SURVEY REPORT

National Non-Communicable Disease Risk Factors Survey

JS Consultancy Services

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Background:

According to World Health Organization (WHO), of the 56 million deaths occurring globally in 2012, NCDs were responsible for 38 million (68%)[1]. Especially in developing countries like Afghanistan, the burden of NCDs is increasing rapidly and will have significant social, economic, and health consequences. Studies conducted in large cities of Afghanistan (Mazar-e-Sharif, Kandahar, Jalalabad and Kabul) shows that, approximately half of the adults in the cities are overweight or obese. 18.2-28.4 % of target population is hypertensive; Kandahar city (23.8) has the highest proportion of hypertensive population. The study also shows that risk of Hypertension is three times higher among female in Kandahar and two times higher in Mazar-e-Sharif. Similarly, 19.5% of adult population in Kandahar city had a fasting blood sugar >126 mg% suggesting high burden of diabetes in this major urban area of the country. The Afghanistan Mortality Survey (AMS, 2010), shows that about 35% of all deaths are due to NCDs like cardio vascular disease and cancers which is higher among females (37.5%) than males (33.3%). Furthermore, the Afghanistan Demographic and Health Survey (AfDHS, 2015) reports that 3% of households in Afghanistan are diagnosed with cancer in three years prior to the survey.

The main NCDs contributing to the NCD death and morbidity burden are: (1) cardiovascular diseases; (2) cancer; (3) chronic respiratory diseases; and (4) diabetes[2].

In 2012, the major NCDs accounted for 38 million (68%) of all deaths and by 2030, these figures are expected to rise to 52 million deaths. The age-standardized NCD death rates are highest in low-income, and lowest in high-income countries. Approximately 42% of all NCD deaths are premature, occurring before the age of 70 years. The majority of premature deaths (82%) are in low- and middle-income countries.

Common, preventable risk factors underlie most NCDs. The leading risk factor globally is raised blood pressure, followed by tobacco use. Other major risk factors, accounting for a large fraction of the global mortality and morbidity from NCDs include alcohol use, unhealthy diet (such as low fruit and vegetable intake, or high salt intake), insufficient physical activity, overweight/obesity, raised blood glucose, and raised cholesterol[3].

Introduction:

The key to controlling the NCDs' epidemic is primary prevention based on comprehensive population-wide programmes, with the aim is to avert these epidemics wherever possible and to control them as quickly as possible where they are already present. The basis of NCD prevention is the identification of the most common risk factors and their prevention and control. The risk factors of today are the diseases of tomorrow.

The major modifiable behavioral risk factors are: (1) tobacco use; (2) harmful alcohol consumption; (3) unhealthy diet (low fruit and vegetable consumption, diet high in salt); and insufficient physical activity. The major biological risk factors are: (1) overweight and obesity; (2) raised blood pressure; (3) raised blood glucose; (4) abnormal blood lipids, including raised cholesterol. Therefore, this study is conducted to collect data from a nationally representative sample about the eight major behavioral and biological risk factors using WHO's STEPS wise approach for NCD's risk factor surveillance. Data about the mentioned eight core risk factors is collected because:

- The mentioned risk factors have the greatest impact on NCD mortality and morbidity[4]
- Life style modification is possible through effective prevention

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[1] World Health Organization. Global Health Observatory: World Health Organization; 2016 (http://www.who.int/gho, accessed 01 July 2017).
[2] World Health Organization. Global status report on noncommunicable diseases 2014. Geneva: World Health Organization; 2015.
[3] GBD 2015 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. Lancet. 2016;388:1659 724.
[4] Riley L, Guthold R, Cowan M, Savin S, Bhatti L, Armstrong T, et al. The World Health Organization STEPwise Approach to Noncommunicable Disease Risk-Factor Surveillance: Methods, Challenges, and Opportunities. AJPH. 2016;106(1):74-8.

- Measurement of risk factors has been proven to be valid[5]
- Measurements can be obtained using appropriate ethical standards

Importantly, currently there is no national representative data on prevalence of NCD at national level, therefore, this study will help MoPH and other health partners to know the prevalence of NCD at national level, regional level and rural and urban differences and to find the burden of NCDs.

Objectives:

The objectives of the study are;
- To describe the behavioral and biological risk factors of NCDs in Afghanistan
- To determine the prevalence of overweight, obesity and underweight in Afghanistan
- To help health services plan and determine public health priorities
- To predict future caseloads of NCDs including cancers for Afghanistan

Methodology:

A cross-sectional study design will use WHO STEPS wise approach to collect data on socio-demographic, lifestyle, and behaviors by using WHO STEPS instrument contextualized to Afghanistan. The target population is household members aged 18-69 years old. After filling the questionnaire, was followed by anthropometric measurements taken by trained healthcare staff in a safe and secure area. Where this is not possible, a separate area should be screened off to provide privacy for waist and hip circumference measurements at minimum. Height and weight were measured using portable electronic weighing scale and measuring inflexible bars. Waist circumference (WC) was measured at the midpoint between the lower part of the lowest rib and the highest point of the hip on the mid-axillary line and blood pressure will be measured with a calibrated sphygmomanometer. Blood pressure is taken when the participants have seated at least for 15 minutes. Three blood pressure measurements were taken. During data analysis the mean of the second and third readings will be calculated. The participant rested for three minutes between each of the readings. Finally, blood samples were collected for biochemical data to measure prevalence of high urinary sodium concentration, raised blood glucose, and abnormal blood lipids. The male household member was interviewed by male interviewer and female household members were interviewed by female interviewer.

Inclusion Criteria:

- Household permanent residents aged 18-69 (50% male and 50% females)
- Show willingness to participate in the study

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[5] Armstrong T, Bonita R. Capacity building for an integrated noncommunicable disease risk factor surveillance system in developing countries. Ethnicity and Disease. 2003;13(Suppl 2):S13-S18.

Exclusion Criteria:

- Temporary residents (are residing for less than 12 weeks) of households aged 18-69

- Household residents beyond the age limit

- Refuse the to participate in the study

Sample Size and Sampling:

The prevalence of most NCD risk factors tends to increase with age and vary by sex. Therefore, based on WHO recommendations the survey results include estimates for specific age groups for each sex, in addition to the total survey population estimates, in order to provide a more nuanced picture of the prevalence of NCD risk factors in the target population. To ensure that precise estimates for each age-sex group can be calculated from the survey data, the total numbers of three age-sex groups are taken into consideration for calculating the sample size. The STEPS recommended age groups are based on the Global Burden of Disease (GBD) age groups and we used the 3 age groups per gender of 18-29, 30-44, and 45-69 years.

The below formula is used to calculated the sample size for the 6 different strata of populations that is, 3 age groups in males and 3 age groups in females.

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

Using 95% confidence level, 5% margin of error, 0.5p and 0.5q, the resultant sample size is 384. With a 1.5 design effect and 15% non-response rate the sample size was adjusted to 662 for each strata of the age-sex group. The adjusted sample-size is multiplied by 6 age-sex groups (662*6) to get final sample size 3,972 household members. So, data from a total of 3,972 household members (males and females) was collected from 50 randomly selected districts Afghanistan.

Sampling Methodology:

In the sampling methodology districts are used as primary sampling units (PSUs), villages/blocks are the SSUs, and households within districts serves as TSUs.

Based on the guidelines of the WHO, the total number of the PSUs within a sampling frame should be greater than 100 among which 50-100 PSUs should be randomly selected. The total number of districts in 34 provinces of Afghanistan is 417. From 417 districts 55 districts were selected based on the available resources using Stepwise-Approach XLs form. The table below shows the 55 districts that are randomly selected by:

SN	Region	Province	District
1	South Easter and Eastern Region	Paktya	Province Center(Gardez)
		Laghman	Qarghayee
		Kunar	Chapa Dara
		Nuristan	Province Center (Paroon)
		Khost	Sabari (Yaqubi)

			Manduzay (Esmayel khil)
		Nangarhar	Province Center (Jalalabad)
			Kama
2	Southern Region	Zabul	Province Center (Qalat)
		Kandahar	Dand
			Province Center (Kandahar)
			Arghandab
			Spin Boldak
		Helmand	Nawa-i- Barikzayi
			Garishak
			Province Center (Lashkargah)
3	Western Region	Badghis	Ab Kamari
			Qadis
		Herat	province Center (Herat)
			Guzera (Nizam-i- Shahid)
			Zendahjan
			Pashtun Zarghun
			Ghoryan
			Karrukh
4	Northern Region	Samangan	Hazrat -e-Sultan
		Balkh	Nahri Shahi
			Dehdadi
			Marmul
			Sholgara
			Dawlat Abad
			Shortepa
		Sare pul	Province Center (Sar-e-Pul)
5	North Eastern Region	Baghlan	Dushi
			Khinjan
		Badakhshan	province center (Faiz Abad)
			Baharak
			Shuhada
			Kishm
		Takhar	Farkhar
		Kundoz	Province Center (Kunduz)
6	Central Region	Kabul	Kabul
			Paghman
			Chahar Asyab
			Bagrami
			Dehsabz
			Shakardara
			MirBachaKot
			Khake Jabar
			Kalakan
			Guldara

			Farza
	Kapisa		Kohistan
	Parwan		Province Center (Charikar)
			Bagram
	Bamyan		Shebar

The total sample size was distributed proportionate to the size of the districts, then the sample size of the districts was divided by 15 (maximum number of the household to interviewed within an EA) and number of EAs within each district was calculated. Using the EPI sampling frame EAs were selected within each district. Within each EA the total number of the households were calculated and it was divided to calculate the sampling interval. The household with each randomly selected, within each household interview with a randomly selected male or female members was conducted.

Data management and analysis:

In areas where possible, the specific software developed by STEPS was used to collect the data electronically and in some in insecure areas data will collected using paper questionnaires.

The data analysis was performed using EpiInfo software. The data was analyzed using EpiInfo and Mean, SD parameters will be calculated for continuous and discrete variables also Proportion for nominal, ordinal variables. The chi-square test, and t-test will be calculated for data as appropriate. A standard error will be calculated to show the amount of uncertainty, or error, in an estimated value. During data analysis the mean of the second and third readings of blood pressure were calculated.

Ethical considerations:

A formal approval from the MoPH ethics broad (IRB) will be obtained and all ethical standards such as, questionnaires not having personal identifier information, proper informed consent taking and voluntary participation in study in the study will be followed. Female interviewer will interview females and male interviewer will interview males.

Field Testing of the Tools and Training of Data Collection Teams:

Initially the STEPwise instrument (questionnaire) was modified (contextual modification) in consultation **study coordination committee**, formed within MoPH comprising of all relevant stakeholders under the leadership of EHIS directorate, and WHO country office. After the instrument was finalized it was translated to Pashto and Dari. Then, the instrument was field tested among 40 respondents residing in four different settings in Kabul. Based, on the results of the field-testing the instrument was finalized. The final data collection instrument was shared with study coordination committee and WHO country office.

Then, data collection teams were trained in five separate batches of trainings: (1) batch one training will be conducted in Kabul for the data collectors of Central region; (2) training for the second batch training was conducted in the Mazar-e-Sharif for the data collectors of Northern and North Eastern regions; (3) the third batch training was conducted in Herat for data collectors from Western; (4) the

fourth batch of training was conducted in Kandahar for Southern; and (5) the fifth batch of training was conducted in Nangarhar for South Eastern region.

A three-day training for each batch was conducted and the data collection teams were trained in interviewing skills, research ethics, data collection tools, physical measurements, and in collection and testing of the respondents' blood samples. Besides, all data collectors were trained in random household selection, identification and selection a respondent within a household and replacement strategy for household if the household member is not willing to participate in the data collection. At end of each training detailed field data collection plan for each province and each district was prepared. The provincial field data collection plans were shared with field supervisor, study team and data collection teams. Field teams will be monitored using the provincial data collection plans.

Field Work:

As mentioned above WHO's STEPS wise approach, which is a sequential process, was used to collect the required data. Initially, key information on risk factors with a questionnaire were collected; then data about simple physical measurements of the respondents was collected; and lastly blood and urine samples for biochemical analysis were collected.

The first step was to collect **demographic and behavioral information** by a questionnaire (STEPS instrument) in a household setting. Data regarding: socio-demographic information; tobacco and alcohol use; dietary behavior; physical activity; history of NCD conditions and lifestyle advice were collected.

Then, in the **second step data about physical measurements** of the respondents in a household setting was collected. Weight, height, waist circumference and blood pressure of the respondents were measured.

In the **third and last step**, respondents' **blood samples** were collected in a convenient setting. The samples were used to measure blood-glucose, total cholesterol, triglycerides and HDL cholesterol, using a dry chemistry (blood collection from the fingertip and testing through a strip) and data was recorded. Dry chemistry for the blood testing was used due its convenience to participants and was a viable option for less-resourced setting such as Afghanistan.

All the relevant data was collected from the respondents within a randomly selected households on two separate occasion; (1) during the first visit the data collection team conducted an interview with respondent to collect the demographic and behavioral information and collected data about the physical measurements of the respondents, (2) then in early in the morning on the next day blood samples from the finger tip of the each respondent was tested for fasting blood glucose and total cholesterol using Cardiochek PA. The results blood test of each respondent was recorded on separate sheet.

Survey Findings:

Background Information:

This section provides information on the age and sex of the respondents and their education level, employment status, marital status and ethnicity.

Age Group and Sex:

Age group and sex of respondents						
Age Group (years)	Men		Women		Both Sexes	
	n	%	n	%	n	%
18-29	699	47.6	768	52.6	1467	100
30-44	512	45.9	603	54.1	1115	100
45-69	782	59.7	527	40.3	1309	100
18-69	1993	51.2	1898	48.8	3891	100

The above table shows the distribution of respondents by age group and sex. Almost half (51.2%) of the respondents were men and another half (48.8%) were women.

Education:

The mean number of years of education among respondents was 4.2 years, with men having 3.6 years more education as compared to the women. The table below shows that mean years of education.

Mean number of years of education						
Age Group (years)	Men		Women		Both Sexes	
	n	Mean	n	Mean	n	Mean
18-29	699	8.3	759	4.1	1458	6.1
30-44	510	5.0	587	1.5	1097	3.1
45-69	778	4.3	510	0.63	1288	2.8
18-69	1987	5.9	1856	2.3	3843	4.2

Majority (55.9%) of the respondents have received no formal education, this percentage was higher among women as compared to men (men=38.9%, women 73.9%), while 14.6% respondents have completed their high school. The table below shows that highest level of education of the respondents.

Highest level of education	
	Men

Age Group (years)	n	% No formal school-ing	% Less than pri-mary school	% Pri-mary school completed	% Sec-ondary school completed	% High school completed	% Col-lege/ Univer-sity com-pleted	% Post graduate degree completed
18-29	697	21.2	8.6	11.6	18.2	31.6	8.6	0.1
30-44	508	44.5	15	9.4	7.1	16.3	7.3	0.4
45-69	775	51.2	13.3	10.7	6.5	12.4	5.2	0.8
18-69	1980	38.9	12.1	10.7	10.8	20.2	6.9	0.5

Highest level of education								
	Women							
Age Group (years)	n	% No formal school-ing	% Less than pri-mary school	% Pri-mary school completed	% Sec-ondary school completed	% High school completed	% Col-lege/ Univer-sity com-pleted	% Post graduate degree completed
18-29	760	56.7	11.2	5.9	7.1	16.3	2.8	
30-44	592	82.1	7.6	2.4	1.7	4.6	1.7	
44-69	518	89.8	5.2	1	1.5	2.1	0.4	
18-69	1870	73.9	8.4	3.4	3.9	8.7	1.8	

Highest level of education								
	Both Sexes							
Age Group (years)	n	% No formal school-ing	% Less than pri-mary school	% Pri-mary school completed	% Sec-ondary school completed	% High school completed	% Col-lege/ Univer-sity com-pleted	% Post graduate degree completed
18-29	1457	39.7	10	8.6	12.4	23.6	5.6	0.1
30-44	1100	64.7	11	5.6	4.2	10	4.3	0.2
60-69	1293	66.7	10.1	6.8	4.5	8.3	3.2	0.5
18-69	3850	55.9	10.3	7.2	7.4	14.6	4.4	0.2

Marital Status:

Majority (80.5%) of the respondents were married, 15.3% were single, while 3.9% of the re-spondents were widowed. The table shows that marital status of the respondents.

Marital status						
	Men					
Age Group (years)	n	% Never married	% Cur-rently married	% Sepa-rated	% Di-vorced	% Widowed
18-29	699	50.1	49.9	0	0	0
30-44	512	2.1	97.7	0.2	0	0
45-69	782	1.4	98.2	0	0	0.4
18-69	1993	18.7	81.1	0.1	0	0.2

Marital status	
	Women

Age Group (years)	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed
18-29	767	27	71.8	0	0	1.2
30-44	603	1.7	93	0	0.3	5
45-69	527	1.3	76.7	0.9	0	21.1
18-69	1897	11.8	79.9	0.3	0.1	7.9

Marital status						
Age Group (years)	Both Sexes					
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed
18-29	1466	38	61.4	0	0	0.6
30-44	1115	1.9	95.2	0.1	0.2	2.7
45-69	1309	1.4	89.5	0.4	0	8.7
18-69	3890	15.3	80.5	0.2	0.1	3.9

Employment Status:

The employment status shows the proportion of respondents in paid employment and those who are unpaid. Unpaid includes persons who are non-paid, students, homemakers, retired, and un-employed. More than half of the respondents (54.1%) of the respondents had unpaid employment, 37% were self-employed, 6.5% were government employee, while 2.4% were employed by the non-governmental sector. The proportion of the unpaid employment was much high among the women as compared to the men (men=22.8%, women=87%). The table below shows the employment status of the respondents.

Employment status					
Age Group (years)	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	699	8.6	4.9	56.2	30.3
30-44	511	11.5	5.5	73.2	9.8
45-69	780	10.9	1.8	62.7	24.6
18-69	1990	10.3	3.8	63.1	22.8

Employment status					
Age Group (years)	Women				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	763	2.8	0.9	10.5	85.8
30-44	602	3.2	1	9.1	86.7
45-69	524	1.5	0.6	8.8	89.1
18-69	1889	2.5	0.8	9.6	87.0

Employment status					
Age Group (years)	Both Sexes				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid

18-29	1462	5.5	2.8	32.4	59.3
30-44	1113	7	3.1	38.5	51.4
45-69	1304	7.1	1.3	41	50.5
18-69	3879	6.5	2.4	37	54.1

Per capita annual Income:

The mean reported per capita annual income of respondents in local currency was 46,441 AFN, with majority (47.1%) of respondents reported their estimated household earnings as less than 560$. The estimated household earning is shown in the below table.

Estimated household earnings					
n	Quintile 1: Under $560	Quintile 2: $561-$1,875	Quintile 3: $1,876-$3,750	Quintile 4: $3751-$7,500	Quintile 5: Over $7,500
238	47.1%	39.9%	9.7%	1.3%	1.2%

Tobacco Use :

Separate sets of questions were asked to gather information on smoke and smokeless tobacco use. This section contains information on current users and current daily users of smoke and smokeless tobacco. Details on the types of tobacco and amount are also presented.

Current Smoking:

The overall prevalence of current smoking was 8.6% (men 14.2%, women 2.6%). Among men, the proportion of current smokers was highest (17.7%) among the middle age group (30–44 years) and lowest (7.6%) among the oldest age group (45–69 years). Among women it was 5.5% among the oldest age group and 0.9% among youngest age group.

Percentage of current smokers										
	Men			Women			Both Sexes			
Age Group (years)	n	% Current smoker	95% CI	n	% Current smoker	95% CI	n	% Current smoker	95% CI	
18-29	101	15.1	8.3-21.9	12	0.9	0.2-1.6	113	8.2	3.8-12.7	
30-44	93	17.7	11.4-23.9	26	2.8	0.8-4.8	119	10.6	6.8-14.4	
45-69	77	7.6	4.1-11.2	41	5.5	1.8-9.3	118	6.6	3.8-9.4	
18-69	271	14.2	9.6-18.7	79	2.6	1.4-3.7	350	8.6	5.6-11.6	

Of the total respondents, the proportion of current daily smokers was 7.6%; however, among the current smokers, 88.3% were daily smokers. About 12.6% of male respondents were current daily smokers (88.8% of the current smokers). Among female respondents, 2.2% were current daily smokers (84.9% of current smokers). Among the non-smokers, 5.2% (men 1.9%, women 1.1%) were former smokers.

Current daily smokers among smokers									
	Men			Women			Both Sexes		
Age Group (years)	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
18-29	81	90.4	(78.0-103)	11	90.4	(71-109.7)	92	90.4	78.6-102.1
30-44	80	88.8	(78.0-99.6)	20	85.5	68.8-102.1	100	88.4	78.8-97.9
45-69	64	82.9	(68.5-97.3)	32	82.9	64.2-101.6	96	82.9	72.0-93.7
18-69	225	88.8	79.5-98.1	63	84.9	(73.4-96.4)	288	88.3	80.2-96.3

Age of Initiation of smoking:

The mean age of initiation of smoking was 18.8 years of age (men 18.3 years, women 22.0 years). Age-wise, smoking was taken up at a higher average age in the lower two age groups of men (18.8 years and 22.7 years) than the youngest age group (16.8 years). The age at initiation of smoking for 15–29 years old women was 18.1 years, 18.9 years for women of 30–44 years and 25.4 years for women of 45–69 years. The mean duration of smoking was 29.0 years, 16.9 years and 5.6 years for respondents belonging to the age groups 45–69 years, 30–44 years and 15–29 years, respectively.

Mean age started smoking									
	Men			Women			Both Sexes		
Age Group (years)	n	Mean age	95% CI	n	Mean age	95% CI	n	Mean age	95% CI
18-29	80	16.8	16.3-17.4	10	18.1	16.4-19.8	90	16.9	16.4-17.4
30-44	80	18.8	17.5-20.0	20	18.9	15.1-22.7	100	18.8	17.6-20.0
45-69	64	22.7	19.1-26.2	32	25.4	18.1-32.7	96	23.8	19.7-27.8
18-69	224	18.3	17.4-19.1	62	22.0	17.1-26.9	286	18.8	17.5-20.0

Types of Tobacco Products Used:

About 93.3% of current daily smokers smoked manufactured cigarettes. The proportion was higher among men (98.3%) than women (58.3%) (Table T3, Annex I). Among the daily smokers, the mean number of manufactured cigarettes smoked per day was 11.7. Among men, the mean number of manufactured cigarettes per day was 13.1 and was highest (14.2) among 45–69

years old, followed by 30–44 years old (13.6). Among women, the mean number of manufactured cigarettes smoked per day was 2.2, with the highest mean (2.7) among women aged 45–69 years. (Table T4, Annex I).

Manufactured cigarettes were the most common form of tobacco smoke followed by Shisha/Chelum/Qailoon. Among currently smoking respondents, 87.6% used manufactured cigarettes while 12.9% used Shisha/Chelum/Qailoon. Among currently smoking men, 94.1% used manufactured cigarettes while 8.6% used Shisha/Chelum/Qailoon. Among currently smoking women, about 48.6% used manufactured cigarettes while 38.4% used Shisha/Chelum/Qailoon.

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day

Age Group (years)	Men									
	n	% <5 Cigs.	95% CI	% 5-9 Cigs.	95% CI	% 10-14 Cigs.	95% CI	% 15-24 Cigs.	95% CI	% ≥ 25 Cigs.	95% CI
18-29	76	10.7	0.0 - 22.8	24.2	7.8 - 40.6	19.0	0.1 - 38.0	45.9	29.8 - 62.1	0.1	0.0 - 0.4
30-44	76	7.0	0.0 - 14.6	23.3	5.6 - 40.9	20.4	4.9 - 35.9	47.2	19.4 - 75.1	2.1	0.0 - 5.3
45-69	57	8.0	0.0 - 17.7	19.6	0.7 - 38.5	32.3	10.8 - 53.9	22.5	7.3 - 37.8	17.5	0.0 - 39.7
18-69	209	9.0	1.6 - 16.4	23.3	15.9 - 30.7	21.0	6.3 - 35.8	43.9	25.6 - 62.1	2.8	0.0 - 6.3

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day

Age Group (years)	Women									
	n	% <5 Cigs.	95% CI	% 5-9 Cigs.	95% CI	% 10-14 Cigs.	95% CI	% 15-24 Cigs.	95% CI	% ≥ 25 Cigs.	95% CI
18-29	5	85.8	54.0 - 117.6	14.2	0.0 - 46.0	0.0	0.0 - 0.0	0.0	0.0 – 0.0	0.0	0.0 – 0.0
30-44	10	93.7	81.2 - 106.3	1.2	0.0 - 4.3	2.3	0.0 - 8.5	1.2	0.0 - 4.3	1.7	0.0 - 6.2
45-69	7	47.8	0.0 - 110.7	52.2	0.0 - 115.2	0.0	0.0 – 0.0	0.0	0.0 – 0.0	0.0	0.0 – 0.0
18-69	22	63.9	24.4 - 103.4	34.8	0.9 - 73.8	0.6	0.0 - 2.0	0.3	0.0 - 1.0	0.4	0.0 - 1.5

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day

Age Group (years)	Both Sexes									
	n	% <5 Cigs.	95% CI	% 5-9 Cigs.	95% CI	% 10-14 Cigs.	95% CI	% 15-24 Cigs.	95% CI	% ≥ 25 Cigs.	95% CI
18-29	81	12.0	0.0 - 24.6	24.0	7.9 - 40.2	18.7	0.3 - 37.1	45.2	28.8 - 61.5	0.1	0.0 - 0.4
30-44	86	11.7	0.3 - 23.2	22.1	5.4 - 38.7	19.4	5.0 - 33.8	44.7	17.2 - 72.2	2.1	0.0 - 5.1
60-69	64	20.9	0.0 - 47.4	30.2	11.1 - 49.3	21.8	4.7 - 38.9	15.2	3.5 - 26.9	11.8	0.0 - 26.8
18-69	231	13.2	2.9 - 23.6	24.2	17.2 - 31.2	19.4	6.5 - 32.4	40.5	21.7 - 59.2	2.6	0.0 - 5.8

Among the current daily smokers in both sexes, 40.5% were heavy smokers by consuming 15 to 24 cigarettes per day and about a quarter (24.2%) consumed less than 5-9 cigarettes per day. Among the current daily smoking men, about 43.9% consumed 15 to 24 cigarettes a day and 21.0% consumed 10-14 cigarettes per day. Only 9% of current daily smoking men consuming less than 5 cigarettes a day. More than half (63.9%) of the women smoking daily consumed less than 5 cigarettes per day, while another quarter (34.8%) consumed 5 to 9 cigarettes per day (Table 7).

Years since cessation of smoking:

The mean years since cessation of smoking among former smoking men aged 15–29 years was 2.6 years, followed by 10.2 years for 30–44 years old and 17.4 years for 45–69 years old. For women, the mean years since cessation was 6.9 years for the youngest group of women (15–29 years), followed by 14.0 and 30.0 years for women aged 30–44 years and 45–69 years, respectively.

Mean years since cessation									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean years	95% CI	n	Mean years	95% CI	n	Mean years	95% CI
18-29	51	2.6	0.2 - 5.1	9	6.9	0.0 - 4.0	60	0.7	0.0 - 5.1
30-44	86	10.2	7.2 - 13.2	12	14.0	8.0 - 20.0	98	10.3	7.5 - 13.2
45-69	153	17.4	12.8 - 22.1	19	30.0	23.0 - 37.0	172	18.5	13.7 - 23.3
18-69	290	11.4	9.2 - 13.7	40	8.5	0.0 - 27.0	330	11.1	8.4 - 13.9

Former daily smokers:

The overall percentage of former daily smokers among total respondents was 4.9% and among ever daily smokers it was 39.4%. Among men, 8.4% were former daily smokers and the proportion of former daily smokers was highest (16.5%) among the 45–69 years age group. Among women, only 1.1% were former daily smokers, with the highest proportion (1.7%) among the 45–69 years age group.

Former daily smokers (who don't smoke currently) among all respondents									
Age Group (years)	Men			Women			Both Sexes		
	n	% Former daily smokers	95% CI	N	% Former daily smokers	95% CI	n	% Former daily smokers	95% CI
18-29	42	4.1	1.5 - 6.7	7	1.0	2.7 - 5.6	49	2.6	1.2 - 4.0
30-44	73	8.8	4.5 - 13.1	15	0.8	0.2 - 1.4	88	5.0	3.0 - 7.0
45-69	142	16.5	9.1 - 23.9	21	1.7	0.2 - 3.2	163	9.3	5.7 - 12.9

18-69									
	257	8.4	4.9 - 12.0	43	1.1	0.2 - 2.0	300	4.9	3.3 - 6.5

Former daily smokers (who don't smoke currently) among ever daily smokers									
	Men			Women			Both Sexes		
Age Group (years)	n	% Former daily smokers	95% CI	N	% Former daily smokers	95% CI	n	% Former daily smokers	95% CI
18-29	42	23.1	5.4 - 40.8	7	57.3	9.3 - 105.4	49	26.1	8.2 - 44.0
30-44	73	35.9	19.6 - 52.2	15	25.5	4.1 - 46.9	88	34.8	20.4 - 49.2
45-69	142	72.3	58.3 - 86.2	21	26.9	3.5 - 50.2	163	62.9	47.6 - 78.2
18-69	257	40.1	22.8 - 57.5	43	34.1	12.0 - 56.2	300	39.4	24.4 - 54.3

Past attempts or advice by doctor to quit smoking:

Among the currently smoking respondents, 76.7% (men 81.8%, women 45.9%) reported having tried to stop smoking in the past. Similarly, less than half of the 44.4% of currently smoking respondents (men 44.1%, women 45.9%) were advised by their doctor or health worker to stop smoking during a visit during the past 12 months.

Current smokers who have tried to stop smoking									
	Men			Women			Both Sexes		
Age Group (years)	n	% Tried to stop smoking	95% CI	n	% Tried to stop smoking	95% CI	n	% Tried to stop smoking	95% CI
18-29	81	92.8	86.1-99.4	5	30.9	0-64.4	86	89.7	81.1-98.3
30-44	65	75.3	58.6-91.9	19	58.5	20.4-96.7	84	73.1	56.7-89.5
45-69	55	60.5	40.7-80.3	22	42.1	11.9-72.4	77	53.0	33.1-72.9
18-69	201	81.8	70.1-93.7	46	45.9	24.2-67.7	247	76.7	63.9-89.5

Current smokers who have been advised by doctor to stop smoking									
	Men			Women			Both Sexes		
Age Group (years)	n	% Advised to stop smoking	95% CI	n	% Advised to stop smoking	95% CI	n	% Advised to stop smoking	95% CI
18-29	29	40.2	8.6 - 71.7	5	58.0	17.0 - 99.1	34	41.0	10.4 - 71.6
30-44	34	44.8	18.1 - 71.4	11	44.8	6.4 - 83.2	45	44.8	21.0 - 68.6

45-69	35	57.9	37.5 - 78.2	21	43.2	23.3 - 63.1	56	51.8	36.1 - 67.4
18-69	98	44.1	18.2- 70.0	37	45.9	28.3 - 63.5	135	44.4	21.9 - 66.8

Users of smokeless tobacco:

The overall prevalence of smokeless tobacco use was 19.3% (men 33.7%, women 3.7%) (Table 9). Overall, 78.7% of total respondents had never consumed smokeless tobacco, while about 17.1% were daily users. Among men, 29.4% used smokeless tobacco daily, about 4.3% used it less frequently than daily and 3.7% said they had used it sometime in the past. About 62.6% of men were found to have never used smokeless tobacco. Among women, 96.1% had never used smokeless tobacco.

Current users of smokeless tobacco									
	Men			Women			Both Sexes		
Age Group (years)	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
18-29	104	20.6	16.1 - 25.0	8	2.2	0.0 - 4.7	112	11.7	8.6 - 14.9
30-44	150	44.4	34.7 - 54.2	11	2.3	0.2 - 4.4	161	24.4	16.2 - 32.7
60-69	276	44.8	36.3 - 53.3	34	8.3	1.9 - 14.7	310	27.1	20.0 - 34.1
18-69	530	33.7	29.0 - 38.4	53	3.7	1.4 - 6.1	583	19.3	14.6 - 24.0

Smokeless tobacco use									
	Men								
Age Group (years)	n	Current user				Non user			
		% Daily	95% CI	% Non-daily	95% CI	% Past user	95% CI	% Never used	95% CI
18-29	699	17.6	13.1 - 22.2	2.9	0.6 - 5.3	2.3	0.0 - 4.7	77.2	71.7 - 82.6
30-44	512	40.7	32.0 - 49.4	3.7	0.0 - 7.8	3.0	1.0 - 4.9	52.6	43.6 - 61.6
45-69	782	37.2	29.9 - 44.4	7.6	0.0 - 17.1	7.6	2.3 - 13.0	47.6	39.9 - 55.2
18-69	1993	29.4	25.6 - 33.3	4.3	0.0 - 8.6	3.7	2.0 - 5.0	62.6	57.5 - 67.6

Smokeless tobacco use									
	Women								
Age Group (years)	n	Current user				Non user			
		% Daily	95% CI	% Non-daily	95% CI	% Past user	95% CI	% Never used	95% CI
18-29	768	2.2	0.0 - 4.7	0	0.0 - 0.0	0	0.0 - 0.0	97.8	95.3 - 100.3

Age Group	n	%	95% CI	%	95% CI	%	95% CI	%	95% CI
30-44	603	2.3	0.2 - 4.4	0.01	0.0 - 0.04	0.06	0.0 - 0.2	97.6	95.5 - 99.7
45-69	526	8.29	1.9 - 14.7	0.02	0.0 - 0.05	0.6	0.1 - 1.2	91.1	84.7 - 97.5
18-69	1897	3.7	1.3 - 6.1	0.01	0.0 - 0.0	0.2	0.03 - 0.3	96.1	93.8 - 98.5

Smokeless tobacco use									
	Both Sexes								
Age Group (years)		Current user				Non user			
	n	% Daily	95% CI	% Non-daily	95% CI	% Past user	95% CI	% Never used	95% CI
18-29	1467	10.2	7.7 - 12.7	1.5	0.1 - 3.0	1.2	0.0 - 2.6	87.1	83.0 - 91.2
30-44	1115	22.5	15.6 - 29.3	2.0	0.0 - 4.4	1.6	0.6 - 2.5	74.0	66.0 - 82.0
45-69	1308	23.1	18.3 - 28.0	3.9	0.0 - 9.2	4.2	1.6 - 6.8	68.7	62.2 - 75.2
18-69	3890	17.1	14.0 - 20.1	2.2	0.0 - 4.8	2.0	1.2 - 2.8	78.7	73.6 - 83.8

About 2.9% of respondents (men 5.5%, women 0.1%) were former daily users of smokeless tobacco. Among those who had ever been daily users of smokeless tobacco, about 14.5% (men 15.7%, women 3.1%) were former daily users of smokeless tobacco (Table T9, Annex I).

Former daily smokeless tobacco users (who don't use tobacco currently) among all respondents											
	Men				Women				Both Sexes		
Age Group (years)	n	% Former daily users	95% CI		n	% Former daily users	95% CI		n	% Former daily users	95% CI
18-29	699	3.0	0.7 - 5.4		768	0	0.0 - 0.0		1467	1.6	0.1 - 3.0
30-44	512	5.3	1.5 - 9.0		603	0.01	0.0 - 0.04		1115	2.8	0.4 - 5.1
45-69	782	10.5	5.3 - 15.7		526	0.5	0.0 - 1.0		1308	5.6	2.7 - 8.5
18-69	1993	5.5	2.9 - 8.0		1897	0.1	0.0 - 0.2		3890	2.9	1.2 - 4.6

Former daily smokeless tobacco users (who don't use tobacco currently) among ever daily users											
	Men				Women				Both Sexes		
Age Group (years)	n	% Former daily users	95% CI		n	% Former daily users	95% CI		n	% Former daily users	95% CI
18-29	17	14.7	3.7 - 25.6		0	0	0.0 - 0.0		17	13.3	3.1 - 23.6
30-44	28	11.4	3.9 - 19.0		1	0.6	0.0 - 1.8		29	11.0	3.6 - 18.4
45-69	74	22.0	11.7 - 32.3		6	5.5	0.0 - 12.8		80	19.6	10.0 - 29.1
18-69	119	15.7	8.9 - 22.4		7	3.1	0.0 - 7.0		126	14.5	7.8 - 21.2

Among the daily smokeless tobacco users, the mean frequency of taking snuff by mouth (Naswar) was found to be 12.9 times a day among both sexes (men 13.4, women 8.2).

Mean times per day smokeless tobacco used by daily smokeless tobacco users by type									
Age Group (years)	Men								
	n	Snuff by mouth	95% CI	n	Snuff by nose	95% CI	n	Chewing tobacco	95% CI
18-29	94	13.5	11.5-15.3	94	0.1	0-0.3	94	0.1	0-0.3
30-44	140	13.6	11.0-16.1	140	0	-	139	0	-
45-69	258	13.4	11.3-15.3	257	0.1	0-0.1	256	0.1	0-0.3
18-69	492	13.4	11.8-15.2	491	0.04	0-0.1	489	0.1	0-0.1

Mean times per day smokeless tobacco used by daily smokeless tobacco users by type						
Age Group (years)	Men					
	n	Betel, quid	95% CI	n	Other	95% CI
18-29	94	0.3	0-0.6	-	-	-
30-44	140	0	-	-	-	-
45-69	256	0.1	0-0.2	-	-	-
18-69	490	0.1	0-0.2	-	-	-

Mean times per day smokeless tobacco used by daily smokeless tobacco users by type									
Age Group (years)	Women								
	n	Snuff by mouth	95% CI	n	Snuff by nose	95% CI	n	Chewing tobacco	95% CI
18-29	8	7.8	4.9-10.6	8	0	-	8	0	-
30-44	10	6.3	1.7-11.0	9	0	-	9	0	-
45-69	33	9.1	6.7-11.5	31	0.2	0-0.5	31	0.1	0-0.1
18-69	51	8.2	5.9-10.5	48	0.1	0-0.3	48	0.1	0-0.1

Mean times per day smokeless tobacco used by daily smokeless tobacco users by type						
Age Group (years)	Women					
	n	Betel, quid	95% CI	n	Other	95% CI
18-29	94	0.3	0-0.7	-	-	-
30-44	140	0	-	-	-	-
45-69	256	0.1	0-0.2	-	-	-
18-69	490	0.1	0-0.2	-	-	-

Mean times per day smokeless tobacco used by daily smokeless tobacco users by type									
Age Group (years)	Both Sexes								
	n	Snuff by mouth	95% CI	n	Snuff by nose	95% CI	n	Chewing tobacco	95% CI
18-29	102	12.9	11-14.7	102	0.1	0-0.3	102	0.1	0-0.1

Age Group	n		95% CI	n			n		
30-44	150	13.2	10.9-15.5	149	0	-	148	0	-
45-69	291	12.6	10.9-14.3	288	0.1	0-0.1	287	0.1	0-0.1
18-69	543	12.9	11.5-14.3	539	0.1	0-0.1	537	0.1	0-0.1

Mean times per day smokeless tobacco used by daily smokeless tobacco users by type						
Age Group (years)	Both Sexes					
	n	Betel, quid	95% CI	n	Other	95% CI
18-29	102	0.3	0-0.6	-	-	-
30-44	149	0	-	-	-	-
45-69	287	0.1	0-0.1	-	-	-
18-69	538	0.1	0-0.2	-	-	-

Types of smokeless tobacco used:

Regarding the types of smokeless tobacco products used by current users, the most commonly used form was snuff by mouth (Naswar). 97.6% of the total daily smokeless tobacco users used snuff by mouth, 2.3% used snuff by nose and 0.9% used chewing tobacco. Among men, 97.5% used snuff by mouth and about a 7% used snuff by nose. Among women, about 98.8% used snuff by mouth (naswar) and only 0.8% used snuff by nose.

Percentage of current users of smokeless tobacco using each of the following products								
Age Group (years)	Men							
	n	% Snuff by mouth	95% CI	% Snuff by nose	95% CI	% Chewing tobacco	95% CI
18-29	100	97	92.8-100	3	0-7.1	1.2	0-3.3
30-44	146	97	92-100	3	0-7.8	0.5	0-1.2
45-69	271	99	97.8-100	1	0-2.2	1.0	0-2.6
18-69	517	97.5	95-99.8	7	0.15-4.7	0.8	0.03-1.7

Percentage of current users of smokeless tobacco using each of the following products					
Age Group (years)	Men				
	N	% Betel, quid	95% CI	% Other	95% CI
18-29	5	2.3	0-4.9	-	-
30-44	5	0.5	0-1.4	-	-
45-69	3	0.6	0-1.5	-	-
18-69	13	1.0	0.13-1.9	-	-

Percentage of current users of smokeless tobacco using each of the following products							
Age Group (years)	Women						
	n	% Snuff by mouth	95% CI	% Snuff by nose	95% CI	% Chewing tobacco	95% CI
18-29	8	100	100	0	-	-	-
30-44	10	99.4	98-100	0	-	-	-
45-69	32	98.2	94.7-100	1.5	0-4.9	1.7	0-4.1

18-69	50	98.9	97-100	0.8	0-2.6	0.9	0-2.1

Percentage of current users of smokeless tobacco using each of the following products							
Age Group (years)	Both Sexes						
	n	% Snuff by mouth	95% CI	% Snuff by nose	95% CI	% Chewing tobacco	95% CI
18-29	108	97.1	93.5-100	2.8	0-6.4	1.1	0-2.9
30-44	156	96.9	92.4-100	3.1	0-7.5	0.5	0-1.1
45-69	303	98.9	97.7-100	1.0	0-2.2	1.1	0-2.5
18-69	567	97.6	95.5-99.7	2.3	0.2-4.4	0.9	0-1.7

Percentage of current users of smokeless tobacco using each of the following products					
Age Group (years)	Both Sexes				
	N	% Betel, quid	95% CI	% Other	95% CI
18-29	5	2.1	0-4.4	-	-
30-44	5	0.5	0-1.1	-	-
45-69	3	0.5	0-1.3	-	-
18-69	13	0.9	0-1.73	-	-

Users of smoke and smokeless tobacco:

The prevalence of tobacco use (either smoke or smokeless) was 23.3% among total respondents. Nearly half (45.0%) of the men consumed either smoke or smokeless tobacco. Among men, this proportion was highest (59.4%) among 30–44 years age group, followed by 45-69 years old (49.2%) and 15–29 years old (32.7%). Among women, the overall percentage of current use of tobacco was 5.9%; this proportion was highest (13.7%) among 45–69 years old, followed by 30–44 years old (4.4%); it was less (3.0%) among 15–29 years old.

Current tobacco users											
	Men				Women				Both Sexes		
Age Group (years)	n	% Current users	95% CI		n	% Current users	95% CI		n	% Current users	95% CI
18-29	183	32.7	23.5 - 41.9		18	3.0	0.5 - 5.6		201	18.4	11.6 - 25.2
30-44	223	59.4	48.6 - 70.1		35	4.4	1.7 - 7.1		258	33.3	23.2 - 43.4
45-69	330	49.2	41.5 - 57.0		72	13.7	6.5 - 20.9		402	32.0	25.1 - 38.8
18-69	736	45.0	37.5 - 52.4		125	5.9	3.5 - 8.4		861	26.2	19.3 - 33.1

Similarly, 23.3% of total respondents were daily users of tobacco (men 39.7%, women 5.6%). The age wise distribution of daily use of tobacco among the three age groups was similar to that among current users.

Daily tobacco users											
Age Group (years)	Men				Women				Both Sexes		
	n	% Daily users	95% CI		n	% Daily users	95% CI		n	% Daily users	95% CI
18-29	159	28.8	20.8 - 36.7		18	3.0	0.5 - 5.6		177	16.4	10.6 - 22.1
30-44	206	54.3	45.5 - 63.1		29	4.0	1.3 - 6.6		235	30.4	22.0 - 38.8
45-69	308	41.0	33.6 - 48.4		64	12.8	5.7 - 20.0		372	27.3	22.4 - 32.3
18-69	673	39.7	35.2 - 44.2		111	5.6	3.2 - 8.1		784	23.3	18.6 - 28.0

Exposure to second-hand smoke:

About 36.0% of total respondents (men 44.5%, women 26.8%) reported being exposed to second-hand smoke at home during the past 30 days. The proportion of men exposed to second-hand smoke in the work place was 55.7%, women 22.9% and both sexes 40.8%.

Exposed to second-hand smoke in home during the past 30 days											
Age Group (years)	Men				Women				Both Sexes		
	n	% Ex-posed	95% CI		n	% Ex-posed	95% CI		n	% Ex-posed	95% CI
18-29	264	43.7	32.9 - 54.6		203	30.6	21.6 - 39.6		467	37.4	28.8 - 46.0
30-44	173	47.2	34.7 - 59.7		160	26.5	17.1 - 35.9		333	37.4	27.9 - 46.8
45-69	231	42.3	27.1 - 57.5		136	20.1	12.1 - 28.1		367	31.5	22.4 - 40.7
18-69	668	44.5	33.4 - 55.6		499	26.8	20.0 - 33.6		1167	36.0	28.0 - 44.0

Exposed to second-hand smoke in the workplace during the past 30 days											
Age Group (years)	Men				Women				Both Sexes		
	n	% Ex-posed	95% CI		n	% Ex-posed	95% CI		n	% Ex-posed	95% CI
18-29	380	58.0	47.6 - 68.5		135	26.8	15.7 - 37.9		515	43.8	35.4 - 52.2
30-44	264	58.5	48.0 - 68.9		111	20.6	11.5 - 29.6		375	41.5	33.7 - 49.3
45-69	318	47.2	38.5 - 55.9		68	18.4	7.7 - 29.0		386	33.8	27.7 - 40.0
18-69	962	55.7	47.2 - 64.2		314	22.9	14.1 - 31.7		1276	40.8	34.2 - 47.4

ALCOHOL CONSUMPTION

The prevalence of alcohol consumption was assessed by consumption status and consumption behavior. Heavy drinking (consumption behavior) was assessed because of its association with cardiovascular diseases, liver cirrhosis and cancers.

Current drinkers:

Multiple studies have shown that acceptability of alcohol consumption varies wildly across cultures. Several factors such as religious beliefs, trust issues regarding reporting sensitive information during participation in a research and social desirability might influence reporting of such behaviors to researchers during relevant investigations. Since, alcohol consumption is not minimally accepted in Afghan society and is legally banned under the constitution of Afghanistan therefore under reporting of alcohol consumption can't be ruled out.

Among the survey population, 0.2% (men 0.3%, women 0.2%) were found to be current drinkers (i.e., had consumed a drink containing alcohol in the previous 30 days), while 99.5% (men 99.3%, women 99.8%) were lifetime abstainers. Among men, the proportion of current drinkers was highest (0.5%) among 18–29 years old, followed by 45–69 years old (0.1%), and no use was reported by 30–44 years old. Among women, the proportion of current drinkers was reported by 30–44 years old which was 0.8%. (Table A1, Annex I). The sample size of respondents reporting alcohol consumption was very small (n=17) therefore further analysis of the data was not carried out.

DIETARY HABITS

Fruit and Vegetable Consumption:

The fruit and vegetable consumption pattern of the study population was assessed by asking about the frequency and quantity of fruit and vegetables consumed. In a typical week, the study population ate fruit on 2.7 days per week (men 2.8 days, women 2.7 days) (Table D1, Annex I). The findings clearly show that fruit consumption is low among the study population. Vegetable consumption was relatively better, with respondents consuming vegetables on 4.6 days on average in a typical week (men 4.6 days, women 4.7 days).

Mean number of days fruit consumed in a typical week									
	Men			Women			Both Sexes		
Age Group (years)	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
18-29	699	2.9	2.7 - 3.1	765	2.9	2.5 - 3.2	1464	2.9	2.7 - 3.1
30-44	509	2.9	2.7 - 3.1	601	2.7	2.3 - 3.0	1110	2.8	2.5 - 3.0
60-69	782	2.4	2.1 - 2.6	525	2.4	2.0 - 2.9	1307	2.4	2.1 - 2.7
18-69	1990	2.8	2.6 - 2.9	1891	2.7	2.4 - 3.0	3881	2.7	2.6 - 2.9

Mean number of days vegetables consumed in a typical week									
	Men			Women			Both Sexes		
Age Group (years)	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
18-29	698	4.6	4.2 - 4.9	767	4.7	4.4 - 5.0	1465	4.6	4.4 - 4.9
30-44	512	4.7	4.3 - 5.0	600	4.5	4.2 - 4.8	1112	4.6	4.3 - 4.8
60-69	781	4.5	4.2 - 4.8	524	4.9	4.4 - 5.4	1305	4.7	4.4 - 5.0
18-69	1991	4.6	4.3 - 4.9	1891	4.7	4.4 - 4.9	3882	4.6	4.4 - 4.8

The average daily fruit intake was also low in both men (0.7 servings per day) and women (0.6 servings per day) (Table D3, Annex I). The average daily vegetable intake was better than the fruit intake in both men and women (1.2 servings per day) with an overall average of 1.2 servings per day for both sexes. When fruit and vegetable consumption is combined, the average consumption was only 1.9 servings of fruit and vegetables on a typical day.

Mean number of servings of fruit on average per day									
	Men			Women			Both Sexes		
Age Group (years)	n	Mean number of	95% CI	n	Mean number of servings	95% CI	n	Mean number of	95% CI

		serv-ings							serv-ings	
18-29	699	0.8	0.6 - 0.9		758	0.7	0.6 - 0.8	1457	0.7	0.6 - 0.8
30-44	507	0.7	0.6 - 0.8		593	0.6	0.5 - 0.7	1100	0.6	0.6 - 0.7
45-69	782	0.6	0.5 - 0.7		521	0.6	0.5 - 0.7	1303	0.6	0.5 - 0.7
18-69	1988	0.7	0.6 - 0.8		1872	0.6	0.6 - 0.7	3860	0.7	0.6 - 0.7

Mean number of servings of vegetables on average per day

Age Group (years)	Men				Women			Both Sexes		
	n	Mean number of serv-ings	95% CI		n	Mean number of serv-ings	95% CI	n	Mean number of serv-ings	95% CI
18-29	697	1.2	1.1 - 1.4	1.1	761	1.3	1.1 - 1.5	1458	1.3	1.1 - 14
30-44	511	1.1	1.0 - 1.3	1.0	595	1.1	0.9 - 1.3	1106	1.1	1.0 - 1.2
45-69	778	1.1	1.0 - 1.2	1.0	522	1.1	0.9 - 1.2	1300	1.1	1.0 - 1.2
18-69	1986	1.2	1.1 - 1.3	1.1	1878	1.2	1.0 - 1.3	3864	1.2	1.1 - 1.3

Mean number of servings of fruit and/or vegetables on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of serv-ings	95% CI	n	Mean number of serv-ings	95% CI	n	Mean number of serv-ings	95% CI
18-29	699	2.0	1.8 - 2.2	764	2.0	1.7 - 2.2	1463	2.0	1.8 - 2.2
30-44	512	1.8	1.7 - 2.0	596	1.7	1.5 - 1.9	1108	1.8	1.6 - 1.9
45-69	782	1.7	1.5 - 1.9	522	1.7	1.5 - 1.9	1304	1.7	1.6 - 1.8
18-69	1993	1.9	1.8 - 2.0	1882	1.8	1.6 - 2.0	3875	1.9	1.7 - 2.0

Adequate fruit and vegetable consumption reduce risk of Non-Communicable disease; however, the survey showed that most of the population consumed an inadequate quantity of fruit and vegetables (less than five servings a day). Only 1.6 % of the survey population consumed the recommended five or more servings of fruit and vegetables per day. About of the study population consumed fruit or vegetables not equal to even one serving on an average day. The majority (69.1%) of respondents consumed one to two servings of fruit and vegetables; this proportion was slightly higher for men (70.7%) than women (67.3%). Among different age groups fruit and vegetable consumption is lowest among older age group (45-69 years) while highest in younger age group (15-29 years old).

Age Group (years)	Men								
	n	% no fruit and/or vegeta-bles	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
18-29	699	16.8	11.9 - 21.7	68.4	62.4 - 74.4	12.5	7.3 - 17.7	2.3	0.0 - 5.2
30-44	512	14.4	7.4 - 21.4	77.4	71.8 - 83.0	7.3	3.8 - 10.8	0.9	0.0 - 1.9
45-69	782	26.2	20.5 - 31.8	66.2	58.9 - 73.4	6.6	3.1 - 10.1	1.1	0.0 - 2.9

Age Group (years)	n	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
18-69	1993	18.2	14.2 - 22.2	70.7	66.9 - 74.6	9.5	6.3 - 12.7	1.6	0.0 - 3.4

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

	Women								
Age Group (years)	n	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
18-29	764	17.7	12.0 - 23.3	69.1	62.0 - 76.2	8.4	5.3 - 11.4	4.9	1.7 - 8.0
30-44	596	25.6	17.7 - 33.5	65.7	56.8 - 74.6	5.6	3.0 - 8.3	3.0	0.1 - 6.0
45-69	522	21.5	12.9 - 30.1	66.0	55.9 - 76.1	9.7	5.6 - 13.8	2.8	0.2 - 5.5
18-69	1882	21.0	16.0 - 26.0	67.3	61.5 - 73.2	7.8	5.7 - 10.0	3.8	1.4 - 6.2

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

	Both Sexes								
Age Group (years)	n	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
18-29	1463	17.2	13.2 - 21.2	68.8	63.6 - 73.9	10.5	7.1 - 13.9	3.5	1.5 - 5.6
30-44	1108	19.7	13.7 - 25.6	71.9	66.2 - 77.6	6.5	4.3 - 8.8	1.9	0.4 - 3.4
45-69	1304	23.9	18.3 - 29.5	66.1	59.6 - 72.5	8.1	5.3 - 10.9	1.9	0.3 - 3.5
18-69	3875	19.5	15.8 - 23.2	69.1	65.4 - 72.8	8.7	6.8 - 10.6	2.7	1.2 - 4.1

The survey found that 97.3% of the population consumed less than five servings of fruit and vegetables on an average per day.

Less than five servings of fruit and/or vegetables on average per day

	Men			Women			Both Sexes		
Age Group (years)	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI
18-29	683	97.7	94.8 - 100	728	95.1	92.0 - 98.3	1411	96.5	94.4 - 98.5
30-44	503	99.1	98.2 - 100	578	97.0	94.0 - 99.9	1081	98.1	96.6 - 99.6
45-69	773	98.9	97.1 - 100	509	97.2	94.5 - 99.8	1282	98.1	96.5 - 99.7
18-69	1959	98.4	96.6 - 100	1815	96.2	93.8 - 98.6	3774	97.3	95.9 - 98.8

DIETARY SALT :

Dietary salt intake

The knowledge, attitudes and behavior of the study population towards dietary salt were assessed using structured questions. Around 32.4% (men 31.0%, women 33.8%) of respondents always, or often, added salt before eating or while eating. This proportion was found to be highest among 15–29 years old women (38.3%). Otherwise, nearly all respondents (97.8%) added salt either always, or often, during cooking or while preparing food at home. This proportion was almost equal in all age groups and for both sexes. Similarly, 12.1% of respondents always or often consumed processed food containing high amounts of salt. This proportion was higher among men (15.6%) than women (8.2%) and highest among 15–29 year olds at 15.7% (men 20.3%, women 10.7%).

Add salt always or often before eating or when eating									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	229	36.8	25.1 - 48.4	286	38.3	29.5 - 47.1	515	37.5	30.1 - 45.0
30-44	133	29.8	16.9 - 42.6	195	31.8	20.6 - 43.0	328	30.7	22.4 - 39.1
60-69	149	21.4	13.4 - 29.4	145	27.7	16.8 - 38.7	294	24.5	17.7 - 31.3
18-69	511	31.0	20.9 - 41.2	626	33.8	25.5 - 42.1	1137	32.4	25.6 - 39.1

Always or often consume processed food high in salt									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	192	20.3	14.6 - 26.0	163	10.7	7.2 - 14.2	355	15.7	12.5 - 18.8
30-44	84	15.8	9.9 - 21.8	109	7.5	3.9 - 11.1	193	11.9	8.4 - 15.4
45-69	74	6.3	3.0 - 9.6	73	4.1	2.2 - 6.0	147	5.2	3.2 - 7.2
18-69	350	15.6	12.3 - 19.0	345	8.2	5.7 - 10.6	695	12.1	10.1 - 14.0

The self-reported quantity of salt consumed in relative measures was assessed. Around 15.1% (men 14.6% women 15.6%) thought that they consumed far too much or too much salt. This proportion was almost equal first tow age groups, while lower older age group.

Think they consume far too much or too much salt									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	132	16.0	11.1 - 20.9	138	17.0	11.9 - 22.1	270	16.5	12.7 - 20.3
30-44	86	13.5	9.6 - 17.3	100	18.4	11.8 - 24.9	186	15.8	12.1 - 19.4
45-69	88	13.5	9.0 - 18.0	71	9.5	5.3 - 13.7	159	11.6	8.3 - 14.9

			11.4 - 17.9				11.7 - 19.6				12.6 - 17.7
18-69	306	14.6			309	15.6			615	15.1	

However, the proportion of respondents who thought that they consumed far too much salt was significantly less (than those who thought they consumed too much salt). 5.1% of respondents thought that they consumed far too much salt. Around 10.0% (men 11.4%, women 8.4%) thought that they consumed too much salt. On the other hand, about 65.1% of respondents thought they consumed just the right amount of salt. This proportion was higher in men as compared to women (men 74.6%, women 60.3%) and was highest among the 18–29 year age group at 67.8% (men 78.9%, women 81.4%). Around 15.1% (men 12.4%, women 18.0%) thought they consumed too little salt. This proportion was highest among the 45–69 year age group at 22.8% (men 16.3%, women 18.0%). Very few respondents (4.7%) thought they consumed far too little salt; this percentage was higher in women (8.1%) and men (1.5%).

Self-reported quantity of salt consumed											
Men											
Age Group (years)	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amount	95% CI	% Too little	95% CI	% Far too little	95% CI
18-29	699	4.3	1.8 - 6.8	11.7	7.7 - 15.7	71.8	65.7 - 78.0	11.3	5.1 - 17.1	0.9	0.0 - 2.1
30-44	511	1.9	0.5 - 3.4	11.5	7.8 - 15.3	74.6	65.8 - 83.4	11.1	3.7 - 18.5	0.9	0.0 - 2.0
45-69	781	2.8	0.7 - 4.9	10.7	6.7 - 14.6	66.6	55.2 - 78.0	16.3	6.2 - 26.4	3.6	0.8 - 6.3
18-69	1991	3.2	1.6 - 4.8	11.4	8.5 - 14.3	71.5	65.0- 78.0	12.4	5.8 - 19.0	1.5	0.5 - 2.5

Self-reported quantity of salt consumed											
Women											
Age Group (years)	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amount	95% CI	% Too little	95% CI	% Far too little	95% CI
18-29	768	6.7	2.0 - 11.3	10.3	7.1 - 13.5	61.9	55.4 - 68.4	13.7	9.3 - 18.1	7.4	2.2 - 12.7
30-44	603	9.9	3.5 - 16.2	8.5	5.1 - 11.9	60.3	50.0 - 68.6	15.4	10.3 - 20.5	6.0	2.1 - 9.8
45-69	526	4.7	2.0 - 7.4	4.8	1.7 - 7.9	48.7	38.4 - 59.0	29.7	17.7 - 41.7	12.1	5.0 - 19.2
18-69	1897	7.2	3.3 - 11.1	8.4	6.5 - 10.4	58.3	53.2 - 63.3	18.0	13.9 - 22.1	8.1	4.1 - 12.1

Self-reported quantity of salt consumed											
Both Sexes											
Age Group (years)	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amount	95% CI	% Too little	95% CI	% Far too little	95% CI

Age Group	n	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
18-29	1467	5.4	2.4 - 8.5	11.0	8.3 - 13.8	67.0	63.1 - 71.0	12.4	8.9 - 16.0	4.0	1.3 - 6.8
30-44	1114	5.7	2.3 - 9.1	10.1	7.7 - 12.4	67.8	63.0 - 72.6	13.1	8.9 - 17.3	3.3	1.4 - 5.2
45-69	1307	3.7	1.8 - 1.7	7.8	5.2 - 10.5	57.9	51.4 - 64.5	22.8	15.8 - 29.8	7.7	3.4 - 12.0
18-69	3888	5.1	2.7 - 7.5	10.0	8.3 - 11.7	65.1	61.8 - 68.5	15.1	11.0 - 19.1	4.7	2.4 - 6.9

Control of Salt Intake:

Respondents were asked to report about the importance of lowering salt in their diet, so, only 43.7% respondents that decreasing salt intake is very important (men 35.8%, women 52.2%). The older age groups perceived lowering salt intake as more important as compared younger age group of 18-29 years old. The table below shows the perception of respondents about decreasing salt intake.

Importance of lowering salt in diet								
Age Group (years)	Men							
	n	% Very im-portant	95% CI	% Somewhat important	95% CI	% Not at all important	95% CI
18-29	693	30.3	16.5 - 44.0	29.4	22.0 - 36.9	40.3	40.3 - 27.2
30-44	498	45.1	35.3 - 54.9	20.6	10.2 - 30.9	34.3	23.6 - 45.0
45-69	776	34.4	22.2 - 46.7	32.4	21.5 - 43.2	33.2	23.2 - 43.1
18-69	1967	35.8	25.9 - 45.7	27.4	19.9 - 34.9	36.8	26.2 - 47.4

Importance of lowering salt in diet								
Age Group (years)	Women							
	n	% Very im-portant	95% CI	% Somewhat important	95% CI	% Not at all important	95% CI
18-29	744	45.4	37.4 - 53.4	35.1	29.8 - 40.5	19.4	11.8 - 27.0
30-44	583	52.5	42.8 - 62.3	32.4	23.9 - 40.9	15.1	8.7 - 21.5
45-69	506	64.7	53.9 - 75.4	22.8	15.8 - 29.7	12.6	3.5 - 21.6
18-69	1833	52.2	45.2 - 59.1	31.4	27.3 - 35.5	16.5	10.1 - 22.8

Importance of lowering salt in diet								
Age Group (years)	Both Sexes							
	n	% Very im-portant	95% CI	% Somewhat important	95% CI	% Not at all important	95% CI
18-29	1437	37.5	27.7 - 47.3	32.2	27.6 - 36.8	30.3	20.8 - 39.8
30-44	1081	48.7	40.2 - 57.1	26.3	17.8 - 34.7	25.1	17.0 - 33.1
45-69	1282	49.0	40.2 - 57.9	27.7	22.4 - 33.0	23.2	15.5 - 30.9
18-69	3800	43.7	35.8 - 51.5	29.3	24.7 - 34.0	27.0	19.0 - 35.1

About 85.3% of the respondents reported that consuming too much salt could cause serious health problems and slight difference in gender and age groups.

Think consuming too much salt could cause serious health problem											
Age Group	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI

(years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	556	88.2	82.8 - 97.7	601	82.9	77.1 - 88.1	1157	85.7	81.4 - 89.9
30-44	392	86.1	79.4 - 92.9	480	83.1	76.3 - 89.9	872	84.7	80.2 - 89.3
45-69	632	82.4	75.3 - 89.5	425	88.6	84.2 - 93.0	1057	85.4	81.4 - 89.4
18-69	1580	86.2	80.8 - 91.6	1506	84.3	80.3 - 88.4	3086	85.3	81.7 - 88.9

Respondents were asked to report measure undertaken by them on a regular basis to control salt intake. Around 51.2% of respondents avoided or minimized the consumption of processed food. This proportion was higher in women (59.2%) as compared to men (43.8%) and highest among the 30–44 year age group.

Limit consumption of processed foods									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	244	43.2	34.1-52.2	246	53.8	44.7-62.9	490	48.3	40.7-55.9
30-44	182	48.4	38.9-57.9	186	61.9	51.4-72.4	368	54.8	47.8-61.9
45-69	297	38.9	31.5-46.2	162	66.2	57.1-75.2	459	52.1	45.9-58.4
18-69	723	43.8	37.1-50.5	594	59.2	51.4-67.0	1317	51.2	45.6-56.9

Only 26.0% (men 32.5%, women 19.1%) looked at the salt or sodium information on food labels. Around 28.7% (men 34.8%, women 22.2%) bought low salt/sodium alternatives to control salt intake. This proportion was almost similar across all older age groups while highest in younger age group. An almost negligible proportion (0.2%) of respondents cooked meals without adding salt, 29.7% used other spices in place of salt when cooking, 52.6% avoided eating out to control their salt intake.

Look at the salt or sodium content on food labels									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	157	40.1	28.6-51.5	123	22.6	12.6-32.6	280	31.6	22.6-40.6
30-44	78	31.2	19.5-42.9	58	18.8	10.7-26.9	136	25.3	16.7-33.9
45-69	131	19.4	10.8-28.1	33	12.4	3.4-21.2	164	16.0	9.6-22.4
18-69	366	32.5	22.9-42.1	214	19.1	11.3-26.7	580	26.0	18.5-33.5

Buy low salt/sodium alternatives									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	160	40.7	29.0-52.4	124	25.4	15.7-35.2	284	33.4	23.9-42.7

30-44	115	32.6	21.9-43.4	83	18.0	9.6-26.4	198	25.7	18.5-32.8
45-69	196	26.2	18.7-33.7	83	21.5	12.5-30.4	279	23.9	17.4-30.4
18-69	471	34.8	26.5-43.2	290	22.2	14.6-29.8	761	28.7	21.8-35.7

Use spices other than salt when cooking									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	186	36.2	25.4-47.0	170	29.2	19.9-38.6	356	32.8	25.2-40.5
30-44	109	28.9	19.0-38.7	129	25.3	15.6-35.0	238	27.1	20.1-34.2
45-69	195	27.9	19.3-36.6	89	25.8	16.0-35.8	284	26.9	20.3-33.6
18-69	490	32.0	24.7-39.3	388	27.2	19.1-35.3	878	29.7	23.7-35.7

Avoid eating foods prepared outside of a home									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	236	46.8	37.1-56.4	305	54.6	45.0-64.1	541	50.5	43.0-58.1
30-44	189	42.6	32.7-52.4	280	70.0	61.1-79.0	469	55.6	48.7-62.5
45-69	333	35.0	29.9-40.1	256	71.1	62.7-79.5	589	52.6	47.3-57.8
18-69	758	42.7	34.9-50.6	841	63.3	55.8-70.7	1599	52.6	46.9-58.3

Intake of salt per day:

Levels of sodium and creatinine in spot urine samples were used in STEPS to estimate population 24 hour salt intake, using the INTERSALT equation: Estimated 24 hour sodium (Na) intake in mmol for males: 23.51+0.45*spot Na concentration (mmol/L) -3.09*spot creatinine concentration (mmol/L)+4.16*BMI+0.22*Age; Estimated 24 hour sodium (Na) intake in mmol for females: 3.74+0.33* spot Na concentration (mmol/L)-2.44* spot creatinine concentration (mmol/L)+2.42* BMI +2.34* Age -0.03* Age ^2; The 24 hour sodium values in mmol are divided by 17.1 in order to get grams of salt

The WHO recommendation is less than 5 grams of salt or 2 grams of sodium per person per day. The mean salt intake was 12.1 grams, men consuming 12.5grams of salt per day as compared to the women who were consuming 11.8 grams of salt per day.

Mean salt intake (g/day)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI

18-29	33	14.9	12.4 - 17.4		55	12.5	10.1 - 14.9	88	13.4	11.6 - 15.2
30-44	30	11.0	9.5 - 12.6		59	11.8	10.5 - 13.2	89	11.3	10.2 - 12.5
45-69	43	13.2	10.9 - 15.5		68	11.2	9.9 - 12.4	111	11.9	10.7 - 13.0
18-69	106	12.5	10.9 - 14.1		182	11.8	10.5 - 13.1	288	12.1	11.1 - 13.1

PHYSICAL ACTIVITY

The physical activity of the survey population was assessed by measuring the level and duration of activities undertaken during work, travel and recreation. METs (Metabolic Equivalents) are commonly used to express the intensity of physical activities, and are also used for the analysis of GPAQ data. Applying MET values to activity levels allows us to calculate total physical activity. MET is the ratio of a person's working metabolic rate relative to the resting metabolic rate. One MET is defined as the energy cost of sitting quietly, and is equivalent to a caloric consumption of 1 kcal/kg/hour. For the analysis of GPAQ data, existing guidelines have been adopted: It is estimated that, compared to sitting quietly, a person's caloric consumption is four times as high when being moderately active, and eight times as high when being vigorously active. Therefore, for the calculation of a person's total physical activity using GPAQ data, the following MET values are used:

Domain	MET value
Work	Moderate MET value = 4.0
	Vigorous MET value = 8.0
Transport	Cycling and walking MET value = 4.0
Recreation	Moderate MET value = 4.0
	Vigorous MET value = 8.0

WHO recommends that throughout a week, including activity for work, during transport and leisure time, adults should do at least
150 minutes of moderate-intensity physical activity OR
75 minutes of vigorous-intensity physical activity OR
An equivalent combination of moderate- and vigorous-intensity physical activity achieving at least 600 MET-minutes.

Level of physical activity:

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

High Physical Activity:

A person reaching any of the following criteria is classified in this category:
Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR
7 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week.

Moderate Physical Activity:

A person not meeting the criteria for the "high" category, but meeting any of the following criteria is classified in this category:
- 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR
- 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR
- 5 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.

Low Physical Activity:
A person not meeting any of the above-mentioned criteria falls in this category.

Around 26.5% (men 13.7%, women 40.4%) of respondents were found not to be meeting the WHO recommendations for physical activity for health (150 minutes of moderate-intensity physical activity per week, or equivalent). This proportion was higher (34.9%) among the 45–69 years age group for women and was higher (17.0%) among the 30-44 years age group for men.

Not meeting WHO recommendations on physical activity for health									
	Men			Women			Both Sexes		
Age Group (years)	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI
18-29	69	10.5	3.3 - 17.7	242	33.9	25.4 - 42.5	311	21.7	15.5 - 27.9
30-44	80	17.0	7.6 - 26.4	198	38.4	28.4 - 48.4	278	27.2	19.5 - 34.8
45-69	146	15.8	9.5 - 22.1	269	55.5	45.8 - 65.1	415	34.9	28.1 - 41.7
18-69	295	13.7	7.1 - 20.4	709	40.4	33.0 - 47.7	1004	26.5	20.4 - 32.6

Out of the total study population, 40.1% (men 19.5%, women 62.6%) engaged in a low level of physical activity. This proportion was slightly higher, around 45.3%, among the 45–69 years age group. Around 18.0% of respondents engaged in a moderate level of physical activity, with little variation across the age groups. A further 41.9% of respondents engaged in a high level of physical activity with the proportion being slightly higher for men (58.9%)

Level of total physical activity according to former recommendations							
Age Group (years)	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	697	15.9	7.3 - 24.4	21.1	15.1 - 27.1	63.0	54.8 - 71.2
30-44	506	22.2	10.3 - 34.0	21.5	11.9 - 31.2	56.3	43.4 - 69.2
45-69	777	23.0	15.9 - 30.1	22.9	14.9 - 30.8	54.1	45.8 - 62.5
18-69	1980	19.5	11.7 - 27.2	21.7	16.1 - 27.2	58.9	51.1 66.6
Level of total physical activity according to former recommendations							
Age Group (years)	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	755	62.7	53.9 - 71.5	15.3	9.0 - 21.6	22.0	15.4 - 28.6
30-44	592	57.2	45.7 - 68.8	16.3	10.7 - 21.8	26.5	18.9 - 34.1
60-69	514	69.4	59.4 - 79.3	8.4	1.7 - 15.0	22.3	16.3 - 28.3
18-69	1861	62.6	55.3 - 69.9	14.0	10.1 - 17.8	23.5	18.4 - 28.5
Level of total physical activity according to former recommendations							
	Both Sexes						

Age Group (years)	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	1452	38.2	29.6 - 46.9	18.3	14.3 - 22.4	43.4	35.4 - 51.4
30-44	1098	38.8	28.8 - 48.9	19.0	13.2 - 24.8	42.1	33.2 - 51.1
45-69	1291	45.3	38.2 - 52.5	15.9	9.9 - 21.8	38.8	32.7 - 44.8
18-69	3841	40.1	32.3 - 47.9	18.0	14.3 - 21.7	41.9	35.1 - 48.8

Time Spent on Physical Activity:

The median minutes spent on total physical activity was 81.4 minutes for both sexes with 128.6 minutes for men and only 51.4 minutes for women. This figure was slightly lower (68.6 minutes) among the 45–69 years age group and higher (90.0 minutes) among the 18-29 years age group.

Mean minutes of total physical activity on average per day											
Age Group (years)	Men				Women				Both Sexes		
	n	Mean minutes	95% CI		n	Mean minutes	95% CI		n	Mean minutes	95% CI
18-29	697	219.8	174.0 - 265.6		755	98.5	80.6 - 116.4		1452	161.9	127.7 - 196.0
30-44	506	189.7	148.5 - 230.9		592	105.4	83.5 - 127.3		1098	149.6	122.8 - 176.5
60-69	777	206.0	177.3 - 234.6		514	82.8	59.5 - 106.2		1291	146.6	124.8 - 168.4
18-69	1980	207.1	172.9 - 241.4		1861	97.0	81.5 - 112.5		3841	154.5	128.7 - 180.3

Median minutes of total physical activity on average per day											
Age Group (years)	Men				Women				Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)
18-29	697	139.2	55.7-379.3		755	60	0-128.6		1452	90.0	30-240
30-44	506	127.8	127.8-334.1		592	54.3	0-137.1		1098	81.4	12.8-231.4
45-69	777	128.5	128.6-330		514	15	0-102.8		1291	68.6	68.6-205.7
18-69	1980	128.6	47.1-342.9		1861	51.4	0-128.6		3841	81.4	17.1-231.4

The median time spent on work-related physical activity was 51.4 minutes (men 64.3 minutes, women 34.3 minutes) with the highest median among respondents aged 18-29 years (51.4 minutes).

Median minutes of work-related physical activity on average per day		
Men	Women	Both Sexes

Age Group (years)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
18-29	697	68.6	0-287.1	755	51.4	0-120	1452	51.4	0-188.5
30-44	506	64.3	0 -240	592	45	0-126	1098	60	0-171.4
45-69	777	61.4	0-257.1	514	0	0-77.1	1291	17.1	0-154.3
18-69	1980	64.3	0-257.1	1861	34.3	0-120.0	3841	51.4	0-180.0

Mean minutes of work-related physical activity on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-29	697	146.7	99.8 - 193.6	755	86.6	69.6 - 103.6	1452	118.0	88.2 - 147.8
30-44	506	135.3	102.0 - 168.6	592	90.0	71.2 - 108.9	1098	113.8	93.7 - 133.9
45-69	777	145.1	119.2 - 171.0	514	69.2	45.4 - 92.9	1291	108.5	87.9 - 129.1
18-69	1980	142.8	112.0 - 173.5	1861	83.6	69.3 - 97.8	3841	114.5	93.6 - 135.4

The median time spent on transport-related activity was 12.1 minutes and was almost same across all three age and sex groups. Men spent significantly more time on transport-related activity as compared to the women.

Median minutes of transport-related physical activity on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
18-29	697	25.7	15-60	755	0	0-8.6	1452	11.4	0-30
30-44	506	30	12.8-51.4	592	0	0-8.6	1098	12.1	0-30
45-69	777	34.2	11.4-34.3	514	0	0-11.4	1291	12.9	0-42.9
18-69	1980	30.0	12.8-60.0	1861	0	0-8.6	3841	12.1	0-34.2

Mean minutes of transport-related physical activity on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-29	697	45.2	37.3 - 53.2	755	10.0	6.1 - 13.8	1452	28.4	22.3 - 34.5
30-44	506	43.5	31.9 - 55.0	592	12.7	7.3 - 18.1	1098	28.8	19.9 - 37.8
45-69	777	53.1	45.3 - 61.0	514	13.0	6.5 - 19.5	1291	33.8	27.6 - 40.0
18-69	1980	46.5	40.1 - 52.9	1861	11.5	7.8 - 15.3	3841	29.8	23.8 - 35.8

No time was spent on recreation-related activities by any age or sex group.

Median minutes of recreation-related physical activity on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
18-29	697	0	0-38.5	755	0	0	1452	0	0
30-44	506	0	-	592	0	0	1098	0	0
45-69	777	0	-	514	0	0	1291	0	0
18-69	1980	0	8.6	1861	0	0	3841	0	0
Mean minutes of recreation-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-29	697	27.9	17.7 - 38.0	755	2.0	0.0 - 3.9	1452	15.5	9.9 - 21.1
30-44	506	11.0	7.1 - 14.9	592	2.7	0.0 - 6.6	1098	7.0	4.1 - 10.0
60-69	777	7.7	1.8 - 13.7	514	0.7	0.3 - 1.1	1291	4.3	1.2 - 7.4
18-69	1980	17.9	12.6 - 23.2	1861	1.9	0.2 - 3.6	3841	10.2	6.9 - 13.6

Types of Activity:

Among total respondents, 37.5% (men 32.7%, women 42.9%) were found not to have done the minimum level (at least 10 minutes per day) of work-related activity. Among women this proportion was quite high (59.3%) in the 45–69 years age group and slight differences other two age groups. Similarly, 37.8% (men 12.7%, women 65.2%) of total respondents were found not to have the minimum level (at least 10 minutes per day) of transport-related activity. Finally, 83.1% (men 70.7%, women 96.5%) were found not to have done the minimum level (at least 10 minutes per day) of recreation-related physical activity.

No work-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity at work	95% CI	n	% no activity at work	95% CI	n	% no activity at work	95% CI
18-29	238	32.2	18.9 - 45.4	251	36.0	26.8 - 45.3	489	34	25.4 - 42.6
30-44	142	32.8	17.5 - 48.1	217	40.4	29.7 - 51.1	359	36.4	27.6 - 45.3
45-69	283	33.5	24.4 - 42.5	296	59.3	51.1 - 67.6	579	45.9	38.8 - 53.1
18-69	663	32.7	20.8 - 44.6	764	42.9	35.2 - 50.5	1427	37.5	30.0 - 45.1
No transport-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity for transport	95% CI	n	% no activity for transport	95% CI	n	% no activity for transport	95% CI
18-29	125	10.6	5.3 - 15.9	453	64.8	56.9 - 72.8	578	36.5	28.7- 44.3

Age Group (years)	n	%	95% CI	n	%	95% CI	n	%	95% CI
30-44	115	13.2	6.7 - 19.7	336	67.4	57.3 - 77.5	451	38.9	29.2- 48.7
45-69	158	16.2	9.6 - 22.8	322	62.9	48.5 - 77.3	480	38.7	28.8- 48.6
18-69	398	12.7	7.7 - 17.7	1111	65.2	57.4 - 72.9	1509	37.8	29.7- 45.8

No recreation-related physical activity

	Men			Women			Both Sexes		
Age Group (years)	n	% no activity at recreation	95% CI	n	% no activity at recreation	95% CI	n	% no activity at recreation	95% CI
18-29	382	57.3	48.5 - 66.1	691	95.7	92.9 - 98.4	1073	75.6	68.1- 83.1
30-44	405	78.7	71.4 - 86.0	544	96.4	94.0 - 98.9	949	87.1	81.8- 92.4
45-69	690	86.3	77.6 - 95.1	482	98.3	97.2 - 99.4	1172	92.1	86.9- 97.3
18-69	1477	70.7	63.9 - 77.6	1717	96.5	94.7 - 98.4	3194	83.1	77.5- 88.6

The contribution of activity from work to total activity was found to be 60.5% (men 50.4%, women 67.1%), followed by 32.4% (men 38.9%, women 22.4%) for activity related to transport and 7.1% (men 10.7%, women 1.5%) for activity related to recreation.

Contribution of total physical activity

	Men							
Age Group (years)	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
18-29	667	49.3	37.5 - 61.0	34.8	27.2 - 42.4	15.9	10.1 - 21.8
30-44	466	50.6	40.9 - 60.3	41.5	32.5 - 50.6	7.9	4.6 - 11.1
45-69	705	52.3	44.5 - 60.0	43.8	36.3 - 51.4	3.9	2.1 - 5.7
18-69	1838	50.4	41.7 - 59.0	38.9	32.3 - 45.6	10.7	7.6 - 13.9

Contribution of total physical activity

	Women							
Age Group (years)	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
18-29	573	80.6	74.8 - 86.5	17.6	12.0 - 23.2	1.8	0.4 - 3.3
30-44	432	79.8	73.4 - 86.2	18.9	12.5 - 25.3	1.3	0.1 - 2.6
45-69	308	59.7	43.8 - 75.7	39.5	23.3 - 55.6	0.8	0.3 - 1.3
18-69	1313	76.1	69.9 - 82.3	22.4	16.2 - 28.6	1.5	0.6 - 2.4

Contribution of total physical activity

	Both Sexes							
Age Group (years)	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI

Age	n	%	95% CI	%	95% CI	%	95% CI
18-29	1240	62.0	55.4 - 68.6	27.8	23.6 - 32.0	10.2	6.7 - 13.7
30-44	898	62.0	55.4 - 68.6	32.7	26.3 - 39.0	5.3	3.3 - 7.3
45-69	1013	55.0	45.4 - 64.6	42.2	32.6 - 51.8	2.7	1.5 - 3.9
18-69	3151	60.5	54.5 - 66.5	32.4	27.3 - 37.6	7.1	5.2 - 8.9

More than two third (72.6%) of respondents did not engage in vigorous physical activity (men 54.5%, women 92.3%). This proportion was higher among the older age groups compared to younger groups in the study population.

No vigorous physical activity										
	Men				Women				Both Sexes	
Age Group (years)	n	% no vigorous activity	95% CI		n	% no vigorous activity	95% CI		n	% no vigorous activity	95% CI
18-29	332	49.8	43.4 - 56.2		693	94.7	91.8 - 97.6		1025	71.2	64.9 - 77.6
30-44	286	58.3	48.6 - 68.0		517	90.1	84.3 - 95.9		803	73.4	65.7 - 81.1
45-69	525	58.8	49.5 - 68.0		465	90.7	85.7 - 95.7		990	74.2	67.7 - 80.7
18-69	1143	54.5	49.0 - 60.0		1675	92.3	88.9 - 95.7		2818	72.6	66.7 - 78.5

The median time spent in sedentary activities was found to be 360 minutes for all respondents, as well as for men and women separately (Table P8, Annex I)

Minutes spent in sedentary activities on average per day					
Age Group (years)	Men				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
18-29	699	355.0	289.3 - 420.6	360	180 -540
30-44	512	404.3	338.6 - 470.1	420	210 - 540
45-69	782	407.8	358.9 - 456.6	420	240 - 600
18-69	1993	382.8	326.2 - 439.4	360	180 -540

Minutes spent in sedentary activities on average per day					
Age Group (years)	Women				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
18-29	768	454.6	396.6 - 512.7	480	270 - 600
30-44	603	487.8	415.4 - 560.2	540	300 - 700
45-69	526	495.3	447.4 - 543.2	540	320 - 660
18-69	1897	474.5	424.2 - 524.8	480	300 -665

Minutes spent in sedentary activities on average per day					
Age Group (years)	Both Sexes				
	n	Mean minutes	95% CI	Median minutes	Inter-quar-tile range (P25-P75)
18-29	1467	403.0	355.0 - 451.0	420	200 - 595
30-44	1115	444.0	395.3 - 492.7	480	240 - 615
45-69	1308	450.3	413.9 - 486.8	480	240 - 625
18-69	3890	426.9	385.9 - 467.8	420	240 - 600

OVERWEIGHT AND OBESITY

Body mass index:

1,979 men consented to physical measurement while 1,687 women consented to physical measurement. Thus, a total of 3,666 respondents had their general obesity level assessed through the measurement of their BMI. The mean height for male respondents was 168.2 cm and 155.3 cm for women. Similarly, the mean weight was higher in men (69.2 kg) compared to women (62.6 kg). Mean weight was highest in the 30–44 age group for both sexes (men 71.4 kg, women 66.1kg).

The mean BMI was 25.1, with women having higher BMI as compared to men (men=24.4, women=26.0). The BMI increased with increasing age groups, the findings are shown in the table below.

Mean BMI (kg/m2)										
Age Group (years)	Men				Women				Both Sexes	
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	687	23.4	22.7 - 24.2		634	24.6	23.9 - 25.3		1321	23.9	23.3 - 24.5
30-44	511	25.2	24.3 - 26.1		544	27.0	26.0 - 28.0		1055	25.9	25.2 - 26.7
45-69	781	25.1	24.3 - 25.8		509	27.0	25.8 - 28.2		1290	25.9	25.2 - 26.8
18-69	1979	24.4	23.7 - 25.0		1687	26.0	25.4 - 26.6		3666	25.1	24.5 - 25.6

7.1% all respondents were found to be underweight (BMI<18.5). This proportion was higher in women (7.8%) compared to men (6.6%) and highest in the 18-29 years age group at 8.1% (men 8.1%, women 8.0%). Half (50.1%) of all respondents had normal BMI (BMI 18.5- 24.9). This proportion was lower in women (43.2%) than men (55.5%). The proportion of overweight (BMI 25.0-29.9) respondents with BMI between 25 and 29.9 was 25.8% overall (men 25.9%, women 25.6%). The proportion of obesity (BMI ≥30.0) was 17.0% overall (men 11.9%, women 23.5%). Among the three age groups, obesity was highest in the 30-44 years age group (men 16.1%, women 30.6%). The findings are shown in the table below.

BMI classifications									
	Men								
Age Group (years)	n	% Underweight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
18-29	687	8.0	4.7 - 11.4	64.2	59.2 - 69.2	19.5	13.9 - 25.1	8.3	5.0 - 11.6
30-44	511	7.2	1.4 - 12.9	46.2	39.6 - 52.7	30.6	22.7 - 38.5	16.1	11.5 - 20.6
45-69	781	3.0	1.2 - 4.9	51.5	44.3 - 58.7	32.1	27.3 - 36.9	13.4	8.1 - 18.7
18-69	1979	6.6	3.6 - 9.6	55.5	52.0 - 59.0	25.9	21.5 - 30.4	11.9	9.7 - 14.2

BMI classifications
Women

Age Group (years)	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
18-29	634	8.1	4.2 - 11.9	53.6	46.1 - 61.1	23.7	18.1 - 29.3	14.6	8.5 - 20.7
30-44	544	6.4	3.0 - 9.8	39.5	30.8 - 48.7	23.5	16.8 - 30.1	30.6	23.4 - 37.8
45-69	509	8.9	3.1 - 14.8	31.3	24.3 - 38.4	30.8	24.9 - 36.7	28.9	20.3 - 37.6
18-69	1687	7.8	5.3 - 10.3	43.2	38.8 - 47.6	25.6	22.4 - 28.7	23.5	18.9 - 28.0

BMI classifications									
Both Sexes									
Age Group (years)	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
18-29	1321	8.1	5.5 - 10.6	59.8	55.2 - 64.4	21.2	16.9 - 25.6	10.9	7.3 - 14.5
30-44	1055	6.8	3.0 - 10.6	43.3	38.6 - 48.1	27.5	23.3 - 31.8	22.3	18.6 - 26.0
45-69	1290	5.8	2.9 - 8.8	41.9	36.0 - 47.8	31.5	27.9 - 35.0	20.8	14.7 - 26.9
18-69	3666	7.1	5.2 - 9.1	50.1	46.9 - 53.4	25.8	22.9 - 28.6	17.0	14.3 - 19.6

The proportion of respondents who were either overweight or obese was 42.7%. This combined figure was higher in women (49.1%) than men (37.9%). Generalized overweight (BMI ≥25.0) was higher in the 45-69 years age group at 52.3% overall (men 45.5%, women 59.8%). The findings are show in table below.

BMI≥25									
Age Group (years)	Men			Women			Both Sexes		
	n	% BMI≥25	95% CI	n	% BMI≥25	95% CI	n	% BMI≥25	95% CI
18-29	212	27.8	22.1 - 33.4	226	38.3	31.9 - 44.7	438	32.1	27.4 - 36.9
30-44	253	46.7	38.1 - 55.2	305	54.0	44.8 - 63.3	558	49.8	43.8 - 55.8
45-69	372	45.5	38.5 - 55.2	310	59.8	50.1 - 69.4	682	52.3	45.6 - 59.0
18-69	837	37.9	32.6 - 43.2	841	49.1	44.4 - 53.7	1678	42.7	38.5 - 47.0

Waist Circumference:

The average mean waist circumference was 86.6 cm for men and 89.9 cm for women. The age group 45-69 years old had highest wait circumference which was 93.6 cm for women and 91.2 cm for men. The table below shows that waist circumference of men and women.

Waist circumference (cm)						
Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	693	83.4	81.4 - 85.4	639	85.1	82.9 - 87.4
30-44	511	87.9	85.1 - 90.6	550	93.1	89.8 - 96.5
45-69	781	91.2	87.4 - 95.1	517	93.6	90.4 - 96.8
18-69	1985	86.6	84.9 - 88.4	1706	89.9	87.8 - 92.1

BLOOD PRESSURE

The health status and health seeking behavior of the study population related to high blood pressure were assessed by measuring respondents' blood pressure, asking about blood pressure history and treatment.

History of raised blood pressure (hypertension):

Around 33.2% of the study population had never had their blood pressure measured by a doctor or other health worker. This proportion was higher among men as compared to women (men 42.7%, women 22.9%). The prevalence of self-reported hypertension (diagnosed within the past 12 months) was 18.2%, and increased with age, with the highest percentage of diagnosed cases among the 45–69 years age group (men 23.0%, women 43.0%)

| Blood pressure measurement and diagnosis (self-reported) | | | | | | | | | |
| Men | | | | | | | | | |
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	699	52.6	44.8 - 60.5	34.2	27.5 - 40.8	4.0	1.2 - 6.8	9.2	2.8 - 15.7
30-44	512	37.4	30.4 - 44.3	50.0	43.5 - 56.6	3.1	0.0 - 6.2	9.5	3.7 - 15.3
45-69	782	30.5	24.5 - 36.4	44.0	37.7 - 50.4	2.5	0.1 - 4.9	23.0	18.1 - 27.8
18-69	1993	42.7	37.2 - 48.2	41.5	36.9 - 46.0	3.4	1.8 - 4.9	12.5	8.7 - 16.4

| Blood pressure measurement and diagnosis (self-reported) | | | | | | | | | |
| Women | | | | | | | | | |
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	768	30.4	22.9 - 37.9	53.6	47.8 - 59.3	1.5	0.5 - 2.4	14.6	9.8 - 19.3
30-44	603	19.3	13.2 - 25.4	49.2	42.9 - 55.6	7.1	2.9 - 11.3	24.4	16.9 - 31.8
45-69	526	13.2	8.8 - 17.7	41.4	33.6 - 49.2	2.4	0.9 - 3.8	43.0	34.3 - 51.8
18-69	1897	22.9	18.1 - 27.7	49.3	45.1 - 53.6	3.4	2.0 - 4.9	24.3	20.4 - 28.2

| Blood pressure measurement and diagnosis (self-reported) | | | | | | | | | |
| Both sexes | | | | | | | | | |
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI

Age	n		95% CI			95% CI			95% CI			95% CI
18-29	1467	41.9	34.6 - 49.2	43.5	38.1 - 48.9	2.8	1.2 - 4.3	11.8	7.5 - 16.2			
30-44	1115	28.8	23.2 - 34.4	49.6	44.4 - 54.9	5.0	2.4 - 7.6	16.6	11.5 - 21.6			
60-69	1308	22.1	17.9 - 26.3	42.7	37.4 - 48.1	2.4	1.0 - 3.9	32.7	27.4 - 38.0			
18-69	3890	33.2	28.1 - 38.3	45.2	41.6 - 48.9	3.4	2.4 - 4.4	18.2	14.7 - 21.7			

Blood pressure measurement:

The mean systolic blood pressure of the study population was 125.5 mmHg (men 127.1 mmHg, women 123.7 mmHg). Mean diastolic blood pressure was 80 mmHg (men 80.3 mmHg, women 79.6 mmHg).

Mean systolic blood pressure (mmHg)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	691	123.5	120.6 - 126.3	752	118.3	116.2 - 120.4	1443	121.0	119.5 - 122.5
30-44	509	125.9	123.5 - 128.3	600	124.1	121.5 - 126.7	1109	125.1	123.1 - 127.1
45-69	780	135.7	132.2 - 139.2	526	133.3	130.4 - 136.2	1306	134.5	131.9 - 137.2
18-69	1980	127.1	124.8 - 82.5	1878	123.7	122.1 - 125.3	3858	125.5	124.2 - 126.7

Mean diastolic blood pressure (mmHg)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	691	76.7	74.6 - 78.8	752	75.4	73.9 - 76.9	1443	76.1	74.9 - 77.3
30-44	509	81.2	79.6 - 82.7	600	81.4	79.4 - 83.4	1109	81.3	79.9 - 82.6
45-69	780	86.1	83.8 - 88.4	526	85.2	82.9 - 87.7	1306	85.7	83.7 - 87.7
18-69	1980	80.3	78.7 - 81.9	1878	79.6	78.2 - 81.0	3858	80.0	78.9 - 81.0

The prevalence of raised blood pressure, using the criteria of SBP≥140 or DBP≥90 mmHg, of the total respondents is 17.7% (men 19.35, women 15.8%) with highest proportion of respondents in the oldest age group. The prevalence of raised blood pressure, using the criteria of SBP≥160 or DBP≥100 mmHg, of the total respondents is 5.2% (men 6.3, women 3.8%) with highest proportion of respondents in the oldest age group.

SBP ≥140 and/or DBP ≥ 90 mmHg among all respondents									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	77	12.8	6.7 - 19.0	76	10.2	6.6 - 13.9	153	11.6	8.1 - 15.1

Age Group (years)	Men n	%	95% CI	Women n	%	95% CI	Both Sexes n	%	95% CI
30-44	89	16.5	16.5 - 21.6	87	17.6	11.4 - 23.7	176	17.0	12.7 - 21.2
45-69	248	37.4	25.2 - 49.6	109	27.6	21.1 - 34.1	357	33.3	26.1 - 40.5
18-69	414	19.3	13.6 - 25.0	272	15.8	12.7 - 19.0	686	17.7	14.5 - 21.0

SBP ≥160 and/or DBP ≥ 100 mmHg among all the respondents

Age Group (years)	Men n	%	95% CI	Women n	%	95% CI	Both Sexes n	%	95% CI
18-29	6	1.9	0.0 - 4.5	19	2.4	0.9 - 3.9	25	2.1	0.6 - 3.7
30-44	23	6.2	1.8 - 10.6	17	3.4	0.5 - 6.3	40	4.9	2.3 - 7.6
45-69	81	15.8	8.2 - 23.5	38	8.3	4.6 - 11.9	119	12.7	8.5 - 16.9
18-69	110	6.3	3.4 - 9.1	74	3.8	2.1 - 5.5	184	5.2	3.7 - 6.7

The prevalence of raised blood pressure, using the criteria of SBP≥140 or DBP≥90 mmHg and excluding those on medication, was 23.5% (men 22.1%, women 25.1%). This means that even though the prevalence of blood pressure is high among men yet 3% more women have high blood pressure who are not using any medications. When those currently on medication were included, this prevalence rose to 29.2% (men 26.4%, women 32.1%) (Figure 6). The proportion of men with raised blood pressure including those currently on medication for hypertension was highest (47.1%) among the 45–69 years age group, followed by 30–44 years old (21.8%). Among women, this proportion was highest among the oldest age group, at 54.8% among 45–69 years old group, and 30.1% among 30–44 years old age group.

> **Commented [FDHD1]:** What is the difference between this value and the previous one (17.7%)
>
> **Commented [AS2R1]:** These are all respondent except those on medications

SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure

Age Group (years)	Men n	%	95% CI	Women n	%	95% CI	Both Sexes n	%	95% CI
18-29	90	13.8	7.5 - 20.1	93	14.1	9.8 - 18.4	183	14.0	10.0 - 17.9
30-44	99	18.7	13.0 - 24.5	134	25.2	19.2 - 31.3	233	21.8	17.0 - 26.7
45-69	330	43.1	33.5 - 52.6	227	45.3	37.3 - 53.4	557	44.2	37.0 - 51.3
18-69	519	22.1	16.7 - 27.5	454	25.1	21.3 - 28.8	973	23.5	20.0 - 27.0

> **Commented [FDHD3]:** What is the difference between this table and previous
>
> **Commented [AS4R3]:** All expect those on medication

SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure

Age Group (years)	Men n	%	95% CI	Women n	%	95% CI	Both Sexes n	%	95% CI
18-29	112	19.1	13.9 - 24.3	126	21.5	16.3 - 26.6	238	20.2	16.2 - 24.3
30-44	117	21.8	15.4 - 28.1	173	30.1	23.3 - 37.0	290	25.8	20.0 - 31.5
45-69	375	47.1	36.4 - 57.9	285	54.8	47.6 - 62.0	660	50.9	43.7 - 58.1
18-69	604	26.4	20.9 - 32.0	584	32.1	28.6 - 35.6	1188	29.2	25.4 - 32.9

Using the criteria SBP ≥160 and/or ≥100 mmHg and excluding those on medication, 7.5% of the total respondents (men 7.4%, women 7.6%) were found to have raised blood pressure. This

prevalence was higher (18.3%) when those currently on medication were included (men 14.6%, women 22.4%) (Table M8, Annex I).

SBP ≥160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	6	1.8	0.0 – 4.5		19	2.4	0.9 - 3.9		25	2.1	0.6 – 3.6
30-44	23	6.2	1.8 – 10.6		17	3.4	4.1 - 11.2		40	4.9	2.3- 7.6
45-69	81	15.8	8.2 - 23.4		38	8.2	4.6 – 11.9		119	12.7	8.5 – 16.9
18-69	110	6.2	3.4-9.1		74	3.8	2.1 – 5.5		184	5.2	3.7 – 6.7

SBP ≥160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure											
Age Group (years)	Men				Women				Both Sexes		
					n	%	95% CI		n	%	95% CI
18-29	41	8.9	5.6 - 12.2		69	14.6	9.8 - 19.5		110	11.7	8.6 - 14.7
30-44	51	12.2	5.6 - 18.7		103	18.1	12.0 - 24.2		154	15.0	9.6 - 20.3
45-69	208	29.0	20.9 - 37.0		214	42.7	35.2 - 50.2		422	35.7	29.9 - 41.5
18-69	300	14.6	11.1 - 18.1		386	22.4	19.1 - 25.7		686	18.3	15.4 - 21.3

Among those with raised blood pressure (characterized as SBP≥140 and/or DBP≥90 mmHg), more than half (52.4%) were not on medication. This proportion was 66.5% for men and 31.4% for women (Figure 7 and Table M9, Annex I).

Respondents with treated and/or controlled raised blood pressure								
	Men							
Age Group (years)	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/or DBP≥90	95% CI	% Not on medication and SBP≥140 and/or DBP≥90	95% CI	
18-29	112	27.7	10.4 - 45.1	9.8	2.1 - 17.4	62.5	44.9 - 80.0	
30-44	117	13.9	3.4 - 24.5	15.2	0.0 - 30.8	70.9	53.8 - 88.0	
45-69	375	8.7	3.6 - 13.8	24.4	14.4 - 34.3	67.0	56.8 - 77.1	
18-69	604	16.3	10.6 - 21.9	17.2	11.5 - 22.8	66.5	57.1 - 75.9	

Respondents with treated and/or controlled raised blood pressure								
	Women							
Age Group (years)	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/or DBP≥90	95% CI	% Not on medication and SBP≥140 and/or DBP≥90	95% CI	
18-29	126	34.2	21.6 - 46.7	24.3	11.4 - 37.1	41.6	26.6 - 56.5	

Age Group	n	%	95% CI	%	95% CI	%	95% CI
30-44	173	16.3	8.1 - 24.5	34.2	21.4 - 47.0	49.5	35.1 - 63.9
45-69	285	17.2	9.9 - 24.5	51.3	38.4 - 64.3	31.4	21.9 - 41.0
18-69	584	22.0	15.7 - 28.4	38.2	30.1 - 46.3	39.8	32.0 - 47.5

Respondents with treated and/or controlled raised blood pressure

Age Group (years)	Both Sexes						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/or DBP≥90	95% CI	% Not on medication and SBP≥140 and/or DBP≥90	95% CI
18-29	238	31.0	20.5 - 41.5	17.1	8.6 - 25.6	51.9	40.9 - 62.9
30-44	290	15.3	8.8 - 21.7	25.8	14.1 - 37.4	59.0	46.1 - 71.8
45-69	660	13.2	8.8 - 17.7	38.6	30.9 - 46.2	48.3	41.3 - 55.2
18-69	1188	19.3	15.0 - 23.6	28.3	22.8 - 33.8	52.4	45.7 - 59.0

Among the total respondents 7.7% (men 8.5% , women 6.8%) had raised blood pressure that was not previously diagnosed and were detected during the survey. The highest proportion was undiagnosed raised blood pressure was present in oldest age group among both the sexes.

Among the total respondents 11.1% (men 10.9, women 11.4%) were previously diagnosed with raised blood and were not taking any medication at time of the survey. About 6.4% (men 3.3%, women 9.7%) of the total respondents were previously diagnosed with raised blood pressure were on medication at time of survey however their blood pressure was not controlled. Only 4.2% of the respondents (men 1.8, women 6.9) had previously diagnosed raised blood pressure, were taking medicine and their blood pressure was controlled at the time of the survey.

Raised blood pressure diagnosis, treatment and control among all respondents whose BP was measured

Age Group (years)	Men								
	n	% with raised blood pressure, not previously diagnosed	95% CI	% with previously diagnosed raised blood pressure, not on medication	95% CI	% with previously diagnosed raised blood pressure, on medication but not controlled	95% CI	% with previously diagnosed raised blood pressure, on medication and blood pressure controlled	95% CI
18-29	691	5.4	2.4 - 8.4	10.6	5.3 - 16.0	1.0	0.0 - 2.0	1.7	0.0 - 3.5
30-44	509	5.6	2.3 - 8.9	9.1	3.7 - 14.5	2.7	0.0 - 6.5	0.7	0.0 - 1.4
45-69	780	18.8	11.8 - 25.8	13.7	9.3 - 18.0	8.4	4.3 - 12.6	3.7	1.1 - 6.2

Age Group (years)	n	% with raised blood pressure, not previously diagnosed	95% CI	% with previously diagnosed raised blood pressure, not on medication	95% CI	% with previously diagnosed raised blood pressure, on medication but not controlled	95% CI	% with previously diagnosed raised blood pressure, on medication and blood pressure controlled	95% CI
18-69	1980	8.5	5.2 - 11.9	10.9	7.8 - 13.9	3.3	1.9 - 4.7	1.8	0.5 - 3.2

Raised blood pressure diagnosis, treatment and control among all respondents whose BP was measured									
					Women				
Age Group (years)	n	% with raised blood pressure, not previously diagnosed	95% CI	% with previously diagnosed raised blood pressure, not on medication	95% CI	% with previously diagnosed raised blood pressure, on medication but not controlled	95% CI	% with previously diagnosed raised blood pressure, on medication and blood pressure controlled	95% CI
18-29	752	4.5	1.8 - 7.2	5.9	3.2 - 8.6	4.5	1.3 - 7.8	5.8	2.5 - 9.2
30-44	600	6.9	3.0 - 10.7	18.6	11.4 - 25.7	8.9	4.3 - 13.4	4.0	1.5 - 6.6
60-69	526	10.8	6.8 - 14.9	12.3	8.6 - 16.0	20.5	13.4 - 27.6	12.5	8.5 - 16.6
18-69	1878	6.8	4.7 - 8.8	11.4	8.6 - 14.2	9.7	7.0 - 12.4	6.9	4.8 - 8.9

Raised blood pressure diagnosis, treatment and control among all respondents whose BP was measured									
					Both Sexes				
Age Group (years)	n	% with raised blood pressure, not previously diagnosed	95% CI	% with previously diagnosed raised blood pressure, not on medication	95% CI	% with previously diagnosed raised blood pressure, on medication but not controlled	95% CI	% with previously diagnosed raised blood pressure, on medication and blood pressure controlled	95% CI
18-29	1443	4.9	3.1 - 6.8	8.4	5.4 - 11.3	2.7	0.9 - 4.5	3.7	1.7 - 5.7
30-44	1109	6.2	3.5 - 8.9	13.6	9.6 - 17.6	5.7	2.0 - 9.3	2.3	1.0 - 3.6
45-69	1306	14.9	11.1 - 18.7	13.0	10.2 - 15.8	14.4	10.1 - 18.6	8.0	5.3 - 10.7

18-69	3858	7.7	5.8 - 9.6	11.1	8.9 - 13.3	6.4	4.6 - 8.1	4.2	2.8 - 5.7

Blood pressure treatment:

Among those with diagnosed hypertension, only 53% (men 56.8%, women 49.5%) were currently taking blood pressure drugs as prescribed by a doctor or other health worker. This proportion was highest among the 45–69 years age group (men 66.9%, women 60.5%).

Reported that currently taking drugs (medication) for raised blood pressure prescribed by doctor or health worker among those diagnosed with raised BP during BP measurement									
	Men			Women			Both Sexes		
Age Group (years)	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	53	62.9	37.3 - 88.5	100	66.7	50.7 - 82.7	153	64.9	48.7 - 81.2
30-44	69	49.4	21.4 - 77.4	165	53.1	36.4 - 69.8	234	51.9	36.0 - 67.9
45-69	200	71.8	63.2 - 80.4	253	74.9	65.6 - 84.2	453	73.7	66.2 - 81.3
18-69	322	62.8	50.0 - 75.6	518	65.1	55.5 - 74.7	840	64.2	56.6 - 71.8

Traditional healers and remedies:

Among the previously diagnosed hypertensive population, 11.0% had visited traditional healers. This proportion was similar for both sexes. About 4.8% of respondents were taking herbal or traditional remedies for hypertension; this proportion was higher among women (6.2%) than men (3.2%).

Seen a traditional healer among those previously diagnosed with raised BP during BP measurement									
	Men			Women			Both Sexes		
Age Group (years)	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
18-29	53	36.9	9.2 - 64.5	100	8.5	0.4 - 16.6	153	21.8	8.7 - 35.0
30-44	69	33.7	14.3 - 53.0	165	9.3	2.4 - 16.2	234	16.8	8.4 - 25.2
45-69	200	19.5	6.9 - 32.1	253	10.4	3.9 - 17.0	453	13.8	7.3 - 20.4
18-69	322	29.6	14.3 - 44.9	518	9.5	5.1 - 14.0	840	17.2	10.6 - 23.8

Currently taking herbal or traditional remedy for raised blood pressure among those previously diagnosed with raised BP									
	Men			Women			Both Sexes		
Age Group (years)	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI

18-29	53	23.9	0.89 - 46.9		100	9.8	1.5 - 18.1	153	16.4	5.3 - 27.5
30-44	69	19.7	0.0 - 39.7		165	7.7	2.6 - 12.8	234	11.4	4.0 - 18.8
45-69	200	16.0	5.5 - 26.6		253	10.2	4.7 - 15.8	453	12.4	6.8 - 18.0
18-69	322	19.9	7.0 - 32.8		518	9.2	5.0 - 13.5	840	13.3	7.5 - 19.2

BLOOD GLUCOSE

History of Raised Blood Glucose (Diabetes Mellitus):

The diabetes status of the survey population was identified by asking the respondents about blood sugar measurement conducted in the last 12 months and were diagnosed with raised blood glucose. Around 81.3% (men 78.6%, women 84.3%) of the study population had never measured their blood glucose in their life time. Among the study population, 11.9% (men 14.2%, women 9.5%) had measured their blood glucose level in the past, but had never been diagnosed with diabetes. This proportion was higher in the older age groups. The prevalence of self-reported diabetes (within the last 12 months) was 5.8% (men 6.2%, women 5.4%). This proportion was highest among the 45–69 years age group in both sexes (men 6.6%, women 4.6%).

Blood sugar measurement and diagnosis									
Men									
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	699	82.0	75.4 - 88.7	11.8	6.4 - 17.2	0.3	0.0 - 0.7	5.9	2.9 - 8.9
30-44	512	76.6	68.8 - 84.3	16.4	7.7 - 25.0	1.6	0.0 - 3.9	5.5	0.8 - 10.3
45-69	782	74.9	67.8 - 82.0	15.8	10.5 - 21.0	1.6	0.3 - 2.9	7.7	3.5 - 12.0
18-69	1993	78.6	73.4 - 83.9	14.2	9.3 - 19.1	1.0	0.1 - 1.8	6.2	3.8 - 8.6

Blood sugar measurement and diagnosis									
Women									
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	768	90.0	85.7 - 94.2	6.0	2.4 - 9.5	0.9	0.0 - 2.1	3.1	0.8 - 5.4
30-44	603	86.3	81.0 - 91.6	8.8	4.5 - 13.2	0.8	0.0 - 1.7	4.1	1.4 - 6.8
45-69	526	70.6	61.1 - 80.0	17.2	10.3 - 24.1	0.7	0.0 - 1.8	11.5	4.9 - 18.0
18-69	1897	84.3	80.5 - 88.0	9.5	6.3 - 12.8	0.8	0.2 - 1.5	5.4	3.3 - 7.4

Blood sugar measurement and diagnosis									
Both sexes									
Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI

Age	n		95% CI		95% CI		95% CI		95% CI
18-29	1467	85.9	81.5 - 90.2	9.0	5.6 - 12.4	0.6	0.0 - 1.2	4.6	2.4 - 6.7
30-44	1115	81.2	76.1 - 86.3	12.8	7.5 - 18.1	1.2	0.0 - 2.4	4.9	2.0 - 7.7
45-69	1308	72.8	65.6 - 80.0	16.5	11.6 - 21.3	1.2	0.3 - 2.1	9.5	5.2 - 13.9
18-69	3890	81.3	77.7 - 85.0	11.9	8.9 - 15.0	0.9	0.4 - 1.4	5.8	4.0 - 7.7

Blood Glucose Measurement:

Blood glucose was measured following the guidelines and using the validated equipment mentioned in the data collection section. About 92% of respondents consented to biochemical measurement and the provision of blood samples to ascertain their biological risk factors. Among those who consented, the mean fasting blood glucose was 87.8 mg/dl (men 86.2mg/dl, women 89.5mg/dl) (Table M12, Annex I).

Mean fasting blood glucose (mg/dl)											
Age Group (years)	Men				Women				Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	639	82.7	78.0 - 87.4		694	82.5	79.9 - 85.5		1333	82.6	79.9 - 85.3
30-44	488	85.1	80.5 - 89.6		555	89.9	83.3 - 96.5		1043	87.4	83.6 - 91.2
45-69	732	94.7	89.2 - 100		479	102.6	96.6 - 108.6		1211	98.6	94.4 - 102.8
18-69	1859	86.2	82.7 - 89.8		1728	89.5	86.4 - 92.7		3587	87.8	85.6 - 90.1

The prevalence of impaired fasting glycaemia (IFG), defined as plasma venous value ≥110 mg/dl to <126mg/dl, was 4.7% (men 4.7%, women 4.7%). Among men, the proportion of IFG was highest among the 45–69 years age group (8.4%), followed by the 30–44 years age group (3.7%). Among women, IFG was found to increase with age and was highest among the 45–69 years age group (7.9%) (Table M13, Annex I).

Impaired Fasting Glycaemia*											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	31	3.5	1.3 - 5.6		30	3.7	1.6 - 5.8		61	3.6	2.1 - 5.1
30-44	24	3.7	1.2 - 6.3		28	3.7	0.9 - 6.5		52	3.7	1.8 - 5.6
45-69	52	8.4	4.1 - 12.7		26	7.9	2.5 - 13.3		78	8.2	4.8 - 11.6
18-69	107	4.7	2.5 0 6.9		84	4.7	2.9 - 6.4		191	4.7	3.3 - 6.1

The prevalence of diabetes mellitus, based on plasma venous value ≥126 mg/dl and including those on medication, was 9.2% (men 7.2%, women 11.4%). The proportion was highest among the 45–69 years age group with 14.2% for men, 21.3% for women and 17.7% overall. The prevalence of diabetes mellitus was also found to increase with age (Figure 8 and Table M14, Annex I).

Raised blood glucose or currently on medication for diabetes**										
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	36	3.7	1.4 - 6.0	51	6.9	4.2 - 9.6	87	5.3	3.3 - 7.3
30-44	38	7.0	3.1 - 10.8	62	10.5	6.1 - 15.0	100	8.7	5.8 - 11.5
45-69	125	14.2	8.9 - 19.6	94	21.3	12.5 - 30.1	219	17.7	12.0 - 23.5
18-69	199	7.2	5.4 - 9.0	207	11.4	8.6 - 14.2	406	9.2	7.4 - 11.0

Among the total respondents, 5.3% (men 4.2%, women 6.5%) were newly diagnosed with raised blood glucose during the survey. About 1.7% of respondents were previously diagnosed with raised blood glucose but were not taking any medicine at time of the survey. Another 5.2% (men 5.8%, women 4.6%) were previously diagnosed and were taking their medication at time of survey.

Raised blood glucose diagnosis and treatment among all respondents							
Age Group (years)	Men						
	n	% with raised blood glucose, not previously diagnosed	95% CI	% with previously diagnosed raised blood glucose, not on medication	95% CI	% with previously diagnosed raised blood glucose, on medication	95% CI
18-29	640	1.4	0.3 - 2.5	1.2	0.0 - 2.9	5.5	2.7 - 8.3
30-44	488	5.3	1.3 - 9.3	1.4	0.0 - 2.8	5.8	0.6 - 11.0
45-69	734	8.0	4.0 - 11.9	2.9	0.6 - 5.2	6.6	2.4 - 10.8
18-69	1862	4.2	2.8 - 5.6	1.7	0.5 - 2.8	5.8	3.6 - 8.1

Raised blood glucose diagnosis and treatment among all respondents							
Age Group (years)	Women						
	n	% with raised blood glucose, not previously diagnosed	95% CI	% with previously diagnosed raised blood glucose, not on medication	95% CI	% with previously diagnosed raised blood glucose, on medication	95% CI
18-29	694	3.6	1.9 - 5.3	1.6	0.0 - 3.2	1.9	0.0 - 4.0
30-44	555	7.8	4.0 - 11.6	1.1	0.1 - 2.2	4.1	1.2 - 6.9
45-69	482	10.6	6.2 - 14.9	2.7	0.5 - 4.9	10.6	3.5 - 17.7
18-69	1731	6.5	4.7 - 8.3	1.7	0.7 - 2.6	4.6	2.6 - 6.6

Raised blood glucose diagnosis and treatment among all respondents	
	Both Sexes

Age Group (years)	n	% with raised blood glucose, not previously diagnosed	95% CI	% with previously diagnosed raised blood glucose, not on medication	95% CI	% with previously diagnosed raised blood glucose, on medication	95% CI
18-29	1334	2.5	1.4 - 3.6	1.4	0.3 - 2.5	3.7	1.6 - 5.9
30-44	1043	6.5	3.8 - 9.2	1.3	0.3 - 2.2	5.0	1.9 - 8.0
45-69	1216	9.2	6.4 - 12.1	2.8	1.2 - 4.5	8.5	3.9 - 13.2
18-69	3593	5.3	4.2 - 6.4	1.7	1.0 - 2.4	5.2	3.5 - 5.0

Diabetes Treatment:

Among those respondents previously diagnosed with diabetes, 44.8% were taking insulin. This proportion was less (36.3%) among men when compared to women (55.3%). About 67.2% (men 63.2%, women 72.3%) were taking oral drugs for diabetes. These results indicate that most of the diagnosed diabetic population is being treated with oral medication.

Currently taking drugs (medication) prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking insulin	95% CI	n	% taking insulin	95% CI	n	% taking insulin	95% CI
18-29	18	46.8	15.2 - 78.5	18	57.2	23.0 - 91.4	36	50.7	23.1 - 78.4
30-44	24	36.6	0.2 - 73.1	26	57.4	28.9 - 85.8	50	44.6	17.4 - 71.7
45-69	87	22.4	0.0 - 46.6	64	53.1	22.2 - 84.0	151	39.4	19.5 - 59.3
18-69	129	36.3	17.2 - 55.5	108	55.3	37.5 - 73.2	237	44.8	29.9 - 59.6

Currently taking insulin prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	18	62.1	32.3 - 91.9	18	64.6	31.4 - 97.7	36	63.0	42.4 - 83.7
30-44	24	64.6	31.8 - 97.5	26	78.2	58.4 - 98.0	50	69.8	47.8 - 91.8
45-69	87	63.0	40.8 - 85.2	64	74.1	53.3 - 94.9	151	69.1	52.3 - 86.0
18-69	129	63.2	44.2 - 81.9	108	72.3	58.2 - 86.3	237	67.2	56.0 - 78.4

Traditional Healers and Remedies:

Around 40.8% of the known diabetic respondents had visited a traditional healer and 34.3% were taking herbal and traditional treatments for diabetes. This proportion was higher among men (40.9%) and lower among women (26.0%). (Table H8, Annex I).

Seen a traditional healer for diabetes among those previously diagnosed									
	Men			Women			Both Sexes		
Age Group (years)	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
18-29	18	77.8	55.0 - 100	18	53.4	18.6 - 88.2	36	68.5	44.6 - 92.5
30-44	24	36.3	0.2 - 72.5	26	8.1	0.0 - 18.4	50	25.5	3.1 - 48.0
45-69	87	18.5	1.6 - 35.5	64	32.8	0.0 - 68.4	151	26.4	3.6 - 49.2
18-69	129	47.1	25.1 - 69.2	108	32.9	11.3 - 54.6	237	40.8	22.7 - 59.0

Currently taking herbal or traditional treatment for diabetes among those previously diagnosed									
	Men			Women			Both Sexes		
Age Group (years)	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI
18-29	18	65.0	36.8 - 93.2	18	33.5	0.0 - 70.8	36	53.1	26.1 - 80.1
30-44	24	34.0	0.0 - 70.4	26	8.1	0.0 - 20.3	50	24.1	1.4 - 46.8
45-69	87	16.7	4.1 - 29.4	64	30.5	0.0 - 66.2	151	24.4	2.2 - 46.5
18-69	129	40.9	20.3 - 61.5	108	26.0	4.6 - 47.5	237	34.3	17.1 - 51.4

ABNORMAL LIPIDS

History of Abnormal Lipids

An abnormal lipid profile is known to be a major risk factor in cardiovascular disease. Total cholesterol was measured, using the dry method, in the fasting blood sample. The abnormal lipids status of the survey population was identified by asking the respondents about total cholesterol measurement conducted in the last 12 months and were diagnosed with raised blood cholesterol. Around 82.2% (men 81.4%, women 83.1%) of the study population had never measured their blood cholesterol in their life time. Among the study population, 8.0% (men 11.5%, women 4.3%) had measured their blood cholesterol level in the past, but had never been diagnosed with abnormal lipid level. This proportion was higher in the younger age groups as compared to the oldest age group. The prevalence of self-reported abnormal lipids (within the last 12 months) was 8.3% (men 5.6%, women 5.4%). This proportion was highest among the 45–69 years age group in both sexes (men 6.6%, women 11.1%) (Table H5, Annex I).

Total cholesterol measurement and diagnosis

Men

Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	699	81.3	73.4 - 89.1	12.2	5.5 - 18.9	2.0	0.1 - 3.9	4.5	1.8 - 7.3
30-44	512	81.5	72.5 - 90.5	12.5	5.4 - 19.6	1.0	0.0 - 2.7	5.0	1.5 - 8.5
45-69	782	81.4	75.1 - 87.6	8.8	4.1 - 13.5	1.2	0.3 - 2.0	8.7	4.8 - 12.5
18-69	1993	81.4	77.0 - 85.7	11.5	8.2 - 14.8	1.5	0.4 - 2.6	5.6	3.5 - 7.5

Total cholesterol measurement and diagnosis

Women

Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	768	86.7	81.7 - 91.7	3.5	1.4 - 5.7	0.8	0.0 - 1.7	9.0	4.5 - 13.5
30-44	603	83.0	77.1 - 88.8	6.1	2.6 - 9.6	1.5	0.0 - 3.4	9.5	4.9 - 14.1
45-69	526	76.4	66.4 - 86.5	3.5	1.0 - 5.9	2.9	0.0 - 5.8	17.2	8.8 - 25.7
18-69	1897	83.1	78.8 - 87.4	4.3	2.7 - 5.9	1.5	0.4 - 2.5	11.1	7.7 - 14.5

Total cholesterol measurement and diagnosis

Both sexes

Age Group (years)	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	1467	83.9	78.6 - 89.2	8.0	4.0 - 12.1	1.4	0.3 - 2.5	6.7	4.1 - 9.3
30-44	1115	82.2	76.0 - 88.4	9.5	5.2 - 13.7	1.2	0.0 - 2.0	7.1	4.2 - 10.0
45-69	1308	79.0	72.4 - 85.5	6.2	3.5 - 8.9	2.0	0.5 - 3.5	12.8	7.7 - 18.0
18-69	3890	82.2	78.6 - 85.8	8.0	5.9 - 10.2	1.5	0.7 - 2.2	8.3	6.0 - 10.5

Currently taking oral treatment (medication) prescribed for raised total cholesterol among those previously diagnosed

Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	24	61.9	33.3 - 90.5	32	84.1	69.0 - 99.2	56	74.8	59.8 - 89.8
30-44	38	55.8	26.5 - 85.0	68	55.3	32.9 - 77.7	106	55.5	37.8 - 73.1
45-69	96	46.6	22.9 - 70.3	110	55.2	43.5 - 66.9	206	52.3	40.2 - 64.4
18-69	158	55.4	38.2 - 72.6	210	65.4	55.4 - 75.5	368	61.6	52.1 - 71.1

Seen a traditional healer for raised cholesterol among those previously diagnosed

Age Group (years)	Men			Women			Both Sexes		
	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
18-29	24	61.0	31.6 - 90.4	32	12.0	0.1 - 23.9	56	32.5	11.6 - 53.3
30-44	38	30.5	0.0 - 63.1	68	12.2	1.7 - 22.6	106	19.1	3.5 - 34.7
45-69	96	29.2	8.6 - 49.8	110	21.0	4.4 - 37.7	206	23.8	10.1 - 37.6
18-69	158	42.7	23.6 - 61.9	210	15.5	7.4 - 23.6	368	25.8	14.1 - 37.5

Currently taking herbal or traditional treatment for raised cholesterol among those previously diagnosed

Age Group (years)	Men			Women			Both Sexes		
	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI	n	% taking trad. meds	95% CI
18-29	24	22.2	2.4 - 42.1	32	12.0	0.1 - 23.9	56	16.3	5.2 - 27.3
30-44	38	31.6	0.0 - 64.0	68	16.4	0.0 - 34.4	106	22.1	4.6 - 39.6
45 -69	96	25.3	6.4 - 44.3	110	7.8	1.9 - 13.8	206	13.8	4.6 - 23.0

| 18-69 | 158 | 25.7 | 9.2 - 42.3 | 210 | 11.6 | 5.3 - 17.9 | 368 | 17.0 | 8.7 - 25.2 |

Measurement of Total Cholesterol:

The mean total cholesterol was 148.1 gm/dl, slightly higher in women (156.7 gm/dl) as com-pared to men (140.1 gm/dl). Among both the groups the mean cholesterol level increases with increasing age groups, that the oldest age group had the highest blood cholesterol in both sexes.

Mean total cholesterol (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	653	135.6	127.8 - 143.4	700	148.5	142.3 - 154.8	1353	141.9	136.3 - 147.4
30-44	492	140.5	132.7 - 148.4	561	161.7	153.9 - 169.5	1053	150.6	144.2 - 157.0
45-69	743	148.4	141.4 - 155.3	487	166.1	157.0 - 175.1	1230	157.0	150.4 - 163.6
18-69	1888	140.1	133.5 - 146.7	1748	156.7	151.8 - 161.7	3636	148.1	143.1 - 153.1

Prevalence of Raised Cholesterol:

The prevalence of raised cholesterol (total cholesterol ≥190 mg/dl) was 16.9% (men 10.8%, women 23.5%). Among men, the prevalence of raised cholesterol was highest among 45-69 years old (13.4%), followed by 30-44 years old (11.2%); whereas among women, it was highest among 45–69 years old (30.0%), followed by 30–44 years old (24.2%). Looking at both sexes combined, the prevalence of raised cholesterol increased with age and was highest among the 45–69-year age group at 21.5%.

Total cholesterol ≥ 190 mg/dl									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	58	9.2	4.1 - 14.2	115	19.6	13.6 - 25.6	173	14.2	9.8 - 18.6
30-44	71	11.2	5.4 - 17.1	139	24.2	15.7 - 32.6	210	17.4	11.6 - 23.2
45-69	135	13.4	8.0 - 18.8	146	30.0	20.5 - 39.5	281	21.5	15.1 - 27.9
18-69	264	10.8	6.3 - 15.3	400	23.5	19.0 - 27.9	664	16.9	12.8 - 21.0

The prevalence of raised cholesterol (total cholesterol ≥240 mg/dl) was 2.6% (men 1.9%, women 3.4%). Among men and women, the prevalence of raised cholesterol was highest among 45-69 years old (men 2.1% , women 4.2. Looking at both sexes combined, the prevalence of raised cholesterol increased with age and was highest among the 45–69-year age group at 3.1%.

Total cholesterol ≥ 240 mg/dl									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	5	2.0	0.0 - 4.0	24	2.8	0.8 - 4.8	29	2.4	1.0 - 3.8

30-44	9	1.8	0.0 - 4.1		26	3.7	1.4 - 6.0		35	2.7	1.0 - 4.3
45-69	18	2.1	0.0 - 4.2		38	4.2	2.0 - 6.5		56	3.1	1.5 - 4.7
18-69	32	1.9	0.5 - 3.3		88	3.4	2.2 - 4.6		120	2.6	1.7 - 3.5

The prevalence of raised cholesterol (total cholesterol ≥190 mg/dl or currently on medication for raised cholesterol) was 18.1% (men 12.0%, women 24.7%). Among men, the prevalence of raised cholesterol was highest among 45–69 years old (14.5%), followed by 30–44 years old (11.4%); whereas among women, it was highest among 45–69 years old (32.9%), followed by 30–44 years old (25.5.0%). Looking at both sexes combined, the prevalence of raised cholesterol increased with age and was highest among the 45–69 year age group at 23.4%.

Total cholesterol ≥ 190 mg/dl or currently on medication for raised cholesterol										
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	60	11.2	7.1 - 15.2	117	20.0	14.1 - 26.0	177	15.4	11.7 - 19.2
30-44	74	11.4	5.5 - 17.2	149	25.5	16.9 - 34.0	223	18.1	12.1 - 24.0
45-69	145	14.5	8.8 - 20.2	156	32.9	22.9 - 42.8	301	23.4	16.5 - 30.3
18-69	279	12.0	8.1 - 15.9	422	24.7	20.2 - 29.2	701	18.1	14.3 - 22.0

Looking at all respondents, including those currently on medication, around 5.2% (men 3.2%, women 6.7%) had raised cholesterol (total cholesterol ≥240mg/dl). This proportion was also found to increase with age and was highest among 45–69 year olds at 7.7% (Figure 9 and Table M16, Annex I).

Total cholesterol ≥ 240 mg/dl or currently on medication for raised cholesterol										
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	10	4.1	1.4 - 6.8	28	4.3	1.5 - 7.0	38	4.2	2.4 - 6.0
30-44	13	1.9	0.0 - 4.2	38	5.9	2.9 - 9.0	51	3.8	1.9 - 5.8
45-69	30	3.3	0.6 - 6.1	55	12.4	5.1 - 19.6	85	7.7	3.6 - 11.8
18-69	53	3.2	1.8 - 4.6	121	6.7	4.5 - 8.9	174	5.2	3.5 - 6.3

COMBINED RISK FACTORS AND CARDIOVASCULAR DIS-EASE RISK PREDICTION

History of Cardio-Vascular Diseases:

Respondents were asked to report if they have ever had a heart attack or chest pain from heart disease (angina) or a stroke, then about 8.8% of all the respondents (men 11.4% women 5.9%) have reported that they either had a heart attack or chest pain from heart disease or a stroke in life time. The percentage of respondents with history of CVD has increased with increasing age groups.

Having ever had a heart attack or chest pain from heart disease or a stroke											
	Men				Women				Both Sexes		
Age Group (years)	n	% CVD history	95% CI		n	% CVD history	95% CI		n	% CVD history	95% CI
18-29	39	10.3	5.7-14.9		14	1.8	0.4-3.2		53	6.2	3.4-9.0
30-44	48	9.6	5.1-14.2		42	7.7	1.7-13.8		90	8.7	5.4-12.0
45-69	94	15.9	5.6-26.4		53	11.7	5.7-17.6		147	13.8	7.7-20.1
18-69	181	11.4	6.5-16.3		109	5.9	2.7-9.2		290	8.8	5.7-11.9

Respondents were asked if they are currently taking aspirin or statins regularly to prevent or treat heart disease, then 4.4% (men 5.3% women 3.3%)

Currently taking aspirin regularly to prevent or treat heart disease											
	Men				Women				Both Sexes		
Age Group (years)	n	% taking aspirin	95% CI		n	% taking aspirin	95% CI		n	% taking aspirin	95% CI
18-29	18	7.1	3.2 - 11.0		9	2.2	0.4 - 4.0		27	4.8	2.6 - 6.9
30-44	16	4.5	0.7 - 8.3		12	3.1	0.2 - 6.1		28	3.9	1.5 - 6.2
45-69	39	3.0	0.8 - 5.2		23	5.7	0.8 - 10.7		62	4.3	1.6 - 7.1
18-69	73	5.3	2.5 - 8.2		44	3.3	1.5 - 5.1		117	4.4	2.7 - 6.1

Currently taking statins regularly to prevent or treat heart disease											
	Men				Women				Both Sexes		
Age Group (years)	n	% taking statins	95% CI		n	% taking statins	95% CI		n	% taking statins	95% CI
18-29	16	6.1	1.8 - 10.4		6	2.0	0.2 - 3.8		22	4.1	2.0 - 6.3
30-44	13	4.5	0.7 - 8.4		12	3.8	0.6 - 7.0		25	4.2	1.6 - 6.8
45-69	34	2.9	0.6 - 5.1		22	5.9	1.0 - 10.9		56	4.4	1.6 - 7.1
18-69	63	4.9	1.7 - 8.0		40	3.5	1.7 - 5.3		103	4.2	2.3 - 6.1

Combined risk factors:

For the purpose of exploring combined risk factors, responses were grouped into three categories according to the presence of the five major risk factors based on principal component analysis. The first category was 'no risk factors'; the second 'one or two risk factors', and the third 'three to five risk factors. The five major risk factors were:

- current daily smokers
- less than 5 servings of fruit and vegetables per day
- low level of activity (<600 MET-minutes)
- overweight or obese (BMI ≥ 25 kg/m2)
- raised blood pressure (SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure)

Summary of Combined Risk Factors							
Age Group (years)	Men						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
18-44	1218	1.0	0.0 - 2.5	77.1	71.8 - 82.4	21.9	16.7 - 27.0
45-69	743	0.9	0.0 - 2.8	64.6	53.1 - 76.1	34.5	23.2 - 45.7
18-69	1961	1.0	0.0 - 2.6	74.3	68.1 - 80.5	24.7	18.7 - 30.7

Summary of Combined Risk Factors							
Age Group (years)	Women						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
18-44	1179	0.9	0.2 - 1.7	67.1	62.1 - 72.1	32.0	26.9 - 37.0
45-69	469	0.1	0.0 - 0.3	41.4	31.5 - 51.3	58.5	48.6 - 68.4
18-69	1648	0.7	0.2 - 1.3	60.4	55.7 - 65.2	38.8	34.0 - 43.6

Summary of Combined Risk Factors							
Age Group (years)	Both Sexes						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
18-44	2397	1.0	0.1 - 1.9	72.9	68.3 - 77.4	26.1	21.6 - 30.6
45-69	1212	0.6	0.0 - 1.6	53.7	44.6 - 62.9	45.7	36.6 - 54.8
18-69	3609	0.9	0.0 - 1.8	68.3	63.1 - 73.5	30.8	25.7 - 36.0

Among total respondents, only 0.9% had no risk factors. This proportion was found to be a little bit higher among men (1.0%) in all age groups compared to women (0.7%). Around 68.3% of respondents (men 74.3%, women 68.3%) were found to have one to two risk factors. This proportion was highest among the younger age group (18–44) at 72.9% (men 77.1%, women 67.1%). Another 30.8% had three to five risk factors. This proportion was higher among women (38.8%) than men (24.7%) and highest among 45–69 years old at 45.7% (men 34.5%, women 58.5%).

Cardiovascular disease risk prediction:

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

The proportion of respondents in the age group 40–69 years with a 10-year CVD risk of ≥30% was 14.8% (men 14.9%, women 14.8%). In both the sex groups this proportion was higher for the 55–69-year age group compared to the 40–54 years age group. Among men of 55–69 years it was 26.0% and for women in the same age group it was 9.6%.

Percentage of respondents with a 10-year CVD risk ≥30% or with existing CVD									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
40-54	36	7.7	2.8 - 12.5	44	16.8	6.5 - 27.1	80	12.4	6.9 - 17.9
55-69	70	26.0	8.5 - 43.4	25	9.6	3.1 - 16.1	95	19.5	7.5 - 31.5
40-69	106	14.9	8.4 - 21.4	69	14.8	6.2 - 23.3	175	14.8	9.9 - 19.8

Annex 1: Questionnaire

<div style="background-color:green; color:white; text-align:center; font-weight:bold">Survey Information</div>

Location and Date	Response	Code
Cluster/Centre/Village ID	∟_∟_∟_∟_∟_∟_∟	I1
Cluster/Centre/Village name		I2
Interviewer ID	∟_∟_∟	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 *[Insert Language]*	English 1 *Dari* 2 *Pashto* 3	I6
Time of interview (24 hour clock)	∟_∟_∟ : ∟_∟_∟ hrs mins	I7
Family Surname		I8
First Name		I9
Additional Information that may be helpful		
Contact phone number where possible		I10

Step 1 Demographic Information

CORE: 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)?	Years └─┴─┘	C4

EXPANDED: Demographic Information

What is the **highest level of education** you have completed? *[INSERT COUNTRY-SPECIFIC CATEGORIES]*	No formal schooling 1 Less than primary school 2 Primary school completed 3 Secondary school completed 4 High school completed 5 College/University completed 6 Post graduate degree 7 Refused 88	C5
What is your **marital status**?	Never married 1 Currently married 2 Separated 3 Divorced 4 Widowed 5 Refused 88	C7
Which of the following best describes your **main work** status over the past 12 months? *[INSERT COUNTRY-SPECIFIC CATEGORIES]* (*USE SHOWCARD*)	Government employee 1 Non-government employee 2 Self-employed 3 Non-paid 4 Student 5 Homemaker 6 Retired 7 Unemployed (able to work) 8 Unemployed (unable to work) 9 Refused 88	C8
How many people older than 18 years, including yourself, live in your household?	Number of people └─┴─┘	C9

EXPANDED: Demographic Information, Continued		
Question	**Response**	**Code**
Taking **the past year**, can you tell me what the average earnings of the household have been? *(RECORD ONLY ONE, NOT ALL 3)*	Per week └─┴─┴─┴─┴─┴─┴─┘ *Go to T1*	C10a
	OR per month └─┴─┴─┴─┴─┴─┴─┘ *Go to T1*	C10b
	OR per year └─┴─┴─┴─┴─┴─┴─┘ *Go to T1*	C10c
	Refused 88	C10d
If you don't know the amount, can you give an **estimate** of the annual household income if I read some options to you? Is it *[INSERT QUINTILE VALUES IN LOCAL CURRENCY]* *(READ OPTIONS)*	≤ Quintile (Q) 1 1 More than Q 1, ≤ Q 2 2 More than Q 2, ≤ Q 3 3 More than Q 3, ≤ Q 4 4 More than Q 4 5 Don't Know 77 Refused 88	C11

Step 1   Behavioural Measurements

CORE: Tobacco Use

Now I am going to ask you some questions about tobacco use.

Question	Response	Code
Do you **currently** smoke any **tobacco** products, such as cigarettes, 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 it was? *(RECORD ONLY 1, NOT ALL 3)* *Don't know 77*	In Years └─┴─┘ *If Known, go to T5a/T5aw*	T4a
	OR in Months └─┴─┘ *If Known, go to T5a/T5aw*	T4b
	OR in Weeks └─┴─┘	T4c

	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
	Pipes full of tobacco └─┴─┴─┴─┘ └─┴─┴─┘	T5c/T5cw
	Cigars, cheroots, cigarillos └─┴─┴─┴─┘ └─┴─┴─┘	T5d/T5dw
	Number of Shisha sessions └─┴─┴─┴─┘ └─┴─┴─┘	T5e/T5ew
	Other └─┴─┴─┴─┘ └─┴─┴─┘ *If Other, go to T5other, else go to T6*	T5f/T5fw
	Other (please specify): └─┴─┴─┴─┴─┴─┘	T5other/ T5otherw

Question	Response	Code
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 T10*	T9

EXPANDED: Tobacco Use

Question	Response	Code
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]*? (USE SHOW-CARD)	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 ⌴⌴⌴⌴ ⌴⌴⌴⌴	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/ T14otherw
In the **past**, did you **ever use** smokeless tobacco products such as *[snuff, chewing tobacco, or betel]*?	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]* **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

CORE: Alcohol Consumption		
The next questions ask about the consumption of alcohol.		
Question	**Response**	**Code**
Have you **ever** consumed any alcohol such as beer, wine, spirits or *[add other local examples]*? *(USE SHOWCARD OR SHOW EXAMPLES)*	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
Have you stopped drinking due to health reasons, such as a negative impact on your health or on the advice of your doctor or other health worker?	Yes 1 *If Yes, go to A16* No 2 *If No, go to A16*	A3
During the past 12 months, **how frequently** have you had at least one standard alcoholic drink? *(READ RESPONSES, USE SHOWCARD)*	Daily 1 5-6 days per week 2 3-4 days per week 3 1-2 days per week 4 1-3 days per month 5 Less than once a month 6	A4
Have you consumed any alcohol within the **past 30 days**?	Yes 1 No 2 *If No, go to A13*	A5
During the past 30 days, on how many **occasions** did you have at least one standard alcoholic drink?	Number Don't know 77 └─┴─┘	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 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

CORE: Alcohol Consumption, continued		
I have just asked you about your consumption of alcohol during the past 7 days. The questions were about alcohol in general, while the next questions refer to your consumption of homebrewed alcohol, alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol. Please only think about these types of alcohol when answering the next questions.		
Question	**Response**	**Code**
During the **past 7 days**, did you consume any **homebrewed** alcohol, any alcohol **brought over the border/from another country**, any alcohol **not intended for drinking** or other **untaxed** alcohol? *[AMEND ACCORDING TO LOCAL CONTEXT]* *(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**? *[INSERT COUNTRY-SPECIFIC EXAMPLES]* *(USE SHOWCARD)* *Don't Know 77*	Homebrewed spirits, e.g. moonshine　└─┴─┘	A12a
	Homebrewed beer or wine, e.g. beer, 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

CORE: Diet		
The next questions ask about the fruits and vegetables that you usually eat. I have a nutrition card here that shows you some examples of local fruits and vegetables. Each picture represents the size of a serving. As you answer these questions please think of a typical week in the last year.		
Question	**Response**	**Code**
In a typical week, on how many days do you **eat fruit**? *(USE SHOWCARD)*	Number of days └─┴─┘ **If Zero days, go to D3** Don't Know 77	*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 └─┴─┘ **If Zero days, go to D5** Don't Know 77	D3
How many **servings** of vegetables do you eat on one of those days? *(USE SHOWCARD)*	Number of servings Don't know 77 └─┴─┘	D4

Dietary salt		
With the next questions, we would like to learn more about salt in your diet. Dietary salt includes ordinary table salt, unrefined salt such as sea salt, iodized salt, salty stock cubes and powders, and salty sauces such as soya sauce or fish sauce (see showcard). The following questions are on adding salt to the food right before you eat it, on how food is prepared in your home, on eating processed foods that are high in salt such as [insert country specific examples], and questions on controlling your salt intake. Please answer the questions even if you consider yourself to eat a diet low in salt.		
How often do you **add salt or a salty sauce such as soya sauce** to your food right before you eat it or as you are eating it? *(SELECT ONLY ONE)* *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D5
How often is **salt, salty seasoning or a salty sauce added** in cooking or preparing foods in your household?	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D6
How often do you eat **processed food high in salt**? By processed food high in salt, I mean foods that have been altered from their natural state, such as packaged salty snacks, canned salty food including pickles and preserves, salty food prepared at a fast food restaurant, cheese, bacon and processed meat *[add country specific examples]*. *[INSERT EXAMPLES]* *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D7
How much salt or salty sauce do you think you consume?	Far too much 1 Too much 2 Just the right amount 3 Too little 4 Far too little 5 Don't know 77	D8

EXPANDED: Diet

Question	Response	Code
How important to you is **lowering the salt** in your diet?	Very important 1 Somewhat important 2 Not at all important 3 Don't know 77	D9
Do you think that too much salt or salty sauce in your diet could cause a **health problem**?	Yes 1 No 2 Don't know 77	D10

Do you do any of the following on a regular basis to **control your salt intake**?
(RECORD FOR EACH)

	Response	Code
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)	∟_ı_ı_ı_ı_ı_ı⌐	D11other

The next questions ask about the oil or fat that is most often used for meal preparation in your household, and about meals that you eat outside a home.

Question	Response	Code
What type of **oil or fat is most often** used for meal preparation in your household? *(USE SHOWCARD)* *(SELECT ONLY ONE)*	Vegetable oil 1 Lard or suet 2 Butter or ghee 3 Margarine 4 Other 5 *If Other, go to D12 other* None in particular 6 None used 7 Don't know 77	D12
	Other ∟_ı_ı_ı_ı_ı_ı⌐	D12other
On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.	Number Don't know 77 ∟_ı_⌐	D13

CORE: Physical Activity

Next I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be a physically active person.

Think first about the time you spend doing work. Think of work as the things that you have to do such as paid or unpaid work, study/training, household chores, harvesting food/crops, fishing or hunting for food, seeking employment. *[Insert other examples if needed].* In answering the following questions 'vigorous-intensity activities' are activities that require hard physical effort and cause large increases in breathing or heart rate, 'moderate-intensity activities' are activities that require moderate physical effort and cause small increases in breathing or heart rate.

Question	Response	Code
Work		
Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like *[carrying or lifting heavy loads, digging or construction work]* for at least 10 minutes continuously? *[INSERT EXAMPLES] (USE SHOWCARD)*	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]* for at least 10 minutes continuously? *[INSERT EXAMPLES] (USE SHOWCARD)*	Yes 1 No 2 *If No, go to P 7*	P4
In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days └─┘	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. *[Insert other examples if needed]*		
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)

CORE: Physical Activity, Continued		
Question	**Response**	**Code**
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), *[Insert relevant terms]*.		
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]* for at least 10 minutes continuously? *[INSERT EXAMPLES] (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, swimming, volleyball]* for at least 10 minutes continuously? *[INSERT EXAMPLES] (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)

EXPANDED: Physical Activity		
Sedentary behaviour		
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. *[INSERT EXAMPLES] (USE SHOWCARD)*		
How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes └─┴─┘ : └─┴─┘ hrs mins	P16 (a-b)

CORE: 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
Have you been told in the past 12 months?	Yes 1 No 2	H2b
In the past two weeks, have you taken any drugs (medication) for raised blood pressure prescribed by a doctor or other health worker?	Yes 1 No 2	H3
Have you ever seen a traditional healer for raised blood pressure or hypertension?	Yes 1 No 2	H4
Are you currently taking any herbal or traditional remedy for your raised blood pressure?	Yes 1 No 2	H5

CORE: History of Diabetes		
Have you ever had your blood sugar 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
Have you been told in the past 12 months?	Yes 1 No 2	H7b
In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker?	Yes 1 No 2	H8
Are you currently taking insulin for diabetes prescribed by a doctor or other health worker?	Yes 1 No 2	H9
Have you ever seen a traditional healer for diabetes or raised blood sugar?	Yes 1 No 2	H10
Are you currently taking any herbal or traditional remedy for your diabetes?	Yes 1 No 2	H11

CORE: History of Raised Total Cholesterol

Question	Response		Code
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?	Yes 1		H12
	No 2	*If No, go to H17*	
Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes 1		H13a
	No 2	*If No, go to H17*	
Have you been told in the past 12 months?	Yes 1		H13b
	No 2		
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		H14
	No 2		
Have you ever seen a traditional healer for raised cholesterol?	Yes 1		H15
	No 2		
Are you currently taking any herbal or traditional remedy for your raised cholesterol?	Yes 1		H16
	No 2		

CORE: History of Cardiovascular Diseases

Question	Response	Code
Have you ever had a heart attack or chest pain from heart disease (angina) or a stroke (cerebrovascular accident or incident)?	Yes 1	H17
	No 2	
Are you currently taking aspirin regularly to prevent or treat heart disease?	Yes 1	H18
	No 2	
Are you currently taking statins (Lovastatin/Simvastatin/Atorvastatin or any other statin) regularly to prevent or treat heart disease?	Yes 1	H19
	No 2	

CORE: Lifestyle Advice

During the past three years, has a doctor or other health worker advised you to do any of the following? *(RECORD FOR EACH)*			
Quit using tobacco or don't start	Yes 1		H20a
	No 2		
Reduce salt in your diet	Yes 1		H20b
	No 2		
Eat at least five servings of fruit and/or vegetables each day	Yes 1		H20c
	No 2		
Reduce fat in your diet	Yes 1		H20d
	No 2		
Start or do more physical activity	Yes 1		H20e
	No 2		
Maintain a healthy body weight or lose weight	Yes 1	*If C1=1 go to M1*	H20f
	No 2	*If C1=1 go to M1*	

CORE (for women only): Cervical Cancer Screening

The next question asks about cervical cancer prevention. Screening tests for cervical cancer prevention can be done in different ways, including Visual Inspection with Acetic Acid/vinegar (VIA), pap smear and Human Papillomavirus (HPV) test. VIA is an inspection of the surface of the uterine cervix after acetic acid (or vinegar) has been applied to it. For both pap smear and HPV test, a doctor or nurse uses a swab to wipe from inside your vagina, take a sample and send it to a laboratory. It is even possible that you were given the swab yourself and asked to swab the inside of your vagina. The laboratory checks for abnormal cell changes if a pap smear is done, and for the HP virus if an HPV test is done.

Question	Response		Code
Have you ever had a screening test for cervical cancer, using any of these methods described above?	Yes	1	CX1
	No	2	
	Don't know	77	

Step 2   Physical Measurements

CORE: Blood Pressure

Question	Response	Code
Interviewer ID	⌞_⌞_⌞_⌟	M1
Device ID for blood pressure	⌞_⌞_⌟	M2
Cuff size used	Small 1 Medium 2 Large 3	M3
Reading 1	Systolic (mmHg) ⌞_⌞_⌞_⌟	M4a
	Diastolic (mmHg) ⌞_⌞_⌞_⌟	M4b
Reading 2	Systolic (mmHg) ⌞_⌞_⌞_⌟	M5a
	Diastolic (mmHg) ⌞_⌞_⌞_⌟	M5b
Reading 3	Systolic (mmHg) ⌞_⌞_⌞_⌟	M6a
	Diastolic (mmHg) ⌞_⌞_⌞_⌟	M6b
During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	M7

CORE: Height and Weight

Question	Response	Code
For women: Are you pregnant?	Yes 1 *If Yes, go to M 16* No 2	M8
Interviewer ID	⌞_⌞_⌞_⌟	M9
Device IDs for height and weight	Height ⌞_⌞_⌟ Weight ⌞_⌞_⌟	M10a M10b
Height	in Centimetres (cm) ⌞_⌞_⌞_⌟ . ⌞_⌟	M11
Weight *If too large for scale 666.6*	in Kilograms (kg) ⌞_⌞_⌞_⌟ . ⌞_⌟	M12

CORE: Waist

Question	Response	Code
Device ID for waist	⌞_⌞_⌟	M13
Waist circumference	in Centimetres (cm) ⌞_⌞_⌞_⌟ . ⌞_⌟	M14

EXPANDED: Hip Circumference and Heart Rate

Hip circumference		in Centimeters (cm) ⌞_⌞_⌞_⌟ . ⌞_⌟	M15
Heart Rate			
Reading 1	Beats per minute ⌞_⌞_⌞_⌟		M16a
Reading 2	Beats per minute ⌞_⌞_⌞_⌟		M16b
Reading 3	Beats per minute ⌞_⌞_⌞_⌟		M16c

Step 3   Biochemical Measurements

CORE: Blood Glucose

Question	Response	Code
During the past 12 hours have you had anything to eat or drink, other than water?	Yes 1 No 2	B1
Technician ID	∟_∟_∟_∟	B2
Device ID	∟_∟_∟	B3
Time of day blood specimen taken (24 hour clock)	Hours : minutes ∟_∟_∟ : ∟_∟_∟ hrs mins	B4
Fasting blood glucose *[CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]*	mmol/l ∟_∟_∟ . ∟_∟_∟ 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

CORE: Blood Lipids

Device ID	∟_∟_∟	B7
Total cholesterol *[CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]*	mmol/l ∟_∟_∟ . ∟_∟_∟ mg/dl ∟_∟_∟_∟ . ∟_∟	B8
During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	B9

CORE: Urinary sodium and creatinine

Had you been fasting prior to the urine collection?	Yes 1 No 2	B10
Technician ID	∟_∟_∟_∟	B11
Device ID	∟_∟_∟	B12
Time of day urine sample taken (24 hour clock)	Hours : minutes ∟_∟_∟ : ∟_∟_∟ hrs mins	B13
Urinary sodium	mmol/l ∟_∟_∟_∟ . ∟_∟	B14
Urinary creatinine	mmol/l ∟_∟_∟ . ∟_∟_∟	B15

EXPANDED: Triglycerides and HDL Cholesterol

Question	Response	Code
Triglycerides *[CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]*	mmol/l ∟_∟_∟ . ∟_∟_∟ mg/dl ∟_∟_∟_∟ . ∟_∟	B16
HDL Cholesterol *[CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]*	mmol/l ∟_∟ . ∟_∟_∟ mg/dl ∟_∟_∟_∟ . ∟_∟	B17