9 [2.0-4.3]	1539
Region														
Central	13.1 [8.4-19.9]	1407	5.7 [2.5-12.5]	11.4 [6.7-18.9]	20.3 [11.0-34.5]	62.5 [50.4-73.2]	123	59.0 [50.6-66.8]	22.1 [16.3-29.3]	0.3 [0.1-1.1]	0.1 [0.0-0.7]	14.6 [10.5-20.0]	3.9 [2.6-5.8]	1284
East	14.6 [10.6-19.7]	1395	3.6 [1.7-7.4]	14.7 [9.3-22.4]	16.6 [10.1-26.0]	65.2 [55.1-74.1]	166	69.2 [57.8-78.6]	14.7 [8.2-24.9]	1.3 [0.7-2.5]	0.4 [0.1-1.4]	5.5 [3.8-8.0]	8.8 [5.8-13.2]	1229
West	24.8 [21.4-28.5]	2761	9.3 [6.4-13.1]	15.8 [12.0-20.5]	15.7 [11.9-20.4]	59.2 [53.0-65.1]	479	51.0 [45.3-56.7]	23.2 [19.7-27.0]	0.8 [0.5-1.5]	0.3 [0.1-0.9]	21.3 [17.9-25.1]	3.3 [2.2-5.1]	2306
Education														
None/less than primary	9.3 [7.5-11.5]	3409	5.7 [2.7-11.5]	12.0 [7.8-18.0]	12.9 [8.7-18.6]	69.5 [61.2-76.6]	245	62.5 [57.2-67.4]	18.8 [15.2-23.0]	0.9 [0.5-1.5]	0.1 [0.0-0.3]	10.5 [8.6-12.5]	7.3 [5.7-9.4]	3177

Primary to middle	26.4 [21.7-31.9]	1179	5.7 [3.0-10.7]	18.7 [13.4-25.4]	19.6 [13.8-27.0]	56.0 [47.5-64.2]	233	54.3 [48.4-60.1]	22.1 [18.4-26.4]	0.7 [0.3-1.7]	0.3 [0.1-1.1]	20.9 [16.7-25.8]	1.7 [0.8-3.6]	955
Secondary or more	33.6 [28.8-38.7]	972	11.6 [7.5-17.4]	14.4 [10.2-19.8]	18.0 [13.3-24.0]	56.1 [49.4-62.5]	290	47.1 [40.5-53.8]	26.0 [21.5-31.2]	0.6 [0.2-1.4]	0.9 [0.4-2.1]	24.1 [19.6-29.2]	1.3 [0.6-2.8]	684
Wealth quintile														
Lowest	5.9 [3.7-9.2]	1117	3.8 [0.6-20.1]	4.7 [1.4-14.8]	16.9 [7.1-35.2]	74.6 [57.7-86.3]	43	71.8 [64.7-77.9]	10.1 [6.7-14.9]	0.9 [0.4-2.2]	0.0	6.9 [5.0-9.5]	10.3 [7.4-14.3]	1076
Second	10.5 [7.7-14.2]	1105	0.9 [0.1-5.9]	11.1 [4.8-23.8]	14.2 [7.2-26.2]	73.7 [59.7-84.2]	83	70.3 [64.1-75.8]	17.1 [12.6-22.9]	0.4 [0.1-1.6]	0.0	7.3 [5.4-9.8]	4.9 [3.3-7.4]	1025
Middle	17.3 [12.7-23.1]	1150	4.1 [1.0-14.8]	11.1 [6.3-18.7]	21.9 [13.4-33.7]	62.9 [50.0-74.3]	127	60.9 [53.9-67.4]	20.5 [15.7-26.4]	0.6 [0.3-1.3]	0.0	14.7 [11.1-19.2]	3.3 [2.2-4.9]	1028
Fourth	25.7 [21.2-30.7]	1125	5.4 [2.9-9.8]	18.5 [13.5-24.8]	11.6 [7.5-17.4]	64.6 [57.6-71.0]	226	48.6 [41.8-55.5]	25.2 [20.4-30.8]	0.7 [0.3-1.5]	0.5 [0.2-1.5]	22.0 [17.0-28.0]	2.9 [1.6-5.2]	905
Highest	33.2 [28.9-37.9]	1066	12.7 [8.4-18.7]	16.0 [11.6-21.7]	18.5 [13.9-24.2]	52.8 [45.6-59.8]	289	32.4 [25.7-39.9]	33.0 [28.2-38.1]	1.4 [0.7-2.9]	1.1 [0.5-2.6]	30.1 [24.4-36.5]	2.0 [1.2-3.5]	785
Age (old)														
18-39	23.3 [19.8-27.1]	2863	6.8 [4.5-10.2]	16.2 [12.5-20.8]	18.4 [14.1-23.7]	58.6 [52.8-64.1]	512	56.6 [51.7-61.4]	23.1 [19.7-26.9]	0.9 [0.5-1.5]	0.4 [0.2-0.9]	16.6 [13.8-19.8]	2.4 [1.7-3.5]	2365
40-69	10.7 [16.5-21.9]	2575	10.2 [5.7-17.5]	11.8 [7.7-17.8]	12.7 [8.7-18.1]	65.3 [57.1-72.7]	217	59.5 [54.5-64.3]	17.3 [14.2-21.0]	0.8 [0.5-1.2]	0.2 [0.1-0.4]	13.3 [11.0-15.9]	9.0 [7.1-11.3]	2368
Total (15-17)	32.8	125	0.0	16.2	23.5	60.3	39	49.4 [38.4-60.5]	16.4 [8.5-29.4]	0.0	0.0	31.6 [23.0-41.6]	2.7 [0.7-9.8]	86
Total (18-69)	19.0 [16.5-21.9]	5438	7.9 [5.8-10.7]	14.7 [11.7-18.4]	16.5 [13.1-20.5]	60.9 [55.9-65.7]	729	57.6 [53.2-61.9]	21.2 [18.2-24.5]	0.8 [0.5-1.3]	0.3 [0.2-0.6]	15.5 [13.2-18.1]	4.6 [3.7-5.9]	4733
Total (15-69)	**19.3** [16.9-22.0]	**5563**	**7.7** [5.7-10.4]	**14.9** [12.0-18.3]	**16.7** [13.3-20.7]	**60.7** [55.8-65.4]	**768**	**57.4 [53.0-61.6]**	**21.0 [18.1-24.3]**	**0.8 [0.5-1.1]**	**0.3 [0.2-0.6]**	**15.9 [13.7-18.3]**	**4.7 [3.7-5.9]**	**4819**

Anthropometry

Table 9.1. Mean population- BMI and percentage of respondents aged 15-69 years who had normal BMI- were underweight- overweight or obese by background characteristics

Background characteristic	Mean BMI* (kg/m2)	95% CI		Percent respondents whose weight status is*:				
				Normal (BMI 18.5-24.9)	Underweight (BMI<=18.4)	Overweight (BMI 25.0-29.9)	Obese (BMI >= 30.0)	Number of respondents
Age								
15-24	22.6	22.2	22.9	72.9 [68.9-76.5]	6.1 [4.3-8.7]	16.4 [13.6-19.7]	4.6 [3.2-6.5]	660
25-39	25.5	25.3	25.7	46.2 [43.5-49.0]	1.9 [1.3-2.6]	38.5 [36.0-41.1]	13.4 [11.9-15.1]	2265
40-54	26.1	25.8	26.4	40.2 [37.4-43.2]	1.6 [1.1-2.4]	42.2 [39.2-45.2]	16.0 [13.9-18.3]	1634
55-69	25.3	24.9	25.7	46.5 [41.2-51.9]	2.8 [1.9-4.2]	38.8 [34.1-43.7]	11.9 [9.8-14.2]	936
Sex								
Women	25.4	25.2	25.6	45.7 [43.5-48.0]	3.9 [3.0-5.0]	35.5 [33.6-37.4]	14.9 [13.5-16.3]	3337
Men	24.4	24.2	24.5	57.6 [55.2-60.0]	2.3 [1.6-3.3]	31.7 [29.5-34.0]	8.4 [7.1-9.8]	2158
Residence								
Rural	24.6	24.4	24.8	55.3 [53.2-57.4]	2.6 [2.0-3.4]	32.2 [30.3-34.1]	9.9 [8.7-11.2]	3447
Urban	25.1	24.9	25.4	47.4 [44.2-50.7]	3.8 [2.7-5.2]	35.3 [32.7-37.9]	13.6 [12.0-15.3]	2048
Region								
Central	24.7	24.4	25.1	53.3 [50.0-56.6]	2.0 [1.3-3.0]	35.4 [32.3-38.7]	9.3 [7.7-11.2]	1386
East	25.3	25.0	25.6	49.0 [46.0-52.1]	2.3 [1.3-3.9]	35.4 [32.7-38.3]	13.3 [11.2-15.7]	1373
West	24.7	24.5	24.9	52.5 [49.6-55.4]	4.0 [3.1-5.2]	31.6 [29.3-33.9]	11.9 [10.5-13.4]	2736
Education								
None/less than primary	25.4	25.2	25.6	48.0 [45.6-50.5]	2.3 [1.7-3.1]	37.5 [35.5-39.6]	12.2 [10.8-13.7]	3379
Primary to middle	24.0	23.6	24.3	59.1 [54.9-63.1]	4.0 [2.6-6.1]	27.2 [23.7-31.1]	9.7 [8.0-11.6]	1154

Secondary or more	24.7	24.3	25.1	52.5 [48.2-56.6]	3.7 [2.6-5.4]	31.9 [28.3-35.8]	11.9 [9.6-14.6]	959
Wealth quintile								
Lowest	24.0	23.7	24.2	63.5 [59.5-67.3]	3.0 [2.1-4.3]	27.1 [23.5-30.8]	6.4 [5.1-8.1]	1101
Second	24.4	24.1	24.8	57.2 [52.8-61.4]	4.0 [2.6-6.0]	29.3 [25.8-33.0]	9.6 [7.6-12.1]	1088
Middle	24.6	24.3	24.9	55.4 [51.2-59.6]	2.5 [1.4-4.5]	32.0 [28.5-35.7]	10.1 [8.1-12.6]	1139
Fourth	25.5	25.1	25.8	45.1 [40.7-49.7]	2.9 [1.8-4.6]	36.8 [32.7-41.1]	15.2 [12.9-17.7]	1112
Highest	25.5	25.2	25.9	42.0 [37.1-47.1]	3.1 [1.9-5.0]	40.3 [36.0-44.7]	14.6 [12.5-17.0]	1055
Age (old)								
18-39	24.4	24.3	24.6	55.8 [53.4-58.1]	4.3 [3.3-5.6]	30.1 [28.1-32.2]	9.9 [8.7-11.1]	2801
40-69	25.8	25.6	26.0	42.5 [40.0-45.0]	2.1 [1.5-2.8]	41.0 [38.6-43.4]	14.5 [12.9-16.3]	2570
Total 18-69	24.9	24.8	25.1	51.3 [49.5-53.1]	3.5 [2.8-4.4]	33.8 [32.2-35.4]	11.4 [10.4-12.5]	5371
Total 15-69	**24.8**	**24.7**	**25.0**	**52.0 [50.2-53.8]**	**3.1 [2.5-3.8]**	**33.5 [32.0-35.0]**	**11.4 [10.5-12.5]**	**5495**

** underweight BMI<18.5; overweight BMI >=25.0-29.9; obese BMI>=30.0. For respondents aged 15-18- BMI classification is based on age: underweight BMI<-2SD- overweight BMI >=1-2SD- obese BMI>=2SD (https://www.who.int/growthref/who2007_bmi_for_age/en/)*

Table 9.2. Mean waist circumference and waist/hip ratio and percentage of respondents aged 15-69 years (excluding pregnant women) who have high waist circumference and at-risk and high-risk waist-hip ratio by background characteristics

Background characteristic	Mean WC (cm)	95% CI		Percentage of respondents with high WC based on cut-offs:		Mean WHR ***	95% CI		Percentage of respondents with high WHR (>=0.85 women- >=0.90 men)	Number of respondents
				women >88cm men >102cm*	women >80cm men >90cm**					
Age										
15-24	75.0	73.9	76.0	6.2 [4.5-8.4]	19.0 [15.6-22.8]	0.84	0.84	0.85	31.8 [27.3-36.8]	660
25-39	83.6	82.9	84.2	16.6 [15.0-18.3]	38.9 [36.4-41.5]	0.88	0.88	0.89	55.9 [52.7-59.1]	2267
40-54	86.2	85.4	87.0	21.8 [19.6-24.2]	49.5 [46.1-52.9]	0.90	0.90	0.91	65.0 [61.8-68.0]	1637
55-69	86.2	84.9	87.4	24.3 [21.1-27.9]	50.2 [45.7-54.6]	0.91	0.90	0.91	67.9 [64.5-71.2]	937
Sex										
Women	82.1	81.5	82.7	28.9 [26.8-31.0]	53.8 [51.4-56.2]	0.87	0.86	0.87	62.4 [60.1-64.8]	3342
Men	82.2	81.7	82.8	4.4 [3.5-5.4]	22.6 [20.4-24.8]	0.89	0.89	0.89	44.5 [41.1-47.9]	2159
Residence										
Rural	81.4	80.8	82.1	14.6 [13.2-16.2]	35.4 [33.3-37.6]	0.88	0.87	0.88	52.0 [48.8-55.2]	3453
Urban	83.2	82.5	84.0	17.7 [15.9-19.6]	39.9 [37.0-42.9]	0.88	0.88	0.89	54.2 [50.4-58.0]	2048
Region										
Central	81.9	80.9	82.9	16.0 [13.7-18.7]	35.9 [32.6-39.3]	0.89	0.88	0.90	59.1 [54.1-64.0]	1389
East	82.4	81.2	83.5	16.9 [14.2-19.8]	37.9 [34.1-41.9]	0.88	0.88	0.89	55.1 [49.7-60.3]	1374
West	82.2	81.6	82.8	15.4 [14.0-17.0]	37.8 [35.4-40.2]	0.87	0.87	0.88	48.6 [45.7-51.5]	2738
Education										
None/less than primary	83.8	83.1	84.5	20.6 [18.8-22.5]	43.7 [41.1-46.3]	0.89	0.89	0.89	60.1 [57.3-62.8]	3384
Primary to middle	79.3	78.4	80.2	12.5 [10.7-14.6]	29.9 [26.8-33.1]	0.87	0.86	0.87	45.4 [41.4-49.5]	1155
Secondary or more	81.9	80.9	82.9	9.3 [7.4-11.5]	31.7 [27.9-35.6]	0.87	0.87	0.88	45.7 [40.9-50.7]	959
Wealth quintile										
Lowest	80.0	79.0	81.1	12.3 [10.1-14.9]	29.3 [25.8-33.1]	0.88	0.87	0.88	51.3 [47.0-55.6]	1103
Second	80.8	79.8	81.7	14.4 [11.7-17.6]	34.2 [30.2-38.4]	0.87	0.87	0.88	49.7 [45.0-54.5]	1089
Middle	81.3	80.4	82.3	15.0 [12.7-17.5]	34.7 [30.8-38.7]	0.88	0.87	0.89	51.4 [46.1-56.6]	1142
Fourth	83.5	82.4	84.6	18.5 [15.8-21.6]	42.8 [38.7-47.0]	0.88	0.88	0.89	55.2 [50.4-59.8]	1112
Highest	84.5	83.6	85.5	18.5 [16.0-21.2]	43.4 [39.2-47.6]	0.89	0.88	0.89	56.4 [51.8-60.9]	1055
Age (old)										
18-39	80.5	79.9	81.0	12.6 [11.4-13.9]	31.2 [29.2-33.2]	0.87	0.86	0.87	47.0 [43.7-50.3]	2803
40-69	86.2	85.5	86.9	22.7 [20.8-24.7]	49.7 [47.1-52.4]	0.90	0.90	0.91	66.0 [63.6-68.4]	2574
Total 18-69	82.4	81.9	82.9	16.0 [14.9-17.1]	37.4 [35.8-39.1]	0.88	0.88	0.88	53.4 [50.9-56.0]	5377
Total 15-69	**82.2**	**81.7**	**82.6**	**15.9 [14.8-17.1]**	**37.3 [35.6-38.9]**	**0.88**	**0.88**	**0.88**	**52.9 [50.6-55.3]**	**5502**

Table 9.3. Prevalence of different levels of disease risk* based on Body Mass Index and waist circumference amongst respondents aged 15-69 years by background characteristics

Background characteristic	Percentage of respondents whose disease risk is:				Total	Number of respondents
	Normal risk**	Increased risk	High risk	Very high risk		
Age						
15-24	76.8 [72.9-80.3]	14.7 [11.8-18.2]	6.0 [4.2-8.3]	2.5 [1.5-4.1]	100.0	616
25-39	46.5 [43.7-49.3]	33.0 [30.6-35.5]	11.0 [9.8-12.4]	9.5 [8.2-11.0]	100.0	220
40-54	39.6 [36.7-42.7]	34.4 [31.8-37.1]	14.6 [12.8-16.6]	11.3 [9.7-13.1]	100.0	1604
55-69	45.9 [40.5-51.4]	27.6 [24.1-31.5]	17.5 [14.3-21.3]	9.0 [7.2-11.2]	100.0	905
Sex						
Women	46.1 [43.8-48.3]	24.1 [22.2-26.0]	16.7 [15.2-18.2]	13.3 [11.9-14.7]	100.0	3238
Men	59.2 [56.8-61.5]	31.1 [29.0-33.4]	6.4 [5.4-7.6]	3.3 [2.5-4.3]	100.0	2107
Residence						
Rural	56.0 [53.9-58.2]	26.4 [24.6-28.1]	11.0 [9.9-12.1]	6.6 [5.8-7.7]	100.0	3359
Urban	48.7 [45.4-51.9]	29.9 [27.3-32.6]	11.6 [10.1-13.3]	9.8 [8.6-11.3]	100.0	1986
Region						
Central	53.7 [50.1-57.3]	28.1 [25.1-31.4]	11.4 [9.8-13.2]	6.8 [5.3-8.5]	100.0	1354
East	49.6 [46.3-52.8]	29.0 [26.4-31.7]	13.0 [11.3-14.9]	8.5 [7.1-10.1]	100.0	1347
West	54.0 [51.1-56.8]	27.1 [25.0-29.4]	10.4 [9.2-11.8]	8.5 [7.4-9.7]	100.0	2644
Education						
None/less than primary	48.0 [45.5-50.5]	29.0 [27.1-30.9]	13.7 [12.4-15.2]	9.3 [8.2-10.5]	100.0	3306
Primary to middle	61.1 [57.0-65.1]	23.6 [20.2-27.3]	8.3 [6.8-10.2]	6.9 [5.5-8.6]	100.0	1115
Secondary or more	54.3 [49.9-58.7]	30.5 [26.8-34.4]	9.0 [7.1-11.5]	6.2 [4.6-8.2]	100.0	922
Wealth quintile						
Lowest	64.3 [60.4-68.0]	22.1 [19.0-25.5]	9.2 [7.6-11.1]	4.4 [3.3-5.8]	100.0	1063
Second	59.3 [54.9-63.5]	22.8 [19.8-26.1]	11.3 [8.9-14.3]	6.6 [4.9-8.8]	100.0	1054
Middle	56.0 [51.7-60.2]	26.5 [23.2-30.2]	10.4 [8.6-12.6]	7.1 [5.4-9.2]	100.0	1118
Fourth	46.0 [41.5-50.6]	30.1 [26.4-34.1]	14.0 [11.4-17.2]	9.8 [8.0-12.1]	100.0	1084
Highest	42.6 [37.8-47.5]	35.5 [31.6-39.7]	10.9 [8.9-13.2]	11.0 [9.2-13.0]	100.0	1026
Age (old)						
18-39	58.0 [55.6-60.3]	26.0 [23.9-28.2]	9.5 [8.3-10.8]	6.6 [5.7-7.5]	100.0	2712
40-69	41.9 [39.4-44.4]	32.0 [39.4-44.4]	15.7 [14.1-17.4]	10.5 [9.2-11.9]	100.0	2509
Total 18-69	52.5 [50.7-54.3]	28.0 [26.5-29.6]	11.6 [10.6-12.6]	7.9 [7.2-8.7]	100.0	5221
Total 15-69	**53.0** [51.2-54.7]	**27.8** [26.4-29.3]	**11.2** [10.4-12.2]	**8.0** [7.2-8.8]	**100.0**	**5495**

** Disease risk for type 2 diabetes- hypertension and CVD. Normal risk: Normal BMI and normal WC; increased risk: normal BMI and high WC or overweight and normal WC; High risk: overweight and high WC or Obese and normal WC; very high risk: obese and high WC. ** Adults who are underweight were excluded. Source: NHLBI Obesity Education Initiative (2000)*

Raised Blood Pressure

Table 10.1 Percentage of respondents aged 15-69 years who had raised BP at the time of survey or on BP medications and who were aware of their diagnosis, on treatment or have their BP controlled or uncontrolled with medications by background characteristics

Table 10.2 Percentage of respondents aged 15-69 years who have ever had their blood pressure measured and their medications.

Table 10.3 Percentage of respondents aged 15-69 years who were ever told to have raised BP and who mentioned different sources of care for treatment/advice and for medications by background characteristics

Table 10.4 Percentage of respondents aged 15-69 years who have ever taken medication for raised BP and who mentioned different sources of medicines by background characteristics

Table 10.5 Percentage of respondents aged 15-69 years who have been ever told to have raised blood pressure and who sought care from a traditional healer or currently using a traditional/herbal remedy by background characteristics

Table 10.6 Percentage of respondents aged 15-69 years who have been ever advised to take drugs but not taking drugs in the past 2 weak and specified different reasons for not taking medication for raised BP by background characteristics

Table 10.1. Percentage of respondents aged 15-69 years who had raised BP at the time of survey or on BP medications and who were aware of their diagnosis, on treatment or have their BP controlled or uncontrolled with medications by background characteristics

Background characteristic	Prevalence	(N)	Among those with raised BP[1]				Number of respondents
			Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	
Age							
15-24	7.4 [5.2-10.6]	678	86.9 [72.7-94.3]	11.8 [4.8-26.0]	0.0	1.3 [0.2-8.5]	42
25-39	25.0 [22.7-27.6]	2297	62.8 [58.2-67.1]	24.9 [21.1-29.1]	7.4 [5.0-10.8]	5.0 [3.0-8.2]	513
40-54	44.1 [41.1-47.2]	1622	53.3 [47.8-58.8]	24.7 [20.7-29.1]	14.6 [11.6-18.1]	7.5 [5.4-10.1]	680
55-69	54.1 [49.2-59.0]	919	45.7 [40.3-51.2]	13.3 [10.1-17.3]	26.7 [22.4-31.5]	14.2 [10.7-18.6]	517
Sex							
Women	24.0 [22.1-26.0]	3377	60.7 [54.8-66.4]	19.9 [15.1-25.8]	12.1 [9.9-14.6]	7.3 [5.6-9.4]	944
Men	31.6 [29.2-34.1]	2139	69.0 [63.8-73.7]	20.0 [16.0-24.6]	6.8 [5.1-9.2]	4.2 [2.7-6.5]	808
Residence							
Rural	29.0 [26.9-31.2]	3464	67.1 [61.8-72.0]	19.5 [15.4-24.4]	8.0 [6.4-10.0]	5.4 [3.9-7.3]	1154
Urban	26.6 [24.1-29.3]	2052	61.9 [55.1-68.4]	20.7 [16.7-25.4]	11.3 [8.3-15.2]	6.1 [4.1-9.0]	598
Region							
Central	28.9 [25.5-32.4]	1389	59.8 [52.1-67.1]	23.1 [18.3-28.6]	11.5 [7.5-17.2]	5.6 [3.6-8.5]	467

East	32.9 [29.4-36.7]	1390	62.2 [52.4-71.1]	23.0 [15.8-32.4]	9.1 [6.1-13.4]	5.6 [3.5-9.0]	500
West	25.5 [23.3-27.8]	2737	69.6 [63.8-74.8]	16.6 [12.8-21.4]	8.1 [6.4-10.1]	5.7 [3.9-8.3]	785
Education							
none/less than primary	35.1 [32.8-37.5]	3375	60.9 [55.3-66.3]	20.1 [16.1-24.8]	12.1 [9.7-15.1]	6.8 [5.2-9.0]	1258
Primary/middle	19.6 [16.8-22.7]	1172	70.5 [58.8-79.9]	19.1 [11.9-29.2]	5.2 [3.5-7.8]	5.2 [2.6-10.2]	269
Secondary and higher	22.1 [19.4-25.0]	966	69.1 [60.6-76.4]	20.8 [14.7-28.5]	7.1 [4.3-11.6]	3.0 [1.4-6.5]	224
Wealth quintile							
Least	34.3 [30.8-37.9]	1111	68.0 [58.8-76.1]	18.0 [12.2-25.7]	8.8 [5.8-13.1]	5.1 [3.1-8.3]	431
Lower	26.6 [23.2-30.3]	1099	61.1 [51.0-70.3]	21.8 [14.1-32.0]	11.5 [7.0-18.2]	5.7 [3.2-9.8]	340
Middle	25.5 [22.4-29.0]	1140	72.9 [62.4-81.3]	16.3 [10.3-24.9]	5.9 [3.8-9.1]	4.9 [2.3-10.0]	347
Upper	28.2 [24.5-32.1]	1115	65.3 [55.8-73.8]	22.5 [15.5-31.6]	7.7 [5.1-11.5]	4.4 [2.8-7.0]	323
Wealthiest	26.7 [23.6-30.1]	1051	55.6 [48.4-62.5]	21.9 [16.8-27.9]	14.0 [10.6-18.3]	8.5 [5.7-12.6]	311
Total (15-69)	**28.0 [26.5-29.6]**	**5516**	**65.1 [61.2-68.7]**	**20.0 [16.9-23.4]**	**9.3 [7.9-11.0]**	**5.7 [4.5-7.2]**	**1752**

Table 10.2. Percentage of respondents aged 15-69 years who have ever had their blood pressure measured and percentage taking medications to control blood pressure by background characteristics

Background characteristic	Ever had blood pressure measured by doctor or health care provider	Ever told have raised blood pressure by doctor or health care provider	Number of respondents	Among respondents who have been told by a doctor or health care provider they have raised blood pressure, the percentage who were:				Number of respondents
				Told in the past 12 months have raised blood pressure	Prescribed medication to control blood pressure	ever taken medication to control blood pressure	currently taking medication to control blood pressure	
Age								
15-24	68.3 [63.3-72.9]	5.4 [3.6-7.9]	680	59.4 [37.9-77.8]	23.9 [11.9-42.2]	71.5 [33.5-92.6]	17.3 [2.8-60.2]	36
25-39	88.4 [86.3-90.3]	14.4 [12.5-16.6]	2,317	64.9 [58.0-71.2]	39.5 [33.2-46.2]	77.6 [64.3-86.9]	55.3 [41.0-68.8]	326
40-54	88.7 [86.5-90.6]	26.2 [23.0-29.7]	1,641	63.2 [55.6-70.2]	63.7 [57.3-69.7]	87.9 [81.7-92.2]	59.3 [49.6-68.3]	406
55-69	89.8 [87.2-91.9]	34.0 [30.2-37.9]	937	73.3 [66.6-79.1]	83.1 [78.0-87.2]	97.5 [92.8-99.1]	76.7 [68.0-83.7]	327
Sex								
Women	87.2 [85.1-88.9]	18.3 [16.7-19.9]	3,416	61.6 [53.4-69.2]	50.1 [43.3-57.0]	87.1 [71.4-94.8]	42.0 [35.1-49.3]	682
Men	79.9 [77.4-82.1]	15.8 [13.8-17.9]	2,159	66.3 [55.1-75.9]	42.1 [34.6-49.9]	74.8 [55.5-87.6]	54.6 [37.4-70.7]	413
Residence								
Rural	83.7 [81.4-85.7]	16.1 [14.4-18.0]	3,495	62.0 [54.4-69.0]	51.1 [44.3-57.8]	85.1 [74.6-91.8]	43.6 [33.0-54.9]	674
Urban	82.8 [80.0-85.2]	18.1 [15.9-20.5]	2,080	66.0 [54.9-75.6]	41.0 [32.8-49.7]	76.3 [56.0-89.0]	53.7 [35.7-70.8]	421
Region								
Central	86.5 [82.5-89.8]	19.8 [17.4-22.5]	1,407	50.3 [40.6-60.0]	52.3 [41.5-62.8]	83.0 [58.0-94.6]	40.0 [25.0-57.2]	323
East	84.2 [81.3-86.8]	19.1 [15.6-23.1]	1,395	76.1 [68.9-82.1]	44.3 [35.3-53.7]	82.1 [57.4-94.0]	52.2 [36.9-67.0]	297
West	81.1 [78.7-83.3]	14.4 [12.8-16.3]	2,773	67.9 [56.4-77.6]	42.3 [34.5-50.5]	78.0 [63.9-87.6]	54.5 [35.3-72.4]	475
Education								
None/less than	86.7 [84.7-88.5]	20.2 [18.2-22.3]	3,415	65.7 [60.5-70.6]	58.8 [52.6-64.6]	86.1 [74.8-92.9]	57.6 [45.0-69.4]	753

Primary to middle	73.8 [69.3-77.8]	13.2 [11.0-15.8]	1,184	59.8 [42.0-75.3]	33.6 [22.3-47.2]	76.5 [47.8-92.1]	47.5 [27.0-68.9]	186
Secondary or more	87.4 [83.1-90.7]	14.2 [11.7-17.1]	973	66.6 [53.8-77.4]	37.3 [27.1-48.8]	74.7 [49.7-89.8]	32.1 [16.8-52.6]	155
Wealth quintile								
Lowest	79.3 [75.8-82.5]	16.0 [12.8-19.6]	1,117	76.1 [65.7-84.1]	55.9 [44.1-67.0]	75.2 [43.3-92.3]	55.8 [41.6-69.1]	214
Second	83.0 [79.4-86.1]	16.6 [13.4-20.4]	1,107	62.0 [48.2-74.1]	44.9 [33.8-56.6]	89.9 [79.2-95.4]	66.0 [44.8-82.3]	210
Middle	83.8 [79.9-87.0]	17.0 [14.0-20.6]	1,153	60.7 [43.3-75.8]	47.7 [30.8-65.3]	79.1 [51.9-93.0]	39.8 [23.0-59.3]	225
Fourth	81.9 [77.8-85.4]	15.3 [12.9-18.0]	1,127	65.6 [55.6-74.3]	50.1 [40.1-60.1]	87.2 [73.7-94.3]	38.2 [23.1-56.0]	212
Highest	87.3 [83.7-90.3]	19.3 [16.8-22.2]	1,071	62.4 [49.1-74.0]	38.1 [28.6-48.7]	74.7 [51.4-89.2]	53.9 [31.7-74.7]	234
Age(previous)								
18-39	84.1 [81.6-86.3]	10.7 [9.3-12.2]	2872	60.4 [50.8-69.2]	37.7 [29.7-46.4]	75.2 [57.6-87.1]	40.1 [27.1-54.7]	2562
40-69	89.1 [87.4-90.5]	29.0 [26.5-31.6]	2578	66.8 [61.2-72.0]	70.6 [65.9-74.9]	91.3 [87.2-94.2]	65.5 [57.4-72.8]	2316
Total (18-69)	85.8 [84.0-87.3]	16.8 [15.5-18.3]	5450	62.5 [55.9-68.7]	48.8 [42.9-54.7]	80.6 [68.5-88.8]	48.7 [38.9-58.5]	4878
Total (15-69)	**83.3 [81.6,84.8]**	**16.9 [15.6-18.4]**	**5579**	**64.1 [57.4-70.3]**	**45.9 [40.8-51.0]**	**80.6 [68.5-88.8]**	**48.7 [38.9-58.5]**	**1095**

Table 10.3. Percentage of respondents aged 15-69 years who were ever told to have raised BP and who mentioned different sources of care for treatment/ advise and for medication, by background characteristics

Background characteristic	Regional Referral hospital	Hospital	BHU-1	BHU-II/ sub post	Outreach/ Mobile Clinic	Private	(N)
Age							
15-24	24.9 [11.1-46.7]	55.5 [19.5-86.6]	2.1 [0.3-15.1]	10.5 [4.2-23.7]	12.8 [4.4-31.7]	2.7 [0.4-17.0]	36
25-39	30.0 [20.6-41.4]	34.4 [24.1-46.4]	13.3 [8.1-20.9]	18.1 [12.8-25.0]	3.0 [1.6-5.5]	2.6 [0.7-9.7]	325
40-54	24.7 [17.1-34.3]	45.2 [36.5-54.3]	11.2 [6.7-18.1]	25.6 [18.5-34.3]	1.5 [0.6-3.5]	2.2 [0.8-5.9]	405
55-69	24.9 [18.9-32.0]	52.4 [43.6-61.1]	16.5 [9.9-26.3]	35.7 [27.3-45.2]	3.1 [1.7-5.7]	1.4 [0.5-3.6]	322
Sex							
Women	28.5 [20.8-37.6]	48.9 [33.2-64.9]	8.2 [5.4-12.2]	25.9 [19.2-34.0]	4.2 [2.1-8.3]	2.1 [0.5-8.5]	677
Men	25.5 [16.7-36.8]	40.6 [24.7-58.7]	12.1 [7.0-20.0]	14.4 [10.5-19.4]	6.2 [2.3-15.7]	2.7 [0.9-7.4]	411
Residence							
Rural	17.1 [8.4-31.9]	42.9 [29.4-57.6]	7.8 [4.7-12.7]	38.0 [28.4-48.7]	7.8 [3.9-15.1]	2.2 [0.6-8.1]	670
Urban	36.0 [25.5-48.0]	46.1 [28.7-64.6]	12.5 [6.5-22.9]	2.8 [1.3-5.7]	2.9 [0.7-11.7]	2.5 [0.9-7.2]	418
Region							
Central	12.9 [7.5-21.2]	52.3 [32.8-71.1]	13.5 [5.6-29.1]	27.7 [17.1-41.5]	2.3 [1.0-5.2]	0.6 [0.1-4.4]	323
East	25.9 [8.9-55.5]	28.9 [14.8-48.7]	16.4 [7.9-31.0]	32.8 [19.6-49.4]	12.4 [4.7-28.9]	0.2 [0.0-0.9]	291
West	36.8 [25.8-49.4]	44.5 [26.5-64.1]	5.3 [3.1-9.0]	8.7 [5.7-13.0]	4.1 [1.4-11.7]	4.6 [1.8-10.8]	474
Education							
none/less than primary	24.1 [15.2-36.0]	45.6 [35.7-55.9]	13.2 [7.8-21.4]	31.6 [23.3-41.1]	6.0 [2.5-13.6]	0.4 [0.1-1.1]	746
primary/middle	25.5 [13.7-42.3]	50.5 [29.3-71.5]	8.5 [5.0-14.3]	11.3 [5.6-21.7]	3.1 [0.9-10.4]	4.0 [1.2-13.1]	186
Secondary and higher	34.1 [24.3-45.5]	34.7 [17.2-57.6]	6.9 [2.5-17.9]	8.9 [4.4-17.0]	6.9 [1.9-22.0]	4.0 [1.5-10.1]	155
Wealth quintile							
Least	16.9 [4.1-49.2]	40.2 [27.3-54.6]	7.7 [4.0-14.3]	37.5 [24.4-52.7]	0.2 [0.1-0.3]	0.8 [0.1-4.2]	211
Lower	12.6 [6.0-24.6]	39.1 [20.8-61.0]	17.9 [8.9-32.7]	34.0 [21.5-49.0]	0.1 [0.0-0.3]	4.1 [0.6-22.3]	208
Middle	15.8 [8.5-27.4]	49.3 [26.6-72.3]	6.0 [3.1-11.1]	24.2 [14.5-37.6]	0.0 [0.0-0.0]	0.1 [0.0-0.6]	225
Upper	29.8 [21.3-39.9]	58.5 [39.5-75.3]	16.0 [9.5-25.7]	10.4 [5.2-19.5]	0.0 [0.0-0.2]	2.5 [0.6-9.1]	210
Wealthiest	47.8 [35.8-60.1]	32.6 [18.6-50.5]	6.8 [2.9-15.4]	5.2 [2.6-10.3]	0.0 [0.0-0.1]	3.8 [1.1-12.5]	234
Total (15-69)	**26.9 [19.9-35.2]**	**44.5 [33.0-56.7]**	**10.3 [6.6-15.7]**	**19.8 [15.4-25.2]**	**5.3 [2.7-10.1]**	**2.4 [1.0-5.5]**	**1,088**

Table 10.4. Percentage of respondents aged 15-69 years who have ever taken medication for raised BP and who mentioned different sources of medicines by background characteristics

Background characteristic	Regional Referral hospital	Hospital	BHU-1	BHU-II/ sub post	Outreach/ Mobile Clinic	Private	Medical shops/ pharmacies	(N)
Age								
15-24	23.1* [4.9-63.7]	38.2* [13.2-71.6]	0*	0.3* [0.0-1.8]	0*	0*	0*	9*
25-39	24.6 [14.3-39.0]	34.6 [24.3-46.6]	31.5 [18.4-48.4]	0.8 [0.5-1.5]	0.5 [0.1-3.2]	0.1 [0.0-0.7]	0.0	111
40-54	23.3 [15.4-33.5]	49.8 [40.2-59.4]	14.5 [7.1-27.4]	4.1 [2.6-6.3]	2.9 [1.1-7.0]	0.7 [0.1-4.6]	0.3 [0.1-0.8]	226
55-69	22.5 [16.3-30.2]	52.7 [43.8-61.4]	16.7 [9.3-28.2]	9.0 [6.7-12.1]	3.0 [1.5-5.7]	1.0 [0.3-3.9]	0.0	267
Sex								
Women	19.4 [14.4-25.6]	50.4 [34.7-66.0]	9.4 [5.8-15.0]	3.0 [2.1-4.1]	1.7 [0.9-3.4]	0.2 [0.1-0.6]	0.1 [0.0-0.3]	400
Men	27.5 [13.3-48.4]	32.7 [21.0-47.1]	25.0 [13.8-40.9]	1.9 [1.3-2.6]	0.7 [0.2-2.1]	0.4 [0.1-1.8]	0.0	213
Residence								
Rural	13.0 [7.1-22.6]	43.3 [30.0-57.7]	13.3 [6.7-24.7]	3.9 [2.9-5.1]	2.3 [1.2-4.3]	0.4 [0.1-1.7]	0.0	405
Urban	34.5 [18.7-54.6]	38.7 [28.1-50.6]	22.0 [9.7-42.7]	0.3 [0.1-0.7]	0.0 [0.0-0.1]	0.2 [0.0-1.0]	0.1 [0.0-0.4]	208
Region								
Central	11.8 [6.1-21.6]	52.8 [34.4-70.4]	17.4 [4.2-49.8]	3.5 [2.0-6.0]	1.1 [0.4-3.0]	0.0	0.0	190
East	16.6 [5.2-42.1]	29.7 [15.3-49.7]	29.2 [16.1-46.9]	3.8 [2.4-5.9]	2.4 [1.0-6.1]	0.2 [0.0-1.4]	0.1 [0.0-0.6]	160
West	36.7 [20.0-57.5]	35.8 [25.8-47.3]	13.1 [5.6-27.7]	1.2 [0.8-1.9]	0.7 [0.2-2.5]	0.6 [0.2-2.1]	0.1 [0.0-0.3]	263
Education								
none/less than primary	16.5 [9.9-26.1]	47.5 [38.2-57.0]	22.2 [10.1-42.0]	4.0 [2.9-5.5]	2.5 [1.3-4.7]	0.4 [0.1-1.9]	0.0 [0.0-0.2]	471
primary/middle	9.7 [4.4-20.2]	35.8 [17.1-60.1]	18.2 [8.0-36.3]	1.1 [0.5-2.2]	0.0	0.4 [0.1-1.7]	0.1 [0.0-0.6]	85
Secondary and higher	55.4 [32.9-75.9]	34.6 [17.1-57.7]	8.1 [2.1-26.0]	0.2 [0.1-0.6]	0.0	0.0	0.0	56
Wealth quintile								
Least	4.3 [1.5-11.4]	43.0 [29.7-57.4]	18.7 [9.3-34.1]	4.8 [3.5-6.5]	7.9 [3.7-16.0]	1.5 [0.2-9.5]	0.0	143
Lower	7.1 [2.7-17.2]	40.1 [21.2-62.5]	37.0 [14.4-67.3]	3.8 [2.0-6.9]	1.8 [0.7-5.0]	0.2 [0.0-1.6]	0.0	124
Middle	8.9 [3.9-18.8]	36.5 [17.9-60.3]	14.6 [5.7-32.7]	2.8 [1.8-4.4]	0.2 [0.0-0.8]	0.1 [0.0-0.9]	0.0	128
Upper	26.4 [14.7-42.9]	61.6 [42.6-77.7]	14.1 [5.8-30.5]	0.6 [0.3-1.3]	0.0	0.0	0.1 [0.0-0.6]	113
Wealthiest	61.2 [41.3-77.9]	30.2 [17.3-47.4]	10.6 [3.8-26.6]	0.6 [0.3-1.3]	0.0	0.4 [0.1-2.1]	0.2 [0.0-0.7]	105
Total (15-69)	**23.7 [14.9-35.4]**	**41.0 [31.4-51.4]**	**17.7 [10.7-27.7]**	**2.4 [1.8-3.2]**	**1.2 [0.6-2.2]**	**0.3 [0.1-0.9]**	**0.1 [0.0-0.2]**	**613**

**interpret data with caution due to small sample size*

Table 10.5. Percentage of respondents aged 15-69 years who have been ever told to have raised blood pressure and who sought care from a traditional healer or currently using a traditional/herbal remedy by background characteristics

Background characteristic	For raised BP		
	ever seen a local healer	currently taking a herbal remedy	N
Age			
15-24	1.8 [0.2-12.4]	0.0	36
25-39	1.0 [0.4-2.7]	5.6 [2.5-11.8]	330
40-54	1.8 [0.9-3.8]	7.1 [4.6-10.8]	409
55-69	1.1 [0.4-2.8]	4.0 [2.0-7.8]	330
Sex			
Women	1.9 [0.6-5.9]	2.8 [1.7-4.5]	688
Men	0.9 [0.4-2.1]	5.5 [3.0-10.0]	417
Residence			
Rural	0.4 [0.1-0.9]	2.9 [1.8-4.7]	679
Urban	2.4 [1.0-5.6]	5.4 [2.9-9.9]	426
Region			
Central	2.3 [0.6-8.9]	5.7 [2.2-13.9]	323
East	0.2 [0.0-1.2]	2.8 [1.4-5.5]	297
West	1.3 [0.6-2.7]	3.8 [2.4-6.0]	485
Education			
none/less than primary	0.9 [0.4-2.2]	6.0 [3.1-11.2]	762
primary/middle	2.9 [1.0-8.3]	3.1 [1.7-5.7]	187
Secondary and higher	0.4 [0.1-2.5]	2.4 [0.9-5.8]	155
Wealth quintile			
Least	0.0	0.9 [0.3-2.8]	217
Lower	0.5 [0.2-1.7]	9.3 [3.3-23.5]	212
Middle	0.7 [0.1-4.1]	2.4 [1.0-5.6]	226
Upper	5.1 [1.6-15.0]	3.8 [1.8-7.8]	213
Wealthiest	1.0 [0.3-2.9]	4.2 [2.3-7.5]	237
Total (15-69)	**1.4 [0.6-3.0]**	**4.2 [2.7-6.5]**	**1105**

Table 10.6. Percentage of respondents aged 15-69 years who have been ever advised to take drugs but not taking drugs in the past 2 week and specified different reasons for not taking medication for raised BP by background characteristics

Background characteristic	don't think drug is necessary/BP got normal	got side effects	Fear of side effects/life time dependence	too expensive/ not available	Medicines not advised by doctor	(N)
Age						
15-24	57.0* [23.8-84.9]	10.9* [1.8-45.2]	0*	0*	0*	10*
25-39	58.1 [42.6-72.1]	1.8 [0.6-5.2]	11.8 [5.4-24.0]	3.3 [0.6-15.7]	17.5 [8.4-32.8]	83
40-54	57.0 [46.4-67.0]	4.7 [1.9-11.2]	22.4 [14.0-34.0]	0.0	5.7 [1.7-17.3]	108
55-69	55.8 [40.6-69.9]	4.6 [1.1-17.8]	7.9 [3.2-18.1]	0.9 [0.2-4.0]	1.0 [0.1-6.9]	64
Sex						
Women	60.9 [47.5-72.9]	8.3 [2.2-26.8]	9.1 [5.7-14.4]	0.5 [0.1-1.9]	9.6 [4.0-21.3]	163
Men	54.0 [36.8-70.3]	2.4 [1.0-5.9]	11.7 [6.7-19.7]	2.2 [0.3-12.7]	7.2 [2.7-17.5]	102
Residence						
Rural	57.0 [45.1-68.2]	3.2 [1.4-6.9]	12.1 [7.1-20.0]	0.4 [0.1-1.7]	9.9 [4.1-22.1]	174
Urban	57.6 [38.0-75.0]	7.5 [1.8-26.0]	8.7 [4.3-16.8]	2.6 [0.4-13.7]	6.5 [2.1-18.2]	91
Region						
Central	50.6 [35.5-65.5]	0.6 [0.1-4.7]	5.7 [2.1-14.3]	3.1 [0.5-17.1]	12.3 [4.4-29.8]	71
East	65.7 [45.4-81.5]	4.2 [1.6-10.9]	12.5 [4.6-29.7]	0.7 [0.1-5.0]	0.8 [0.1-5.8]	69
West	59.3 [44.7-72.4]	9.9 [3.0-28.1]	13.9 [7.7-23.9]	0.3 [0.1-1.2]	8.3 [3.4-18.9]	125
Education						
none/less than primary	61.3 [50.6-70.9]	2.7 [1.1-6.7]	12.4 [7.7-19.2]	0.5 [0.1-1.8]	10.1 [4.7-20.2]	189
primary/middle	43.6 [25.2-63.9]	3.8 [1.3-10.6]	6.9 [2.2-19.6]	0.0	7.0 [1.8-24.1]	40
Secondary and higher	63.3 [40.4-81.5]	11.3 [2.1-43.2]	10.5 [3.5-27.4]	4.6 [0.7-23.5]	6.3 [1.6-22.2]	36
Wealth quintile						
Least	59.8 [35.1-80.4]	0.0	5.5 [1.9-14.9]	1.3 [0.3-6.5]	13.2 [4.2-34.8]	61
Lower	50.2 [38.6-61.8]	4.1 [1.3-12.3]	11.8 [6.1-21.5]	0.0	12.0 [3.8-32.3]	64
Middle	64.1 [42.3-81.3]	1.6 [0.4-6.8]	8.0 [3.3-18.1]	0.0	3.8 [0.5-21.7]	60
Upper	37.7 [20.5-58.5]	5.1 [1.5-15.9]	19.5 [8.8-37.9]	6.4 [1.2-28.1]	15.8 [5.3-38.5]	49
Wealthiest	68.3* [42.2-86.4]	14.9* [3.2-48.5]	8.6* [3.0-22.3]	0*	2.4* [0.3-15.5]	31*
Total (15-69)	**57.3 [45.7-68.1]**	**5.2 [1.9-13.5]**	**10.5 [7.0-15.5]**	**1.4 [0.3-6.3]**	**8.3**	**265**

**interpret data with caution due to small sample size*

Raised Blood Sugar

Table 11.1. Percentage of respondents aged 15-69 years with their blood sugar level and medication status by background characteristics.

Background characteristic	Prevalence of raised Blood sugar [1]	(N)	Among those with raised Blood sugar levels[1]				
			Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Age							
15-24	0.2 [0.1-0.7]	661	60.0 [40.7-76.7]	0.0	0.0	40.0 [23.3-59.3]	3
25-39	1.0 [0.4-2.1]	2235	42.2 [19.7-68.4]	8.5 [1.9-31.0]	13.7 [3.6-40.0]	35.7 [18.5-57.6]	25
40-54	4.2 [2.9-5.9]	1586	30.6 [18.9-45.4]	12.4 [6.0-24.0]	28.8 [17.3-43.8]	28.3 [17.6-42.1]	75
55-69	5.1 [3.5-7.4]	917	27.9 [18.2-40.2]	1.7 [0.4-6.5]	15.9 [9.1-26.5]	54.5 [40.8-67.5]	74
Sex							
Women	2.1 [1.6-2.8]	3314	25.5 [14.7-40.4]	6.0 [2.1-15.7]	12.7 [7.0-21.8]	55.9 [41.8-69.0]	110
Men	1.8 [1.2-2.8]	2085	58.0 [38.2-75.5]	6.5 [1.8-21.3]	14.5 [6.2-30.3]	21.1 [10.4-37.9]	67
Residence							
Rural	1.6 [1.1-2.4]	3396	52.0 [41.3-62.7]	8.0 [3.3-17.9]	8.7 [4.3-17.0]	31.3 [20.5-44.5]	94
Urban	2.4 [1.6-3.6]	2003	33.9 [15.5-58.9]	4.7 [0.8-22.6]	18.2 [8.2-35.5]	43.2 [28.9-58.8]	83
Region							
Central	1.9 [1.2-3.1]	1373	45.2 [24.7-67.4]	8.3 [2.1-27.2]	17.7 [7.4-36.7]	28.9 [14.9-48.5]	48

East	2.4 [1.5-4.0]	1366	46.7 [36.9-56.8]	4.9 [1.1-18.8]	8.7 [4.2-17.2]	39.7 [27.8-53.0]	48
West	1.8 [1.1-2.8]	2660	38.1 [17.5-64.2]	6.7 [1.6-24.9]	16.4 [5.9-38.0]	38.7 [24.9-54.6]	81
Education							
none/less than primary	2.4 [1.7-3.5]	3321	45.2 [29.9-61.5]	5.8 [2.1-15.4]	10.6 [5.9-18.2]	38.4 [24.5-54.4]	125
primary/middle	1.5 [0.9-2.3]	1141	21.2 [7.0-49.3]	1.3 [0.3-4.7]	10.8 [4.8-22.5]	66.7 [42.8-84.2]	33
Secondary and higher	1.5 [0.8-2.6]	934	57.4 [37.5-75.1]	11.6 [3.0-35.3]	21.6 [8.2-45.9]	9.5 [2.0-35.0]	19
Wealth quintile							
Least	1.4 [0.7-2.7]	1077	50.1 [22.1-78.1]	15.9 [2.5-58.7]	2.1 [0.4-10.4]	31.8 [10.5-65.0]	6
Lower	1.0 [0.4-2.2]	1080	80.3 [66.9-89.2]	0.0	6.0 [1.3-23.2]	13.7 [7.3-24.1]	15
Middle	1.9 [1.3-2.8]	1121	18.8 [5.5-47.8]	3.4 [1.3-8.9]	6.1 [2.8-12.6]	71.8 [46.3-88.2]	13
Upper	2.1 [1.4-3.1]	1097	18.7 [8.2-37.0]	12.4 [4.1-31.8]	20.0 [10.0-36.0]	49.0 [31.4-66.8]	23
Wealthiest	3.2 [1.8-5.5]	1024	44.9 [17.5-75.7]	7.5 [1.0-39.0]	27.3 [10.3-55.2]	20.3 [8.5-41.2]	13
Age (old)							
18-39	0.6 [0.3-1.3]	2774	65.3 [48.3-79.2]	5.1 [1.2-19.7]	8.2 [2.3-25.6]	21.4 [11.6-36.1]	27
40-69	4.5 [3.5-5.8]	2503	29.6 [20.7-40.5]	8.6 [4.4-16.2]	24.2 [16.0-34.8]	37.6 [28.6-47.5]	149
Total 18-69	1.9	5277	53.3 [42.5-63.8]	6.3 [2.7-14.0]	13.6 [7.7-22.9]	26.9 [19.2-36.2]	176
Total 15-69	**1.9 [1.5-2.6]**	**5399**	**42.7 [30.9-55.3]**	**6.3 [2.7-14.0]**	**13.6 [7.7-22.9]**	**37.5 [28.1-47.9]**	**177**

Table 11.2. Percentage of respondents aged 15-69 years whose blood sugar were measured, self-reported and medication status by background characteristics

Background characteristic	Ever had blood sugar measured by doctor or health care provider	Ever told have raised blood sugar by doctor or health care provider	Number of respondents	Among respondents who have been told by a doctor or health care provider they have raised blood sugar, the percentage who were:				
				Told in the past 12 months have raised blood sugar	Prescribed medication to control blood sugar	ever taken medication to control blood sugar	currently taking medication to control blood sugar	Number of respondents
Age								
15-24	13.5 [10.6-17.0]	1.0 [0.5-2.1]	680	31.5* [14.7-55.2]	5.9* [0.8-33.7]	5.9* [0.8-33.7]	0*	8*
25-39	36.3 [33.6-39.1]	2.2 [1.5-3.1]	2,317	68.2 [50.8-81.7]	37.8 [22.6-55.8]	35.8 [20.9-54.0]	30.3 [17.3-47.3]	46
40-54	46.8 [43.4-50.2]	5.7 [4.4-7.3]	1,641	68.9 [58.7-77.6]	64.1 [51.8-74.7]	57.0 [45.5-67.9]	49.1 [38.6-59.7]	87
55-69	50.2 [45.3-55.1]	8.1 [6.2-10.5]	937	79.1 [66.2-88.0]	79.0 [64.9-88.4]	75.6 [61.5-85.8]	71.8 [57.8-82.6]	79
Sex								
Women	39.8 [37.3-42.3]	3.3 [2.7-4.0]	3,416	65.6 [51.7-77.3]	41.2 [30.5-52.7]	40.5 [29.9-52.1]	34.9 [26.7-44.0]	134
Men	29.2 [26.8-31.8]	3.3 [2.5-4.3]	2,159	54.9 [44.3-65.0]	38.9 [28.2-50.7]	34.3 [24.1-46.2]	28.2 [19.4-38.9]	86
Residence								
Rural	33.0 [30.2-35.9]	2.6 [2.1-3.3]	3,495	57.6 [41.9-71.9]	49.8 [35.3-64.4]	47.8 [33.6-62.3]	38.6 [26.3-52.6]	119
Urban	35.9 [33.0-39.0]	4.3 [3.3-5.5]	2,080	61.5 [47.4-73.9]	33.5 [24.0-44.7]	30.4 [21.2-41.6]	26.6 [18.2-37.0]	101
Region								
Central	38.5 [33.6-43.7]	3.2 [2.3-4.4]	1,407	40.3 [28.0-53.9]	47.2 [26.4-69.0]	43.6 [23.0-66.6]	31.8 [15.9-53.4]	63
East	30.8 [26.6-35.4]	2.7 [1.9-3.7]	1,395	79.3 [53.5-92.8]	44.2 [25.2-65.0]	44.1 [25.2-65.0]	41.5 [23.1-62.6]	47
West	33.1 [30.7-35.5]	3.7 [2.9-4.7]	2,773	61.7 [52.3-70.4]	36.5 [27.6-46.5]	33.5 [24.9-43.4]	28.7 [20.6-38.4]	110

Education								
none/less than primary	37.6 [34.8-40.4]	3.6 [3.0-4.3]	3,415	63.3 [51.8-73.5]	61.2 [49.4-71.9]	59.0 [47.4-69.7]	49.1 [37.8-60.5]	142
primary/middle	25.1 [22.3-28.1]	2.5 [1.8-3.6]	1,184	50.5 [31.6-69.3]	33.0 [19.5-50.0]	28.5 [16.3-44.9]	26.4 [14.8-42.6]	46
Secondary and higher	37.9 [34.0-41.9]	3.6 [2.4-5.5]	973	62.4* [40.5-80.1]	22.1* [11.0-39.6]	20.0* [9.3-37.7]	15.8* [6.9-32.1]	32*
Wealth quintile								
Least	24.4 [20.9-28.4]	2.0 [1.3-3.1]	1,117	65.2* [36.1-86.2]	55.8* [26.5-81.5]	52.9* [24.6-79.5]	27.5* [10.3-55.7]	27*
Lower	30.2 [26.2-34.6]	1.6 [1.0-2.4]	1,107	85.4* [66.7-94.5]	64.4* [40.7-82.6]	59.8* [37.4-78.7]	54.7* [30.1-77.2]	28*
Middle	33.6 [30.0-37.4]	2.8 [2.0-4.0]	1,153	51.1 [29.8-72.1]	45.6 [27.1-65.5]	41.5 [22.7-63.1]	38.6 [20.5-60.4]	42
Upper	35.8 [32.4-39.2]	3.7 [2.6-5.3]	1,127	60.5 [45.7-73.7]	59.3 [42.3-74.4]	57.0 [39.8-72.6]	51.3 [35.0-67.3]	56
Wealthiest	44.1 [40.2-48.0]	6.0 [4.4-8.1]	1,071	59.1 [44.9-72.0]	26.4 [17.0-38.6]	24.4 [15.3-36.6]	20.8 [12.6-32.2]	67
Age(previous)								
18-39	28.4 [26.0-31.0]	1.7 [1.2-2.3]	2,872	53.5 [41.6-65.1]	25.0 [15.7-37.3]	23.8 [14.6-36.2]	18.1 [10.7-29.2]	53
40-69	48.0 [44.8-51.2]	6.5 [5.4-7.9]	2,578	72.6 [65.0-79.0]	69.4 [15.7-37.3]	63.6 [55.0-71.5]	57.2 [48.8-65.2]	166
Total (18-69)	35.0 [33.0-37.1]	3.3 [2.8-3.9]	5,450	59.9 [51.7-67.6]	40.0 [32.6-47.8]	37.2 [30.0-45.2]	31.3 [25.1-38.2]	219
Total (15-69)	**34.2 [32.3-36.2]**	**3.3 [2.8-3.9]**	**5,575**	**59.9 [51.7-67.6]**	**40.0 [32.6-47.8]**	**37.2 [30.0-45.2]**	**31.3 [25.1-38.2]**	**220**

Table 11.3. Percentage of respondents aged 15-69 years who were ever told to have raised blood sugar and who mentioned different sources of care for treatment/advise and for medication by background characteristics

Background characteristic	Regional Referral hospital	Hospital	BHU-1	BHU-II/ sub post	Outreach/ Mobile Clinic	Private	(N)
Age							
15-24	45.4* [26.4-65.8]	0*	9.3* [1.5-41.6]	15.3* [3.6-46.4]	0*	0*	8*
25-39	39.7 [25.3-56.1]	60.0	9.4 [3.3-24.1]	6.4 [2.6-15.3]	0.0	0.0	46
40-54	28.8 [19.3-40.7]	67.9	8.3 [3.2-19.6]	7.7 [3.6-15.6]	0.6 [0.1-4.0]	0.7 [0.1-4.6]	87
55-69	34.3 [21.1-50.6]	58.8	13.3 [4.2-34.7]	18.3 [9.8-31.5]	0.0	0.0	77
Sex							
Women	21.5 [12.8-33.8]	41.1	13.2 [5.7-27.7]	20.1 [9.9-36.6]	0.0	0.0	133
Men	53.1 [37.9-67.8]	67.0	6.4 [2.2-17.1]	1.9 [0.7-5.0]	0.2 [0.0-1.7]	0.3 [0.0-1.9]	85
Residence							
Rural	25.5 [12.8-44.4]	65.5	9.2 [3.4-22.4]	18.3 [10.2-30.6]	0.0	0.0	119
Urban	46.5 [31.4-62.3]	42.1	9.9 [4.0-22.6]	5.4 [1.1-23.2]	0.2 [0.0-1.5]	0.3 [0.0-1.7]	99
Region							
Central	17.3 [6.4-38.8]	68.9	9.6 [2.1-33.9]	24.3 [8.6-52.0]	0.0	0.0	63
East	9.6 [3.9-21.7]	32.4	46.1 [22.8-71.3]	18.4 [7.9-37.1]	0.0	0.0	46
West	52.1 [38.0-65.9]	52.9	0.8 [0.3-1.8]	4.0 [1.2-12.7]	0.2 [0.0-1.4]	0.3 [0.0-1.6]	109
Education							
none/less than primary	21.3 [13.7-31.7]	64.2	13.6 [6.3-26.8]	15.4 [9.3-24.5]	0.0	0.0	140
primary/middle	41.9 [21.1-66.1]	66.6	5.2 [1.5-16.6]	6.6 [1.6-23.4]	0.5 [0.1-3.8]	0.0	46
Secondary and higher	53.5* [37.1-69.2]	27.7*	8.3* [1.9-29.7]	7.8* [1.2-37.5]	0*	0.4* [0.1-2.8]	32*
Wealth quintile							
Least	6.2* [1.6-21.3]	73.2*	13.2* [2.7-45.0]	43.1* [17.6-72.9]	0*	0*	27*
Lower	33.1* [16.1-56.1]	74.6*	0*	20.5* [7.6-44.8]	0*	0*	27*
Middle	10.0 [3.1-27.8]	50.5	25.6 [9.0-54.3]	6.9 [2.9-15.6]	0.0	0.0	42
Upper	23.9 [13.9-38.1]	64.6	16.8 [5.4-41.8]	4.6 [1.0-18.4]	0.0	0.0	56
Wealthiest	59.3 [45.0-72.2]	38.2	2.0 [0.6-6.9]	6.5 [1.3-26.8]	0.2 [0.0-1.8]	0.3 [0.0-2.0]	66
Age (old)							
18-39	38.8 [25.1-54.5]	45.3	9.4 [3.7-21.7]	10.0 [3.8-23.6]	0.0	0.0	53
40-69	30.8 [22.2-40.9]	64.7	10.1 [4.0-23.3]	11.4 [6.8-18.6]	0.4 [0.1-2.6]	0.5 [0.1-3.0]	164
Total 18-69	36.1 [26.3-47.2]	52.9	9.6 [4.8-18.1]	10.5 [5.6-18.9]	0.1 [0.0-0.9]	0.2 [0.0-1.0]	217
Total (15-69)	**38.2 [29.0-48.4]**	**52.9**	**9.6 [4.8-18.1]**	**10.5 [5.6-18.9]**	**0.1 [0.0-0.9]**	**0.2 [0.0-1.0]**	**217**

**interpret with caution due to small sample size*

Table 11.4. Percentage of respondents aged 15-69 years who have ever taken medication for raised blood sugar and who mentioned different sources of medications by background characteristics

Background characteristic	Regional Referral hospital	Hospital	BHU-1	BHU-II/ sub post	Outreach/ Mobile Clinic	Private	Medical shops/ pharmacies	(N)
Age								
15-24	100*	0*	0*	0*	0*	0*	0*	1*
25-39	24.5* [8.7-52.4]	60.0* [30.5-83.6]	19.1* [4.8-52.7]	0*	0*	0*	0*	15*
40-54	25.1 [15.1-38.6]	67.0 [51.8-79.3]	16.4 [7.3-33.0]	0.1 [0.0-0.3]	0.0	1.3 [0.2-8.1]	0.0	52
55-69	32.6 [19.6-49.1]	61.1 [45.6-74.7]	19.4 [7.0-43.5]	0.4 [0.2-1.0]	0.0	0.0	0.0	57
Sex								
Women	50.6 [38.6-62.6]	41.3 [28.7-55.1]	12.8 [5.3-27.8]	0.1 [0.1-0.3]	0.0	0.0	0.0	77
Men	20.6 [7.2-46.5]	67.0 [37.4-87.4]	19.0 [4.9-51.5]	0.0 [0.0-0.2]	0.0	0.7 [0.1-4.6]	0.0	48
Residence								
Rural	16.6 [7.2-33.8]	65.7 [39.7-84.8]	23.8 [8.4-51.7]	0.1 [0.0-0.2]	0.0	0.0	0.0	69
Urban	54.5 [36.2-71.6]	42.1 [25.4-60.8]	8.6 [2.7-24.6]	0.0 [0.0-0.1]	0.0	0.6 [0.1-3.9]	0.0	56
Region								
Central	23.1 [7.6-52.5]	68.9 [41.1-87.6]	17.0 [4.0-50.4]	0.0 [0.0-0.2]	0.0	0.0	0.0	89
East	12.7* [4.2-32.7]	34.3* [11.6-67.5]	63.5* [31.0-87.1]	0.2* [0.1-0.5]	0*	0*	0*	24*
West	48.7* [32.8-64.8]	52.5* [36.9-67.7]	1.8* [0.8-4.4]	0.0* [0.0-0.2]	0*	0.5* [0.1-3.5]	0*	12*
Education								
none/less than primary	20.3 [11.3-33.8]	64.3 [42.3-81.6]	23.9 [9.5-48.3]	0.1 [0.1-0.3]	0.0	0.0	0.0	89
primary/middle	22.3* [9.3-44.6]	66.6* [42.5-84.3]	14.7* [3.5-44.8]	0*	0*	0*	0*	24*
Secondary and higher	71.7* [38.0-91.3]	27.7* [8.3-61.9]	2.3* [0.5-10.2]	0*	0*	1.0* [0.1-6.8]	0*	12*
Wealth quintile								
Least	3.3* [0.4-20.8]	73.2* [32.2-94.0]	20.7* [3.4-66.0]	0.1* [0.0-0.6]	0*	0*	0*	11*
Lower	54.8* [22.3-83.7]	71.6* [44.8-88.6]	0*	0.1* [0.0-0.4]	0*	0*	0*	19*
Middle	13.5* [2.8-45.8]	52.0* [21.3-81.3]	37.7* [12.5-71.8]	0.1* [0.0-0.4]	0*	0*	0*	25*
Upper	28.0 [15.3-45.6]	64.6 [49.6-77.2]	22.8 [6.9-54.3]	0.0	0.0	0.0	0.0	40
Wealthiest	60.9 [38.6-79.4]	38.2 [19.8-60.7]	3.0 [0.8-9.9]	0.0	0.0	0.8 [0.1-5.3]	0.0	30
Total (15-69)	**37.0 [26.4-49.0]**	**53.0 [38.7-66.8]**	**15.6 [6.9-31.9]**	**0.1 [0.0-0.1]**	**0.0**	**0.3 [0.0-2.1]**	**0.0**	**125**

**interpret with caution due to small sample size*

Table 11.5. Percentage of respondents aged 15-69 years who have been ever told to have raised blood sugar and who sought care from a traditional healer or currently using a traditional/herbal remedy by background characteristics

Background characteristic	For raised Blood sugar		
	ever seen a local healer	currently taking a herbal remedy	N
Age			
15-24	0*	0*	8*
25-39	1.9 [0.3-12.5]	0.6 [0.1-4.5]	46
40-54	0.0	7.2 [3.1-16.0]	87
55-69	1.8 [0.5-6.1]	3.9 [1.2-11.6]	79
Sex			
Women	2.1 [0.4-9.4]	2.4 [1.0-5.8]	134
Men	0.0	2.2 [0.9-5.5]	86
Residence			
Rural	0.6 [0.2-2.0]	0.7 [0.2-3.2]	119
Urban	1.3 [0.2-8.4]	3.3 [1.6-6.7]	101
Region			
Central	3.6 [0.5-21.6]	2.1 [0.5-8.3]	63
East	0.7 [0.1-5.3]	1.8 [0.2-11.7]	47
West	0.2 [0.0-0.7]	2.5 [1.1-5.6]	110
Education			
none/less than primary	0.6 [0.2-1.9]	1.7 [0.5-6.0]	142
primary/middle	3.2 [0.4-20.3]	3.5 [1.1-11.0]	46
Secondary and higher	0*	2.1* [0.7-5.9]	32*
Wealth quintile			
Least	0*	0*	27*
Lower	0.8* [0.1-6.2]	3.7* [0.5-23.1]	28*
Middle	0.9 [0.2-4.1]	0.3 [0.0-2.4]	42
Upper	5.1 [0.7-28.7]	4.3 [1.1-15.9]	56
Wealthiest	0.0	2.7 [1.1-6.1]	67
Age (old)			
18-39	1.2 [0.2-7.7]	0.4 [0.1-2.7]	53
40-69	0.7 [0.2-2.2]	6.0 [3.0-11.6]	166
Total (15-69)	**1.0 [0.2-4.5]**	**2.3 [1.2-4.3]**	**220**

** interpret with caution due to small sample size*

Table 11.6. Percentage of respondents aged 15-69 years who have been ever advised to take medicines but not taking medicines in the past 2 weeks and specified different reasons for not taking medication for raised blood sugar by background characteristics

Background characteristic	Don't think drug is necessary/ Blood sugar got normal	got side effects	Fear of side effects/life time dependence	too expensive/ not available	Medicines not advised by doctor	(N)
Age						
15-24	0*	0*	0*	0*	100*	1*
25-39	100*	0*	0*	0*	0*	2*
40-54	10.9* [5.0-22.3]	4.2* [0.6-24.7]	16.0* [5.4-38.6]	0*	20.1* [6.2-49.0]	16*
55-69	34.2* [8.3-74.8]	27.7* [5.5-71.4]	16.8* [3.8-50.6]	4.6* [0.5-31.2]	5.8* [0.7-33.3]	7*
Sex						
Women	10.4* [3.9-24.8]	0*	7.0* [1.7-24.3]	1.9* [0.2-14.7]	57.7* [43.1-71.1]	13*
Men	63.5* [51.2-74.3]	10.8* [3.2-31.1]	8.9* [3.1-22.6]	0*	3.2* [0.4-19.5]	13*
Residence						
Rural	59.4* [37.0-78.4]	8.9* [2.0-32.1]	6.9* [1.7-23.8]	1.5* [0.2-11.9]	13.5* [4.8-32.9]	17*
Urban	18.7* [2.8-64.8]	3.0* [0.4-18.7]	9.6* [2.3-32.0]	0*	41.8* [28.7-56.1]	9*
Region						
Central	68.9* [38.7-88.6]	13.1* [3.3-40.2]	4.9* [0.6-29.6]	0*	6.2* [0.8-33.5]	7*
East	35.7* [20.9-54.0]	26.3* [2.5-83.2]	26.3* [2.5-83.2]	0*	0*	3*
West	23.5* [7.5-53.6]	0*	8.5* [2.5-25.1]	1.4* [0.2-11.2]	41.6* [27.7-57.0]	16*
Education						
none/less than primary	53.1* [32.9-72.4]	10.5* [2.8-32.4]	8.6* [2.9-22.8]	1.4* [0.2-10.9]	12.5* [4.4-30.7]	18*
primary/middle	6.9* [0.8-39.8]	0*	22.7* [5.7-58.9]	0*	0*	6*
Secondary and higher	30.9* [5.7-76.9]	0*	0*	0*	69.1* [23.1-94.3]	2*
Wealth quintile						
Least	90.8* [68.3-97.8]	0*	6.5* [0.9-33.7]	2.7* [0.3-21.9]	0*	4*
Lower	8.0* [0.7-52.0]	51.2* [15.1-86.1]	0*	0*	19.2* [3.0-64.4]	4*
Middle	33.2* [15.2-57.9]	0*	13.2* [1.8-55.5]	0*	7.4* [1.0-37.7]	7*
Upper	0*	0*	0*	0*	34.8* [8.8-74.6]	6*
Wealthiest	25.2* [4.3-71.7]	4.0* [0.5-24.1]	12.9* [3.1-40.7]	0*	56.2* [28.8-80.2]	5*
Total (15-69)	**41.0* [33.2-49.3]**	**6.2* [1.9-18.8]**	**8.1* [3.2-18.9]**	**0.8* [0.1-6.6]**	**26.3* [20.0-33.7]**	**26***

**interpret with caution due to small sample size*

Raised Blood Cholesterol

Table 12.1 Percentage of respondents aged 15-69 years who had raised blood cholesterol at the time of survey or on blood cholesterol medications and who were aware of their diagnosis, on treatment or have their blood cholesterol controlled or uncontrolled with medications by background characteristics

Table 12.2 Percentage of respondents aged 15-69 years who have ever had their blood cholesterol measured and who have been told by a health care provider that they have raised blood cholesterol; among people who have been told they have raised cholesterol, the percentage told in the past 12 months they have raised cholesterol, and percentage taking medication to control cholesterol by background characteristics

Table 12.1. Percentage of respondents aged 15-69 years who had raised blood cholesterol at the time of survey or on blood cholesterol medications and who were aware of their diagnosis, on treatment or have their blood cholesterol controlled or uncontrolled with medications by background characteristics

Background characteristic	Prevalence of raised Blood cholesterol[1]	(N)	Among those with raised Blood cholesterol levels[1]				
			Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Age							
15-24	3.9 [2.4-6.3]	667	97.8 [85.7-99.7]	2.2 [0.3-14.3]	0.0	0.0	28
25-39	10.1 [8.4-12.2]	2,264	90.1 [80.6-95.2]	4.5 [1.1-16.2]	0.9 [0.2-3.0]	4.5 [1.8-10.9]	223
40-54	15.9 [13.6-18.5]	1,597	88.7 [82.0-93.1]	2.8 [1.2-6.5]	1.3 [0.4-4.0]	5.9 [3.1-11.1]	287
55-69	20.9 [16.9-25.6]	916	78.7 [68.6-86.2]	2.7 [0.7-10.2]	0.6 [0.1-4.1]	17.0 [10.4-26.5]	209
Sex							
Women	12.3 [10.7-14.1]	3,340	91.8 [87.3-94.7]	2.5 [0.8-7.2]	1.2 [0.5-2.8]	4.0 [2.6-6.0]	508
Men	9.9 [8.0-12.1]	2,104	89.3 [82.4-93.7]	4.0 [1.3-12.0]	0.2 [0.0-1.7]	6.2 [3.3-11.2]	239
Residence							
Rural	11.8 [9.8-14.2]	3,419	95.4 [91.1-97.7]	1.4 [0.3-5.5]	0.2 [0.1-0.8]	3.0 [1.7-5.3]	501
Urban	9.8 [8.4-11.5]	2,025	82.5 [73.7-88.9]	6.5 [2.4-16.3]	1.5 [0.6-3.8]	8.5 [4.7-14.8]	246
Region							
Central	12.6 [9.9-15.7]	1,385	90.4 [81.0-95.4]	3.6 [1.1-11.1]	1.7 [0.6-4.6]	4.1 [2.0-8.2]	219
East	14.4 [10.7-19.2]	1,371	98.9 [97.0-99.6]	0.1 [0.0-0.6]	0.2 [0.0-1.0]	0.9 [0.3-2.8]	200
West	8.7 [7.4-10.2]	2,688	83.4 [74.9-89.5]	5.8 [1.9-16.2]	0.3 [0.0-2.3]	9.5 [5.5-15.9]	328

Education							
none/less than primary	14.7 [12.8-16.9]	3,342	89.3 [82.4-93.7]	5.1 [1.9-12.8]	0.6 [0.2-1.7]	4.9 [3.3-7.2]	556
primary/middle	6.8 [5.2-8.8]	1,157	97.0 [94.0-98.5]	1.2 [0.4-3.6]	0.0	0.9 [0.3-2.7]	109
Secondary and higher	7.7 [5.8-10.2]	942	86.0 [75.8-92.3]	1.1 [0.3-3.4]	1.7 [0.5-5.7]	10.6 [4.9-21.5]	82
Wealth quintile							
Least	12.7 [10.3-15.7]	1,087	98.1 [95.1-99.3]	0.0	0.4 [0.1-2.1]	1.6 [0.5-4.5]	174
Lower	11.1 [8.5-14.4]	1,085	97.7 [94.6-99.0]	0.0	0.0 [0.0-0.3]	2.3 [1.0-5.4]	138
Middle	11.8 [9.1-15.1]	1,129	96.3 [92.6-98.2]	2.3 [0.9-5.6]	0.3 [0.0-2.0]	0.9 [0.3-2.3]	162
Upper	9.3 [7.5-11.5]	1,106	88.9 [81.4-93.6]	3.5 [1.1-10.7]	0.6 [0.1-3.8]	7.1 [3.7-13.1]	133
Wealthiest	10.5 [8.4-13.1]	1,037	70.9 [56.6-82.0]	10.5 [3.2-29.9]	2.3 [0.8-6.7]	14.6 [7.7-25.7]	140
Age(previous)							
18-39	7.7 [6.4-9.3]	2,807	93.1 [86.2-93.5]	3.7 [1.4-7.5]	0.5 [0.3-1.5]	2.7 [3.4-7.7]	247
40-69	17.7 [15.3-20.4]	2,513	85.1 [79.3-89.5]	2.8 [1.3-5.8]	1.0 [0.4-2.8]	9.9 [6.5-14.7]	496
Total (18-69)	11.1 [9.8-12.5]	5320	90.4 [86.1-93.5]	3.4 [1.5-7.6]	0.7 [0.3-1.5]	5.1 [3.4-7.7]	743
Total (15-69)	**11.0 [9.7-12.5]**	**5444**	**90.5 [86.2-93.5]**	**3.3 [1.4-7.5]**	**0.7 [0.3-1.5]**	**5.1 [3.4-7.7]**	**747**

**interpret with caution due to small sample size*

Table 12.2. Percentage of respondents aged 15-69 years who have ever had their blood cholesterol measured and who have been told by a health care provider that they have raised blood cholesterol; among people who have been told they have raised cholesterol, the percentage told in the past 12 months they have raised cholesterol, and percentage taking medication to control cholesterol by background characteristics

Background characteristic	Ever had blood cholesterol measured by doctor or health care provider	Number of respondents	Ever told have raised cholesterol by doctor or health care provider	Number of respondents	Among respondents who have been told by a doctor or health care provider they have raised blood cholesterol, the percentage who were:		
					Told in the past 12 months have raised blood cholesterol	currently taking med-ication to control blood cholesterol	Number of respondents
Age							
15-24	3.3 [2.0-5.4]	680	12.9* [4.3-32.6]	26*	37.3* [19.2-59.8]	0*	4*
25-39	10.6 [8.7-12.7]	2,317	20.6 [13.9-29.3]	228	67.0 [42.5-84.8]	21.1 [9.1-41.6]	40
40-54	14.0 [11.7-16.7]	1,641	22.1 [15.6-30.3]	216	65.0 [47.2-79.4]	26.7 [16.1-41.0]	47
55-69	14.4 [11.5-17.9]	937	35.8 [25.9-47.1]	129	69.0 [51.8-82.2]	50.7 [32.4-68.8]	41
Sex							
Women	9.9 [8.4-11.6]	3,416	20.6 [14.4-28.6]	350	67.1 [50.3-80.4]	20.0 [13.0-29.3]	78
Men	9.8 [8.2-11.7]	2,159	20.8 [14.3-29.3]	249	51.7 [36.2-66.9]	20.5 [10.5-36.3]	54
Residence							
Rural	7.6 [6.1-9.4]	3,495	12.1 [7.2-19.8]	280	68.6 [48.6-83.4]	27.2 [15.4-43.2]	47
Urban	13.1 [10.8-15.7]	2,080	27.2 [20.1-35.7]	319	56.2 [42.0-69.4]	18.3 [10.8-29.2]	85
Region							
Central	10.9 [8.3-14.2]	1,407	15.0 [7.9-26.5]	181	59.2 [38.4-77.1]	34.0 [18.7-53.5]	36
East	3.0 [1.9-4.7]	1,395	8.7 [3.2-21.5]	45	62.1* [14.9-93.9]	31.5* [6.1-76.4]	8*
West	12.0 [10.1-14.2]	2,773	24.5 [17.8-32.6]	373	58.8 [44.3-71.8]	16.5 [9.6-27.1]	88
Education							
none/less than primary	8.4 [7.0-10.1]	3,415	26.0 [17.8-36.2]	296	69.0 [48.7-83.9]	30.2 [19.9-42.9]	66
primary/ middle	7.4 [5.7-9.6]	1,184	18.0 [9.8-30.9]	125	33.2* [22.0-46.6]	1.4* [0.3-6.9]	29*
Secondary and higher	16.2 [13.3-19.5]	973	17.8 [11.2-27.0]	178	69.7 [46.1-86.1]	25.5 [11.9-46.4]	37
Wealth quintile							
Least	4.7 [3.3-6.6]	1,117	6.2 [2.1-16.9]	49	63.7* [21.5-91.9]	40.8* [8.4-83.8]	4*
Lower	5.2 [3.7-7.3]	1,107	11.2 [5.3-22.4]	77	49.4* [16.2-83.1]	45.9* [14.7-80.7]	11*

Middle	6.6 [5.0-8.6]	1,153	16.4 [6.2-36.9]	103	20.5* [11.2-34.6]	4.6* [1.8-11.0]	17*
Upper	9.5 [7.8-11.6]	1,127	22.9 [15.7-32.1]	127	72.0 [53.8-85.0]	28.6 [15.5-46.6]	36
Wealthiest	21.1 [17.8-24.7]	1,071	25.4 [18.0-34.5]	243	68.1 [48.2-83.1]	20.5 [11.1-34.7]	64
Age(previous)							
18-39	8.0 [6.7-9.5]	2,872	17.6 [11.5-26.0]	253	55.1 [38.9-70.3]	12.6 [5.6-26.0]	44
40-69	14.1 [12.0-16.5]	2,578	27.0 [20.8-34.2]	345	66.4 [52.7-77.9]	35.2 [25.8-46.1]	88
Total (18-69)	10.1 [8.8-11.5]	5,450	20.8 [15.8-26.9]	598	58.9 [47.3-69.6]	20.3 [13.8-28.8]	132
Total (15-69)	**9.9 [8.6-11.3]**	**5,575**	**20.7 [15.7-26.7]**	**599**	**58.9 [47.3-69.6]**	**20.3 [13.8-28.8]**	**132**

**interpret with caution due to small sample size*

Cardiovascular Diseases

Table 13.1 Percentage of respondents aged 15-69 years who reported ever having a heart attack or chest pain from heart disease or stroke by background characteristics

Background characteristic	Ever having a heart attack or chest pain from heart disease or stroke	95 % CI		Number of respondents (N)
Age				
15-24	3.3	2.1	5.2	680
25-39	3.6	2.5	5.1	2317
40-54	2.9	2.1	4.1	1641
55-69	3.9	2.5	6.1	937
Sex				
Women	3.4	2.6	4.5	3416
Men	3.4	2.6	4.6	2159
Residence				
Rural	3.8	2.9	5.0	3495
Urban	2.9	2.1	3.9	2080
Region				
Central	3.4	2.4	4.7	1407
East	3.5	2.1	5.8	1395
West	3.4	2.5	4.6	2773
Education				
None/less than primary	3.6	2.6	4.8	3415
Primary to middle	3.0	2.0	4.6	1184
Secondary or more	3.6	2.3	5.5	973
Wealth quintile				
Lowest	3.8	2.5	5.7	1117
Second	3.2	1.8	5.3	1107
Middle	3.6	2.2	5.9	1153
Fourth	3.8	2.6	5.4	1127
Highest	2.9	1.9	4.4	1071
Age (previous)				
18-39	3.7	2.8	4.9	2872
40-69	3.3	2.5	4.3	2578
Total (18-69)	3.6	2.9	4.4	5270
Total (15-69)	**3.4**	**2.8**	**4.2**	**5575**

Table 13.2. Percentage of respondents aged 15-69 years who have different predicted risk levels for heart attacks or stroke in 10 years based on WHO/ ISH risk prediction charts (2007)* for South-East Asia, by background characteristics

Background characteristic	Percent population with 10-year risk levels of >=30%:	95% CI		Number of respondents (N)
Age				
40-54	2.9	2.1	4.1	1563
55-69	5.2	2.5	7.6	902
Sex				
Women	4.6	3.3	6.3	141
Men	3.0	2.0	4.5	1047
Residence				
Rural	4.0	2.9	5.5	1793
Urban	3.1	2.0	4.6	672
Region				
Central	4.0	2.4	6.6	655
East	3.3	1.9	5.6	676
West	3.8	2.6	5.4	1134
Education				
None/less than primary	3.9	2.9	5.2	2084
Primary to middle	3.7	1.6	8.2	236
Secondary or more	2.2	0.7	6.6	143
Wealth quintile				
Lowest	3.6	2.1	6.0	681
Second	4.6	2.6	8.0	545
Middle	2.5	1.4	4.6	497
Fourth	4.3	2.6	7.1	386
Highest	3.7	2.1	6.4	366
Total (40-69)	**3.7**	**2.9**	**4.8**	**2465**

**Revised WHO CVD risk charts (2019) for LMICs are currently underway, therefore 2007 risk charts for SEAR D was used: https://www.who.int/ncds/management/WHO_ISH_Risk_Prediction_Charts.pdf?ua=1*

Table 13.3. Percentage of respondents aged 15-69 years who have ever visited a doctor or health worker and received lifestyle advice on behavioural risk factors for non-communicable diseases by background characteristics

Background characteristic	Percent adults who reported receiving lifestyle advice to:							Number of respondents
	quit using tobacco or don't start	reduce salt in your diet	eat at least five servings of fruit and/ or vegetables each day	reduce fat in your diet	start or do more physical activity	maintain a healthy body weight or lose weight	reduce sugar beverages in your diet	
Age								
15-24	23.3 [18.7-28.6]	29.1 [23.8-34.9]	46.7 [40.7-52.9]	34.1 [28.7-40.0]	29.3 [24.6-34.6]	27.9 [23.4-33.0]	26.8 [22.1-32.0]	494
25-39	32.4 [28.5-36.5]	50.5 [46.8-54.3]	54.8 [50.9-58.7]	54.8 [50.7-58.7]	43.2 [39.6-46.8]	39.0 [35.5-42.7]	33.2 [29.5-37.1]	1741
40-54	42.5 [38.0-47.1]	68.2 [64.2-71.9]	65.0 [60.4-69.2]	70.9 [67.3-74.3]	55.5 [51.2-59.6]	51.1 [46.7-55.4]	48.8 [44.4-53.3]	1233
55-69	45.7 [40.9-50.6]	76.8 [72.6-80.5]	71.9 [67.4-76.0]	74.0 [69.4-78.2]	55.0 [49.9-59.9]	50.1 [45.2-55.1]	50.4 [44.9-55.9]	710
Sex								
Women	33.6 [30.5-36.8]	54.6 [51.7-57.4]	59.3 [56.4-62.2]	56.7 [53.8-59.6]	42.9 [39.8-46.0]	40.7 [37.7-43.8]	38.6 [35.1-42.3]	2729
Men	33.9 [30.1-37.9]	49.4 [45.7-53.0]	54.8 [50.5-59.1]	53.7 [49.8-57.6]	44.2 [40.8-47.7]	39.4 [36.2-42.8]	35.4 [31.7-39.3]	1449
Residence								
Rural	41.6 [37.6-45.8]	60.1 [56.5-63.7]	64.5 [60.4-68.4]	63.2 [59.5-66.7]	46.3 [43.0-49.7]	43.3 [39.9-46.7]	41.6 [37.0-46.3]	2614
Urban	22.5 [18.8-26.6]	39.9 [35.8-44.1]	46.1 [42.1-50.1]	43.5 [39.8-47.3]	39.6 [36.1-43.3]	35.4 [32.2-38.7]	30.2 [26.8-33.9]	1592
Region								
Central	37.0 [31.2-43.4]	53.5 [48.2-58.7]	60.1 [53.0-66.8]	59.2 [53.3-64.8]	40.8 [36.0-45.7]	37.1 [32.4-42.1]	33.4 [26.6-40.9]	1029
East	43.4 [37.4-49.6]	65.8 [59.7-71.4]	68.7 [63.3-73.5]	68.5 [63.6-73.0]	56.0 [50.8-61.1]	53.0 [47.5-58.4]	51.3 [46.0-56.6]	1142
West	27.5 [23.5-31.9]	44.5 [40.5-48.7]	49.8 [46.1-53.6]	46.8 [42.9-50.7]	39.5 [36.2-43.0]	35.8 [32.6-39.0]	32.4 [28.8-36.2]	2007

Education								
None/less than primary	43.3 [39.9-46.8]	65.7 [62.3-69.0]	64.7 [61.3-67.9]	67.9 [64.7-71.0]	47.5 [44.4-50.7]	43.5 [40.3-46.8]	44.0 [39.9-48.3]	2558
Primary to middle	27.3 [23.2-31.8]	39.3 [34.8-44.1]	52.4 [47.5-57.2]	44.9 [40.1-49.8]	40.4 [35.8-45.1]	37.0 [32.5-41.7]	30.9 [26.9-35.2]	887
Secondary or more	20.5 [16.3-25.5]	36.5 [31.9-41.5]	45.5 [40.2-50.8]	39.3 [34.4-44.5]	39.0 [34.1-44.0]	36.1 [31.1-41.5]	28.6 [24.5-33.1]	730
Wealth quintile								
Lowest	47.8 [41.9-53.7]	63.9 [58.0-69.4]	63.9 [57.7-69.6]	63.9 [57.9-69.4]	41.8 [36.3-47.6]	38.1 [33.0-43.5]	41.9 [35.4-48.6]	795
Second	43.6 [38.2-49.0]	63.5 [56.6-69.9]	64.8 [58.6-70.6]	63.6 [56.8-69.8]	43.9 [38.6-49.3]	42.5 [36.9-48.3]	41.5 [35.6-47.6]	818
Middle	32.6 [28.2-37.3]	49.0 [43.5-54.6]	58.7 [52.2-65.0]	58.5 [53.1-63.8]	43.0 [38.0-48.2]	39.1 [34.4-44.1]	35.5 [30.5-40.9]	874
Fourth	28.8 [24.1-34.1]	45.7 [41.1-50.3]	51.8 [46.7-56.9]	49.3 [44.3-54.2]	45.3 [40.2-50.4]	40.6 [36.0-45.5]	35.5 [30.7-40.5]	831
Highest	21.2 [17.0-26.0]	41.5 [36.5-46.6]	48.3 [43.1-53.5]	44.0 [39.0-49.1]	43.7 [39.2-48.2]	39.7 [35.5-44.0]	32.3 [28.1-36.8]	860
Age previous								
18-39	30.5 [27.0-34.3]	43.6 [39.9-47.4]	52.6 [48.6-56.5]	47.9 [44.1-51.8]	38.5 [35.2-41.9]	35.3 [32.0-38.7]	31.9 [28.3-35.7]	2145
40-69	43.6 [39.9-47.4]	71.2 [68.2-74.1]	67.4 [63.9-70.8]	72.0 [69.0-74.8]	55.3 [52.1-58.4]	50.7 [47.3-54.2]	49.4 [45.4-53.4]	1943
Total (18-69)	34.9 [31.8-38.2]	53.0 [50.1-55.8]	57.6 [54.4-60.7]	56.0 [53.1-59.0]	44.2 [41.6-46.7]	40.5 [37.9-43.1]	37.8 [34.7-41.1]	4088
Total (15-69)	**33.8 [30.8-36.8]**	**51.8 [49.1-54.5]**	**56.9 [53.9-59.9]**	**55.1 [52.3-57.9]**	**43.6 [41.2-46.0]**	**40.0 [37.6-42.5]**	**36.9 [34.0-40.0]**	**4178**

Table 13.4. Percentage of respondents aged 15-69 years who have ever visited a doctor or health worker and received lifestyle advice on behavioural risk factors for non-communicable diseases by disease and risk conditions

Disease and risk condition	Percent adults who reported receiving lifestyle advice to:							Number of respondents
	Quit using tobacco or don't start	Reduce salt in your diet	Eat at least five servings of fruit and/or vegetables each day	Reduce fat in your diet	Start or do more physical activity	Maintain a healthy body weight or lose weight	Reduce sugar bev-erages in your diet	
Smoking status								
Current smokers	29.3 [22.1-37.8]	29.4 [22.5-37.5]	38.4 [29.8-47.6]	33.4 [26.3-41.3]	34.8 [26.5-44.1]	33.2 [24.2-43.6]	20.1 [14.4-27.5]	231
Previous smokers	32.3 [27.4-37.6]	49.9 [43.8-55.9]	54.0 [48.9-59.0]	51.6 [46.3-56.9]	44.3 [39.3-49.4]	38.2 [33.0-43.6]	36.5 [31.2-42.1]	670
Never smokers	34.7 [31.4-38.2]	55.1 [52.2-57.9]	60.0 [56.6-63.3]	58.7 [55.7-61.6]	44.5 [41.7-47.2]	41.4 [38.7-44.1]	39.1 [35.8-42.5]	3277
Blood Pressure status								
Raised blood pressure	36.6 [32.5-41.0]	67.3 [63.3-71.0]	63.7 [59.3-67.9]	70.8 [66.8-74.4]	56.6 [52.3-60.9]	50.9 [46.9-54.9]	46.5 [42.2-50.8]	1351
Normal blood pressure	32.4 [29.1-35.9]	45.4 [42.0-48.8]	54.1 [50.6-57.5]	48.6 [45.1-52.0]	38.1 [35.3-40.9]	35.5 [32.6-38.5]	32.9 [29.5-36.4]	2784
Diabetes								
Raised blood sugar/ Diabetes	40.9 [29.6-53.2]	78.5 [67.1-86.7]	78.9 [69.4-86.1]	85.0 [75.2-91.4]	77.3 [67.1-85.1]	65.5 [53.8-75.6]	75.0 [64.5-83.2]	108
Normal blood-sugar/ Diabetes	33.8 [30.8-37.0]	51.5 [48.7-54.3]	56.7 [53.6-59.8]	54.6 [51.7-57.4]	43.1 [40.6-45.5]	39.9 [37.4-42.4]	36.4 [33.3-39.5]	3944
Cholesterol								
Raised cholesterol	40.2 [33.8-46.8]	64.2 [58.3-69.7]	66.2 [60.1-71.8]	67.5 [61.6-72.8]	54.0 [48.2-59.7]	50.3 [44.6-55.9]	44.8 [38.8-51.1]	544
Normal cholesterol	33.2 [30.2-36.3]	50.6 [47.8-53.4]	56.2 [53.1-59.2]	53.9 [51.0-56.8]	42.8 [40.3-45.3]	39.2 [36.7-41.8]	36.3 [33.2-39.4]	3554
Nutrition Status								
Obese	39.1 [34.0-44.4]	68.2 [63.6-72.5]	62.6 [57.5-67.5]	74.1 [69.4-78.4]	67.5 [62.6-72.0]	65.8 [61.2-70.0]	50.0 [44.9-55.1]	614
Overweight	33.9 [29.6-38.5]	56.2 [52.0-60.3]	56.1 [52.2-59.9]	59.2 [55.2-63.0]	50.0 [45.9-54.1]	47.3 [43.5-51.2]	39.9 [36.1-43.9]	1534
Normal and underweight	32.3 [29.0-35.8]	44.9 [41.3-48.6]	55.9 [52.1-59.8]	48.2 [44.3-52.0]	33.8 [30.6-37.3]	29.4 [26.4-32.6]	32.1 [28.3-36.2]	1952
Predicted 10-year CVD risk (adults aged 40-69)								
>=30%	49.0 [34.0-64.3]	79.7 [66.4-88.6]	68.5 [53.8-80.2]	85.3 [71.8-92.9]	53.4 [38.9-67.4]	56.3 [43.5-68.3]	52.9 [38.8-66.5]	78
<30%	43.4 [39.6-47.2]	71.4 [68.2-74.4]	68.0 [64.3-71.5]	72.0 [68.8-75.0]	55.8 [52.4-59.1]	51.6 [48.0-55.2]	49.5 [45.5-53.6]	1784
Total (15-69)	33.8 [30.8-36.8]	51.8 [49.1-54.5]	56.9 [53.9-59.9]	55.1 [52.3-57.9]	43.6 [41.2-46.0]	40.0 [37.6-42.5]	36.9 [34.0-40.0]	4178

Cervical Cancer

Table 14.1. Percentage of women aged 15-69 years who have ever tested for cervical cancer; timing of the last test; age of first testing by background characteristics.

Background characteristic	Percent women ever tested for cervical cancer	Percent women whose most recent test was less than 5 years ago*	Number of women (N)	Amongst women who have ever been tested for cervical cancer, percent who received their first test at age*:			
				15-29	30-49	50-69	Number of women (N)
Age							
18-29	23.5 [20.1-27.2]	22.1 [18.8-25.9]	805	82.6 [64.2-92.6]			289
30-49	82.1 [79.6-84.4]	69.9 [66.3-73.2]	1740		42.0 [38.7-45.3]		1424
50-69	59.7 [54.2-65.0]	43.1 [37.6-48.9]	731			35.1 [27.6-43.5]	416
Residence							
Rural	58.4 [55.0-61.8]	49.8 [45.9-53.7]	2071	50.9 [45.6-56.2]	30.3 [26.4-34.5]	8.8 [6.8-11.4]	1372
Urban	48.6 [45.3-51.9]	39.6 [36.2-43.2]	1265	57.4 [46.4-67.6]	23.0 [19.3-27.3]	2.8 [1.6-5.0]	758
Region							
Central	56.1 [51.2-60.9]	44.1 [38.8-49.5]	851	50.7 [42.4-58.9]	30.7 [24.7-37.3]	8.1 [5.4-12.0]	556
East	61.1 [54.8-66.9]	54.8 [48.1-61.3]	835	56.2 [46.7-65.3]	29.1 [23.0-36.1]	7.0 [4.5-10.8]	571
West	50.7 [47.6-53.8]	42.7 [39.2-46.3]	1650	53.8 [44.9-62.6]	24.9 [21.7-28.4]	5.3 [3.4-8.2]	1003
Education							
None/less than primary	68.6 [65.2-71.8]	56.7 [52.9-60.5]	2176	45.2 [39.7-50.9]	33.5 [29.6-37.7]	9.5 [7.5-12.0]	1537
Primary to middle	35.6 [31.7-39.7]	31.1 [27.3-35.2]	695	65.8 [47.4-80.5]	13.6 [9.8-18.5]	0.1 [0.0-0.6]	377

Secondary or more	35.1 [30.2-40.4]	30.3 [25.8-35.3]	463	79.0 [70.7-85.5]	19.0 [12.9-27.0]	0.3 [0.0-2.1]	215
Wealth quintile							
Lowest	57.0 [49.8-63.9]	48.2 [41.3-55.3]	637	47.0 [35.0-59.4]	30.1 [22.6-38.8]	12.5 [8.6-17.9]	388
Second	55.3 [50.1-60.4]	47.4 [41.9-53.1]	648	48.5 [38.8-58.3]	28.8 [22.0-36.6]	7.3 [4.2-12.5]	415
Middle	50.6 [45.4-55.8]	42.0 [36.7-47.4]	696	62.9 [52.0-72.7]	26.4 [19.3-35.1]	4.9 [3.0-8.0]	437
Fourth	55.7 [51.1-60.2]	46.3 [42.0-50.6]	706	51.6 [38.9-64.2]	22.6 [16.7-29.7]	3.9 [2.2-7.0]	460
Highest	54.0 [48.8-59.0]	44.8 [40.2-49.5]	649	56.2 [47.5-64.5]	29.7 [23.7-36.4]	4.6 [2.3-9.0]	430
Age (old)							
18-39	46.5 [44.1-48.9]	41.2 [38.6-43.9]	1864	74.4 [65.6-81.7]	12.4 [10.6-14.5]	0.0	1147
40-69	70.9 [67.1-74.4]	55.5 [51.3-59.6]	1412	12.4 [9.6-15.7]	56.6 [52.0-61.1]	19.0 [15.3-23.4]	982
Total (18-69)	54.8 [52.6-56.9]	46.0 [43.4-48.7]	3276	53.4 [47.8-58.8]	27.4 [25.3-29.6]	6.4 [5.2-8.0]	2129
Total (15-69)	**54.4** [52.3-56.5]	**45.6** [43.1-48.2]	**3336**	**53.5** [48.1-58.8]	**27.4** [25.3-29.6]	**6.4** [5.2-8.0]	**2130**

** Women who refused to respond or stated "don't know" for these two questions are not presented here but included in the denominator at the time of the analysis.*

Table 14.2. Percentage of women aged 25-69 years who cited different reasons for not testing for cervical cancer by background characteristics.

Background characteristics	Service supply				Service demand							Number of women (N)
	Did not know where to go/ where to get tested	No female health care provider	Clinic too far away	Poor service quality	Didn't have time	Embarrassment	Fear (afraid of procedure or social stigma	Cultural beliefs	Family member would not allow it	Thinks they are not eligible (less than 25 years old)	Don't know	
Age												
25-29	5.6 [2.5-12.3]	1.1 [0.2-5.5]	2.6 [0.8-8.2]	0.5 [0.1-3.6]	29.5 [21.8-38.7]	12.4 [8.4-17.9]	5.4 [2.8-10.2]	0.0	0.0	22.3 [15.3-31.4]	20.0 [14.5-27.0]	214
30-49	10.7 [7.0-16.0]	2.4 [1.1-5.2]	3.8 [2.1-6.7]	0.7 [0.1-4.0]	20.7 [15.9-26.5]	24.3 [18.9-30.6]	11.1 [7.0-17.2]	0.9 [0.3-2.6]	0.8 [0.2-3.0]	1.6 [0.7-4.1]	20.5 [15.1-27.3]	316
50-69	21.9 [16.5-28.5]	0.3 [0.1-1.2]	1.0 [0.2-4.0]	1.9 [0.3-10.8]	8.2 [4.0-16.0]	25.8 [19.2-33.7]	8.3 [4.2-15.8]	0.9 [0.3-2.5]	0.7 [0.2-2.3]	0.2 [0.0-0.7]	29.2 [22.6-36.8]	314
Residence												
Rural	14.6 [10.3-20.1]	1.8 [0.8-4.0]	2.3 [1.2-4.5]	0.6 [0.1-2.8]	17.0 [12.6-22.6]	22.8 [18.8-27.4]	7.5 [4.6-12.2]	0.7 [0.3-2.0]	0.4 [0.1-2.4]	7.1 [4.1-12.0]	23.2 [17.9-29.5]	515
Urban	9.2 [5.6-14.9]	0.9 [0.2-3.6]	3.2 [1.3-7.5]	1.5 [0.3-6.9]	23.6 [18.1-30.2]	19.2 [14.7-24.7]	10.4 [6.3-16.6]	0.5 [0.1-2.2]	0.7 [0.2-1.8]	7.2 [4.6-10.9]	22.3 [16.9-28.7]	329
Region												
Central	19.1 [11.4-30.0]	1.1 [0.2-5.3]	2.0 [0.7-5.2]	1.8 [0.3-9.9]	8.7 [5.1-14.3]	19.7 [14.4-26.5]	12.2 [7.2-20.0]	1.3 [0.4-4.1]	0.0	9.5 [4.2-19.8]	24.5 [16.9-34.1]	210
East	9.3 [5.3-15.7]	1.4 [0.2-8.9]	1.3 [0.3-6.5]	0.0	22.9 [16.3-31.3]	31.7 [24.6-39.8]	10.4 [5.3-19.5]	0.2 [0.0-1.3]	0.0	4.6 [2.4-8.8]	14.2 [8.6-22.5]	190
West	9.8 [6.8-13.9]	1.6 [0.7-3.6]	3.5 [1.7-7.1]	0.8 [0.2-3.2]	24.7 [19.5-30.7]	18.5 [14.5-23.4]	6.2 [3.3-11.4]	0.4 [0.1-1.6]	1.0 [0.4-2.7]	6.7 [4.4-10.2]	24.9 [19.9-30.8]	444
Education												
None/less than primary	15.8 [12.0-20.4]	2.0 [1.0-4.2]	3.7 [2.0-6.6]	1.3 [0.3-4.7]	15.2 [11.6-19.7]	23.5 [19.5-28.0]	7.7 [5.0-11.8]	1.0 [0.4-2.2]	0.7 [0.2-2.1]	2.3 [1.1-4.6]	24.9 [19.9-30.7]	575
Primary to middle	8.3 [3.0-20.7]	0.3 [0.0-2.3]	0.6 [0.1-4.1]	0.0	27.9 [18.5-39.6]	19.8 [12.5-29.9]	5.5 [2.5-11.8]	0.0	0.0	17.1 [9.0-30.0]	19.3 [11.8-30.0]	126
Secondary or more	4.1 [1.8-9.0]	0.4 [0.0-2.7]	0.9 [0.2-3.7]	0.8 [0.1-5.3]	28.4 [20.2-38.4]	15.1 [9.6-23.1]	14.8 [7.3-27.7]	0.0	0.4 [0.1-2.7]	15.4 [9.5-24.0]	18.6 [12.2-27.4]	143

Wealth quintile												
Lowest	22.1 [16.3-29.3]	0.8 [0.2-3.6]	3.6 [1.5-8.5]	0.2 [0.0-1.4]	16.8 [11.7-23.6]	17.4 [11.3-26.0]	7.3 [3.3-15.6]	0.7 [0.2-3.0]	0.0	1.7 [0.3-8.8]	26.3 [18.9-35.3]	206
Second	16.8 [9.5-27.9]	2.9 [1.0-8.5]	1.9 [0.6-5.5]	1.5 [0.2-8.8]	19.5 [11.5-31.1]	23.2 [15.8-32.9]	6.9 [3.4-13.6]	0.2 [0.0-1.3]	0.2 [0.0-1.2]	5.3 [2.2-12.3]	20.2 [13.3-29.5]	150
Middle	7.6 [4.2-13.5]	2.0 [0.6-5.9]	1.2 [0.3-5.5]	2.6 [0.4-15.3]	14.8 [8.7-23.9]	23.6 [17.1-31.7]	7.2 [3.6-13.9]	0.5 [0.1-1.9]	1.2 [0.2-8.0]	14.6 [8.2-24.7]	23.1 [16.2-31.8]	165
Fourth	9.1 [5.3-15.2]	0.4 [0.1-2.6]	4.2 [1.5-11.1]	0.0	17.8 [11.8-26.0]	24.6 [17.6-33.2]	7.3 [4.0-12.9]	1.3 [0.3-5.0]	0.3 [0.0-1.7]	10.9 [6.6-17.6]	22.8 [16.2-31.1]	172
Highest	5.6 [2.2-13.7]	1.2 [0.2-8.0]	2.4 [0.6-8.8]	0.7 [0.1-4.7]	29.0 [21.3-38.0]	18.6 [12.7-26.5]	14.3 [7.6-25.3]	0.6 [0.1-4.0]	1.1 [0.3-3.3]	4.2 [1.5-11.4]	21.4 [14.6-30.2]	151
Total (25-69)	**12.4 [9.3-16.2]**	**1.4 [0.7-2.9]**	**2.7 [1.5-4.6]**	**1.0 [0.3-3.1]**	**19.8 [16.2-23.8]**	**21.3 [18.2-24.8]**	**8.7 [6.1-12.2]**	**0.6 [0.3-1.5]**	**0.5 [0.2-1.4]**	**7.1 [5.0-10.1]**	**22.8 [18.9-27.2]**	**844**

** Women who refused to respond are not presented here but included in the denominator at the time of the analysis.*

Table 14.3. Percentage of women aged 15-69 years who were ever tested for cervical cancer and cited different reasons for seeking the test by background characteristics.

Background characteristic	Percent whose main reason for the last test was*:						Number of women (N)
	Routine exam	Follow up on abnormal or inconclusive results	Recommended by health care provider	Recom-mended by other sources	Experiencing pain or other	Other	
Age							
18-29	47.9 [35.3-60.9]	0.5 [0.2-1.4]	35.6 [23.6-49.8]	7.1 [2.1-21.2]	8.9 [3.2-22.3]	0.0	289
30-49	67.0 [62.1-71.6]	2.3 [1.5-3.4]	24.6 [20.7-29.1]	3.3 [2.4-4.4]	1.8 [1.1-2.8]	0.7 [0.3-1.4]	1424
50-69	58.3 [49.3-66.9]	2.0 [0.7-5.4]	34.2 [26.1-43.3]	2.6 [1.3-4.8]	2.1 [0.9-5.0]	0.6 [0.2-1.4]	417
Residence							
Rural	59.4 [51.6-66.7]	0.9 [0.5-1.6]	32.1 [25.5-39.5]	2.3 [1.6-3.4]	4.8 [1.7-12.7]	0.4 [0.2-0.8]	1372
Urban	58.0 [47.2-68.0]	2.6 [1.5-4.5]	27.2 [18.2-38.5]	7.7 [2.9-18.9]	3.6 [1.8-7.2]	0.5 [0.2-1.1]	759
Region							
Central	76.2 [66.4-83.9]	1.5 [0.8-3.0]	16.2 [10.8-23.5]	3.8 [0.9-14.9]	2.0 [1.0-3.8]	0.1 [0.0-0.9]	556
East	62.1 [52.5-70.9]	0.7 [0.3-1.8]	34.3 [25.7-44.0]	1.8 [0.8-4.0]	0.8 [0.3-2.1]	0.3 [0.1-0.7]	571
West	48.0 [39.3-56.8]	2.0 [1.1-3.5]	36.0 [27.3-45.8]	5.9 [2.4-13.9]	7.1 [3.0-16.3]	0.6 [0.3-1.2]	1004
Education							
None/less than primary	58.5 [51.2-65.4]	1.5 [0.8-2.7]	33.7 [26.8-41.3]	2.2 [1.5-3.2]	3.6 [1.5-8.4]	0.4 [0.2-0.8]	1538
Primary to middle	53.8 [39.7-67.2]	2.1 [1.1-3.8]	25.5 [17.0-36.5]	11.1 [3.8-28.2]	7.0 [1.5-27.5]	0.5 [0.2-1.6]	377
Secondary or more	72.6 [58.2-83.5]	1.3 [0.5-3.3]	17.9 [8.7-33.3]	3.5 [1.7-7.0]	3.6 [1.8-7.0]	0.3 [0.1-1.3]	215
Wealth quintile							
Lowest	55.3 [43.7-66.4]	0.4 [0.1-1.4]	40.3 [29.5-52.1]	2.6 [1.1-5.9]	1.2 [0.5-2.9]	0.2 [0.1-0.9]	388
Second	59.2 [46.7-70.6]	0.6 [0.2-2.3]	31.8 [21.8-43.7]	1.9 [1.1-3.3]	6.0 [1.4-21.8]	0.5 [0.2-1.6]	415
Middle	54.5 [38.5-69.6]	1.2 [0.6-2.4]	32.9 [18.1-52.1]	2.4 [1.3-4.5]	8.4 [2.0-29.0]	0.3 [0.1-0.8]	437
Fourth	54.6 [41.7-66.9]	2.4 [1.3-4.2]	25.9 [18.2-35.5]	12.6 [4.5-30.3]	3.2 [1.0-10.0]	0.9 [0.3-2.5]	460
Highest	70.5 [60.6-78.8]	3.3 [1.5-7.0]	21.1 [13.6-31.3]	2.6 [1.4-4.8]	2.1 [1.0-4.1]	0.1 [0.0-0.6]	431
Total (15-69)	**58.8 [52.8-64.6]**	**1.6 [1.1-2.4]**	**30.1 [24.7-36.2]**	**4.5 [2.2-8.7]**	**4.4 [2.1-8.8]**	**0.1 [0.0-0.4]**	**2131**

** Women who refused to respond or stated "don't know" for this questions are not presented here but included in the denominator at the time of the analysis.*

Table 14.4. Percentage of women aged 15-69 years who received screening/ testing from different sources by background characteristics.

Background characteristics	Source of care for testing						Number of women (N)
	Regional referral hospitals	Hospital	BHU-I	BHU-II/ Sub-post	Mobile clinic	Private	
Age							
18-29	14.6 [7.6-26.0]	34.2 [21.2-50.1]	12.4 [5.8-24.2]	34.7 [23.7-47.6]	4.3 [0.7-22.0]	0.0	289
30-49	17.5 [13.0-23.3]	36.3 [30.1-42.9]	13.4 [9.8-18.0]	31.5 [25.3-38.4]	1.0 [0.5-1.7]	0.4 [0.2-1.0]	1423
50-69	21.7 [15.2-30.0]	24.2 [18.2-31.4]	11.8 [5.9-22.2]	39.7 [30.0-50.2]	2.3 [1.0-5.3]	0.3 [0.1-1.0]	417
Residence							
Rural	9.8 [4.6-19.7]	27.6 [19.9-37.0]	12.2 [7.3-19.7]	49.2 [39.2-59.2]	1.1 [0.5-2.1]	0.0 [0.0-0.2]	1372
Urban	29.6 [21.7-39.0]	41.4 [29.8-54.0]	13.3 [7.6-22.3]	10.9 [5.7-19.8]	4.3 [0.9-17.9]	0.6 [0.2-1.3]	758
Region							
Central	8.4 [4.8-14.3]	34.6 [23.2-48.0]	12.0 [5.8-23.1]	44.2 [29.2-60.3]	0.8 [0.3-2.5]	0.0	556
East	13.4 [3.1-42.6]	17.7 [10.0-29.4]	21.4 [10.3-39.2]	46.7 [31.1-63.1]	0.8 [0.2-2.7]	0.0	571
West	24.6 [18.1-32.5]	38.8 [28.0-50.8]	9.3 [5.4-15.5]	23.0 [15.9-31.9]	3.9 [1.0-14.0]	0.5 [0.2-1.1]	1003
Education							
None/less than primary	14.2 [9.0-21.7]	31.6 [23.7-40.7]	14.3 [9.4-21.3]	38.6 [30.0-48.1]	1.1 [0.6-2.1]	0.1 [0.0-0.4]	1538
Primary to middle	20.3 [11.8-32.6]	36.1 [23.2-51.3]	11.0 [6.0-19.2]	25.6 [16.6-37.2]	6.9 [1.4-28.3]	0.3 [0.1-0.8]	377
Secondary or more	34.4 [22.5-48.6]	36.2 [24.6-49.6]	5.7 [3.1-10.0]	22.5 [11.7-39.0]	0.3 [0.0-2.3]	0.9 [0.3-2.7]	214
Wealth quintile							
Lowest	7.4 [2.4-20.7]	20.3 [12.4-31.5]	13.4 [5.0-31.4]	56.7 [42.7-69.7]	2.1 [0.9-4.9]	0.0	388
Second	16.9 [7.1-35.1]	22.5 [13.3-35.4]	16.2 [8.8-27.9]	43.5 [30.9-57.1]	0.9 [0.4-2.1]	0.0	415
Middle	7.2 [4.2-12.3]	44.5 [28.3-62.0]	13.0 [7.1-22.5]	33.9 [21.3-49.4]	1.2 [0.5-3.1]	0.1 [0.0-0.8]	437
Fourth	18.8 [12.5-27.4]	37.0 [25.8-49.7]	11.2 [6.9-17.7]	25.2 [17.0-35.6]	7.4 [1.4-30.6]	0.4 [0.1-1.1]	460
Highest	37.4 [28.4-47.4]	39.2 [30.4-48.9]	9.2 [5.3-15.5]	13.2 [6.3-25.7]	0.2 [0.0-1.0]	0.7 [0.3-2.1]	430
Total (15-69)	**17.7 [12.9-23.7]**	**33.1 [26.3-40.7]**	**12.7 [8.6-18.2]**	**33.9 [27.2-41.4]**	**2.4 [0.7-7.3]**	**0.2 [0.1-0.5]**	**2130**

Table 14.5. Percentage of women aged 15-69 years who got test result, follow-up visits and treatment among those who were ever tested by background characteristics.

Background characteristic	Percent of women who received test results for their most recent test	Number of women (N)	Percent of women with abnormal/ inconclusive test results who*:			Number of women (N)
			received follow-up visits	received treatment	received treatment in the same visit	
Age						
18-29	87.5 [77.8-93.3]	289	9.2 [4.5-17.8]	99.2 [95.9-99.9]	45.6 [14.0-81.1]	21
30-49	92.8 [90.1-94.8]	1423	57.7 [45.7-68.8]	84.3 [75.1-90.5]	42.7 [32.7-53.3]	98
50-69	93.0 [88.8-95.7]	417	66.2 [41.4-84.4]	77.9 [49.4-92.8]	26.0 [10.3-51.6]	22
Residence						
Rural	90.5 [86.7-93.4]	1372	34.7 [27.3-43.0]	90.7 [84.3-94.7]	39.3 [21.3-60.8]	89
Urban	91.6 [84.5-95.6]	758	62.3 [44.9-77.1]	82.1 [67.0-91.2]	45.1 [30.5-60.5]	52
Region						
Central	86.5 [77.9-92.1]	556	25.6 [12.5-45.4]	98.0 [92.9-99.5]	32.6 [11.1-65.1]	36
East	94.9 [91.8-96.9]	571	25.6 [13.0-44.0]	83.1 [65.8-92.7]	41.6 [14.6-74.7]	48
West	91.7 [86.7-94.9]	1003	70.3 [56.8-81.1]	86.1 [75.4-92.6]	46.5 [31.6-62.1]	57
Education						
None/less than primary	91.5 [87.9-94.1]	1538	55.5 [44.7-65.8]	83.9 [74.0-90.5]	33.3 [22.8-45.8]	97
Primary to middle	91.4 [81.5-96.3]	377	28.4 [15.9-45.3]	90.2 [77.3-96.2]	53.1 [22.8-81.3]	28
Secondary or more	86.8 [70.5-94.7]	214	26.7 [7.6-61.9]	100.0	39.3 [12.3-75.0]	16
Wealth quintile						
Lowest	89.6 [78.7-95.2]	388	33.5 [14.0-60.8]	87.5 [67.2-96.0]	51.6 [19.6-82.4]	21
Second	90.7 [85.1-94.3]	415	43.2 [18.1-72.4]	82.4 [58.8-93.9]	63.4 [35.6-84.5]	27
Middle	91.9 [84.2-96.0]	437	34.4 [14.8-61.1]	97.0 [87.5-99.3]	23.5 [9.5-47.5]	32
Fourth	91.4 [81.3-96.3]	460	43.0 [25.1-62.9]	86.6 [69.7-94.7]	37.7 [20.6-58.6]	31
Highest	91.0 [81.1-96.0]	430	54.8 [28.1-79.0]	87.5 [67.0-96.0]	32.2 [16.4-53.4]	30
Total (15-69)	**91.0 [87.6-93.5]**	**2130**	**42.1 [35.1-49.5]**	**88.4 [82.6-92.5]**	**40.8 [26.5-56.9]**	**141**

** Women who refused to respond or stated "don't know" for these two questions are not presented here but included in the denominator at the time of the analysis.*

Table 15.1 Percentage distribution of respondents aged 15-69 years who ever visited a dentist, timing of and reasons for last visit by background characteristics

Table 15.1. Percentage distribution of respondents aged 15-69 years who ever visited a dentist, timing of and reasons for last visit by background characteristics

Background characteristic	Ever visited a dentist	Number of respondents (N)	Timing of most recent visit among those ever visited			Reason for most recent visit among those ever visited		Number of respondents (N)
			within one year	1-5 years	more than 5 years	consultation / treatment	preventative	
Age								
18-24	53.2 [47.7-58.6]	680	38.1 [31.7-45.0]	37.5 [31.8-43.6]	24.4 [19.5-29.9]	81.9 [75.4-87.0]	18.1 [13.0-24.6]	369
25-39	47.1 [44.0-50.3]	2317	35.1 [31.2-39.1]	36.2 [32.1-40.6]	28.7 [25.1-32.6]	92.9 [89.1-95.5]	7.1 [4.5-10.9]	1133
40-54	47.7 [44.5-50.9]	1641	29.6 [25.6-33.9]	35.9 [31.6-40.5]	34.5 [30.0-39.2]	97.7 [95.9-98.7]	2.3 [1.3-4.1]	763
55-69	53.9 [49.5-58.3]	937	25.6 [20.7-31.3]	36.6 [31.7-41.8]	37.8 [32.1-43.8]	96.8 [93.3-98.5]	3.2 [1.5-6.7]	498
Sex								
Women	51.1 [48.4-53.9]	3416	34.4 [31.5-37.5]	36.6 [33.9-39.4]	29.0 [26.5-31.6]	94.5 [92.6-96.0]	5.5 [4.0-7.4]	1745
Men	48.4 [45.3-51.4]	2159	32.8 [29.0-36.9]	36.5 [32.7-40.5]	30.7 [27.2-34.5]	88.8 [84.5-92.0]	11.2 [8.0-15.5]	1018
Residence								
Rural	43.9 [40.9-47.0]	3495	31.6 [28.1-35.4]	35.5 [32.0-39.1]	32.9 [29.4-36.6]	94.2 [91.4-96.2]	5.8 [3.8-8.6]	1552
Urban	57.7 [53.8-61.6]	2080	35.6 [31.5-40.0]	37.7 [33.7-41.9]	26.7 [23.7-30.0]	88.6 [83.8-92.0]	11.4 [8.0-16.2]	1211

Region								
Central	44.9 [40.9-49.0]	1407	27.5 [23.1-32.4]	38.6 [33.9-43.5]	33.9 [29.1-38.9]	95.7 [92.6-97.5]	4.3 [2.5-7.4]	672
East	53.3 [48.5-58.1]	1395	29.3 [24.6-34.4]	32.4 [28.4-36.6]	38.3 [33.3-43.6]	88.5 [83.2-92.2]	11.5 [7.8-16.8]	739
West	50.9 [47.5-54.3]	2773	38.4 [34.1-42.8]	37.3 [33.1-41.7]	24.4 [21.4-27.7]	90.7 [86.0-93.9]	9.3 [6.1-14.0]	1352
Education								
None/less than primary	41.8 [39.1-44.6]	3415	28.7 [25.8-31.9]	37.5 [33.9-41.2]	33.8 [30.5-37.2]	97.2 [93.7-98.8]	2.8 [1.2-6.3]	1497
Primary to middle	52.7 [48.3-57.1]	1184	36.4 [30.5-42.8]	38.7 [33.1-44.6]	24.9 [20.8-29.4]	88.0 [83.1-91.6]	12.0 [8.4-16.9]	633
Secondary or more	64.0 [59.8-68.1]	973	37.8 [32.8-43.1]	33.0 [28.1-38.4]	29.1 [24.0-34.9]	86.4 [80.1-91.0]	13.6 [9.0-19.9]	631
Wealth quintile								
Lowest	36.1 [31.6-40.9]	1117	25.2 [20.2-30.9]	31.5 [25.3-38.4]	43.3 [37.1-49.8]	94.5 [90.0-97.1]	5.5 [2.9-10.0]	409
Second	43.3 [38.8-47.9]	1107	28.1 [22.8-33.9]	42.2 [36.6-48.1]	29.7 [24.9-35.1]	94.1 [90.0-96.6]	5.9 [3.4-10.0]	481
Middle	43.9 [39.5-48.5]	1153	33.6 [27.8-40.0]	36.9 [30.5-43.9]	29.4 [25.0-34.3]	89.2 [81.7-93.8]	10.8 [6.2-18.3]	545
Fourth	54.8 [50.9-58.6]	1127	34.0 [28.9-39.4]	37.6 [32.2-43.4]	28.4 [24.2-33.0]	95.3 [92.1-97.3]	4.7 [2.7-7.9]	616
Highest	66.1 [62.6-69.4]	1071	39.7 [34.9-44.6]	34.3 [29.2-39.9]	26.0 [21.3-31.3]	87.4 [80.9-91.9]	12.6 [8.1-19.1]	712
Total (15-69)	**49.7 [47.3-52.0]**	**5575**	**33.6 [30.8-36.4]**	**36.6 [33.9-39.3]**	**29.9 [27.5-32.3]**	**91.5 [88.9-93.5]**	**8.5 [6.5-11.1]**	**2763**

Mental Health

Table 16.1. Percentage of respondents aged 15-69 years who had suicidal ideation, planned for or attempted suicide and suicidal behaviours in their close family members* by background characteristics

Background characteristic	Percent seriously considered attempting suicide	Number of respondents	Percent made a plan about how to commit suicide	Number of respondents	Percent ever attempted suicide	Number of respondents	Percent in whose close family, someone ever attempted suicide	Number of respondents	Percent in whose close family, someone ever died from suicide	Number of respondents
Age										
15-24	1.9 [1.0-3.6]	680	1.6 [0.8-3.4]	679	1.3 [0.6-2.6]	680	2.7 [1.3-5.5]	680	4.2 [2.4-7.2]	680
25-39	0.9 [0.5-1.6]	2315	0.4 [0.2-0.7]	2312	0.6 [0.3-1.0]	2317	3.0 [2.0-4.3]	2317	3.8 [2.8-5.1]	2315
40-54	0.8 [0.5-1.5]	1640	0.6 [0.3-1.0]	1639	0.4 [0.2-0.9]	1638	1.4 [0.8-2.3]	1640	**1.8** [1.2-2.8]	1640
55-69	1.1 [0.5-2.3]	937	0.3 [0.1-0.9]	937	**0.3** [0.1-0.9]	936	2.0 [1.2-3.3]	937	2.9 [1.8-4.7]	**937**
Sex										
Women	1.7 [1.2-2.3]	3414	0.8 [0.5-1.3]	3409	0.9 [0.6-1.3]	3412	2.9 [2.0-4.3]	3415	4.1 [3.0-5.4]	3413
Men	0.8 [0.4-1.5]	2158	0.7 [0.3-1.5]	2158	0.6 [0.3-1.2]	2159	2.0 [1.3-3.0]	2159	2.7 [1.8-4.1]	2159
Residence										
Rural	1.0 [0.7-1.6]	3493	0.5 [0.2-1.0]	3488	0.4 [0.2-0.9]	3491	1.9 [1.3-2.7]	3494	2.6 [1.9-3.6]	3493
Urban	1.4 [0.8-2.3]	2079	1.1 [0.6-2.1]	2079	1.1 [0.7-1.7]	2080	3.3 [2.2-4.9]	2080	4.4 [2.9-6.5]	2079

Region										
Central	0.8 [0.4-1.7]	1405	0.7 [0.2-2.1]	1403	0.5 [0.2-1.0]	1405	1.5 [0.8-2.8]	1406	3.6 [2.2-6.0]	1405
East	1.0 [0.5-2.0]	1395	0.6 [0.4-1.1]	1394	0.5 [0.2-1.0]	1394	1.9 [1.1-3.1]	1395	2.1 [1.3-3.3]	1395
West	1.5 [0.9-2.3]	2772	0.8 [0.4-1.6]	2770	0.9 [0.5-1.6]	2772	3.2 [2.2-4.6]	2773	3.7 [2.6-5.3]	2772
Education										
None/less than primary	0.9 [0.6-1.4]	3412	0.4 [0.3-0.7]	3410	0.4 [0.3-0.7]	3411	1.9 [1.4-2.7]	3414	3.0 [2.2-4.0]	3413
Primary to middle	2.0 [1.2-3.6]	1184	1.5 [0.7-2.9]	1182	1.0 [0.5-2.2]	1184	2.1 [1.3-3.4]	1184	3.5 [2.2-5.3]	1183
Secondary or more	0.6 [0.2-1.6]	973	0.6 [0.2-1.6]	972	0.9 [0.4-2.0]	973	4.1 [2.1-7.6]	973	4.1 [2.2-7.7]	973
Wealth quintile										
Lowest	1.8 [0.8-3.7]	1115	0.9 [0.4-2.1]	1116	1.2 [0.4-3.3]	1115	3.1 [1.8-5.1]	**1116**	3.2 [1.7-6.1]	1115
Second	1.3 [0.6-2.7]	1106	0.9 [0.4-2.5]	**1104**	0.5 [0.2-1.1]	1107	1.3 [0.6-2.7]	1107	2.1 [1.3-3.5]	1107
Middle	1.0 [0.6-1.9]	1153	0.9 [0.3-2.8]	1150	0.6 [0.3-1.5]	1152	1.3 [0.8-2.3]	1153	2.9 [1.6-5.3]	1153
Fourth	1.4 [0.8-2.4]	1127	0.8 [0.4-1.6]	1126	0.5 [0.2-1.1]	**1126**	2.3 [1.4-3.8]	1127	3.6 [2.5-5.1]	1126
Highest	0.6 [0.3-1.2]	1071	0.3 [0.1-0.8]	1071	0.8 [0.4-1.6]	1071	4.1 [2.3-7.1]	**1071**	4.8 [2.6-8.5]	1071
Age groups used in 2014										
18-39	1.4 [0.9-2.3]	2870	1.0 [0.6-1.9]	2866	1.0 [0.6-1.7]	2872	2.8 [1.9-4.1]	2872	3.9 [2.7-5.5]	2870
40-69	0.9 [0.6-1.5]	2577	0.5 [0.3-0.8]	2576	0.4 [0.2-0.7]	2574	1.6 [1.1-2.3]	2577	2.2 [1.6-3.1]	2577
Total 18-69	1.3 [0.9-1.8]	5447	0.8 [0.5-1.4]	5442	0.8 [0.5-1.3]	5446	2.4 [1.7-3.3]	5449	3.3 [2.5-4.4]	5447
Total 15-69	**1.2** [0.8-1.7]	**5572****	**0.7** [0.5-1.2]	**5567****	**0.7** [0.5-1.1]	**5571****	**2.4** [1.8-3.2]	**5574****	**3.4** [2.6-4.4]	**5572****

**close family (mother, father, brother, sister or children). **Missing respondents are due to refusal to answer*

Table 16.2. Percentage of respondents aged 15-69 years with different perceptions about magnitude of and causes of suicide in their communities

Background characteristics	Do you think suicide is a problem in your community?				Number of respondents	Main causes of suicide In the community						Number of respondents
	Not at all	Somewhat	Very much	Don't know		Economic	Social-family/ relationship/ extramarital	Emotional/ Psycholog-ical	Too Much Pressure	Health	Other	
Age												
15-24	29.9 [24.7-35.6]	31.8 [27.7-36.3]	29.4 [24.1-35.4]	8.9 [6.1-12.9]	680	13.6 [9.8-18.5]	58.2 [51.8-64.4]	20.5 [15.2-27.2]	0.3 [0.1-1.1]	2.9 [0.7-10.9]	4.5 [2.2-8.9]	415
25-39	28.7 [24.3-33.6]	32.6 [29.3-36.1]	32.3 [27.5-37.5]	6.3 [5.1-7.9]	2316	15.4 [13.0-18.2	53.1 [49.8-56.4]	21.1 [18.3-24.2]	2.2 [1.2-3.9]	1.1 [0.6-1.9]	7.1 [5.5-9.3]	1462
40-54	28.3 [23.9-33.2]	33.2 [29.9-36.8]	29.8 [25.2-34.9]	8.6 [6.7-11.0]	1641	18.1 [14.2-22.9]	49.9 [45.4-54.4]	20.2 [16.9-24.0]	1.3 [0.6-2.6]	1.0 [0.5-2.0]	9.5 [7.7-11.7]	1001
55-69	31.4 [25.8-37.6]	29.7 [25.8-33.9]	26.2 [21.6-31.3]	12.7 [8.5-18.6]	937	17.6 [13.6-22.4]	41.7 [36.8-46.9]	24.6 [20.3-29.5]	1.8 [1.0-3.2]	1.0 [0.4-2.8]	13.2 [10.0-17.4]	519
Sex												
Women	30.1 [25.7-34.9]	31.8 [28.9-34.7]	28.2 [24.3-32.6]	9.9 [8.0-12.1]	3415	14.7 [12.0-18.0]	54.8 [51.5-58.0]	19.4 [16.7-22.3]	1.2 [0.7-2.0]	1.6 [0.9-2.9]	8.3 [6.5-10.6]	2007
Men	28.5 [24.4-33.0]	32.6 [29.7-35.6]	32.1 [27.6-36.9]	6.9 [5.1-9.3]	2159	16.7 [14.1-19.8]	50.3 [46.7-53.8]	22.8 [19.6-26.3]	1.6 [1.0-2.7]	1.5 [0.5-3.9]	7.1 [5.6-9.1]	1390
Residence												
Rural	32.5 [26.7-39.0]	30.2 [26.8-33.8]	29.8 [24.0-36.2]	7.5 [5.9-9.5]	3494	16.5 [13.1-20.6]	51.4 [47.4-55.4]	18.8 [15.7-22.3]	1.7 [1.0-2.8]	1.7 [0.6-5.2]	9.9 [8.1-12.1]	2031
Urban	24.6 [20.2-29.7]	35.0 [31.7-38.5]	31.0 [26.3-36.1]	9.4 [6.4-13.5]	2080	14.9 [12.3-17.9]	53.7 [50.3-57.1]	24.3 [21.2-27.7]	1.1 [0.5-2.2]	1.3 [0.7-2.2]	4.8 [3.2-7.0]	1366
Region												
Central	32.1 [22.5-43.4]	26.5 [21.9-31.6]	29.5 [19.9-41.3]	12.0 [7.9-17.7]	1407	20.6 [14.6-28.4]	49.4 [42.5-56.3]	18.3 [13.4-24.6]	0.8 [0.4-1.8]	3.9 [1.5-10.3]	6.8 [4.6-10.0]	743
East	36.7 [30.2-43.7]	32.1 [26.8-38.0]	25.3 [19.1-32.7]	5.9 [3.5-9.7]	1395	11.0 [9.1-13.2]	51.0 [44.8-57.3]	21.8 [17.2-27.3]	1.8 [0.8-4.1]	1.2 [0.5-3.0]	13.2 [10.4-16.5]	787
West	24.6 [20.2-29.7]	35.5 [32.3-38.8]	32.7 [28.3-37.4]	7.2 [5.8-8.8]	2772	15.1 [12.8-17.8]	54.2 [51.3-57.1]	22.3 [19.5-25.4]	1.6 [0.9-2.7]	0.5 [0.3-1.0]	6.2 [4.5-8.7]	1867

Education												
None/less than primary	30.0 [25.3-35.2]	31.5 [28.6-34.6]	27.4 [23.3-31.9]	11.1 [8.5-14.5]	3414	17.6 [14.6-21.1]	47.6 [44.6-50.7]	20.7 [18.1-23.6]	1.9 [1.2-3.2]	0.9 [0.5-1.6]	11.2 [9.3-13.5]	1982
Primary to middle	29.3 [24.6-34.4]	33.2 [29.0-37.7]	30.8 [25.1-37.2]	6.7 [4.8-9.3]	1184	13.7 [10.6-17.5]	59.5 [53.9-64.8]	18.7 [14.5-23.7]	0.6 [0.2-1.9]	2.4 [0.5-10.6]	5.1 [3.6-7.3]	754
Secondary or more	27.4 [22.3-33.2]	32.6 [28.6-36.8]	36.3 [30.8-42.2]	3.7 [2.6-5.2]	973	14.5 [11.3-18.6]	53.8 [48.6-58.9]	25.2 [20.9-30.0]	1.3 [0.6-2.7]	1.8 [0.9-3.6]	3.4 [1.4-8.2]	659
Wealth quintile												
Lowest	38.0 [31.2-45.3]	26.5 [21.8-31.8]	27.4 [21.5-34.3]	8.1 [5.8-11.2]	1117	18.5 [13.5-24.8]	41.5 [35.4-47.8]	22.3 [17.3-28.4]	3.1 [1.5-6.3]	1.0 [0.4-2.7]	13.6 [10.1-18.1]	592
Second	28.3 [22.5-34.9]	29.6 [25.3-34.3]	30.4 [24.9-36.6]	11.7 [7.9-17.0]	1107	15.2 [11.4-20.1]	51.4 [46.4-56.3]	22.9 [18.8-27.5]	1.7 [0.8-3.6]	1.1 [0.5-2.4]	7.7 [5.8-10.3]	674
Middle	28.2 [22.9-34.2]	36.6 [32.2-41.3]	26.8 [21.6-32.7]	8.4 [5.8-12.1]	1152	15.0 [11.4-19.3]	55.9 [49.8-61.8]	19.7 [14.6-26.0]	0.7 [0.3-1.4]	2.2 [0.5-10.3]	6.6 [4.5-9.5]	695
Fourth	27.8 [23.0-33.3]	33.6 [29.5-37.9]	32.0 [26.5-38.0]	6.6 [5.0-8.7]	1127	14.3 [10.9-18.6]	55.3 [49.6-60.8]	20.1 [16.3-24.5]	0.5 [0.1-1.9]	1.9 [0.8-4.4]	8.0 [5.7-11.1]	712
Highest	25.8 [20.4-32.2]	33.4 [29.4-37.6]	34.0 [28.1-40.4]	6.8 [4.9-9.4]	1071	16.6 [13.6-20.1]	54.3 [48.8-59.7]	21.5 [18.0-25.4]	1.6 [0.8-3.1]	1.3 [0.6-2.9]	4.7 [2.3-9.2]	74
Total 15-69	**29.3 [25.3-33.6]**	**32.2 [29.7-34.8]**	**30.3 [26.3-34.5]**	**8.3 [6.7-10.3]**	**5574**	**15.8 [13.5-18.4]**	**52.4 [49.7-55.1]**	**21.2 [18.8-23.8]**	**1.4 [0.9-2.2]**	**1.5 [0.7-3.2]**	**7.7 [6.4-9.2]**	**3397**

Table 16.3. Percentage of respondents aged 15-69 years with different severity levels of depression (Phq-9 Score) and anxiety (GAD-7 Scale)

Background characteristic	PHQ-9 Score*				Generalized Anxiety Disorder 7-item (GAD-7) scale**				Number of respondents (N)
	None Or Minimal Depression	Mild Depression	Moderate Depression	Moderately Severe Depression	None Or Minimal Anxiety	Mild Anxiety	Moderate Anxiety	Sever Anxiety	
Age									
15-24	82.6 [78.9-85.9]	14.7 [11.6-18.4]	2.3 [1.3-4.2]	0.4 [0.1-1.1]	88.6 [85.6-91.1]	8.1 [6.2-10.5]	2.8 [1.2-6.3]	0.4 [0.2-1.2]	680
25-39	86.8 [84.9-88.5]	11.3 [9.7-13.1]	1.4 [0.9-2.1]	0.5 [0.2-1.4]	91.2 [89.0-93.0]	7.5 [5.9-9.4]	1.2 [0.7-2.0]	0.1 [0.0-0.3]	2317
40-54	88.1 [85.6-90.1]	10.6 [8.9-12.7]	1.1 [0.6-2.0]	0.2 [0.1-0.5]	92.9 [90.9-94.5]	6.5 [5.0-8.3]	0.6 [0.3-1.3]	0.0	1641
55-69	85.0 [81.1-88.2]	13.2 [10.4-16.6]	1.5 [0.8-2.9]	0.3 [0.1-1.2]	91.3 [87.5-94.0]	7.7 [5.3-11.0]	0.8 [0.3-2.0]	0.3 [0.1-1.3]	937
Sex									
Women	81.9 [79.9-83.8]	15.3 [13.8-16.9]	2.1 [1.4-3.1]	0.7 [0.3-1.4]	88.5 [86.3-90.5]	9.5 [8.0-11.3]	1.7 [1.1-2.8]	0.2 [0.1-0.5]	3416
Men	89.1 [87.1-90.9]	9.6 [8.0-11.5]	1.1 [0.6-2.0]	0.1 [0.0-0.6]	93.0 [90.9-94.6]	5.6 [4.2-7.4]	1.2 [0.6-2.5]	0.2 [0.1-0.6]	2159
Residence									
Rural	86.6 [84.5-88.5]	11.9 [10.3-13.6]	1.2 [0.6-2.3]	0.3 [0.1-0.6]	91.4 [88.8-93.5]	7.6 [5.9-9.7]	0.8 [0.4-1.7]	0.1 [0.1-0.4]	3495
Urban	84.5 [81.8-86.9]	12.9 [10.9-15.2]	2.1 [1.4-3.2]	0.5 [0.2-1.4]	90.1 [87.9-92.0]	7.2 [5.8-9.0]	2.4 [1.3-4.4]	0.2 [0.1-0.8]	2080
Region									
Central	86.2 [83.3-88.7]	12.3 [10.5-14.4]	1.3 [0.4-3.8]	0.2 [0.0-0.7]	92.6 [88.9-95.2]	6.6 [4.5-9.6]	0.5 [0.1-2.3]	0.3 [0.1-0.8]	1407
East	89.3 [86.2-91.8]	9.3 [7.2-11.9]	1.0 [0.4-2.1]	0.4 [0.1-1.5]	93.1 [90.6-95.0]	6.4 [4.7-8.8]	0.1 [0.0-0.3]	0.3 [0.1-1.4]	1395
West	84.0 [81.3-86.4]	13.5 [11.4-15.8]	2.0 [1.4-3.0]	0.5 [0.2-1.1]	89.0 [86.3-91.3]	8.4 [6.6-10.5]	2.5 [1.5-4.3]	0.1 [0.0-0.3]	2773
Education									
None/less than primary	85.7 [83.4-87.7]	12.6 [11.0-14.5]	1.1 [0.6-2.1]	0.5 [0.2-1.2]	90.9 [88.5-92.8]	8.0 [6.3-10.0]	0.9 [0.5-1.7]	0.2 [0.1-0.5]	3415

Primary to middle	85.5 [82.5-88.1]	12.3 [10.0-15.1]	1.9 [1.1-3.3]	0.3 [0.1-0.7]	90.5 [87.5-92.9]	7.5 [5.7-9.8]	1.8 [0.6-5.5]	0.2 [0.1-0.7]	1184
Secondary or more	86.2 [83.4-88.5]	11.4 [9.3-13.9]	2.3 [1.4-3.6]	0.2 [0.1-0.5]	91.4 [88.9-93.4]	6.2 [4.7-8.3]	2.3 [1.3-4.0]	0.1 [0.0-0.7]	973
Wealth quintile									
Lowest	84.3 [80.6-87.5]	13.7 [10.9-17.2]	1.8 [0.9-3.5]	0.2 [0.0-0.9]	91.5 [88.9-93.5]	7.3 [5.6-9.6]	1.0 [0.3-3.0]	0.2 [0.0-0.9]	1117
Second	85.1 [81.7-87.9]	14.0 [11.4-17.0]	0.8 [0.4-1.9]	0.1 [0.0-0.5]	93.3 [90.8-95.1]	6.1 [4.4-8.5]	0.6 [0.2-1.7]	0.0	1107
Middle	84.7 [80.2-88.3]	12.5 [9.7-16.0]	1.6 [0.7-3.4]	1.2 [0.5-2.9]	87.5 [83.4-90.8]	9.6 [6.9-13.3]	2.1 [0.8-5.6]	0.7 [0.3-1.8]	1153
Fourth	88.1 [85.2-90.4]	10.6 [8.4-13.4]	1.1 [0.5-2.2]	0.2 [0.1-0.6]	90.4 [87.1-92.9]	8.3 [6.0-11.4]	1.3 [0.7-2.7]	0.0 [0.0-0.3]	1127
Highest	86.3 [83.0-89.1]	11.0 [8.8-13.6]	2.5 [1.5-4.4]	0.1 [0.0-0.6]	92.0 [89.0-94.2]	5.9 [4.4-8.0]	2.1 [1.0-4.2]	0.0	1071
Total 15-69	**85.8 [84.1-87.3]**	**12.3 [11.0-13.7]**	**1.6 [1.1-2.3]**	**0.4 [0.2-0.7]**	**90.9 [89.2-92.4]**	**7.5 [6.3-8.8]**	**1.5 [0.9-2.4]**	**0.2 [0.1-0.4]**	**5575**

Violence and Injury

Table 17.1. Prevalence of self-reported road traffic injuries and accidental injuries in the past 12 months amongst respondents aged 15-69 years by background characteristics

Table 17.2. Practice of road safety including drink driving, use of seat-belt and helmet in the past 30 days amongst respondents aged 15-69 years by background characteristics

Table 17.1. Prevalence of self-reported road traffic injuries and accidental injuries in the past 12 months amongst respondents aged 15-69 years by background characteristics

Background characteristic	Road traffic injuries			Accidental injuries	
	Prevalence of all road traffic injuries[1]	Prevalence of road traffic injuries[1] requiring medical attention	Number of respondents	Prevalence of accidental injuries[2] requiring medical attention	Number of respondents (N)
Age					
15-24	4.1 [2.5-6.8]	0.6 [0.2-2.0]	680	3.6 [2.3-5.7]	680
25-39	3.6 [2.5-5.2]	0.6 [0.3-1.3]	2317	4.0 [3.0-5.3]	2312
40-54	2.6 [1.8-3.9]	0.5 [0.3-1.1]	1639	3.4 [2.6-4.5]	1637
55-69	0.8 [0.3-2.6]	0.2 [0.1-0.9]	936	4.3 [2.7-6.7]	933
Sex					
Women	1.4 [1.0-2.0]	0.3 [0.2-0.7]	3414	2.5 [1.9-3.3]	3407
Men	4.8 [3.4-6.8]	0.7 [0.3-1.4]	2158	5.0 [3.8-6.3]	2155
Residence					
Rural	1.6 [1.1-2.3]	0.3 [0.1-0.5]	3493	3.7 [2.8-4.7]	3485
Urban	5.4 [3.6-8.2]	0.9 [0.4-1.8]	2079	4.0 [2.9-5.3]	2077
Region					
Central	1.3 [0.7-2.3]	0.4 [0.2-1.0]	1405	4.4 [3.1-6.3]	1399
East	1.5 [0.9-2.6]	0.2 [0.1-0.7]	1395	5.0 [3.5-6.9]	1393
West	5.0 [3.5-7.0]	0.7 [0.3-1.4]	2772	3.0 [2.2-4.0]	2770
Education					
None/less than primary	1.7 [1.1-2.5]	0.4 [0.2-1.0]	3412	3.7 [2.8-4.9]	3403
Primary to middle	4.1 [2.5-6.6]	0.5 [0.2-1.0]	1184	4.1 [2.8-5.9]	1183
Secondary or more	5.7 [3.9-8.2]	0.8 [0.3-2.3]	973	3.6 [2.4-5.4]	973
Wealth quintile					

Lowest	0.7 [0.3-1.4]	0.1 [0.0-0.2]	1116	3.9 [2.7-5.5]	1112
Second	1.0 [0.6-1.7]	0.3 [0.1-0.8]	1106	5.0 [3.5-7.1]	1107
Middle	2.6 [1.4-4.7]	0.5 [0.2-1.1]	1152	2.9 [1.9-4.3]	1148
Fourth	4.5 [2.9-7.1]	0.5 [0.2-1.2]	1127	3.3 [2.0-5.3]	1124
Highest	6.4 [4.5-8.9]	1.1 [0.4-2.9]	1071	4.0 [2.7-5.8]	1071
Total (15-69)	**3.2 [2.4-4.4]**	**0.5 [0.3-0.9]**	**5572**	**3.8 [3.1-4.6]**	**5562**

Table 17.2. Practice of road safety including drink driving, use of seat-belt and helmet in the past 30 days amongst respondents aged 15-69 years by background characteristics

Background characteristics	Amongst adults who have been in a vehicle in the past 30 days, percent who:				Amongst adults who have been on a motorcycle or motor scooter in the past 30 days, percent who:			
	sometimes or always use seat belt[1]	never use a seat belt	does not have seat belt	Number of respondents (N)[2]	sometimes or always use helmet1	never use a helmet	does not have a helmet	Number of respondents (N)[3]
Age								
15-24	11.2 [8.5-14.7]	88.2 [84.8-91.0]	0.6 [0.2-1.5]	622	26.9 [20.8-33.9]	70.8 [63.7-77.1]	2.3 [0.9-5.8]	257
25-39	21.1 [18.4-24.0]	78.1 [75.2-80.8]	0.8 [0.4-1.6]	2128	25.9 [20.8-31.7]	73.5 [67.7-78.5]	0.6 [0.2-1.9]	825
40-54	15.9 [13.6-18.5]	83.4 [80.8-85.8]	0.7 [0.3-1.4]	1408	19.8 [14.3-26.6]	79.6 [72.7-85.1]	0.7 [0.2-2.5]	539
55-69	13.5 [9.7-18.3]	86.2 [81.4-90.0]	0.3 [0.1-0.9]	752	6.9 [3.3-14.0]	93.1 [86.0-96.7]	0.0	301
Sex								
Women	10.5 [9.3-12.0]	89.0 [87.5-90.2]	0.5 [0.3-1.0]	2949	7.5 [5.6-10.0]	91.6 [89.0-93.6]	0.9 [0.3-2.7]	1074
Men	21.7 [19.3-24.3]	77.6 [74.9-80.0]	0.8 [0.4-1.4]	1961	36.0 [29.2-43.2]	62.9 [55.6-69.7]	1.1 [0.4-3.0]	848
Residence								
Rural	12.2 [10.4-14.2]	87.0 [85.0-88.8]	0.8 [0.4-1.5]	2954	21.4 [15.7-28.5]	78.0 [70.8-83.8]	0.6 [0.2-1.7]	1142
Urban	22.0 [19.6-24.6]	77.6 [75.0-80.0]	0.4 [0.2-1.0]	1956	23.9 [18.4-30.4]	74.6 [68.1-80.2]	1.5 [0.4-4.9]	780
Region								
Central	16.3 [13.6-19.4]	83.0 [80.0-85.7]	0.7 [0.3-1.4]	1258	26.5 [16.6-39.5]	71.5 [58.6-81.6]	2.0 [0.5-8.6]	453
East	10.0 [7.6-13.2]	89.0 [85.9-91.5]	1.0 [0.4-2.7]	1149	21.4 [11.4-36.7]	77.6 [61.7-88.2]	1.0 [0.1-6.8]	281
West	18.9 [16.7-21.2]	80.7 [78.3-82.8]	0.5 [0.2-1.1]	2503	21.0 [16.7-26.2]	78.4 [73.2-82.8]	0.6 [0.2-1.4]	1188
Education								
None/less than primary	11.0 [9.4-12.8]	88.2 [86.4-89.7]	0.9 [0.5-1.5]	2835	14.7 [11.1-19.3]	84.9 [80.3-88.5]	0.4 [0.1-1.1]	1102

Primary to middle	15.8 [13.4-18.5]	83.7 [80.9-86.1]	0.5 [0.2-1.4]	1121	29.5 [22.2-38.0]	68.3 [59.7-75.8]	2.2 [0.8-6.1]	445
Secondary or more	28.9 [25.5-32.6]	70.9 [67.2-74.3]	0.3 [0.1-1.0]	951	29.2 [22.8-36.5]	70.0 [62.7-76.5]	0.8 [0.1-4.4]	373
Wealth quintile								
Lowest	3.4 [2.1-5.3]	95.5 [93.6-96.9]	1.1 [0.5-2.3]	833	5.8 [3.3-10.2]	93.7 [89.3-96.4]	0.5 [0.1-3.0]	373
Second	7.5 [5.6-9.9]	92.1 [89.6-94.0]	0.5 [0.1-1.5]	939	18.4 [12.8-25.8]	81.0 [73.7-86.6]	0.6 [0.1-2.8]	364
Middle	14.2 [11.1-18.0]	85.2 [81.3-88.3]	0.6 [0.3-1.4]	1033	29.9 [22.3-38.7]	69.5 [60.8-77.0]	0.6 [0.1-2.7]	395
Fourth	18.9 [16.0-22.1]	80.2 [77.0-83.1]	0.9 [0.4-2.1]	1059	29.8 [23.0-37.6]	66.4 [58.5-73.5]	3.8 [1.4-10.0]	372
Highest	31.2 [27.5-35.2]	68.5 [64.5-72.2]	0.3 [0.1-1.0]	1046	24.3 [18.6-31.1]	75.7 [68.9-81.4]	0.0	418
Total (15-69)	**16.4 [15.0-18.0]**	**82.9 [81.4-84.4]**	**0.6 [0.4-1.0]**	**4910**	**22.5 [18.6-27.1]**	**76.4 [71.9-80.5]**	**1.0 [0.4-2.4]**	**1922**

WASH

Table 18.1. Percentage of households that had drinking water facilities by background characteristics

	Improved Water Sources (W1)	Piped Water Sources (W2)	Non-Piped Improved Drinking Water Sources (W3)	Unimproved Water Sources (W4)	Surface Water (W5)	Limited Drinking Water Services (W6)	Basic Drinking Water Services (W7)	Improved Sources Accessible On Premises (W8)	Improved Sources Available When Needed (W9)	Number of Respondents
Residence										
Rural	99.3 [98.5-99.7]	98.6 [97.5-99.2]	0.7 [0.3-1.7]	0.10 [0.0-0.2]	0.6 [0.3-1.4]	2.5 [1.4-4.6]	96.8 [94.8-98.1]	99.0 [98.1-99.5]	91.3 [88.2-93.7]	3,495
Urban	99.4 [98.2-99.8]	98.0 [97.8-99.5]	0.5 [0.2-1.1]	0.1 [0.0-0.4]	0.53 [0.2-1.8]	4.7 [3.0-7.2]	94.7 [92.1-96.5]	99.1 [98.1-99.6]	79.1 [73.8-83.6]	2,080
Region										
Central	99.8 [99.3-100.0]	99.8 [99.4-99.9]	0.0 [0.0-0.1]	0.1 [0.0-0.6]	0.1 [0.0-0.3]	1.8 [0.8-3.9]	98.1 [95.8-99.1]	99.8 [99.4-99.9]	87.4 [81.0-91.9]	1,407
East	99.6 [99.1-99.8]	98.2 [96.0-99.2]	1.4 [0.5-3.9]	0.0 [0.0-0.2]	0.3 [0.2-0.8]	0.7 [0.3-1.6]	98.9 [98.0-99.4]	98.9 [97.5-99.5]	90.3 [85.3-93.8]	1,395
West	99.0 [97.8-99.5]	98.3 [97.1-99.0]	0.7 [0.3-1.4]	0.1 [0.0-0.2]	0.9 [0.4-2.1]	5.5 [3.5-8.3]	93.5 [90.7-95.5]	98.7 [97.5-99.3]	83.9 [80.0-87.2]	2,773
Wealth Quintile										
Least Wealth (Q1)	98.9 [97.4-99.6]	97.3 [95.0-98.6]	1.6 [0.6-4.0]	0.1 [0.0-0.5]	1.0 [0.4-2.3]	1.7 [0.9-3.0]	97.3 [95.6-98.3]	98.6 [97.1-99.3]	91.2 [88.0-93.6]	1,111
Lower (Q2)	99.2 [97.7-99.7]	98.6 [96.8-99.4]	0.6 [0.2-2.3]	0.2 [0.1-0.9]	0.6 [0.1-2.2]	3.1 [1.7-5.6]	96.0 [93.5-97.6]	98.8 [97.3-99.5]	90.4 [86.9-93.0]	1,106
Middle (Q3)	99.1 [96.2-99.8]	98.6 [96.3-99.4]	0.5 [0.2-1.3]	0.00	0.9 [0.2-3.8]	3.4 [1.8-6.3]	95.7 [92.4-97.6]	98.8 [96.4-99.6]	85.1 [80.0-89.1]	1,144
Upper (Q4)	99.7 [99.2-99.9]	99.5 [99.0-99.8]	0.2 [0.1-0.6]	0.00	0.3 [0.1-0.8]	3.5 [2.1-5.6]	96.2 [94.1-97.6]	99.6 [99.1-99.8]	84.3 [79.0-88.5]	1,126
Wealthiest (Q5)	99.8 [99.1-99.9]	99.4 [98.5-99.7]	0.4 [0.1-1.2]	0.00	0.2 [0.1-0.9]	5.0 [3.2-7.7]	94.8 [92.1-96.6]	99.4 [98.5-99.7]	81.7 [76.3-86.1]	1,088
Total (15-69)	**99.4 [98.8-99.7]**	**98.7 [98.0-99.2]**	**0.6 [0.3-1.2]**	**0.1 [0.0-0.2]**	**0.6 [0.3-1.2]**	**3.4 [2.4-4.9]**	**95.9 [94.4-97.1]**	**99.1 [98.4-99.4]**	**86.2 [83.5-88.6]**	**5,575**

Table 18.2. Percentage of households that have sanitation facilities by background characteristics

	Improved Sanitation Facilities (S1)	Improved Sanitation Facilities Connected To Sewers (S2)	Improved Sanitation Facilities Connected To Septic Tanks (S3)	Improved Latrines Or Other Improved On-Site Facilities (S4)	Unimproved Sanitation Facilities (S5)	No Sanitation Facilities (Open Defe-cation)(S6)	Improved Sanitation Facilities Which Are Shared (Limited Sanitation Services) (S	Improved Sanitation Facilities Which Are Not Shared (Basic Sanitation Services)(	Sewer Connec-tions Where Wastes Reach Treatment Plants And Are Treated (S9)	On-Site Sanitation Facilities Where Wastes Reach Treatment Plants And Are Treated	On-Site Sanitation Facilities Where Wastes Are Disposed In Situ (S11)	Safely Managed Sanitation Services (S12)	Number of Respondents
Residence													
Rural	93.0 [89.9-95.2]	4.9 [2.7-8.8]	68.2 [62.0-73.8]	19.9 [15.4-25.2]	5.9 [3.9-8.9]	1.0 [0.7-1.6]	7.8 [6.3-9.6]	85.2 [82.0-87.9]	4.9 [2.7-8.8]	0.9 [0.4-1.8]	85.9 [82.0-89.1]	84.2 [80.9-87.0]	3,495
Urban	98.2 [96.1-99.1]	34.1 [26.0-43.1]	56.8 [48.3-65.0]	7.3 [4.6-11.3]	1.7 [0.7-3.7]	0.2 [0.1-0.3]	15.0 [11.7-19.0]	83.2 [78.9-86.8]	34.1 [26.0-43.1]	7.3 [5.1-10.2]	52.4 [43.9-60.8]	79.8 [75.6-83.4]	2,080
Region													
Central	96.1 [92.9-97.8]	9.5 [4.1-20.8]	74.1 [64.1-82.1]	12.4 [7.8-19.2]	3.4 [1.7-6.6]	0.5 [0.2-1.5]	9.1 [6.5-12.7]	86.9 [82.6-90.3]	9.5 [4.1-20.8]	1.2 [0.6-2.3]	82.9 [74.1-89.2]	84.9 [80.8-88.2]	1,407
East	98.8 [97.1-99.5]	1.7 [0.6-5.0]	64.2 [54.1-73.1]	32.9 [23.9-43.4]	0.5 [0.2-1.7]	0.7 [0.2-1.9]	7.5 [5.1-10.9]	91.3 [87.8-93.8]	1.7 [0.6-5.0]	1.9 [0.6-5.8]	94.1 [90.9-96.3]	90.2 [86.7-92.9]	1,395
West	93.2 [89.8-95.5]	27.5 [21.8-34.0]	57.2 [50.4-63.7]	8.5 [5.9-12.1]	6.1 [3.9-9.3]	0.7 [0.5-1.2]	13.1 [10.5-16.1]	80.1 [76.1-83.6]	27.5 [21.8-34.0]	5.5 [3.9-7.7]	56.9 [50.8-62.7]	77.7 [73.7-81.3]	2,773
Wealth Quintile													
Least Wealth (Q1)	86.8 [81.3-90.9]	1.3 [0.5-3.3]	56.4 [47.0-65.4]	29.1 [22.1-37.3]	10.9 [7.1-16.4]	2.2 [1.2-4.3]	6.9 [4.9-9.8]	79.9 [74.3-84.5]	1.3 [0.5-3.3]	0.2 [0.0-1.0]	85.2 [79.6-89.4]	79.8 [74.1-84.4]	1,111
Lower (Q2)	92.4 [87.6-95.4]	3.8 [2.0-7.1]	67.4 [60.1-74.3]	21.0 [15.9-27.2]	6.4 [3.7-10.9]	1.2 [0.6-2.3]	15.3 [11.8-19.6]	77.1 [71.6-81.8]	3.8 [2.0-7.1]	1.5 [0.7-3.3]	85.4 [79.6-89.8]	76.2 [70.6-81.0]	1,106
Middle (Q3)	97.0 [95.0-98.2]	8.2 [5.0-13.1]	75.3 [69.2-80.5]	13.5 [9.9-18.1]	2.9 [1.7-4.8]	0.1 [0.0-0.4]	19.7 [15.7-24.5]	77.2 [72.0-81.7]	8.2 [5.0-13.1]	2.9 [1.6-5.0]	83.5 [78.0-87.8]	76.0 [70.7-80.6]	1,144
Upper (Q4)	98.1 [95.7-99.2]	20.3 [15.1-26.8]	70.3 [63.5-76.2]	7.5 [5.3-10.6]	1.8 [0.7-4.1]	0.1 [0.0-0.5]	9.0 [6.9-11.5]	89.1 [86.1-91.6]	20.3 [15.1-26.8]	6.6 [4.2-10.1]	67.9 [61.6-73.7]	86.6 [83.5-89.1]	1,126
Wealthiest (Q5)	99.4 [98.2-99.8]	45.7 [36.5-55.2]	48.0 [39.7-56.5]	5.7 [3.1-10.4]	0.6 [0.2-1.8]	0.0	3.0 [2.0-4.4]	96.5 [94.8-97.6]	45.7 [36.5-55.2]	5.7 [3.9-8.4]	43.3 [35.6-51.4]	91.8 [89.2-93.8]	1,088
Total	**95.2 [93.3-96.5]**	**17.0 [13.4-21.4]**	**63.5 [58.4-68.3]**	**14.6 [11.8-18.1]**	**4.2 [2.9-6.0]**	**0.7 [0.4-1.0]**	**10.8 [9.1-12.7]**	**84.4 [81.9-86.6]**	**17.0 [13.4-21.4]**	**3.5 [2.6-4.8]**	**72.0 [67.7-75.9]**	**82.4 [79.8-84.6]**	**5,575**

Table 18.3. Percentage of households that have hand washing facilities by background characteristics

	Handwashing Facility On Premises (H1)	Hand washing facility on premises with soap and water available (basic hand washing) (H2	Hand washing station in the home lacking soap and/or water (limited hand washing) (H3	Number of Respondents
Residence				
Rural	99.4 [98.8-99.7]	92.2 [90.0-94.0]	7.2 [5.5-9.3]	3,495
Urban	99.8 [99.3-99.9]	89.1 [85.2-92.1]	10.7 [7.7-14.6]	2,080
Region				
Central	99.7 [99.3-99.8]	92.5 [88.7-95.1]	7.1 [4.6-10.9]	1,407
East	99.4 [97.4-99.9]	91.9 [86.8-95.1]	7.5 [4.5-12.4]	1,395
West	99.6 [99.1-99.8]	89.7 [86.6-92.1]	9.9 [7.5-12.9]	2,773
Wealth Quintile				
Least Wealth (Q1)	98.3 [96.4-99.2]	86.1 [82.0-89.5]	12.2 [9.1-16.1]	1,111
Lower (Q2)	99.8 [99.5-99.9]	90.7 [87.6-93.1]	9.1 [6.8-12.2]	1,106
Middle (Q3)	99.4 [98.2-99.8]	90.02 [86.3-93.1]	9.2 [6.4-13.0]	1,144
Upper (Q4)	100.00	91.9 [88.0-94.6]	8.1 [5.4-12.0]	1,126
Wealthiest (Q5)	100.00	94.5 [91.1-96.7]	5.5 [3.3-8.9]	1,088
Total	**99.6 [99.2-99.8]**	**90.9 [88.9-92.6]**	**8.6 [7.0-10.6]**	**5,575**

List of Enumerators

1.	Karma	Mendrelgang BHU II
2.	Karma Dorji	Tsirang Hospital
3.	Yeshi Wangdi	Pema Gatshel Hospital
4.	Tashi Penjor	Autsho BHU II
5.	Sonam Wangdi	Dungkar BHU II
6.	Phuntsho Wangdi	Ganglakhema BHU II
7.	Karma Dawa	Sakteng BHU II
8.	Deki Zangmo	Panbang BHU II
9.	Phuntsho Tashi	Bidung BHU
10.	Tashi Phuntsho	Nganglam BHU
11.	Tenzin	Airport Health
12.	Tshewang Dorji	Hejo Satelite Clinic
13.	Tashi Pelzom	Yebilaptsa Hospital
14.	Thinley Wangchuk	Dagapela Hospital
15.	Rinchen Dorji	Dagapela Hospital
16.	Sangay Dema	Sipsoo Hospital
17.	Lodrey Tshering	Kanglung BHU I
18.	Pema Lobzang	Tsakaling BHU II
19.	Karma Nidup	Gyalpozhing BHU I
20.	Lhendup Namgal	Yadi BHU I
21.	Tshewang Gyeltshen	Haa Hospital
22.	Tshering Wangchuk	Norbuling BHU II
23.	Dorji Wangchuk	Tshatshi BHU II
24.	Dechen Tshomo	Biteka BHU II
25.	Dawa Choden	Gidakom Hospital
26.	Sonam Tenzin	Gidakom Hospital
27.	Dhan Kumar Rai	Lunana BHU II
28.	Pema Tenzin	Tsirang CHU
29.	Leki Legyel	Zhemgang Hospital
30.	Yangka Peldon	Lhamoizingkha BHU I
31.	Beda Maya Acharya	Chuzargang BHU I
32.	Tshering Zangmo	Chuzargang BHU I
33.	Rinchen Tshewang	Wangdue Hospital
34.	Yeshi Norbu	Samdrupcholing BHU I
35.	Nidup Zangmo	Wangdue Hospital
36.	Pema Chokey	Wangdue Hospital
37.	Sonam Tshomo	Phuntsholing Hospital
38.	Karma Wangchuk	Haa Hospital
39.	Chencho Namgay	Hungtsho BHU II
40.	Jambay Dorji	Dechencholing BHU I
41.	Ngawang Chogyal	Samtse Hopsital
42.	Tshering Gyeltshen	Gomtu Hospital
43.	Tshewang Jamtsho	Gomdhar BHU II
44.	Tenzin Dorji	Jomotshangkha BHU I
45.	Jigme Lhendup	RCDC
46.	Sonam	Thrinleygang BHU II
47.	Choejay	Goenshari BHU II
48.	Ugyen Sangay	Punakha Hospital

Supervisors

1.	Kinely Dorjee	MoH
2.	Kinley Dorji	MoH
3.	Wangchuk	FoNPH
4.	Tshewang Lhaden	MoH
5.	Sonam Wangdi	MoH
6.	Sonam Tenzin	Gidakom Hospital
7.	Tenzin wangchuk	Paro Hospital
8.	Nado	Haa hospital

Spot checkers

1.	Dr. Karma Lhazeen	MoH
2.	Wangdi Gyeltshen	MoH
3.	Dr. Kuenzang Chhezom	FoNPH
4.	Mongal Singh Gurung	MoH
5.	Pemba Yangchen	MoH

STEPS INSTRUMENT

WHO STEPS Instrument
for Noncommunicable Disease Risk Factor Surveillance

BHUTAN

Survey Information

Location and Date	Response	Code
PSU Key	⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌋	I1
Team ID (Range 1 – 32)	⌊_⌊_⌊_⌋	I3
Date of completion of the instrument	⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌊_⌋ dd mm year	I4

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 Dzongkha 2 Tshanglakha 3 Lhotshamkha 4 Bumthapkha/Khengkha 5 *Others* 6	I6/ I6Other
Time of interview (24 hours clock)	⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	I7
Family Surname (Last name)		I8
First Name		I9
Contact phone number where possible (Max. 8 digits)	88 – Refused 99 – Not available	I10

Step 1 Demographic Information

Demographic Information		
Question	**Response**	**Code**
Sex (*Record Male / Female as observed)*	Male 1 Female 2	C1
What is your date of birth? *Don't Know 77 77 7777*	└┴┘ └┴┘ └┴┴┴┘ *If Known, Go to C4* dd mm year	C2
How old are you?	Years └┴┘	C3
In total, how many years have you spent at school and in full-time study (excluding pre-school)? (Range 0 – 25 years)	Years └┴┘	C4
What is the **highest level of education** you have completed?	No formal schooling 1 Non-formal education 2 Less than primary 3 Primary (class 6) completed 4 Lower secondary (class 8) completed 5 Middle secondary (class 10) completed 6 Higher secondary (class 12) completed 7 Certificate/Diploma 8 Bachelor's degree and above 9 Monastic 10 Don't know 77 Refused 88	C5
What is your **marital status**?	Never married 1 Currently married 2 Separated 3 Divorced 4 Widowed 5 Cohabitating 6 Refused 88	C7
Which of the following best describes your **main work** status over the past 12 months? *(USE SHOWCARD)*	Government/DHI/SOE 1 NGO/CSO/IO employee 2 Private employee 3 Subsistence Farmer 4 Self-employed other than subsistence farmer 5 Student 6 Homemaker 7 Retired 8 Unemployed (able to work) 9 Unemployed (unable to work) 10 Non-paid 11 Other 12 Refused 88	C8
In total, how many persons live in this household (including infants)? (Range 1 – 30) 77, if not known; 88, if refused	Number of people └┴┘	C9x

Household socio-economic status

Does your household own any land? (Record for all family member and irrespective anywhere in the country)	Yes 1 No 0 Go to C12x	C10x
How much land does your household own in decimal? Calculation chart e.g. 1 acre = 100 decimal		

Type	Urban Area	Rural Area
Wet land	C11ax	C11dx
Dry land	C11bx	C11ex
Orchard	C11cx	C11fx

Please ask /observe - whether this household or any person who lives in the household has the following items:	Items	Yes	No	
	Sofa set	1	2	C12ax
	Computer or laptop or tab	1	2	C12bx
	Fixed Telephone	1	2	C12cx
	Mobile phone (smart phone)	1	2	C12dx
	Mobile phone (simple phone)	1	2	C12ex
	Electric/coal iron	1	2	C12fx
	Rice cooker/curry cooker	1	2	C12gx
	Refrigerator/Fridge	1	2	C12hx
	Water boiler	1	2	C12ix
	Micro-wave oven	1	2	C12jx
	Jewelry	1	2	C12kx
	Family car	1	2	C12lx
	Other Vehicle (commercial)	1	2	C12mx
	Motor bike, scooter, gear bicycle	1	2	C12nx
	Machinery	1	2	C12ox
	Washing machine	1	2	C12px
	Vacuum cleaner	1	2	C12qx
	Television	1	2	C12rx
	DTH or cable line	1	2	C12sx
	VCR/ VCD/ DVD	1	2	C12tx
	Kitchen grinder machine	1	2	C12ux
	House/Building	1	2	C12vx
	Wrist watch	1	2	C12wx

What types of family car does your household own? (if C12lx=yes) [Multiple response]	SUV Non-SUV	1 2	C12lx1
What main material used to build the **wall** of your main living house?	Cane/ palm/ trunks/bamboo Bamboo with mud Stone with mud Plywood Cardboard Cement RCC wall Stone with lime/cement Bricks Cement blocks Wood planks Rammed earth Mud blocks Others (specify)	1 2 3 4 5 6 7 8 9 10 11 12 13	C13x / C13xOthers
What main materials used to build the **roof** of your main living house?	Metal sheet Concrete/Cement Tiles/slate Thatch Planks/Shingles Tarpaulin	1 2 3 4 5 6	C14x / C14xOthers

	Bamboo 7 Cardboard 8 Others(specify) 9	
What main materials used to build the **floor** of your main living house?	Tiles/marbles 1 Concrete/Cement/Terrazzo 2 Clay/Earthen 3 Planks/Shingles 4 Bamboo 5 Polished wood 6 Others(specify) 7	C15x / C15xOthers
How many rooms does your household occupy, including bedrooms, living rooms and rooms used for family enterprise, but NOT counting toilets, kitchens and balconies?		C16x
Does your household have livestock/poultry?	Yes 1 go to C18x No 0	C17x
If yes, how many? *(If the number is greater than 999 type 999)*	Cattle Pigs Buffalo Horses Goats Sheep Poultry Yaks Others (specify)	C18ax C18bx C18cx C18dx C18ex C18fx C18gx C18hx C18xOther

Step 1 Behavioural Measurements

Tobacco Use

Now I am going to ask you some questions about tobacco use.

Do you **currently** smoke any **tobacco** products, such as cigarettes, bidi, cigars or pipes? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T8*	T1
Do you currently smoke tobacco products **daily**?	Yes 1 No 2	T2
How old were you when you **first started** smoking?	Age (years) Don't know 77 ⌊_⊥_⌋ *If Known, go to T5a/T5aw*	T3
Do you remember how long ago was it? *(RECORD ONLY 1, NOT ALL 3)* *Don't know 77*	In Years ⌊_⊥_⌋ *If Known, go to T5a/T5aw* OR in Months ⌊_⊥_⌋ *If Known, go to T5a/T5aw* OR in Weeks ⌊_⊥_⌋	T4 / T4type

		DAILY↓	WEEKLY↓	
On average, **how many** of the following products do you smoke **each day/week?** *(IF LESS THAN DAILY, RECORD WEEKLY)* *(RECORD FOR EACH TYPE, USE SHOWCARD)* *Don't Know 7777*	Manufactured cigarettes	⌊_⊥_⊥_⊥_⌋	⌊_⊥_⊥_⊥_⌋	T5a/T5aw
	Hand-rolled cigarettes	⌊_⊥_⊥_⊥_⌋	⌊_⊥_⊥_⊥_⌋	T5b/T5bw
	Bidis	⌊_⊥_⊥_⊥_⌋	⌊_⊥_⊥_⊥_⌋	T5c/T5cw
	Cigars, cheroots, cigarillos	⌊_⊥_⊥_⊥_⌋	⌊_⊥_⊥_⊥_⌋	T5d/T5dw
	Other	⌊_⊥_⊥_⊥_⌋ *If Other, go to T5other, else go to T6*	⌊_⊥_⊥_⊥_⌋	T5f/T5fw
	Other (please specify):	⌊_⊥_⊥_⊥_⊥_⊥_⌋		T5other/ T5otherw

During the past 12 months, have you tried to **stop smoking**?	Yes 1 No 2	T6
During any visit to a doctor or other health worker in the past 12 months, were you advised to quit smoking tobacco?	Yes 1 *If T2=Yes, go to T12; if T2=No, go to T9* No 2 *If T2=Yes, go to T12; if T2=No, go to T9* No visit during the past 12 months 3 *If T2=Yes, go to T12; if T2=No, go to T9*	T7
In the past, did you **ever smoke** any tobacco products? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T12*	T8
In the past, did you **ever** smoke **daily**?	Yes 1 *If T1=Yes, go to T12, else go to T10* No 2 *If T1=Yes, go to T12, else go to*	T9
How old were you when you **stopped** smoking?	Age (years) Don't Know 77 └┴┘ *If Known, go to T12*	T10
How **long ago** did you stop smoking? *(RECORD ONLY 1, NOT ALL 3)* *Don't Know 77*	Years ago └┴┘ *If Known, go to T12*	T11a
	OR Months ago └┴┘ *If Known, go to T12*	T11b
	OR Weeks ago └┴┘	T11c
Do you **currently use** any **smokeless tobacco** products such as *[snuff, chewing tobacco, betel with tobacco]*? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T15*	T12
Do you **currently use smokeless tobacco** products **daily?**	Yes 1 No 2 *If No, go to T14aw*	T13
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 └┴┴┴┴┘ └┴┴┴┴┘	T14a/ T14aw
	Snuff, by nose └┴┴┴┴┘ └┴┴┴┴┘	T14b/ T14bw
	Chewing tobacco └┴┴┴┴┘ └┴┴┴┴┘	T14c/ T14cw
	Betel, quid (with tobacco) └┴┴┴┴┘ └┴┴┴┴┘	T14d/ T14dw
	Other └┴┴┴┴┘ └┴┴┴┴┘ *If Other, go to T14other, if T13=No, go to T16, else go to T17*	T14e/ T14ew
	Other (please specify): └┴┴┴┴┴┴┘ *If T13=No, go to T16, else go to T17*	T14other/ T14other w
In the **past**, did you **ever use** smokeless tobacco products such as *[snuff, chewing tobacco, or betel, quid with tobacco]*?	Yes 1 No 2 *If No, go to T17*	T15
In the **past**, did you **ever use** smokeless tobacco products such as *[snuff, chewing tobacco, or betel, quid with tobacco]* **daily**?	Yes 1 No 2	T16
During the past 30 days, did someone smoke **in your home**?	Yes 1 No 2	T17
During the past 30 days, did someone smoke in closed areas **in your workplace** (in the building, in a work area or a specific office)?	Yes 1 No 2 Don't work in a closed area 3	T18

Tobacco Policy

You have been asked questions on tobacco consumption before. The next questions ask about tobacco control policies. They include questions on your exposure to the media and advertisement, on cigarette promotions, health warnings and

During the past 30 days, have you noticed information about the dangers of smoking cigarettes or that encourages quitting through the following media? *(RECORD FOR EACH)*

Newspapers or magazines	Yes 1 No 2 Don't know 77	TP1a
Television	Yes 1 No 2 Don't know 77	TP1b
Radio	Yes 1 No 2 Don't know 77	TP1c
Posters or Banners or Sign Board	Yes 1 No 2 Don't know 77	TP1d
During the past 30 days, did you notice any **health warnings on cigarette packages**?	Yes 1 No 2 *If no, go to TP6* Did not see any cigarette packages 3 *If "did not see any cigarette packages", go to TP6* Don't know 77 *If Don't know, go to TP6*	TP4
The next questions TP5 – TP7 are administered to current smokers only.		
During the past 30 days, have warning labels on cigarette packages led you to **think about quitting**?	Yes 1 No 2 Don't know 77	TP5
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	Number of cigarettes ⌊_⌊_⌊_⌊_⌋ *If "Don't know or don't smoke or purchase manuf. cig.", end section*	TP6
In total, **how much money** did you pay for this purchase? Don't know 7777, Refused 8888	Amount (in Nu) ⌊_⌊_⌊_⌊_⌋	TP7
Where do **people usually buy** manufactured cigarettes or other forms of tobacco such as bidi or chewing tobacco?	Within Bhutan 1 Outside Bhutan 2 Don't Know 77 Refused 88	TP8x
How **easy or difficult is it for someone** to obtain manufactured cigarettes or other forms of tobacco such as bidi or chewing tobacco?	Very easy 1 Easy 2 Difficult 3 Very difficult 4 Don't know 77	TP9x

Betel or areca nut

Do you **currently use betel or areca nut (Doma, Paan, Supari, other betel nut products)?** *(USE SHOWCARD)*	Yes 1 No 2 If No, go to B4	B1
Do you **currently use** betel or areca nut products **daily?**	Yes 1 No 2	B2
On average, how many **times a day/week** do you use betel or areca nut products *(IF LESS THAN DAILY, RECORD WEEKLY)* *(RECORD FOR EACH TYPE, USE SHOWCARD)* *Don't Know 7777*	DAILY↓ WEEKLY↓ Betel nut (Doma and Paan) ⌊_⌊_⌊_⌊_⌋ ⌊_⌊_⌊_⌊_⌋	B3a/ B3aw
	Supari and other products ⌊_⌊_⌊_⌊_⌋ ⌊_⌊_⌊_⌊_⌋	B3b/ B3bw
In the past, did you ever use betel or areca nut products?	Yes 1 No 2 go to A1	B4
In the past, did you ever use betel or areca nut products daily?	Yes 1 No 2	B5

Alcohol Consumption

The next questions ask about the consumption of alcohol.

Question	Response	Code
Have you **ever** consumed any alcohol such as beer, wine, Hard drinks, ara, changkoe, bangchang, shingchang etc.? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to A16*	A1
Have you consumed any alcohol within the **past 12 months**?	Yes 1 *If Yes, go to A4* No 2	A2
What are the reasons for not drinking any alcohol in the past 12 months? [Multiple response]	Health reasons 1 go to AP1 Family pressure 2 go to AP1 Cannot afford/no money to buy 3 go to AP1 Just wanted to stop 4 go to AP1 Spiritual/religious reasons 5 go to AP1 Advice of doctor/health worker 6 go to AP1 Other (Specify) 7 go to AP1	A3x / A3xOther
During the past 12 months, **how frequently** have you had at least one **standard alcoholic drink**? *(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 *If No, go to A13*	A5
What is the alcohol type that you usually or most often drink? [single response]	Beer 1 Wine 2 Spirit (whisky / Vodka / Gin) 3 Ara 4 Changkoe 5 Bangchang 6 Shingchang 7 Others (Specify)	A5x
During the past 30 days, on how many **occasions** did you have at least one standard alcoholic drink?	Number Don't know 77 └┴┘ *If Zero, go to A8*	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 └┴┘	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 └┴┘	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 └┴┘	A9
During the past 12 months, how often do you have six or more standard drinks on one occasion?	Never Less than monthly Monthly Weekly Daily or almost daily	A9a

During each of the **past 7 days**, how many standard drinks did you have each day? *(USE SHOWCARD)* *Don't Know 77*	Monday ⌊_⌊_⌋	A10a
	Tuesday ⌊_⌊_⌋	A10b
	Wednesday ⌊_⌊_⌋	A10c
	Thursday ⌊_⌊_⌋	A10d
	Friday ⌊_⌊_⌋	A10e
	Saturday ⌊_⌊_⌋	A10f
	Sunday ⌊_⌊_⌋	A10g
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.		
During the **past 7 days**, did you consume any **homebrewed** alcohol (e.g. ara, changkoe, bangchang), any alcohol **brought over the border/from another country**, any alcohol **not intended for drinking** or other **untaxed** alcohol? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to A13*	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: Ara, changkoe, bangchang, shingchang etc. ⌊_⌊_⌋	A12a
	Homebrewed beer or wine, e.g. palm or fruit wine ⌊_⌊_⌋	A12b
	Alcohol brought over the border/from another country ⌊_⌊_⌋	A12c
	Alcohol not intended for drinking, e.g. alcohol-based medicines, perfumes, after shaves ⌊_⌊_⌋	A12d
	Other untaxed alcohol in the country ⌊_⌊_⌋	A12e
During the **past 12 months,** how often have you found that you were not able to stop drinking once you had started? (if A2=1)	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? (if A2=1)	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? (if A2=1)	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

Alcohol Policy and programs

You have been asked questions on alcohol consumption before. The next questions ask about alcohol control policies and programs. They include questions on your exposure to the media and advertisement, on alcohol promotions, enforcement of bans or comprehensive restrictions on alcohol advertising, drunk driving countermeasures, restricting physical availability, health warnings and alcohol purchases.

How easy or difficult is it for **someone** to obtain alcohol for drinking?	Very easy 1 Easy 2 Difficult 3 Very difficult 4 Don't know/ Don't drink alcohol 77	AP1
In the past 30 days, on an average how much did you spend on alcohol?	Amount (in Nu) ⌊_⌊_⌊_⌊_⌊_⌊_⌋	AP2
In the past 30 days, have you ridden a vehicle where the driver is apparently drunk?	Yes 1 No 2	AP3
During last 6 months have you been stopped or checked by traffic police for alcohol while driving?	Yes 1 No 2 I don't drive 3 Refused 88	AP4
During last 30 days have you noticed any **advertisement or signs promoting** beer, wine, any other spirit etc. on television, magazine, internet, radio, bill boards, point of sale or local magazine, local cinema, films?	Yes 1 No 2 Refused 88	AP5
When you go for sports events, fair, concert, community events or social gathering how often do you see advertisement or have been offered free beer/alcohol or discounted sale of alcohol?	Not attended any such gathering 1 Never 2 Rarely 3 Sometime 4 Most of the time 5 Always 6	AP6
During the past 30 days did you see or hear any messages on television, radio, billboards, posters, newspaper, magazine, movies, and internets, social media that **discouraged you to drink alcohol** or inform you about health danger of drinking alcohol?	Yes 1 No 2	AP7
Are you aware of the existing regulations to reduce harmful use of alcohol in Bhutan?	Yes 1 No 2 go to AP10	AP8
What are the existing regulations to reduce harmful use of alcohol in Bhutan? *(Multiple responses allowed (Probe saying "and" but don't read out the options)*	Dry day (Tuesday) 1 Sale restriction timing 2 Before 1 pm and after 10 pm 3 Sale to under age (<18 years) is prohibited 4 Sale of alcohol to intoxicated person is prohibited 5 Homebrewed alcohol is prohibited 6 Sale of alcohol near monasteries and schools is prohibited 7 Drink driving is illegal 8 Only bar license holder can sell alcohol 9 Other 10 Don't know 77	AP9
During the past 30 days, did any shop/bar refuse to sell alcohol to you or any person?	Yes 1 No 2 go to AP12 I did not try to buy 3 go to AP12	AP10

What was/were the reasons for refusing to sell alcohol to you or any person Note: Multiple responses allowed (Probe saying "and" but don't read out the options	Dry day (Tuesday) 1 Sale restricted time 2 Under age (<18 years) 3 Intoxicated person 4 Homebrewed alcohol is prohibited 5 Sale of alcohol near monasteries and schools is prohibited 6 Drink driving is illegal 7 Don't have enough money 8 Don't know 77	AP11
During the past 3 years, have you attended awareness program on reduction of harmful use of alcohol?	Yes 1 No 2	AP12
Homebrewed alcohol		
Does your household brew alcohol (ara, changkoe, bangchang, singchang etc.)?	Yes 1 go to A18x No 2 Refused 88	A17x
During the past 12 months, how often did your household brew alcohol (ara, changkoe, bangchang, singchang etc.)?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4	A18x
For what purpose do your household brew alcohol (ara, changkoe, bangchang, singchang etc.)? [Multiple response]	Self-consumption 1 For sale 2 Religious activities 3 Baby Shower 4 Other 5	A19x

Diet		
The next questions ask about the fruits, vegetables and legumes that you usually eat. I have a nutrition card here that shows you some examples of local fruits, vegetables and legumes. Each picture represents the size of a serving. As you answer these questions please think of a typical week in the last year.		
In a typical week, on how many days do you **eat fruit**? *(USE SHOWCARD)*	Number of days Don't Know 77 └┴┘ *If Zero days, go to D3*	D1
How many **servings** of fruit do you eat on **one** of those days? *(USE SHOWCARD)*	Number of servings Don't Know 77 └┴┘	D2
In a typical week, on how many days do you **eat vegetables**? *(USE SHOWCARD)*	Number of days Don't Know 77 └┴┘ *If Zero days, go to D4x1*	D3
How many **servings** of vegetables do you eat on one of those days? *(USE SHOWCARD)*	Number of servings Don't know 77 └┴┘	D4
In a typical week, on how many days do you **eat legumes**? *(USE SHOWCARD)*	Number of days Don't Know 77 └┴┘ *If Zero days, go to D4x3*	D4x1
How many **servings** of legumes do you eat on one of those days?*(USE SHOWCARD)*	Number of servings Don't know 77 └┴┘	D4x2
Are you a vegetarian?	Yes 1 No 2 go to D5	D4x3
What types of vegetarianism best describes you?	Lacto-vegetarian 1 Ovo-vegetarian 2 Lacto-Ovo-vegetarian 3 Vegan 4	D4x4

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 soy 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 [ezay], 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** 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 do you **add salty sauce such as soya sauce, fish sauce, etc.,** 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	D5ax
How often do you **add tasting power (MSG)** while cooking or preparing foods in your household? *(SELECT ONLY ONE)* *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D5bx
How often is **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	D6x
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 and processed meat *[dried fish, ezay, potato chips].* *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D7
How often does your household drink **salted tea** (*suja*, *fika* with salt)?	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D7X
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
What is the maximum amount of salt do you think a person should take in a day from all sources? [show a tea spoonful]	Teaspoon [ ][ ]	D8x
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

What do you think 'too much' salt in your diet can do to our health? [Multiple response]	Nothing, more salt is good for your health 1 Increase blood pressure 2 Kidney disease 3 Asthma 4 Cancer 5 Tuberculosis 6 Other specify Don't know 77	D10x
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 *If Yes, go to D11other* No 2	D11f
Other (please specify)	_____	D11other
The next questions ask about the oil/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	Vegetable oil 1 Lard or Suet 2 Butter or Ghee 3 Margarine 4 None in particular 5 None used 6 Don't know Other (Specify) 77	D12x/ D12xOther
How often do you choose low or reduced fat/ oil varieties of foods?	Never 1 Rarely 2 Sometimes 3 Regularly 4 Always 5 Don't know 77	D13x
Do you check the nutritional labelling for sugar/fats and salt of the food products before buying? *(USE SHOWCARD)*	Yes 1 go to, P1 No 2	D14x
If you are not checking nutritional labelling, then choose ONE most appropriate reason.	I don't have time 1 Difficult to understand 2 Did not feel the need to check it 3 I can't read 4 Others 5	D15x

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.

Work		
Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like *[*carrying or lifting heavy loads, digging or construction work, cutting woods*, cham* dance*]* for at least 10 minutes continuously?	Yes 1 No 2 *If No, go to P 4*	P1
In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days ⌊_⌋	P2
How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours: minutes ⌊_⌋⌊_⌋ : ⌊_⌋⌊_⌋ Hrs. mins	P3 (a-b)
Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate such as brisk walking *[or carrying light loads, mopping or sweeping floors or dance]* for at least 10 minutes continuously?	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 ⌊_⌋	P5
How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours: minutes ⌊_⌋⌊_⌋ : ⌊_⌋⌊_⌋ 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.		
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 ⌊_⌋	P8
How much time do you spend walking or bicycling for travel on a typical day?	Hours: minutes ⌊_⌋⌊_⌋ : ⌊_⌋⌊_⌋ 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 activities (leisure).		
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 or basketball, volley ball, badminton, skipping, *keshey ect.]* 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 ⌊_⌋	P11
How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?	Hours: minutes ⌊_⌋⌊_⌋ : ⌊_⌋⌊_⌋ Hrs. mins	P12 (a-b)

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, gardening, Frisbee, hulahoop, prostrations, dancing, short hiking, hand throw ball,* swimming, bicycle riding, *khuru, degor, soksum, archery etc.]* 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 └┘	P14
How much time do you spend doing moderate-intensity sports, fitness or recreational *(leisure)* activities on a typical day?	Hours: minutes └┴┘ : └┴┘ Hrs. mins	P15 (a-b)
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 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 └┴┘ : └┴┘ Hrs. mins	P16 (a-b)
Outdoor Gym		
Have you ever used outdoor gyms?	Yes 1 go to P18x No 2 go to P17x1	P17x
What was the reason having not used outdoor gyms?	Not available 1 No time 2 Feel shy 3 Instrument broken 4 Not interested 5 Didn't know about open gyms 6	P17x1
In the past 12 months, how often did you use outdoor gyms?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4	P18x

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 *If No, go to H6*	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 *If No, go to H6*	H2a
Were you first told in the past 12 months?	Yes 1 No 2	H2b
Have you **ever been told** to **take a medicine** by a doctor or health workers **for raised blood pressure**? (If H2a=yes)	Yes 1 No 2	H2c
Have you ever taken drugs/medications for raised blood pressure prescribed by a doctor/health worker? (If H2c=yes)	Yes 1 No 2 *[If No and H1=yes, go to H3x1]*	H2d
In the past two weeks, have you taken any drugs (medication) for raised blood pressure prescribed by a doctor or other health worker? (If H2d=yes)	Yes 1 No 2	H3
Where do you usually go for treatment or advice for your raised blood pressure? [Multiple Response] [Appear only *If H2a=yes]*	Regional Referral Hospital 1 Hospital 2 BHU-I 3 BHU-II/Sub-post 4 Outreach/Mobile Clinic 5	H3x1

	Private 6 Other (Specify) Don't know 77	
Where do you usually get your drugs for raised blood pressure? [Multiple Response] [Appear only *If H2d=yes or H3=yes]*	Regional Referral Hospital 1 Hospital 2 BHU-I 3 BHU-II/Sub-post 4 Outreach/Mobile Clinic 5 Private 6 Medical shops/Pharmacies 7 Other (Specify) Don't know 77	H3x2
What is the most important reason for which you are not currently taking medications for raised blood pressure or hypertension? [Appear only if H2a=yes and (H2d=no or H3=no)]	Don't think drug is necessary 1 Got side effects 2 Afraid of side effects 3 Too expensive 4 Blood pressure got normal 5 Medicine not available 6 Medicine not advised by doctor 7 Fear of being dependent for lifetime 8 Other (specify)	H3x3
Have you ever seen a local healer like Tsip/ Jhakri/ Neyjom/ Lama/ Pow for raised blood pressure or hypertension? (if H2a=yes)	Yes 1 No 2	H4
Are you currently taking any herbal or traditional remedy for your raised blood pressure? (if H2a=yes)	Yes 1 No 2	H5

History of Diabetes		
Have you ever had your blood sugar (Diabetes) measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H12*	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 *If No, go to H12*	H7a
Were you first told in the past 12 months?	Yes 1 No 2	H7b
Have you **ever been told** to **take a medicine** by a doctor or health workers **for diabetes**? (if H7a=yes)	Yes 1 No 2	H7c
Have you ever taken drugs/medications for **diabetes** prescribed by a doctor/health worker? (if H7c=yes)	Yes 1 No 2 *[If No, go to H9x1]*	H7d
In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker? (if H7d=yes)	Yes 1 No 2	H8
Are you currently taking insulin for diabetes prescribed by a doctor or other health worker? (if H7c=yes)	Yes 1 No 2 Not prescribed 3	H9
Where do you usually go for <u>treatment</u> or advice for your **diabetes**?	Regional Referral Hospital 1 Hospital 2	H9x1 / H9x1Other

[Multiple Response] [Appear only *If H7a=yes]*	BHU-I 3 BHU-II/Sub-post 4 Mobile Clinic 5 Private 6 Other (Specify) 7 Don't know 77	
Where do you usually get your drugs for **diabetes**? [Multiple Response] [Appear only *If H7d=yes or H8=yes or H9=yes]*	Regional Referral Hospital 1 Hospital 2 BHU-I 3 BHU-II/Sub-post 4 Mobile Clinic 5 Private 6 Medical shops/Pharmacies 7 Other (Specify) 8 Don't know 77	H9x2
What is the most important reason for which you are not currently taking medications for **diabetes?** [Appear only if H7a=yes and (H7d=no or H8=no)]	Don't think drug is necessary 1 Got side effects 2 Afraid of side effects 3 Too expensive 4 Blood pressure got normal 5 Medicine not available 6 Medicine not advised by doctor 7 Fear of being dependent for lifetime 8 Other (specify) 9	H9x3
Have you ever seen a local healer like Tsip/ Jhakri/ Neyjom/ Lama/ Pow for diabetes or raised blood sugar? (If H7a=yes)	Yes 1 No 2	H10
Are you currently taking any herbal or traditional remedy for your diabetes? (If H7a=yes)	Yes 1 No 2	H11

History of Raised Total Cholesterol		
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H17*	H12
Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes 1 No 2 *If No, go to H17*	H13a
Were you first 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 local healer for raised cholesterol? (If H13a =yes)	Yes 1 No 2	H15
Are you currently taking any herbal or traditional remedy for your raised cholesterol? (If H13a =yes)	Yes 1 No 2	H16

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 Don't know 77	H18
Are you currently taking statins (Lovastatin/Simvastatin/Atorvastatin or any other statin) regularly to prevent or treat heart disease?	Yes 1 No 2 Don't know 77	H19

Lifestyle Advice		
Now, I am going to ask you about the advises on the lifestyle by your Doctor / Health Worker.		
During the past 12 months, have you visited a doctor or other health worker?	Yes 1 No 2 *If No and C1=1, go to M1* *If No and C1=2, go to CX1*	H20
During any of your visits to a doctor or other health worker in the past 12 months, were you advised 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 No 2	H20b
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 No 2	H20f
Reduce sugary beverages in your diet	Yes 1 *If C1=1 go to M1* No 2 *If C1=1 go to M1*	H20g

Cervical Cancer Screening (for women only)		
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.		
Have you **ever had a test** for cervical cancer, using any of these methods described above?	Yes 1	CX1
	No 2 *go to CX11*	
	Don't know 77 go to O8	
At what age were you **first tested** for cervical cancer?	Age ⌊_⌋⌊_⌋ Don't know 77	CX2

	Refused	88	
When was your **last (most recent) test** for cervical cancer?	Less than 1 year ago 1-2 years ago 3-5 years ago More than 5 years ago Don't know Refused	1 2 3 4 77 88	CX3
What is the **main reason** you had your **last** test for cervical cancer?	Part of a routine exam Following up on abnormal or inconclusive result Recommended by healthcare provider Recommended by other source Experiencing pain or other Other (Specify) Don't know Refused	1 2 3 4 5 6 77 88	CX4 / CX4Other
Where did you receive your last test for cervical cancer?	Regional Referral Hospital Hospital BHU-I BHU-II/Sub-post Mobile Clinic Private Don't know	1 2 3 4 5 6 77	CX5
What was the result of your last (most recent) test for cervical cancer?	Did not receive result Normal / Negative Abnormal /Positive Suspect cancer Inconclusive Don't know Refused	1 *go to O7* 2 *go to O7* 3 4 5 77 88	CX6
Did you have any follow-up visits because of your test results?	Yes No Don't know Refused	1 2 77 88	CX7
Did you receive any treatment to your cervix because of your test result?	Yes No Don't know Refused	1 2 *go to CX10* 77 *go to O7* 88 *go to O7*	CX8
Did you receive treatment **during the same visit** as your last test for cervical cancer?	Yes No Don't know Refused	1 *go to O7* 2 *go to O7* 77 *go to O7* 88 *go to O7*	CX9
What is the **main** reason you did not receive treatment?	Was not told I needed treatment Did not know how/where to get treatment Embarrassment Too expensive Didn't have time Clinic too far away Poor service quality	1 2 3 4 5 6 7	CX10 / CX10Spec

	Fear (afraid of procedure; afraid of social stigma)	8	
	Cultural beliefs	9	
	Family member would not allow it	10 *go to Cx10Spec*	
	Don't know	77	
	Refused	88	
	Family member (please specify)	⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌋	
What is the **main** reason you have never had a cervical cancer test?	Did not know how/where to get test	1	CX11
	Embarrassment	2	
	No female healthcare	3	
	Didn't have time	4	
	Clinic too far away	5	
	Poor service quality	6	
	Fear (afraid of procedure; afraid of social stigma)	7	
	Cultural beliefs	8	
	Age is less than 25 years	9	
	Family member would not allow it	10 *go to C11Spec, else go to next section*	
	Don't know	77	
	Refused	88	
	Family member (please	⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌋	CX11Spec

Oral Health

The next questions ask about your oral health status and related behaviours.

Question	Response		Code
How long has it been since you last **saw a dentist/health worker** for any dental/oral health issues?	Less than 6 months	1	O7
	6-12 months	2	
	More than 1 year but less than 2	3	
	2 or more years but less than 5 years	4	
	5 or more years	5	
	Never received dental care	6 *go to O9*	
What was the **main reason for your last visit** to the dentist?	Consultation / advice	1	O8
	Pain or trouble with teeth, gums or mouth	2	
	Treatment / Follow-up treatment	3	
	Routine check-up treatment	4	
	Other	5 *go to O8other*	
	Other (please specify)	⌊_⌊_⌊_⌊_⌊_⌋	O8other
How **often do you clean** your teeth?	Never	1 *go to O13a*	O9
	Once a month	2	
	2-3 times a month	3	
	Once a week	4	
	2-6 times a week	5	
	Once a day	6	
	Twice or more a day	7	
Have you **experienced any of the following problems** during the past 12 months because of the **state of your teeth, gums or mouth**? *(RECORD FOR EACH)*			
Difficulty in chewing foods	Yes	1	O13a
	No	2	
Difficulty with speech/trouble pronouncing words	Yes	1	O13b
	No	2	

Mouth feels dry	Yes 1 No 2	O13c
Have a persistent wound and/or swelling in the mouth for more than three weeks	Yes 1 No 2	O13d
Have a red or red and white patch in the mouth	Yes 1 No 2	O13e
Days not at work because of teeth or mouth	Yes 1 No 2	O13f
Difficulty doing usual activities	Yes 1 No 2	O13g
Reduced participation in social activities	Yes 1 No 2	O13h

Injury

The next questions ask about different experiences and behaviors that are related to road traffic injuries.

Question	Response	Code
In the past 30 days, how often did you use a seat belt when you were the driver or passenger of a motor vehicle?	All of the time 1 Sometimes 2 Never 3 Have not been in a vehicle in past 30 days 4 No seat belt in the car I usually am in 5 Don't Know 77 Refused 88	V1
In the past 30 days, how often did you wear a helmet when you drove or rode as a passenger on a motorcycle or motor-scooter?	All of the time 1 Sometimes 2 Never 3 Have not been on a motorcycle or motor-scooter in past 30 days 4 Do not have a helmet 5 Don't Know 77 Refused 88	V2
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 *go to V5* Don't know 77 *go to V5* Refused 88 *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 the road traffic crashes which required medical attention?	Yes 1 No 2 *If No, go to V7* Don't know 77 *go to V7* Refused 88 *go to V7*	V5
Please indicate which of the following was the cause of this injury.	Fall 1 Burn 2 Poisoning 3 Cut 4 Near-drowning 5 Animal bite 6 Other (specify) 7 Don't know 77	V6/ V6other

	Refused 88	
Where were you when you had this injury?	Home 1 School 2 Workplace 3 Road/Street/Highway 4 Farm 5 Sports/athletic area 6 Other (specify) 7 Don't know 77 Refused 88	V7 / V7other

Mental health / Suicide

The next questions ask about thoughts, plans, and attempts of suicide. Please answer the questions even if no one usually talks about these issues.

During the **past 12 months**, have you seriously **considered** attempting suicide?	Yes 1 *go to MH2* No 2 Refused 88	MH1
Did you seek **professional help** for these thoughts?	Yes 1 No 2 Refused 88	MH2
During the **past 12 months**, have you made **a plan about how** you would attempt suicide?	Yes 1 No 2 Refused 88	MH3
Have you **ever attempted suicide**?	Yes 1 No 2 *go to MH9* Refused 88	MH4
During the **past 12 months**, have you **attempted suicide**?	Yes 1 No 2 Refused 88	MH5
What was the main **method you used** the last time you attempted suicide? *(SELECT ONLY ONE)*	Razor, knife or other sharp instrument 1 Overdose of medication (e. g. prescribed, over-the-counter) 2 Overdose of other substance (e.g. heroin, crack, alcohol) 3 Poisoning with pesticides (e.g. rat poison, insecticide, weed- 4 Other poisoning (e.g. plant/seed, household 5 Poisonous gases from charcoal 6 Hanging 7 Jumping from a height 8 Drowning in deep water 9 Other (specify) Refused 88	MH6 / *MH6other*
Did you seek **medical care** for this attempt?	Yes 1 No 2 *If No, go to MH9* Refused 88 *go to MH9*	MH7
Were you **admitted to hospital overnight** because of this attempt?	Yes 1 No 2 Refused 88	MH8
Has anyone in **your close family** (mother, father, brother, sister or children) ever attempted suicide?	Yes 1 No 2 Refused 88	MH9
Has anyone in **your close family** (mother, father, brother, sister or children) ever died from suicide?	Yes 1 No 2	MH10

	Refused 88	

Depression		
Over the past 2 weeks, how often have you been bothered by any of the following problems		
Little interest or pleasure in doing things	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH11
Feeling down, depressed or hopeless	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH12
Trouble falling or staying asleep, or sleeping too much	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH13
Feeling tired or having little energy	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH14
Poor appetite or overeating	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH15
Feeling bad about yourself or that you are a failure or have let yourself or your family down	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH16
Trouble concentrating on things, such as reading the newspaper or watching television	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH17
Moving or speaking so slowly that other people could have noticed? Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH18
Thoughts that you would be better off dead or of hurting yourself in some way	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH19

Anxiety		
Over the past 2 weeks, how often have you been bothered by any of the following problems		
Feeling nervous, anxious, or on edge	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH20
Worrying too much about different things	Not at all 1 Several Days 2 More than half a day 3 Nearly Every day 4	MH21
Not being able to stop or control worrying	Not at all 1 Several Days 2 More than half a day 3	MH22

	Nearly Every day	4	
Trouble relaxing	Not at all	1	MH23
	Several Days	2	
	More than half a day	3	
	Nearly Every day	4	
Being so restless that it is hard to stand still	Not at all	1	MH24
	Several Days	2	
	More than half a day	3	
	Nearly Every day	4	
Becoming easily annoyed	Not at all	1	MH25
	Several Days	2	
	More than half a day	3	
	Nearly Every day	4	
Feeling afraid as if something awful might happen	Not at all	1	MH26
	Several Days	2	
	More than half a day	3	
	Nearly Every day	4	

The next questions ask about suicide problem and reasons in your community. Please answer the questions even if no one usually talks about these issues.			
Do you think **suicide is a problem** (or relatively common) in your community?	Not at all Somewhat Very much Don't know	1 go to MH1 2 go to MHx2 3 go to MHx2 77 go to MH1	MHx1
What do you think are the **main reasons** people in your community/Region commit suicide? [Select all those apply, multiple response]	Lack of employment Too much pressure Poverty Family issues Loneliness Relationship issue Chronic disease Extramarital affair Pregnancy Psychological or psychiatric condition Abuse-physical Psychological Emotional Financial Work related problem Other (specify)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MHx2 / MHx2Other

Extended Demographic Information

Question	Response		Code
What type of **cooking fuel** does your house **mainly** use? Note: If there is more than one type of fuel used by a HH, the one used most frequently should be selected.	Gas Electricity Wood Coal Kerosene Dung cake Bio-gas Other (Specify)	1 2 3 4 5 6 7	C19x
What is the main source of drinking water for members of this household? (Select ONE) Note: If there is more than one source, the one used most frequently should be selected.	Piped water into dwelling Piped water to yard/plot Public tap, standpipe Other, piped water Tube well, borehole	1 2 3 4 5	C20x/ C20x_imp / C20x_unimp

	Protected well 6 Protected spring 7 Unprotected well 8 Unprotected spring 9 Covered cistern/tank (Rainwater) 10 Uncovered cistern/tank (Rainwater) 11 Bottled water 12 Sachet water 13 Cart with small tank/ drum 14 Tanker truck provided 15 River 16 Lake 17 Dam 18 Pond 19 Stream 20 Irrigation channel 21 Other improved, specify 22 Other unimproved, specify 23	
What is the time required for collection of water? Note: The amount of time that is required for each round trip (i.e. to get from the dwelling to the water collection point, queue for water, fill containers and return to the dwelling). Time spent socializing (outside of queuing) should not be included in the total number of minutes	Hours: Minutes:	C21xa C21xb
Availability of water supply to the household in past 24 hours preceding the survey? (in hours) Note: Record the actual hours.	Hours:	C22x
Availability of water supply to the household in past 1 week preceding the survey?	24 hours a day in past 1 week 1 24 hours a day in past 4-6 days 2 12-23 hours a day in past 1 week 3 Less than '24 hours a day in past 4-6 days ' or less than '12-23 hours a day in past 1 week' 4	C23x
What kind of toilet facility do your household have? Ask, observe and mark If 'Flush' or 'Pour flush', probe: Where does it flush to? If not possible to determine, ask permission to observe the facility.	No toilet facility 1 go to C30 Flush to piped sewer system 2 skip C26x Flush to septic tank with Soak pit 3 Flush to septic tank without soak 4 Flush to single leach pit 5 Flush to twin leach pit 6 Flush to open drain 7 skip C26x Flush to Don't Know where 8 skip C26x Flush to elsewhere 9 skip C26x Ventilated Improved Pit latrine 10 Pit latrine with slab & cover 11 Pit latrine without slab /Open pit 12 Composting toilet 13 Bucket 14 Hanging toilet 15 Other (specify)	C24x
Does your household share this facility with others who are not members (excluding guests) of your household?	Yes 1	C25x

	No	2	
Has your pit ever been emptied?	Yes; <= 5 years ago Yes; >5 years ago Yes; Don't know when Never emptied Pit sealed and dug new pit Don't know	1 2 3 4 go to C30x 5 go to C30x 77 go to C30x	C26x
The last time it was emptied, who emptied the contents?	Removed by service provider Emptied by household	1 2 go to C29x	C27x
The last time it was emptied, where were the contents emptied to? (If removed by service provider)	Removed using a truck/tanker (reached treatment plants) Removed using non-motorized vehicle (reached treatment plants) Buried in a covered pit To uncovered pit, open ground, water body or elsewhere (wastes doesn't reach treatment plants) Don't know where	1 go to C30x 2 go to C30x 3 go to C30x 4 go to C30x 77 go to C30x	C28x
The last time it was emptied, where were the contents emptied to? (If emptied by household)	Buried in a covered pit To uncovered pit, open ground, water body or elsewhere Don't Know where Other (specify)	1 2 77	C29x
Does the household have **handwashing facility**? Ask to show THEN observe and mark *with no possibility of contamination refers to household using pouring system like Jugs/Laddles etc.	Running water (eg. Tap stand, tippy tap) Bowl/container of water (with possibility of contamination) Bowl/container of water (with no possibility of contamination) * None	1 2 3 4 if none, go to end	C30x
Observe **presence of water** at the place for handwashing. Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.	Water is available Water is not available	1 2	C31x
Is **soap or detergent present** at the place for handwashing?	Yes No	1 2	C32x

Step 2 Physical Measurements

Blood Pressure		
Question	**Response**	**Code**
Team 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
	Beats per minute ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M16a
Reading 2	Systolic (mmHg) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M5a
	Diastolic (mmHg) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M5b
	Beats per minute ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M16b
Reading 3	Systolic (mmHg) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M6a
	Diastolic (mmHg) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M6b
	Beats per minute ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	M16c
During the past two weeks, have you been treated for raised blood	Yes 1 No 2	M7
Height and Weight		
For women: Are you pregnant?	Yes 1 *If Yes, go to M 16* No 2	M8
Height	in Centimetres (cm) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋	M11
Weight *If too large for scale 666.6*	in Kilograms (kg) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋	M12
Waist and Hip Circumference		
Waist circumference	in Centimeters (cm) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋	M14
Hip circumference	in Centimeters (cm) ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋	M15

Step 3 Biochemical Measurements

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
Team ID	└┴┴┘	B2
Time of day blood specimen taken (24 hours clock)	Hours: minutes └┴┘ : └┴┘ hrs mins	B4
Fasting blood glucose	mg/dl └┴┴┘ . └┘	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
Blood Lipids		
Total cholesterol	mg/dl └┴┴┘ . └┘	B8
Triglycerides	mg/dl └┴┴┘ . └┘	B16
HDL Cholesterol	mg/dl └┴┴┘ . └┘	B17
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
Urinary sodium and creatinine		
Had you been fasting prior to the urine collection?	Yes 1 No 2	B10
Time of day urine sample taken (24 hours clock)	Hours: minutes └┴┘ : └┴┘ hrs mins	B13
Urinary sodium	mmol/l └┴┴┘└┘	B14
Urinary creatinine	mmol/l └┴┘└┴┘	B15