Non Communicable Disease Risk Factor Survey
Sri Lanka
2015

STEPS

Ministry of Health,
Nutrition and Indigenous Medicine

World Health Organization

Non Communicable Disease Risk Factor Survey
Sri Lanka
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Acronyms

BMI	Body Mass Index
BP	Blood Pressure
CI	Confidence Interval
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardiovascular Disease
DBP	Diastolic Blood Pressure
HDL	High-Density Lipoproteins
Hg	Mercury
MET	Metabolic Equivalents of Task
mmol/l	Millimoles Per Litre
NCD	Non-Communicable Disease
PDA	Personal Digital Assistant
PPS	Probability Proportionate to Size
PSU	Primary Sampling Unit
SBP	Systolic Blood Pressure
SEARO	South-East Asia Regional Office
SSU	Secondary Sampling Unit
WHO	World Health Organization

Message from the Secretary, Ministry of Health, Nutrition & Indigenous Medicine

In Sri Lanka more than 70% of the disease burden is due to Non communicable diseases (NCD). In the context of free healthcare delivered by the Ministry of Health, a considerable proportion of the annual health budget is spent on both sophisticated diagnostics such as Magnetic Resonance Imaging (MRI), Angiography and Echocardiography and also on therapeutic procedures such as Coronary Artery Bypass Graft Surgery (CABG) to counter the effects of NCD and its' Complications.

Therefore, it is of utmost importance to plan, implement and evaluate the strategic measures laid to prevent and control the burden of NCD in the country. The results of the survey show the trends in key risk factors for major NCD. Also, it gives a good assessment of our strategic programmes and control measures implemented to counter Non Communicable Diseases.

While appreciating the effort taken by the survey team, I'm pleased to issue this message at the important occasion of launching the final report of the STEPS NCD risk factor survey 2015.

Anura Jayawickrama
Secretary
Ministry of Health, Nutrition and Indigenous Medicine

Message from the Director General of Health Services

Non communicable diseases (NCD) are one of the heaviest burdens to a developing nation. Measures to prevent and control NCD are of utmost importance to a country targeting greater health goals.

As a country in the South Asia region, Sri Lanka is also conducting numerous programmes to prevent and control NCD under the direct guidance and supervision of the Ministry of Health. These programmes receive technical assistance from international agencies such as World Health Organization (WHO). Therefore, it is crucial to assess the impact of these programmes by analysing the trends of NCD and prevalence of its risk factors in the community. STEPWise approach to Surveillance (STEPS) introduced by the WHO is an ideal tool to assess the prevalence of NCD and risk factors in a country.

As a measure of assessing the ongoing NCD prevention and control programmes in the country Ministry of Health conducted a National NCD risk factor survey using the WHO STEPS tool in 2015 under the guidance of Deputy Director General (Medical Services) – I.

As Director General of Health Services, I'm pleased to provide a message in the important event of launching the final report of the said STEPS NCD risk factor survey. Further, I would like to congratulate the Sri Lankan survey team and to thank the WHO for their assistance in this endeavour.

Dr. Palitha Mahipala
Director General of Health Services

Message from the Deputy Director General (Medical Services-I)

I am pleased to release this message as an utmost necessity of the health sector has been accomplished by successfully conducting the National Non Communicable Diseases (NCD) Risk Factor Survey after an interval of seven years.

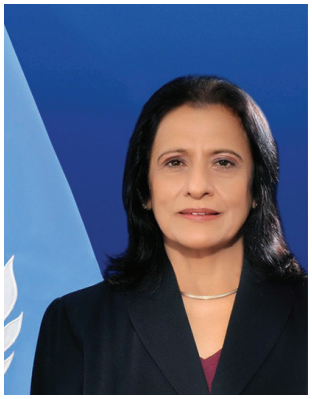
An updated situational analysis of key factors such as Tobacco use, Diet and Physical activity, with regard to NCD, of the nation is vital to plan for future in making Sri Lankans healthier.

Also, this survey provides us with the opportunity to compare the outcomes with the regional status as well as the global status of NCD. Therefore, we were determined to follow a standard methodology which is the WHO STEPwise Surveillance (STEPS).

Much effort has been gone from the planning stage until the release of the survey results, by many who involved in the survey team. Accordingly, as the principal investigator, I like to thank all the members of our survey team for their enormous contribution to this much needed task of conducting National NCD Risk Factor Survey.

Dr. Lakshmi C. Somatunga
Deputy Director General (Medical Services) – I

Message from the Regional Director
WHO South-East Asia Region-World Health Organization



Non communicable diseases, or NCDs, are the most common cause of morbidity and mortality worldwide. Surveillance is critical to provide the information needed for the development of policies and programmes. Appropriate legislation is also required for NCD prevention and control, as well as to support the evolution of programmes and policies for monitoring their progress and success. Prevention and control of non communicable disease is one of the Flagship Priority Area of the South-East Asia Region.

National surveillance should serve in a strategic capacity to foster critical partnerships, provide linkages to, and inform decision structures with inputs to information systems at all levels. The WHO NCD Action Plan calls on Member States to strengthen surveillance systems with standardized data collection on NCD risk factors and determinants using recognized methods and tools.

The WHO Regional Office for South East Asia is committed to supporting and facilitating the STEPS survey and NCD-related surveillance activities of Member States. We are happy to note that the Ministry of Health, Nutrition and Indigenous Medicine of Sri Lanka has come up with "NCD STEPS Sri Lanka Report 2015" which presents the key findings from the nationally representative survey and delivers new insights into the health status of its population.

We hope that Sri Lanka will use the rich data presented in this report to strengthen and improve NCD policies and programmes in the country for the greater well-being of its population.

Dr Poonam Khetrapal Singh
Regional Director
WHO South-East Asia Region

Message from the World Health Organization Representative to Sri Lanka

Non communicable diseases (NCDs) constitute a major public health challenge in Sri Lanka. Most NCDs are the result of four risky behaviours (tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol) that lead to four key metabolic/physiological changes (raised blood pressure, overweight/obesity, raised blood glucose and raised cholesterol). The STEPS approach focuses on obtaining core data on these four risk behaviours and the resultant four key metabolic/physiological changes. Repeated STEPS surveys form the basis on which a country will monitor and evaluate its interventions to prevent and control of NCDs.

I am very pleased that Ministry of Health, Nutrition and Indigenous Medicine in Sri Lanka, has completed the STEPS survey on NCD risk factors 2014. This is the third STEPS survey conducted in the country with the first two being completed in 2003 and 2007. This survey of 2014 fulfils the requirement of data on baseline situation of the targets Sri Lanka has set in its Multisectoral National Action Plan on the Prevention and Control of NCDs, 2016-2020 and the basis for the monitoring of the progress of its actions.

I encourage all health managers and professionals and researchers of all sectors to use data from this survey to improve the quality and the range of NCD related work.

Dr Jacob Kumaresan
World Health Organization Representative to Sri Lanka

Acknowledgement

The successful completion of the National Non Communicable Diseases Risk Factor Survey 2015 was made possible due the contribution of many persons. The following individuals and organizations are acknowledged with gratitude for the support and contribution:

All the respondents who voluntarily gave their time and information,

The Medical Graduates who tirelessly worked as data collectors,

The Medical Officers (Focal Points) in Non Communicable Diseases at district level, and Medical Officers of Health for working as supervisors in carrying out the survey,

Dr. Lakshmi C. Somatunga, Deputy Director General (Medical Services)-I, The principal investigator for giving leadership for every stage of the survey,

Department of Census and Statistics for technical support provided

Dr. V. T. S. K. Siriwardhana – Director, and Dr. Parameswaran Anandan – Deputy Director of the Non Communicable Diseases Unit, Ministry of Health, and the staff of Non Communicable Diseases Unit for facilitating the survey,

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Executive Summary

Introduction

The burden of non-communicable diseases (NCD) in Sri Lanka has increased over past few decades, attributable to the changes in the life style. Reducing the incidence and the prevalence of both behavioural and biological risk factors for NCD has been identified as a major strategy in prevention of NCD in Sri Lanka. Therefore, it is vital to study the status and trends of behavioural and biological risk factors in the country for the purpose of planning, implementation and evaluation of NCD prevention and control programmes.

The "STEPwise approach to NCD Surveillance (STEPS)" designed by the World Health Organization (WHO) has been identified as the most appropriate method for identifying the prevalence of NCD risk factors in a country. Considering the timely need to conduct a NCD survey in Sri Lanka, Ministry of Health implemented a national STEPS survey in 2014-15.

Methodology

A national household survey study was conducted using WHO STEPwise approach. A multi stage cluster sampling method was used to draw a nationally representative sample. The survey included adult Sri Lankan males and females between the ages of 18-69 years.

The primary sampling unit (PSU) was the Divisional Secretariat (DS) area. Out of 331 DS areas in Sri Lanka, 80 were selected using a probability proportional to population size (PPS) of each DS area. A census block was considered as a six secondary sampling units (SSU). From each PSU, six SSUs were selected using PPS method, resulting in a total of 480 SSUs or census blocks. From each of these census blocks, 15 households (tertiary sampling unit or TSU) were selected by systematic random sampling. Selection of SSU and TSU was done randomly by the department of census and statistics, Sri Lanka. Therefore, the number of households selected for the survey was 7200 (80 X 6 X 15). Only one eligible individual from each household was selected randomly using Kish method.

The data collection consisted of three steps: Step one (interviews), Step two (physical measurements) and Step three (biochemical measurements). Data weighting and analysis was conducted in accordance with STEPS survey using Microsoft Excel, Access and Epi Info version 3.5.4 Software.

Results

Response rate

The response rate for STEP1 was 72.0%, whereas for STEP2 was 68.7% and for STEP3 was 63.3%.

Demographic characteristics

Of the 5188 total respondents who participated in the STEP survey, majority (60.9%) were females while 39.1% were males. More than half (52.2%) of the total respondents had completed the secondary education. Mean number of years of education was 9.7 in males and 9.9 in females. Majority of the respondents were Sinhalese (76.6%) while 12.4% were Sri Lankan Tamils and 8.5% were Sri Lankan Moor. Nearly 47% of the respondents estimated monthly household earning of more than Rs. 20,000/- per month.

Behavioural risk factors

Tobacco use

The findings indicate that 45.7% men and 5.3% women currently used some form of tobacco product (either smoked or smokeless) while 35.3% of males and 4.1% of females were daily tobacco users. Prevalence of current smoking was 29.4% in males and 0.1% in females. Of the current male smokers, 67.6% were daily smokers. Mean age of initiation of smoking for male smokers was 20.5 years. Majority (82.9%) of the male daily smokers were using manufactured cigarettes. More than half of the male current smokers (51.8%) had tried to stop smoking. Only one third of the current smokers were advised by a doctor to stop smoking.

One fourth of the male respondents (26.0%) and nearly 5% of females reported currently using smokeless tobacco.

Approximately one fourth (25.2%) of the males and one fifths (21.6%) of the females reported being exposed to second-hand smoking at home during past 30 days while 36.1% of the males and 11.1% of females were exposed to second-hand smoking at their work place in the past 30 days.

Alcohol consumption

One third (34.8%) of the males were current alcohol users (drank in the past 30 days), while 40.2% were lifetime abstainers. A great majority (96.5%) of females were lifetime abstainers. More than one forth (27.4%) of the former drinkers had stopped consuming alcohol due to health reasons (30.2% males and 11.7% females).

Of the males who drank during past 12 months, nearly 5.7% had consumed alcohol daily. Mean number of drinking occasions for male current drinkers during past 30 days was 5.6 and 1.7 for females. Mean number of standard drinks per drinking occasion among current male drinkers during past 30 days was 4.3 and 1.6 for females. Mean maximum number of standard drinks consumed during past 30 days were 5.5 among males and 1.4 for female.

Nearly 17% of the males had indulged in heavy episodic drinking (six or more alcoholic drinks on a single occasion) during last 30 days. Eight percent of the current male drinkers and 2.4% of the current female drinkers reported consuming unrecorded alcohol during past 7 days.

Fruit and vegetable consumption

Mean number of servings of fruits and/or vegetables consumed by both males and females per day was 4.3 servings (males 4.3 and females 4.4). Only 26.9% of the males and 28.0% of the females were consuming five or more servings of fruits and/or vegetables per day.

Salt and processed food consumption

More than half of the adults (52.8%) reported adding salt to rice while cooking. Approximately 27% of the adults (28.3% males and 24.8% females) were always or often eating processed foods.

Physical Activity

Survey findings revealed that 22.5% of the males and 38.4% of the females did not meet the WHO recommendation of physical activity (150 minutes of physical activity per week). More than half of the males (53.7%) were engaged in high intensity physical activity and majority of females were engaged in low (44.2%) and moderate (23.6%) intensity physical activity.

Cervical Cancer Screening

Only 15.2% of the females aged 18-69 years and 24.5% of those in the 30-49 years age group have ever had the cervical screening.

STEP 2

Nearly one fifths of all adults (21.0%) who had high blood pressure were not on medication (21.9% males and 20.2% females).

Body Mass Index

More than half of the adults (55.4%) had a normal BMI value (18.5-24.9); with 58.9% males and 51.6% of females. Approximately 29% of the adults were found to have a BMI≥ 25 (overweight and obese). Nearly one fourths of the males (24.6%) and one thirds of the females (34.3%) were found to be either overweight or obese. Nearly 30% of the adults were estimated to be overweight (21.0% men and 26.0% females) and 5.9% of total respondents were obese (3.5% males and 8.4% females). Further, 15.3% of the adults were estimated to be underweight (16.5% males and 14.1% females).

Waist circumference

Mean waist circumference for the males was 82.3 and for females was 82.1 cm.

STEP 3

Raised blood glucose or currently on medication for diabetes

Overall, 7.4% of adults were estimated to be either having raised blood glucose or were currently on medication for diabetes (7.3% males and 7.6% females).

Cholesterol level

Nearly one fourth of the adults (23.7%) were estimated to either have raised total cholesterol (≥ 190 mg/dl) or were currently on medication for raised cholesterol. Nearly one third of the females (28.4%) and one fifth of the males (19.1%) were estimated to be in this category.

Cardiovascular disease risk

Approximately 9% of the adults aged 40-69 years were estimated to either have 30% or more 10-year CVD risk or an existing CVD. Only half of those (55.6%) had received drug therapy and counselling to prevent heart attack and stroke.

Conclusions and recommendations

This National Survey was a dire need of the health sector in Sri Lanka as it gives an assessment for on-going efforts to control and prevent key risk factors for major NCDs. Hence, the results of this survey will be a very useful tool for planning and implementation of relevant programmes in Sri Lanka.

The findings highlight the need for new strategies to strengthen preventive measures to reduce the incidence of smoking among the younger age groups. More attention should be placed towards prevention and control activities focusing on smokeless tobacco use.

It is important to start a properly functioning island-wide tobacco cessation facilities including 24 hour tobacco cessation hotline. It will be useful to have regular training programmes for medical professionals in the country on advising the patients on tobacco cessation and brief interventions.

Current strategies to reduce smoking such as pictorial warnings, and other legislative measures should be strengthened. There is a need to strengthen the implementation and enforcement of smoke-free policies in public and work places.

Evaluation of current strategies and policies in prevention and control of alcohol consumption should be considered.

Findings warrant for interventions which would not only improve health literacy on consumption of fruits and vegetables, but also economic policy reforms geared towards improving availability and affordability of such food items, and also improving the buying power of the population.

The identified gap between the knowledge and actual practices of salt consumption should be addressed through properly designed awareness programmes. Findings related to dietary habits indicate the need to carry out appropriate and culturally-tailored programmes to promote healthy diet in the community.

It is recommended to strengthen the current awareness programmes on healthy lifestyle, while improving facilities and promoting incentives for engaging in physical activities.

Finding reveal that under nutrition is still a problem in the country, this calls for strengthening prevention and control programmes.

Importance of popularizing already established healthy lifestyle centres, where individuals could get their blood pressure measured, and get health advices free of charge at the grass-root level is also recommended.

Approximately 9% of the adults were estimated to have ≥30% cardiovascular risk or with an existing CVD. Out of these, only half (55.6%) are receiving drug therapy and counselling to prevent heart attack and stroke which demands for immediate action.

More than 90% of the Sri Lankan adults were estimated to have at least one of the NCD risk factors (73.5% with 1-2 risk factors, and 18.3% with 3-5 risk factors), with similar prevalence in males and females. This situation should be intervened with timely implemented policies, and strategies at the national level.

NCDs will potentially emerge as a the biggest public health challenge in Sri Lanka due to the high prevalence of NCD risk factors, and the already existing gap between prevalence and treatment. However, if greater investments in NCD prevention and services are made through the right policies and public health measures, the imminent NCD epidemic could be controlled.

Health systems should be made more responsible for treatment and health-seeking behaviour. Both private and public health systems should be involved in integrating NCD services to promote healthy life styles as well as managing NCD patients. This requires the involvement of all government institutions as well as private sector, civil society, faith-based organizations, academia and community to have a comprehensive and multi-sectoral approach for preventing and controlling NCDs in Sri Lanka.

1. Introduction

Nearly 38 million people die of non-communicable diseases (NCD) in the world each year. Over 14 million die prematurely (age 30 -70 years) from NCDs, of whom two thirds live in lower and middle income countries (LMICs). Majority of these deaths are due to four common non-communicable diseases; cardiovascular diseases (heart attack and stroke), diabetes, cancer, and chronic respiratory diseases.

Four main behavioural risk factors namely tobacco use, harmful use of alcohol, unhealthy diet and physical inactivity and four physiological risk factors such as raise blood pressure, overweight or obesity, hyperglycaemia and hyperlipidaemia have been identified as main risk factors for NCDs. Main strategy to reduce the NCD burden is to reduce the above modifiable risk factors in the community. Therefore, it is important to assess the prevalence of risk factors at regular intervals to study the trends of the risk factors and to evaluate the on-going prevention and control programmes.

Around 70% of the disease burden in Sri Lanka is due to non-communicable diseases. Nearly thirty percent of total hospital deaths are due to cardiovascular diseases which are the first leading cause of death in Sri Lanka for past few years. According to the hospital data, there is an increasing trend of morbidity and mortality related to NCD in Sri Lanka during the recent past.

A NCD survey using the WHO STEPwise approach survey was conducted in 2007, but did not measure the blood glucose or cholesterol. Given the need for recent and comprehensive data for NCD risk factors, the Ministry of Health implemented a national STEPS survey in 2014-15 which included behavioural interview and physical and biochemical measurements.

1.1 Objectives

General objective

To determine the prevalence of key behavioural and biological risk factors for Non-Communicable Diseases in Sri Lankan men and women aged 18–69 years

Specific objectives

1. To assess the prevalence of key NCD behavioural risk factors (tobacco use, alcohol consumption, unhealthy dietary habits and physical inactivity)

2. To assess the prevalence of key NCD biological risk factors (high blood pressure, high blood sugar, over weight and obesity, high total cholesterol)

3. To assess the knowledge and practice on selected tobacco control policies

4. To assess the health seeking behaviour related to NCDs

2. Methodology

2.1 Study design

A national cross-sectional survey was conducted using the WHO STEPwise survey protocol to obtain nationally representative estimates from the adult population, aged 18 to 69 years, in Sri Lanka.

2.2 Study population

The target population of the study was adults aged 18 to 69 years old residing in Sri Lanka.

2.3 Inclusion criteria

All individuals aged 18 to 69 years of age, and residing in the particular address for more than 6 months were included.

2.4 Exclusion criteria

Individuals who fall into following categories were excluded from the survey.

- Who were living in the particular address for less than 6 months
- Who were foreigners and living in the country on a temporary basis
- Who were mentally unfit
- Who were physically too frail to be included in the study

2.5 Sample size

The number of households to be included in the sample with 95% confidence was calculated using the following formula and assumptions.

$n=Z^2_{1-\alpha} P (1-P)/ d^2$
where;

Z -	Level of confidence (for α=0.05 and 95% confidence level)	= 1.96
P -	Estimated baseline levels of the behaviours or indicators currently being measured	= 0.5
d -	Margin of error	= 0.05

$$n = \frac{1.96 \times 1.96 \{0.5 (1-0.5)\}}{0.05 \times 0.05}$$

$n = 384$

Design effect (Deff)	= 1.5
Number of age-sex estimates	= 8
Anticipated response rate	= 0.8

$$\text{Minimum sample size} = \frac{384 \times \text{Design effect} \times \text{number of age-sex estimates}}{\text{anticipated response rate}}$$

$$\text{Minimum sample size} = \frac{384 \times 1.5 \times 10}{0.8}$$

Minimum sample size= 7200
Therefore the final sample size for the survey was 7200.

2.6 Sampling method

A multi stage cluster sampling method was used to select a nationally representative sample from the total population. Department of Census and Statistics of Sri Lanka performed the selection of the study sample. Population of each divisional secretariat (DS) divisions as per the preliminary results of the Census done in 2012 was used for sampling.
Sri Lanka is administratively divided in to 9 provinces and 25 districts. Each district is divided to Divisional Secretariat (DS) areas. Each DS area is divided to many Census Blocks, and each Census Block consists of many households.

Primary sampling unit (PSU)

The primary sampling unit (PSU) was a Divisional Secretariat (DS) area. Out of 331 DS areas available, 80 DS divisions were selected using proportionate to the size (PPS) sampling.

Secondary sampling unit (SSU)

A census block was considered as a SSU. From each DS division (PSU), six secondary sampling units (SSU) were selected using the proportionate to the size (PPS) sampling technique. Therefore, a total of 480 SSUs or census blocks were selected from 80 PSUs.

Tertiary sampling unit (TSU)

Number of houses in each census block depends on the area density and the population density in each DS division. Tertiary sampling unit (TSU) was the household and 15 households from each CB by random systematic sampling by the Department Census and Statistics. Therefore, a sample of 7200 (80x6x15) households were selected. In some instances, there were more than one household living in one house. People who are cooking and eating together were considered as one household. Whenever there were more than one household in a house, one household was selected randomly to be included in the study.

Selection of participants

Only one participant from each household was included in the survey. All the eligible members in the selected family were listed in descending order according to the age. Once this was done, these data was fed to the personal digital assistants (PDAs). The PDAs then automatically selected the eligible participant using the Kish method.

2.7 Data collection

Data collectors

Pre-intern Medical Doctors (Medical graduates awaiting the internship appointments) were recruited as the data collectors. STEP one and two were done at the household level. The closest available healthcare facility near the cluster was identified by the Public Health Midwife to carry out the STEP 3. Participants were given an appointment to come to the selected heath care facility to get the biochemical test done.

Training of data collectors

Five days training was conducted for the selected data collectors. It was conducted by the experts from the MOH and WHO (HQ and SEAR). The field teams were trained thoroughly on the questionnaire, on getting the anthropometric measurements and on performing the biomedical tests. They were also trained in detail on electronic data collection using the PDAs. In addition, this training consisted of selection of participants using the Kish method, ethical issues and importance of getting the consent.

Data collection Instruments

STEPS survey was conducted STEPS instrument version 3.1. (See Annex II)

STEP 1

STEP 1was carried out using an interviewer administered questionnaire, installed in the PDA. STEP 1 consists of core and optional modules to collect the demographic information and to assess the basic behavioural risk factors for NCDs such as tobacco use, alcohol consumption, dietary behaviour, and physical activity. In addition, questions to assess the factors related to increase in physiological risk factors such as blood pressure and blood glucose were also included.
All the core questionnaires were included and several expanded questions were also included.

Core Modules

The survey questionnaire was designed to collect information related to the following variables.

- **Demographics information:**
  Sex, date of birth (age), years at school, educational level, ethnicity, occupation, number of household members >18 years, and monthly income
- **Behavioural measurements:**
  Tobacco use, alcohol consumption, diet (fruit and vegetable consumption), physical activity,
- **Physiological risk factors:**
  History of raised blood pressure, raised blood glucose, raised blood cholesterol, history of heart disease.

Consultative meetings were held with the research group and with some experts to identify the optional modules to be included in the survey. Consensus was made to include three optional modules such as salt, tobacco policy and NCD healthcare utilization in the survey. Optional modules were selected based on the need of the country and feasibility of conducting the data without prolonging the time taken to conduct the interview.

Necessary changes were made in the questions to fit it in to the local context. In addition, some new questions related to the behaviour of the Sri Lankans were also included in the questionnaire. A working group consisting of experts in the Ministry of Health and academia finalized the survey questionnaire. Final questionnaire was translated in to both Sinhala and Tamil and translated back in to English to improve the clarity. Questionnaires were pre-tested and necessary amendments were done in the questionnaire following the pre-test.

Show cards were developed based on the locally available fruits, vegetables, types of physical activity, tobacco products and types of alcohol. They were pretested prior to the survey. Each data collector was given a set of show cards to be used at data collection.

Finalized questionnaire was included in to the iPAQ Personal Digital Assistant (PDAs). The software installed in the PDAs allowed double data storage: one copy on the machine and another on the memory card.

Figure 2.1 indicate the format of the STEPS approach and Table 2.1 specifies the variables included in the study from different modules of each step.

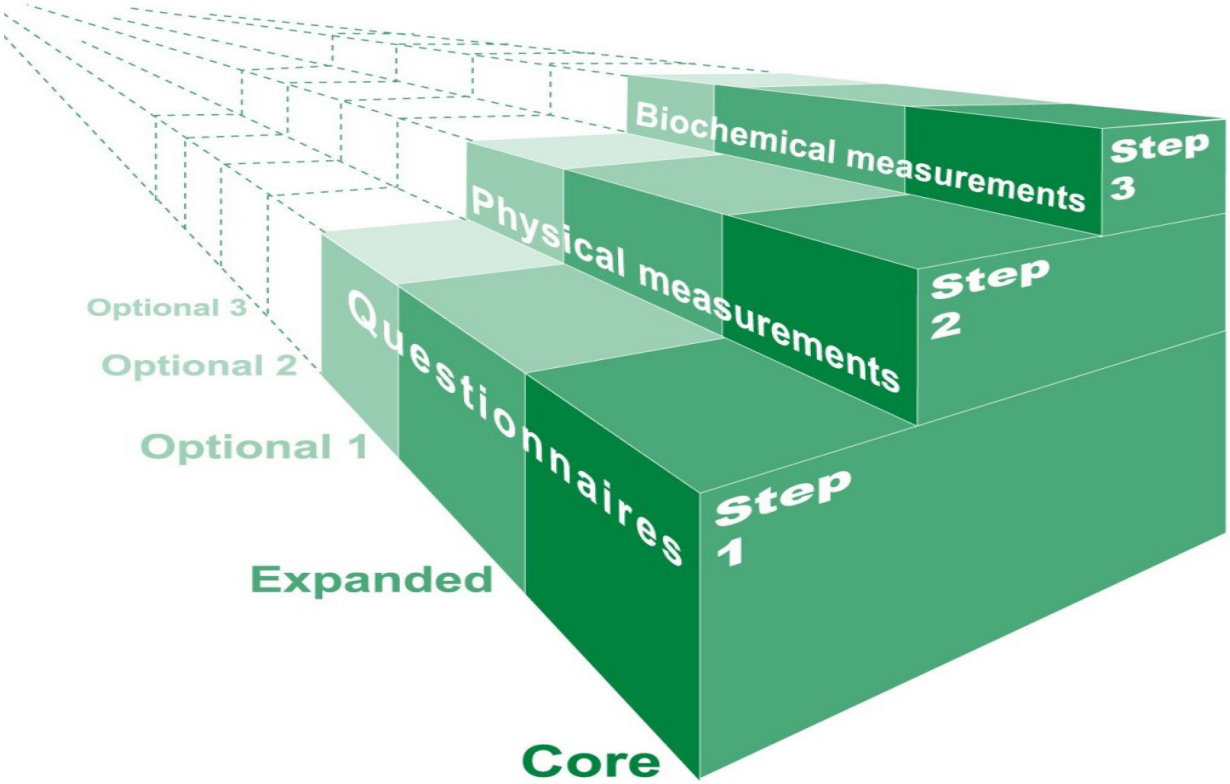

Figure 2.1: The format of the STEPS approach

Table 2.1: Variables included in the study from different modules of each STEP

STEP 1 - Questionnaires		
Core	**Expanded**	**Optional**
Demographic Information		Tobacco policy
Behavioural information		Dietary salt
• Tobacco		Healthcare coverage
• Alcohol consumption		Healthcare utilization
• Diet		
• Physical activity		
H/O raised blood pressure		
H/O diabetes		
H/O raised total cholesterol		
Life style advice		
Cervical cancer screening		
STEP 2 - Anthropometric measurements		
Core	**Expanded**	**Optional**
Physical measurements		• Waist circumference
• Blood pressure		
• Height and weight		
STEP 3 - Biochemical measurements		
Core	**Expanded**	**Optional**
• Fasting blood sugar		
• Total cholesterol		

Field management of data collection

In view of informing all the stakeholders, a meeting was conducted for relevant divisional level and district level managers (MOOH and MO/NCD) to discuss about the implementation, monitoring, supervision plans and feedback mechanism of the survey. All the necessary equipment received from WHO for data collection and the other necessary items and also the relevant documents and papers were distributed among the research assistants through the relevant district MO/NCD.

Quality control

Supervision of the data collection is vital in any form of research since it can contribute to increase in the quality of the data. Therefore, Ministry of Health decided to supervise the data collection using teams from central, provincial, district and MOH level staff.
Each officer selected for the supervision from the central units was allocated few districts, and carried out 10 supervision visits per months to the respective districts during the three months of the STEPS survey. In addition to the supervision done by the central team attached to the NCD focal point, supervision was done by district managers and MOOH.

2.8 Data processing, weighting and analysis

After the end of the survey, data in the PDAs were downloaded to one database. Data cleaning, data weighting and data analysis was done in accordance with the WHO STEPS guidelines. Epi Info software was used to assist data analysis. Weighed frequency tables were calculated for various variables.

2.9 Ethical clearance

Ethical clearance was obtained from the Ethical Committee, Medical Research Institute, Colombo, Sri Lanka.

3. Demographic Information

A total of 5188 respondents participated in the study, and 2030 (39.1%) were males and 3158 (60.9%) were females (Table 3.1). Of the total respondents, 52.2% had completed secondary level education while 5% were without any formal education. Overall, more males were employed (81.6%) than females (26%). Among all respondents, 23.3% were self-employed, 17.0% were non-government employees, and 7.4% were government employees. Nearly three fourth of females (74.0%) were unpaid, while only 18.4% of males were in that category (Table 3.1).

Table 3.1: Distribution of respondents by socio-demographic characteristic (unweighted percentages)

Variables	Males		Females		Both Sexes	
Age group (in years)	**n**	**(%)**	**n**	**(%)**	**n**	**(%)**
18-29	295	36.8	508	63.3	802	15.5
30-44	679	37.2	1143	62.7	1823	35.1
45-59	691	40.8	1004	59.2	1695	32.7
60-69	365	42.1	503	57.9	868	16.7
18-69	**2030**	**39.1**	**3158**	**60.9**	**5188**	**100.0**
Education level	**n=2025**		**n=3150**		**n=5175**	
No formal schooling	85	4.2	176	5.6	261	5.0
Up to grade 5	324	16.0	405	12.9	729	14.1
Passed grade 6-10	638	31.5	841	26.7	1479	28.6
Passed G.C.E. (O/L)	561	27.7	942	29.9	1503	29.0
Passed G.C.E. (A/L)	333	16.4	663	21.0	996	19.2
Degree and above	84	4.1	123	3.9	207	4.0
Employment status	**n=2027**		**n=3152**		**n=5179**	
Government employee	207	10.2	177	5.6	384	7.4
Non-government employee	603	29.7	279	8.9	882	17.0
Self-employed	845	41.7	363	11.5	1208	23.3
Unpaid	372	18.4	2333	74.0	2705	52.2

Table 3.2: Distribution of respondents with unpaid work and unemployed (unweighted percentages)

Variables	Males		Females		Both Sexes	
	n=372		**n=2333**		**n=2705**	
Type of work	**n**	**(%)**	**n**	**(%)**	**n**	**(%)**
Non-paid	26	7.0	35	1.5	61	2.3
Student	61	16.4	85	3.6	146	5.4
Home maker	9	2.4	1575	67.5	1584	58.6
Retired	129	34.7	73	3.1	202	7.5
Unemployed (able to work)	92	24.7	471	20.2	563	20.8
Unemployed (unable to work)	55	14.8	94	4.0	149	5.5

A majority of male respondents (34.7%) were retired individuals while majority of females (67.5%) were home makers.

Table 3.3: Distribution of the respondents by ethnicity and age group (unweighted percentages)

Both Sexes						
Age group (in years)	**n**	**% Sinhala**	**% Sri Lankan Tamil**	**% Indian Tamil**	**% Sri Lankan Moor**	**% Other**
18-29	802	73.4	13.8	1	10.3	1.4
30-44	1822	75.9	12.5	1.2	8.7	1.6
45-59	1693	77	12.5	0.6	8.6	1.3
60-69	868	80.5	10.6	2	6.2	0.7
18-69	**5185**	**76.6**	**12.4**	**1.1**	**8.5**	**1.3**

Of the total respondents, majority were Sinhalese (76.6 %) while 12.4% were Sri Lankan Tamils and 8.5% were Sri Lankan Moor. The ethnicity distributions of the respondents within each age group were similar.

Table 3.4: Distribution of the households by monthly household earnings (in LKR) (unweighted percentages)

Households					
n	**% Quintile 1: 10,000**	**% Quintile 2: 10,001 – 20,000**	**% Quintile 3: 20,001 – 30,000**	**% Quintile 4: 30,001 – 40,000**	**% Quintile 5: Over 40,000**
4711	**19.2**	**33.0**	**25.4**	**13.3**	**9.2**

Almost third of the respondents (33.0%) had an estimated monthly household earning of Sri Lankan Rupees 10,000 - 20,000.

4. Tobacco use

Prevalence, frequency, and pattern of tobacco use in the adults according to age, sex, and forms of tobacco used were estimated in this survey. Users of tobacco comprise of smokers and smokeless tobacco users. All respondents were categorised first as current smokers, and non-smokers. Current smokers were further categorised as daily smokers, and non-daily smokers, while non-smokers were further categorised as former smokers and never smokers. Similar categorisation was done for smokeless tobacco users.

4.1. Current tobacco users

Around one fourth of the adults (25.8%) were current users of any form of tobacco (smoked or smokeless tobacco) (Figure 4.1). Tobacco use was much higher among men (45.7%) when compared to women (5.3%).

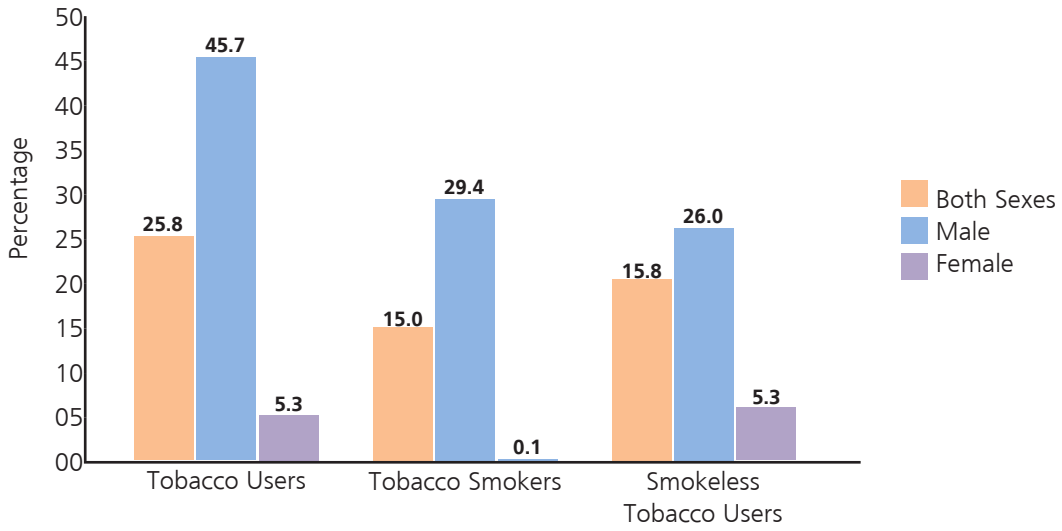

Figure 4.1: Distribution of current tobacco users

4.2. Current smokers

Table 4.1: Distribution of current smokers by age and sex

	Males			Both Sexes		
Age Group (years)	**n**	**% Current smoker**	**95% CI**	**n**	**% Current smoker**	**95% CI**
18-29	294	22.3	17.0-27.6	798	11.7	8.8-14.6
30-44	678	33.6	29.7-37.4	1821	17.2	15.0-19.3
45-59	689	34.0	30.0-38.0	1691	16.8	14.7-19.0
60-69	365	30.0	24.8-35.2	867	15.1	12.3-17.9
18-69	**2026**	**29.4**	**26.8-31.9**	**5177**	**15.0**	**13.6-16.4**

Prevalence of current smoking among males was 29.4%, which is close to the prevalence in all age groups above 30 years among males. Prevalence of smoking was very low among females (0.1%) and was seen only in the age group of 45-59 years.

4.3. Current daily smokers and non-smokers

Overall, 15% of the adults were estimated to be current smokers, with 10.2% being daily smokers and 4.8% non-daily smokers. It was also estimated that 76.5% had never smoked and 8.5% were former smokers.

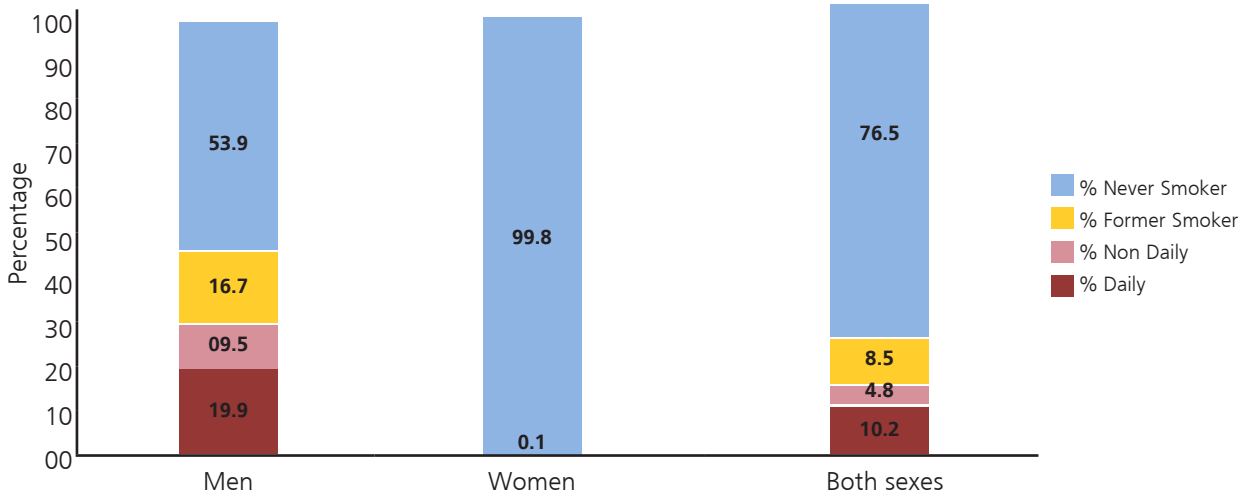

Figure 4.2: Distribution by smoking status

Table 4.2: Distribution of males by smoking status and age groups

Men									
Age Group (years)	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Former smoker	95% CI	% Never smoker	95% CI
18-29	294	12.8	9.0-16.7	9.5	5.7-13.3	9.6	6.0-13.2	68.1	61.9-74.2
30-44	678	22.6	19.0-26.1	11.0	8.5-13.4	14.4	11.3-17.5	52.1	47.9-56.2
45-59	689	25.5	21.7-29.3	8.5	6.2-10.8	22.0	18.3-25.7	44.0	39.7-48.2
60-69	365	22.0	17.3-26.8	7.9	4.8-11.1	33.4	27.8-39.0	36.7	31.2-42.2
18-69	**2026**	**19.9**	**17.8-22.0**	**9.5**	**7.9-11.2**	**16.7**	**14.6-18.7**	**53.9**	**50.9-57.0**

Of the males, 19.9% were daily smokers. Over a half (53.9%) of the males had never smoked and 16.7% were former smokers. The estimated prevalence of individuals who had never smoked during their life appears to be gradually decreasing with increasing age.

Table 4.3: Distribution of daily smokers among current smokers by age and sex

Age Group (years)	Men			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smok-ers	95% CI
18-29	67	57.5	45.1-69.9	67	57.5	45.1-69.9
30-44	235	67.3	60.7-73.9	235	67.3	60.7-73.9
45-59	235	75.0	68.8-81.2	239	75.3	69.2-81.5
60-69	111	73.5	64.1-82.9	111	73.5	64.1-82.9
18-69	**648**	**67.6**	**63.1-72.2**	**652**	**67.8**	**63.2-72.4**

The highest prevalence of daily smokers among the current smokers was seen in the age category of 45-59 years (75%).

4.4. Age of initiation of smoking

Table 4.4: Mean age of initiation of current smokers by sex and age group

Age Group (years)	Men			Both Sexes		
	n	Mean age	95% CI	n	Mean age	95% CI
18-29	63	18.2	17.3-19.0	63	18.2	17.3-19.0
30-44	228	21.1	20.4-21.9	228	21.1	20.4-21.9
45-59	232	21.1	20.4-21.9	236	21.5	20.6-22.3
60-69	110	21.9	20.4-23.3	110	21.9	20.4-23.3
18-69	**633**	**20.5**	**20.0-20.9**	**637**	**20.6**	**20.1-21.1**

Mean age of initiation of smoking for male smokers was 20.5 (95% CI: 20.0 -20.9) years.

4.5. Manufactured cigarettes users

Table 4.5: Percentage of daily smokers using manufactured cigarettes

Age Group (years)	Men			Both Sexes		
	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI
18-29	40	100	100.0-100.0	40	100	100.0-100.0
30-44	155	87.5	82.2-92.7	155	87.5	82.2-92.7
45-59	172	74.0	66.9-81.0	176	72.6	65.5-79.7
60-69	80	61.4	48.9-73.8	80	61.4	48.9-73.8
18-69	**447**	**82.9**	**79.1-86.7**	**451**	**82.4**	**78.6-86.2**

Majority (82.9%) of the males who smoked daily were using manufactured cigarettes. All the daily smokers between 18-29 years were using manufactured cigarettes. Out of the current male smokers, 84.7% were using manufactured cigarettes.

4.6. Mean amount of tobacco products used

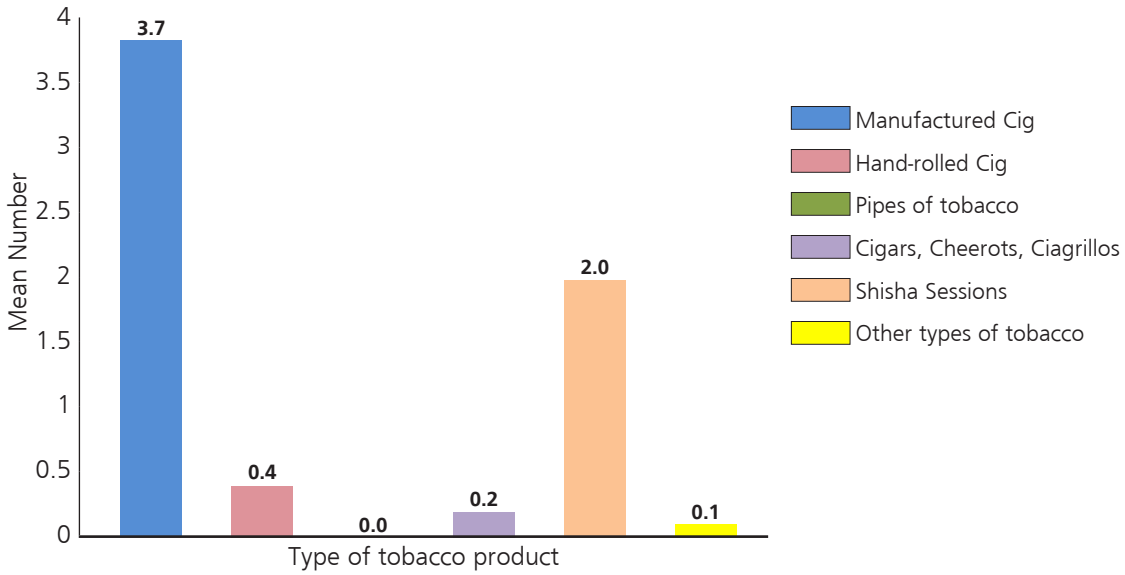

Figure 4.3: Mean amount of tobacco products used by daily male smokers each day

Mean number of manufactured cigarettes used among male daily smokers was 3.7 (95% CI 3.1-4.4). Mean number of hand rolled cigarettes used was 0.4 (95% CI 0.2-0.5).

4.7. Types of tobacco products used

Although the majority (85.2%) of the current male smokers were using manufactured cigarettes, more than one fourth (28%) was using Shisha. Using Shisha was more in age group 45-59 and 60-69 years. In addition, 6.9% was using the hand rolled cigarettes and 2% was still using pipes of tobacco (Annexure 1.1).

4.8. Quantities of cigarettes smoked

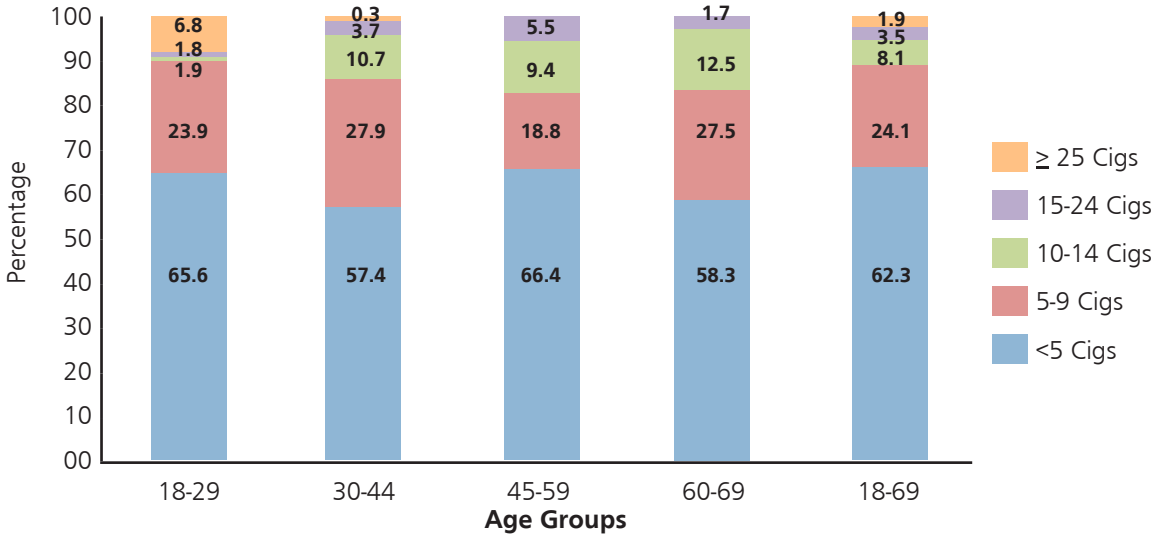

Figure 4.4: Distribution of male daily smokers by quantities of manufactured or hand rolled cigarettes smoked per day

Nearly two thirds of the male daily smokers (62.3%) were smoking less than 5 manufactured or hand rolled cigarettes per day. However, nearly 13.5% were smoking more than 10 manufactured or hand rolled cigarettes per day.

4.9. Tried to stop smoking

Table 4.6: Distribution of current smokers who tried to stop smoking

Age Group (years)	Men			Both Sexes		
	n	% Tried to stop smoking	95% CI	n	% Tried to stop smoking	95% CI
18-29	67	60.8	48.2-73.4	67	60.8	48.2-73.4
30-44	235	53.6	47.0-60.3	235	53.6	47.0-60.3
45-59	235	43.9	36.3-51.5	239	43.9	36.4-51.3
60-69	111	46.0	36.2-55.7	111	46.0	36.2-55.7
18-69	**648**	**51.8**	**46.9-56.8**	**652**	**51.8**	**46.9-56.7**

More than half of the male currents smokers (51.8%) had tried to stop smoking.

4.10. Advice to stop smoking

Table 4.7: Distribution of current smokers who have been advised by a doctor to stop smoking

Age Group (years)	Men			Both Sexes		
	n	% Advised to stop smoking	95% CI	n	% Advised to stop smoking	95% CI
18-29	55	33.1	19.8-46.5	55	33.1	19.8-46.5
30-44	190	30.4	23.7-37.0	190	30.4	23.7-37.0
45-59	182	41	32.7-49.4	185	40.6	32.4-48.8
60-69	91	39.7	29.0-50.4	91	39.7	29.0-50.4
18-69	**518**	**35.2**	**30.1-40.2**	**521**	**35**	**30.0-40.1**

Only around one third (35.2%) of the current smokers had been advised by a doctor to stop smoking.

4.11. Smokeless tobacco

Table 4.8: Distribution of current users of smokeless tobacco among all respondents by age and sex

Age Group (years)	Men			Women			Both Sexes		
	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
18-29	294	16.6	11.7-21.4	504	0.9	0.0-1.9	798	9.1	6.5-11.7
30-44	676	29.0	24.8-33.1	1143	3.6	2.3-4.9	1819	16.6	14.2-18.9
45-59	689	30.8	26.7-34.8	1002	10.0	7.6-12.4	1691	20.2	17.7-22.7
60-69	365	37.3	31.6-43.0	502	11.4	7.9-14.9	867	24.4	21.1-27.8
18-69	**2024**	**26.0**	**23.3-28.8**	**3151**	**5.3**	**4.3-6.3**	**5175**	**15.8**	**14.3-17.4**

More than one fourth of the males (26.0%) and nearly 5% of females reported currently using smokeless tobacco. This was more prevalent among the older age groups.

Nearly 12% of the current users were daily users (Annexure 1.2).

4.12. Exposure to second-hand smoke in home

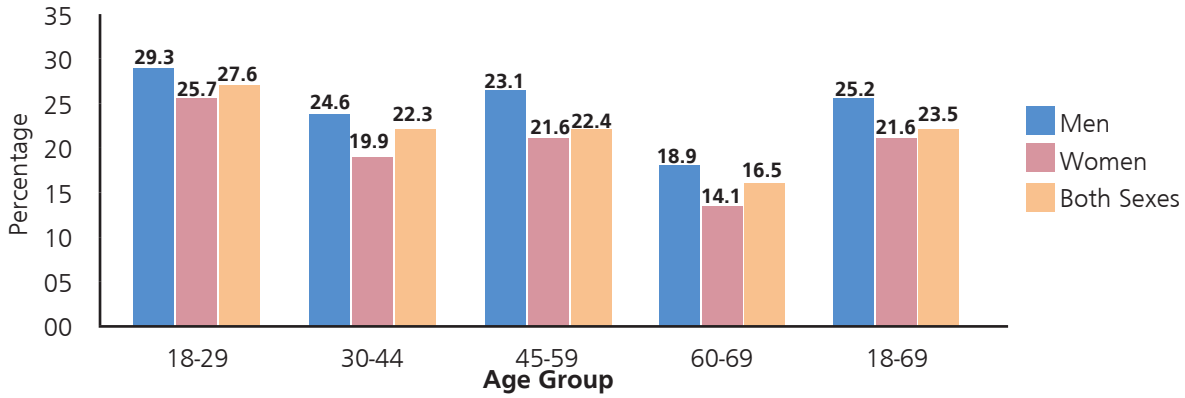

Figure 4.5: Distribution by the exposure to second-hand smoke in home in the past 30 days

Approximately one fourth (25.2%) of the males and one fifth (21.6%) of the females were exposed to second-hand smoke at home during past 30 days. The age group mostly exposed to second-hand smoke was 18-29 years, where nearly one third (27.6%) were exposed to second-hand smoke at home.

4.13. Exposure to second-hand smoke in work places

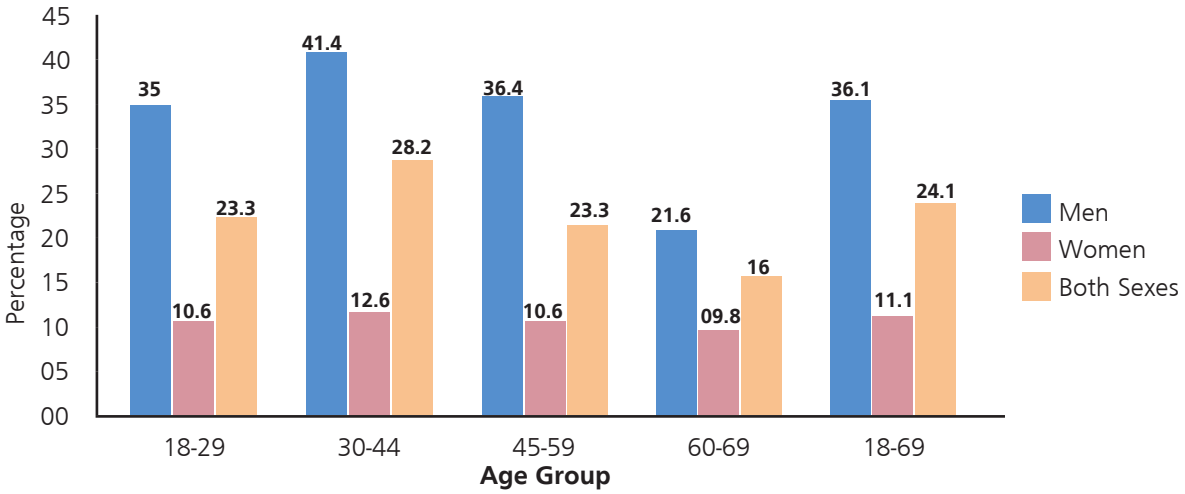

Figure 4.6: Distribution by the exposure to second-hand smoke in workplaces in the past 30 days

One fourth of all adults (24.1%) were exposed to second-hand smoke at their work place in the past 30 days.

5. Alcohol Consumption

During the survey respondents were questioned on their alcohol consumption status. Respondents, who claimed that they had never consumed alcohol during their life, were classified as Lifetime Abstainers and who claimed to consume alcohol during past 30 days was classified as Current Drinkers. Respondents, who claimed to have consumed alcohol during their life but not during last twelve months, were classified as Former Drinkers.

5.1. Alcohol consumption status

Table 5.1: Distribution of male and female respondents by alcohol consumption status and age groups

Alcohol consumption status									
Age Group (years)	**n**	**% Current drinker (past 30 days)**	**95% CI**	**% Drank in past 12 months, not current**	**95% CI**	**% Past 12 months abstainer**	**95% CI**	**% Life-time abstainer**	**95% CI**
Male									
18-29	294	23.1	17.6-28.7	13.0	8.4-17.5	7.3	3.9-10.6	56.6	50.1-63.1
30-44	676	42.3	38.0-46.6	15.7	12.6-18.8	7.6	5.3-9.9	34.5	29.8-39.1
45-59	689	42.7	38.3-47.1	17.1	13.8-20.4	11.9	8.9-15.0	28.3	24.2-32.3
60-69	364	33.6	28.3-39.0	17.6	13.5-21.7	17.8	13.2-22.5	30.9	25.7-36.1
18-69	**2023**	**34.8**	**32.0-37.6**	**15.3**	**13.3-17.3**	**9.7**	**7.9-11.4**	**40.2**	**37.0-43.4**
Female									
18-29	504	0.2	0.0-0.4	1.3	0.1-2.5	0.9	0.0-1.8	97.6	95.9-99.3
30-44	1143	0.3	0.0-0.5	1.1	0.4-1.7	2.1	1.0-3.2	96.6	95.3-97.8
45-59	1002	0.9	0.4-1.5	1.2	0.4-2.0	2.3	1.2-3.3	95.6	94.1-97.1
60-69	502	1.0	0.0-2.2	1.9	0.6-3.2	2.3	0.9-3.7	94.8	92.2-97.4
18-69	**3151**	**0.5**	**0.2-0.8**	**1.3**	**0.7-1.9**	**1.8**	**1.2-2.3**	**96.5**	**95.5-97.4**

This study estimates that, 67.9% of the adults had abstained from alcohol during their life. While majority of the females (96.5%) were lifetime abstainers of alcohol, only 40.2% of males fell in to this category. Of the adults, 17.9% were estimated as current drinkers. In males 34.8% were current drinkers and majority were seen in the age groups of 30-44 years (42.3%) and 45-59 years (42.7%). Only 0.5% of the females were current drinkers.

Table 5.2: Distribution by alcohol consumption status

Both sexes									
Age Group (years)	n	% Current drinker (past 30 days)	95% CI	% Drank in past 12 months, not current	95% CI	% Past 12 months abstainer	95% CI	% Lifetime abstainer	95% CI
18-29	798	12.2	9.2-15.2	7.4	5.0-9.9	4.2	2.4-6.1	76.2	72.3-80.1
30-44	1819	21.7	19.3-24.1	8.5	6.8-10.2	4.9	3.6-6.2	64.9	62.0-67.7
45-59	1691	21.4	18.9-23.8	9.0	7.3-10.7	7.0	5.3-8.6	62.7	59.8-65.5
60-69	866	17.4	14.4-20.4	9.8	7.5-12.0	10.1	7.6-12.7	62.7	58.9-66.5
18-69	**5174**	**17.9**	**16.5-19.4**	**8.4**	**7.3-9.5**	**5.8**	**4.8-6.8**	**67.9**	**66.0-69.8**

5.2. Stopped drinking due to health reasons

Table 5.3: Distribution of former drinkers (who did not drink during the past 12 months) who did not drink due to health reasons

Age Group (years)	Men			Women			Both sexes		
	n	% stopping due to health reasons	95% CI	n	% stopping due to health reasons	95% CI	n	% stopping due to health reasons	95% CI
18-29	23	22.4	4.1-40.7	5	15.7	0.0-40.9	28	21.7	4.9-38.5
30-44	49	15.6	5.1-26.1	21	0.0	0.0-0.0	70	12.3	3.9-20.6
45-59	73	35.3	23.2-47.4	23	15.3	0.0-32.3	96	32.0	21.6-42.4
60-69	62	49.5	36.1-62.9	13	26.8	0.0-57.6	75	46.9	34.9-59.0
18-69	**207**	**30.2**	**22.5-37.9**	**62**	**11.7**	**2.8-20.6**	**269**	**27.4**	**20.8-34.0**

Among the former drinkers 27.4% of adults (30.2% males and 11.7% females), stopped alcohol consumption due to health reasons. Among males who have stopped taking alcohol, highest proportion was seen among the age group of 60-69 years followed by the age group of 45- 59 years. In females highest proportion was seen among the age group of 60 – 69 years followed by the age group of 18-29 years.

5.3. Frequency of alcohol consumption

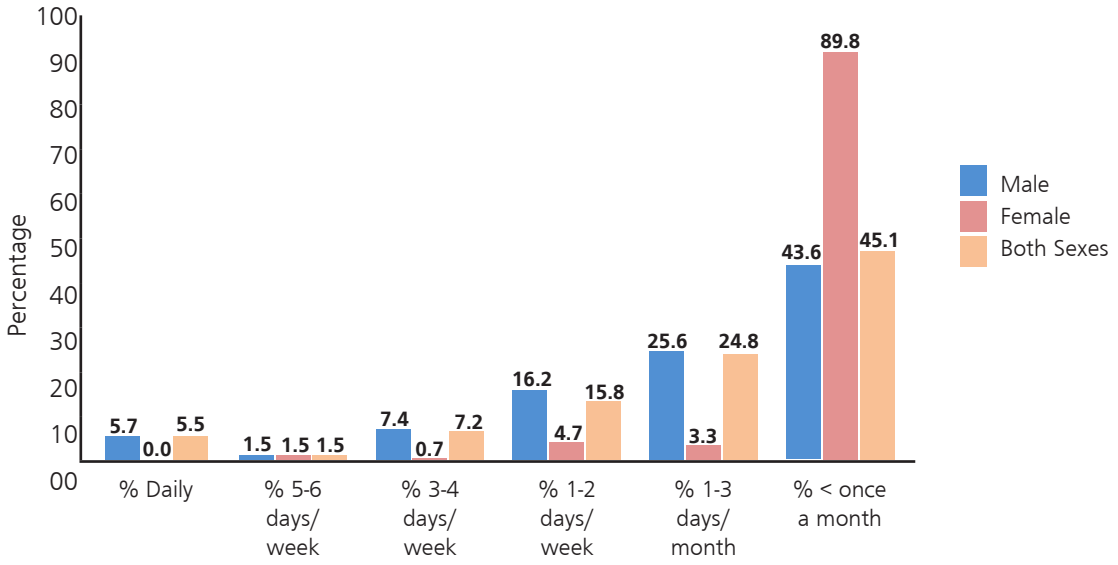

Figure 5.1: Distribution by frequency of alcohol consumption

It is estimated that 5.5% of the group who drank during last 12 months from the adults was drinking daily and it is estimated to be comprised only of males. More than two thirds (69.9%) of the group who drank during last 12 months was estimated to drink 1 to 3 days a month or less.

5.4. Mean number of drinking occasions

Table 5.4: Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers.

Age Group (years)	Men			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI
18-29	70	3.7	2.5-4.8	71	3.7	2.5-4.8
30-44	279	5.5	4.5-6.5	283	5.4	4.5-6.4
45-59	282	6.6	5.4-7.8	292	6.5	5.3-7.7
60-69	122	7.4	5.6-9.1	127	7.2	5.5-8.9
18-69	**753**	**5.6**	**4.9-6.3**	**773**	**5.5**	**4.9-6.2**

Mean number of drinking occasions for male current drinkers during past 30 days was 5.6 (95%CI 4.9-6.3). Highest mean drinking occasions was seen in the age group of 60-69 years.

5.5. Mean number of drinks

Table 5.5: Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers.

Age Group (years)	Men			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI
18-29	71	4.6	3.7 - 5.6	72	4.6	3.6 - 5.6
30-44	277	4.1	3.6 - 4.6	281	4.1	3.6 - 4.5
45-59	286	4.1	3.7 - 4.6	296	4.1	3.6 - 4.5
60-69	122	5.0	3.5 - 6.4	127	4.9	3.4 - 6.3
18-69	**756**	**4.3**	**3.9 - 4.7**	**776**	**4.3**	**3.9 - 4.6**

Mean number of standard drinks per drinking occasion among current male drinkers during past 30 days were 4.3 (95% CI: 3.9 - 4.7).

5.6. Drinking level in adults

Male drinkers who consumed ≥ 60g of pure alcohol and female drinkers who consumed ≥ 40g of pure alcohol on average per occasion are classified as high-end level drinkers. The survey estimated that 1.2% of the male adults were drinking at the high-end level. Majority of high-end level male drinkers were seen in the age group of 60-69 years. None of the females were in the High-end level drinking category.

Male drinkers who consumed 40.0 - 59.9g of pure alcohol and female drinkers who consumed 20.0 - 39.9g of pure alcohol on average per occasion are classified as Intermediate-end level drinkers. Of the adults, 0.9% of males were estimated to be intermediate level drinkers. None of the females were in this group.

Male drinkers who consumed <40g of pure alcohol and female drinkers who consumed <20g of pure alcohol on average per occasion are classified as lower-end level drinkers. Nearly one thirds (31.6%) of the males and 0.5% of the females of the adults were estimated to be consuming alcohol in lower-end level.

Table 5.6: Distribution of high-end level drinking among drinkers

Age Group (years)	Men			Both Sexes		
	n	% ≥60g	95% CI	n	% high-end level	95% CI
18-29	291	0.4	0.0-1.0	795	0.2	0.0-0.5
30-44	665	1.4	0.3-2.4	1808	0.7	0.2-1.2
45-59	665	1.8	0.6-2.9	1667	0.8	0.3-1.4
60-69	361	2.1	0.5-3.6	863	1.0	0.3-1.8
18-69	**1982**	**1.2**	**0.6-1.7**	**5133**	**0.6**	**0.3-0.9**

Table 5.7: Distribution of intermediate-end level drinking among drinkers

Age Group (years)	Men			Both Sexes		
	n	% ≥40-59.9g	95% CI	n	% intermediate -end level	95% CI
18-29	291	0.5	0.0-1.4	795	0.2	0.0-0.7
30-44	665	1.4	0.4-2.3	1808	0.7	0.2-1.2
45-59	665	0.9	0.1-1.7	1667	0.4	0.0-0.8
60-69	361	1.0	0.1-2.0	863	0.5	0.0-1.0
18-69	**1982**	**0.9**	**0.4-1.4**	**5133**	**0.4**	**0.2-0.7**

Table 5.8: Distribution of lower-end level drinking among drinkers

Age Group (years)	Men			Women			Both Sexes		
	n	% <40g	95% CI	n	% <20g	95% CI	n	% lower-end level	95% CI
18-29	291	21.8	16.4-27.2	504	0.2	0.0-0.4	795	11.4	8.5-14.4
30-44	665	38.6	34.3-42.9	1143	0.3	0.0-0.5	1808	19.7	17.4-22.0
45-59	665	38.0	33.7-42.3	1002	0.9	0.4-1.5	1667	18.7	16.4-21.0
60-69	361	30.0	24.7-35.3	502	1.0	0.0-2.2	863	15.5	12.6-18.5
18-69	**1982**	**31.6**	**28.9-34.4**	**3151**	**0.5**	**0.2-0.8**	**5133**	**16.2**	**14.8-17.6**

5.7. Drinking level among current drinkers

Great majority (93.9%) of the current male drinkers were estimated to be consuming low end level alcohol and only 3.5% were consuming high end level alcohol. All the current female drinkers consumed alcohol in low end level.

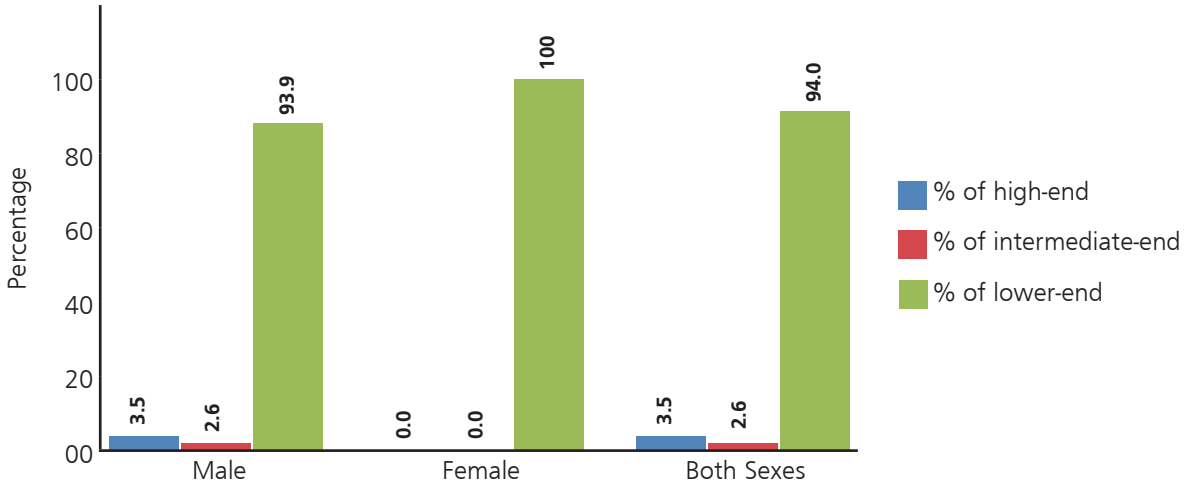

Figure 5.2: Distribution of high-end, intermediate and lower-end level drinking among current (past 30 days) drinkers

5.8. Mean maximum number of drinks consumed

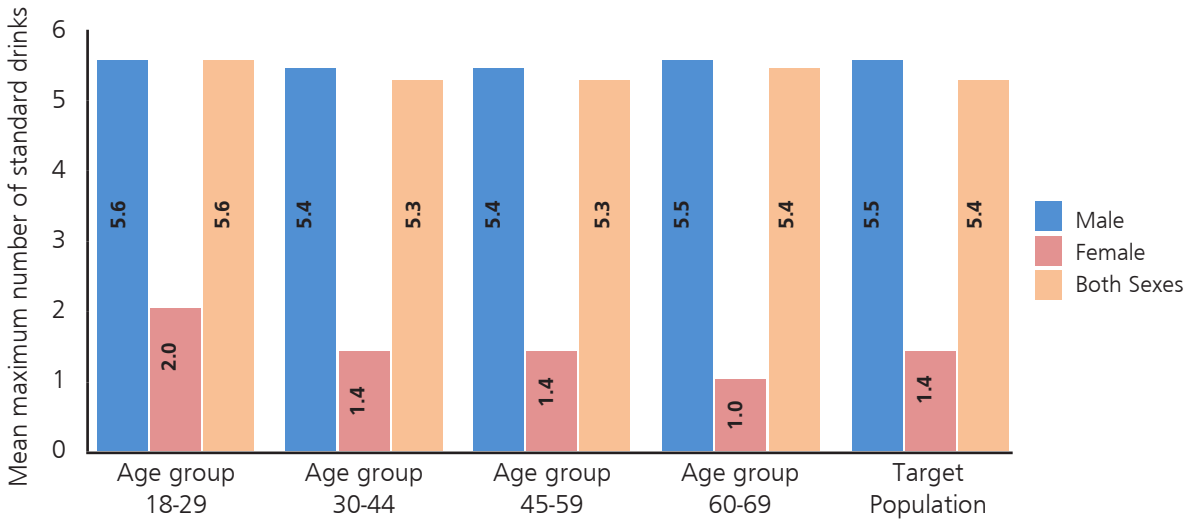

Figure 5.3: Mean maximum number of standard drinks consumed on one occasion in the past 30 days

Mean maximum number of standard drink consumed during past 30 days among males was 5.5 (4.9-6.0) and for females 1.4. Highest was seen among males in the age group of 18-29 years.

5.9. Binged drinking (six or more drinks per occasion)

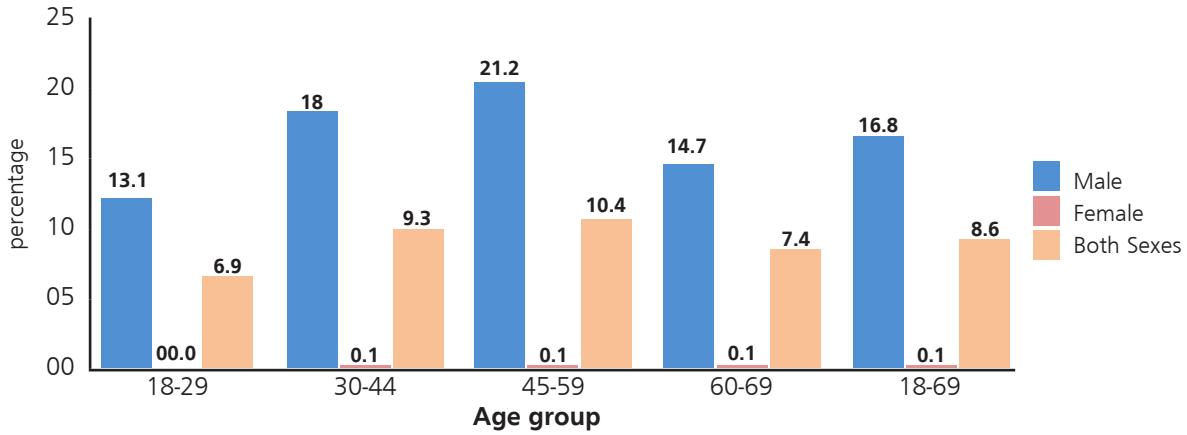

Figure 5.4: Distribution of those who had six or more drinks on a single occasion at least once during past 30 days

It is estimated 16.8% of the males had indulged in heavy episodic or binge drinking (six or more drinks on a single occasion) during last 30 days whereas only 0.1% of the females were estimated to have taken that much of alcohol. Highest prevalence was seen among 45-59 years old males.

6. Diet

6.1. Fruit and vegetable consumption

6.1.1. Mean number of days fruits and vegetables consumed

Figure 6.1: Mean number of days of fruit & vegetable consumption per week

Sri Lanka adults consumed fruits on 3.6 days per week on average (95% CI: 3.5-3.7); 3.5 days for men (95% CI: 3.4-3.6) and 3.8 for women (95% CI: 3.7-3.9). Mean number of days of vegetable consumption in the adults were 6.6 (95% CI: 6.5-6.6); 6.5 for males (95% CI: 6.5-6.6) and 6.6 for females (95% CI: 6.5-6.7).

6.1.2. Mean number of servings of Fruit and vegetable consumed per day

Table 6.1: Mean number of servings of fruit on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Mean No. of servings	95% CI	n	Mean No. of servings	95% CI	n	Mean No. of servings	95% CI
18-29	287	1.4	1.0-1.7	499	1.3	1.1-1.4	786	1.3	1.1-1.5
30-44	657	1.3	1.1-1.4	1128	1.3	1.2-1.4	1785	1.3	1.2-1.4
45-59	665	1.3	1.1-1.4	982	1.3	1.2-1.5	1647	1.3	1.2-1.4
60-69	356	1.4	1.2-1.6	487	1.2	1.1-1.3	843	1.3	1.2-1.5
18-69	**1965**	**1.3**	**1.2-1.5**	**3096**	**1.3**	**1.2-1.4**	**5061**	**1.3**	**1.2-1.4**

Table 6.2: Mean number of servings of vegetables consumed on average per day

Age Group (years)	Men			Women			Both Sexes		
	n	Mean No. of servings	95% CI	n	Mean No. of servings	95% CI	n	Mean No. of servings	95% CI
18-29	292	2.9	2.5-3.3	502	3.4	3.0-3.7	794	3.1	2.8-3.4
30-44	670	3.0	2.8-3.3	1139	3.2	2.9-3.4	1809	3.1	2.9-3.3
45-59	678	3.1	2.8-3.3	992	2.8	2.6-3.1	1670	3.0	2.8-3.2
60-69	358	2.9	2.6-3.2	492	2.8	2.6-3.0	850	2.9	2.7-3.1
18-69	**1998**	**3.0**	**2.8-3.2**	**3125**	**3.1**	**2.9-3.3**	**5123**	**3.0**	**2.8-3.2**

Mean number of servings of fruits consumed by both males and females per day was estimated to be 1.3 servings. Mean number of servings of vegetables consumed by males was 3.0 (95% CI: 2.8-3.2) and for females was 3.1 (95% CI: 2.9-3.3).

6.1.3. Mean number of servings of fruits and or vegetables

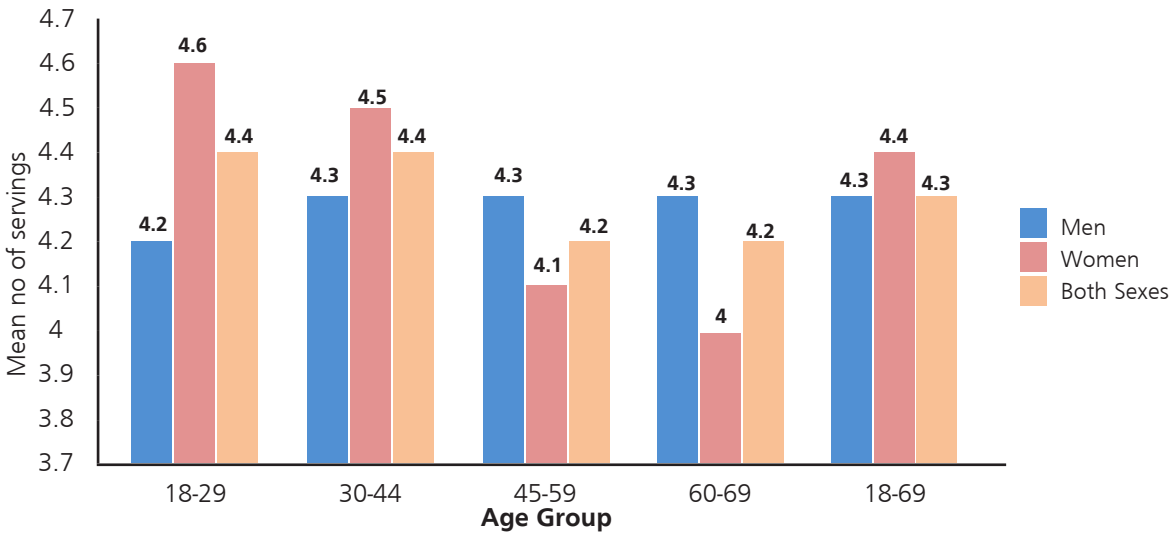

Figure 6.2: Mean number of servings of fruit and/or vegetables consumed on average per day

It is estimated that Sri Lanka males consumed 4.3 (95% CI: 4.0-4.6) servings of fruits and/or vegetables per day on average while females consumed 4.4 (95% CI: 4.1-4.7) servings of fruits and/or vegetables per day. Mean servings of fruits and/or vegetables consumed by both sexes were similar.

6.1.4. Number of servings of fruits and vegetables

According to the findings of the STEPS survey, only 27% of the males and 28% of the females were consuming five or more servings of fruits and/or vegetables per day which is the daily recommended amount by the WHO. Majority of the males (37.3%) were consuming 1-2 servings of fruits and/or vegetables per day and majority of females (35.8%) were consuming 3-4 servings of fruits and/or vegetables per day. Nearly 2% of males as well as females reported consuming neither fruits nor vegetables.

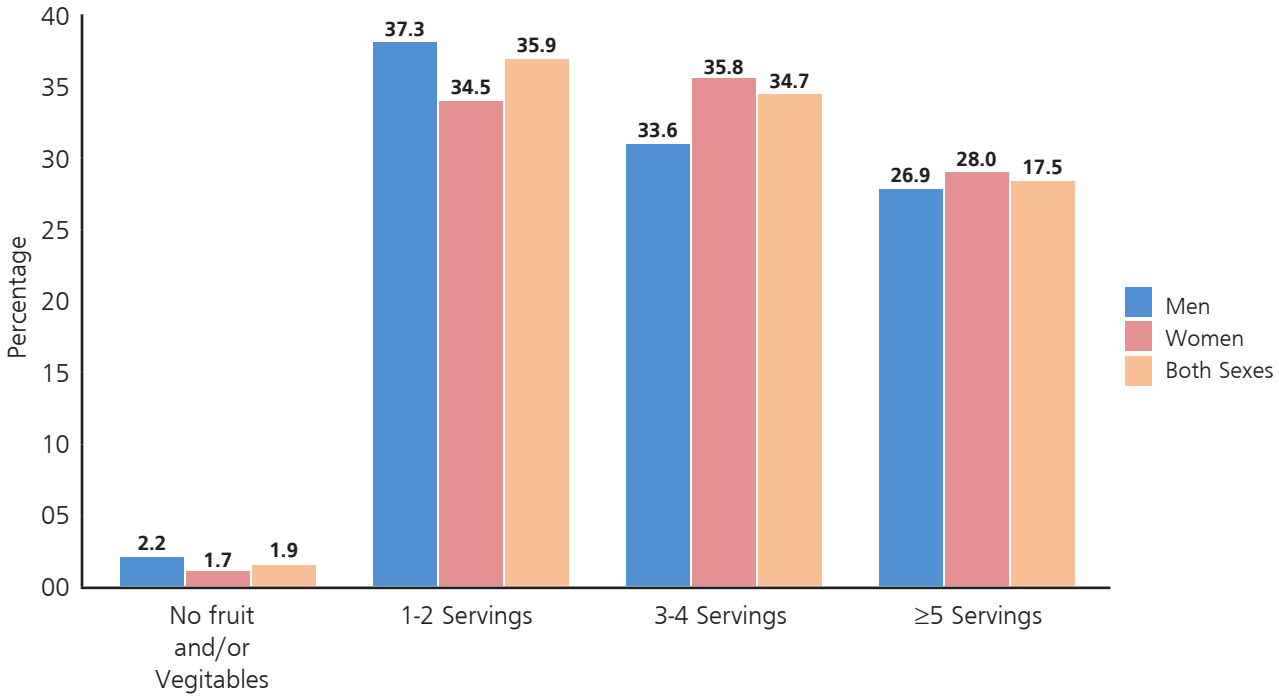

Figure 6.3: Distribution by number of servings of fruit and/or vegetables consumed on average per day

Table 6.3: Distribution by those who consumed less than 5 servings of fruits and/or vegetables per day

Age Group (years)	Men			Women			Both Sexes		
	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
18-29	292	75.2	69.0-81.5	504	70.0	64.5-75.4	796	72.7	68.0-77.5
30-44	671	73.9	69.6-78.3	1141	71.3	67.7-74.9	1812	72.6	69.3-75.9
45-59	681	70.8	66.5-75.2	996	74.3	70.6-78.1	1677	72.6	69.4-75.9
60-69	360	69.2	63.7-74.7	494	73.9	69.4-78.5	854	71.5	67.5-75.6
18-69	**2004**	**73.1**	**69.7-76.5**	**3135**	**72.0**	**68.8-75.1**	**5139**	**72.5**	**69.7-75.4**

6.2. Salt

Various sources of dietary salt were assessed in this survey. More than half of the target households (52.8%) reported adding salt to rice while cooking.

Table 6.4: Distribution by those who add salt always or often when cooking rice at home

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	265	56.2	49.1-63.2	502	52.3	46.8-57.8	767	54.2	49.3-59.1
30-44	651	55.0	50.2-59.8	1142	55.8	52.2-59.5	1793	55.4	52.0-58.8
45-59	665	52.9	48.0-57.7	1002	50.6	46.6-54.5	1667	51.7	48.3-55.0
60-69	351	42.7	36.7-48.7	502	45.9	40.3-51.5	853	44.3	40.0-48.7
18-69	**1932**	**53.5**	**49.8-57.1**	**3148**	**52.2**	**49.2-55.1**	**5080**	**52.8**	**50.0-55.7**

6.2.1. Process food consumption pattern

Table 6.5: Always or often eat processed foods high in salt

Age Group (years)	Men			Women			Both Sexes		
	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
18-29	291	34.1	27.6-40.6	502	25.6	20.8-30.5	793	30.1	25.6-34.5
30-44	671	26.5	22.2-30.8	1143	24.9	21.3-28.6	1814	25.7	22.5-28.9
45-59	679	24.3	20.3-28.3	999	23.7	20.3-27.2	1678	24.0	21.1-26.9
60-69	363	24.3	18.8-29.7	499	24.3	19.4-29.3	862	24.3	20.2-28.4
18-69	**2004**	**28.3**	**25.0-31.7**	**3143**	**24.8**	**21.9-27.6**	**5147**	**26.6**	**23.9-29.3**

Approximately 27% of the adults (28.3% males and 24.8% females) were estimated to always or often eat processed food.

It is estimated that 23% of the adults limited the consumption of processed food as a specific action taken on a regular basis to control salt intake. Only 6% reported that they looked at the salt or sodium content in the food labels, and only 3% stated that they buy low salt or sodium alternative. About 15% of the adults (13.7% males and 16.7% females avoided eating food cooked outside of a home. Nearly 19% of them (15.8% male and 21.2% females) avoided adding salt while cooking rice (Annexure 2.1).

6.2.2. Meals eaten outside a home

Table 6.6: Mean number of meals eaten outside home

Age Group	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
18-29	290	2.7	2.1-3.3	500	1.1	0.8-1.4	788	1.9	1.6-2.3
30-44	672	2.4	2.0-2.7	1140	0.7	0.6-0.9	1813	1.6	1.4-1.8
45-59	674	1.5	1.1-1.7	993	0.6	0.4-0.8	1666	1.0	0.8-1.2
60-69	356	0.9	0.6-1.1	496	0.5	0.3-0.7	851	0.6	0.5-0.8
18-69	**1991**	**2.1**	**1.8-2.4**	**3129**	**0.8**	**0.6-0.9**	**5118**	**1.4**	**1.3-1.6**

On average, males consumed two meals per week which were not prepared at a home.

7. Physical Activity

WHO has recommended following level physical activity to maintain a healthy life. The recommendations are as follows:

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

Participants were assessed on whether they met the WHO recommended level of physical activity during activity at work or travel to and from places or as a recreational activity.

7.1. Physically inactive

Table 7.1: Distribution of those who are physically inactive by sex and age groups

Age Group (years)	Men			Women			Both Sexes		
	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI	n	% not meeting recs	95% CI
18-29	289	21.6	15.7-27.5	503	43.4	38.0-48.9	792	32.1	27.8-36.4
30-44	660	22.4	18.5-26.3	1133	33.3	29.7-36.9	1793	27.8	24.8-30.8
45-59	675	22.1	18.2-25.9	989	34.9	31.1-38.8	1664	28.7	25.7-31.7
60-69	361	26.3	21.0-31.5	496	45.8	40.2-51.4	857	36.0	31.7-40.3
18-69	**1985**	**22.5**	**19.4-25.6**	**3121**	**38.4**	**35.5-41.4**	**5106**	**30.4**	**27.9-32.8**

It is estimated that 22.5% of the males and 38.4% of the females in Sri Lanka did not meet the WHO recommendation of physical activity. Physical inactivity was more among females than males with higher prevalence among the age groups 60- 69 years and 18- 29 years.

7.2. Level of physical activity

Table 7.2: Distribution of level of total physical activity of males according to WHO recommendations

Men							
Age Group(years)	**n**	**% Low**	**95% CI**	**% Moderate**	**95% CI**	**% High**	**95% CI**
18-29	289	25.5	19.5-31.5	23.0	17.6-28.4	51.5	45.2-57.9
30-44	660	29.2	25.1-33.4	17.8	14.6-21.0	53.0	48.4-57.6
45-59	675	28.9	24.9-32.9	12.9	10.3-15.6	58.2	53.7-62.6
60-69	361	31.7	26.3-37.1	16.4	12.2-20.6	51.9	45.9-57.8
18-69	**1985**	**28.1**	**25.0-31.2**	**18.2**	**16.0-20.5**	**53.7**	**50.5-56.9**

Table 7.3: Distribution of level of total physical activity of females according to WHO recommendations

Women							
Age Group(years)	**n**	**% Low**	**95% CI**	**% Moderate**	**95% CI**	**% High**	**95% CI**
18-29	503	49.2	43.8-54.5	25.7	21.5-29.9	25.0	20.8-29.3
30-44	1133	38.7	35.0-42.4	23.8	20.8-26.8	37.5	33.5-41.5
45-59	989	40.8	36.9-44.7	22.8	19.8-25.9	36.4	32.4-40.3
60-69	496	52.0	46.4-57.6	18.7	14.6-22.8	29.3	24.4-34.1
18-69	**3121**	**44.2**	**41.2-47.1**	**23.6**	**21.6-25.7**	**32.2**	**29.3-35.1**

Table 7.4: Distribution of level of total physical activity of both sexes according to WHO recommendations

Both sexes							
Age Group (years)	**n**	**% Low**	**95% CI**	**% Moderate**	**95% CI**	**% High**	**95% CI**
18-29	792	36.9	32.7-41.0	24.3	20.8-27.8	38.8	34.7-42.9
30-44	1793	33.9	30.8-37.0	20.7	18.5-23.0	45.3	42.0-48.7
45-59	1664	35.0	32.0-38.0	18.0	15.9-20.1	47.0	43.7-50.2
60-69	857	41.8	37.4-46.1	17.6	14.5-20.7	40.6	36.5-44.8
18-69	**5106**	**36.0**	**33.6-38.5**	**20.9**	**19.3-22.5**	**43.1**	**40.6-45.5**

More than half of the males (53.7%) were engaged in high intensity physical activity. However, only 32.2% of the females were engaging in high intensity physical activity. Majority of females (44.2%) were engaged in low intensity physical activity and 28.1% of the males were also engaged in low level of physical activity.

7.3. Time spent on physical activity

Table 7.5: Mean minutes of total physical activity 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	289	187.7	159.8-215.6	503	74.2	63.4-85.0	792	133.2	116.7-149.7
30-44	660	208.1	188.2-228.0	1133	122.2	109.2-135.2	1793	165.7	152.5-178.9
45-59	675	225.2	204.7-245.8	989	126.3	113.2-139.4	1664	174.5	160.8-188.1
60-69	361	180.5	156.2-204.8	496	92.6	79.3-105.9	857	136.9	121.5-152.3
18-69	**1985**	**202.4**	**187.0-217.7**	**3121**	**104.3**	**95.6-113.0**	**5106**	**153.9**	**143.4-164.3**

It is estimated that mean time engaged in physical activity per day for adults was 153.9 minutes (95% CI: 143.4-164.3). Mean time spent on physical activity among females was lowest in the age group 18-29 years.

Table 7.6: Median minutes of total physical activity per day

Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Inter-quartile range	n	Median minutes	Inter-quartile range	n	Median minutes	Inter-quartile range
18-29	289	107.1	21.4-291.4	502	25.7	1.4-110.0	791	60.0	8.6-188.6
30-44	660	128.6	25.7-360.0	1134	60.0	8.6-180.0	1794	85.7	14.3-277.1
45-59	675	171.4	30.0-383.6	989	60.0	8.6-180.0	1664	100.0	14.3-282.9
60-69	361	120.0	17.1-291.4	496	32.1	0.0-137.1	857	68.6	4.3-214.3
18-69	**1985**	**124.3**	**25.7-336.4**	**3121**	**42.8**	**4.3-150.0**	**5106**	**77.1**	**12.8-240.0**

Median number of minutes engaged in physical activity on average per day for the adults was 77.1 (95% CI: 12.8-240.0). The median number of minutes for males was more than the females (124.2 for males and 42.8 for females).

Mean number minutes of work related physical activity for the adults was estimated to be 117.7 with a higher mean for males (153.7) than females (80.8) (Annexure 3.1). Mean number of minutes of transport related physical activity on average per is 28.6 with males having higher figure (36.1) than females (21.0) (Annexure 3.1). Mean number of minutes on recreational related physical activity was 7.6 with females showing low figure (12.6 for males and 2.4 for females) (Annexure 3.1).

7.4. Physical activity at work and during transport

Figures 7.1 and 7.2 show the estimated prevalence of physical inactivity in the adults, while at work or during transport. Nearly 34% of males and 45% of the females were estimated to be not getting recommended physical activity during work. In 43% of the males and 46% of the females, transport mechanism didn't include any physical activity.

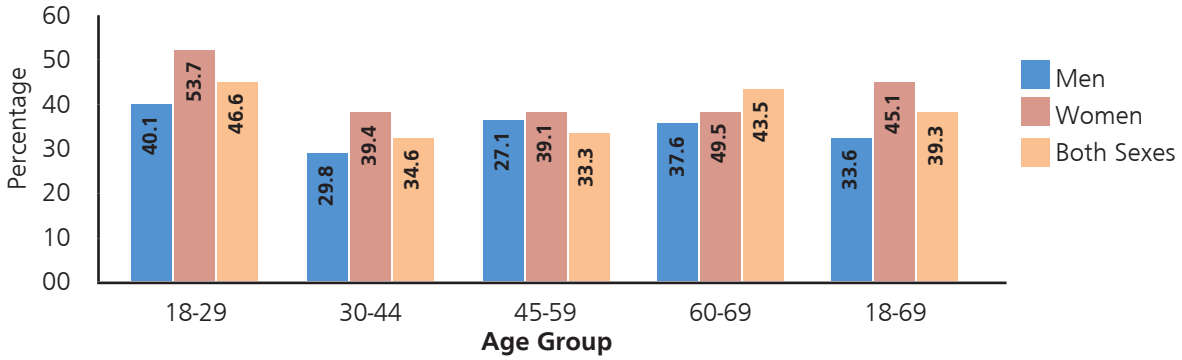

Figure 7.1: Distribution by work related physical inactivity

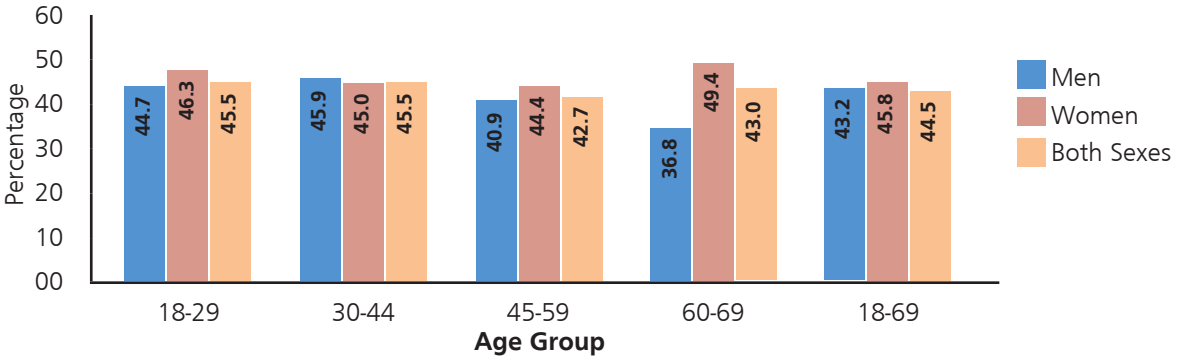

Figure 7.2: Distribution by transport related physical inactivity

7.5. Recreation related physical activity

Percentage of the adults who are estimated to be not engaged in recreation related physical activities are shown in Figure 7.3.

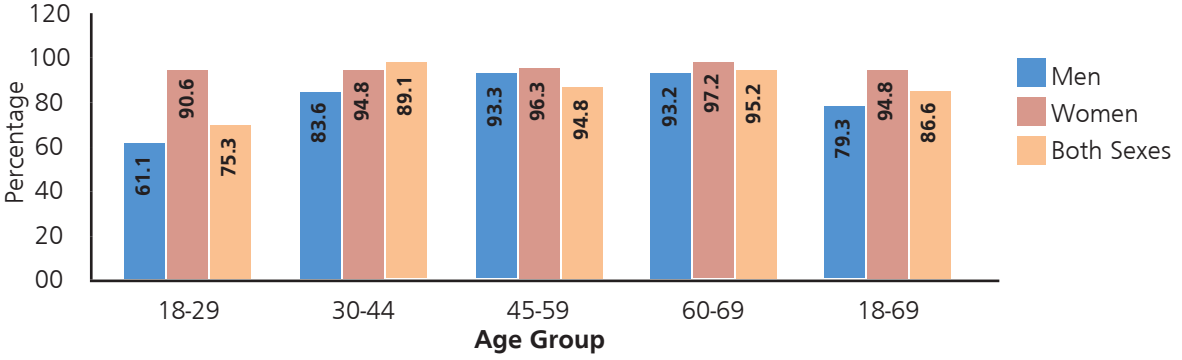

Figure 7.3: Distribution by recreation related physical activity

Most of the adults (86.6%) were estimated to be not engaged in recreation related physical activities, including 94.1% females and 79.3% males.

Major contribution (61.5%) for the physical activity was from activities carried out at work (63.7% for males and 59.2% for females), while travelling accounted for 30.6% of the total physical activity in the adults (25.1% for males and 36.8% for females) (Annexure 3.2).

Table 7.5: Distribution of those not meeting WHO recommendations on vigorous physical activity for health

Age Group (years)	Men			Women			Both Sexes		
	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI
18-29	289	56.2	15.7-27.5	503	91.3	88.4-94.1	792	73.0	69.0-77.0
30-44	660	57.5	18.5-26.3	1133	86.1	83.4-88.7	1793	71.6	68.7-74.5
45-59	675	56.7	18.2-25.9	989	88.3	85.7-90.8	1664	72.9	70.2-75.6
60-69	361	71.5	21.0-31.5	496	93.4	91.2-95.7	857	82.4	79.3-85.5
18-69	**1985**	**58.3**	**19.4-25.6**	**3121**	**89.2**	**87.5-90.8**	**5106**	**73.6**	**71.6-75.6**

Of the adults, 73.6% were estimated to be not engaged in the vigorous physical activity. Majority of females (89.2%) and males (58.3%) fell in to this category.

Mean number of minutes spent in sedentary activities for males was 217.9 and median number of minutes engaged in sedentary activities for males was 180.0. Mean number of minutes spent in sedentary activities for females was 214.1 and median number of minutes engaged in sedentary activities for females was 180.0 (Annexure 3.3).

8. History of Raised Blood Pressure

Practices related to checking blood pressure and history of blood pressure was assessed in this survey. One third of the adults (30.7%) had never had their blood pressure checked. Of all adults, 8.1% (6.0% for males and 10.3% for females) were estimated to be detected with high blood pressure during last year. Higher prevalence was seen among the older age groups with the highest prevalence among the age group of 60 – 69 years (Annexure 4.1).

Table 8.1: Distribution of those currently taking medication for raised blood pressure

Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	3	70.3	19.9-100.0	16	0.0	0.0-0.0	19	13.1	0.0-36.7
30-44	43	37.0	22.5-51.5	123	29.4	20.6-38.3	166	32.1	24.5-39.6
45-59	105	63.1	53.1-73.2	248	60.4	53.6-67.1	353	61.4	56.1-66.8
60-69	91	75.4	65.3-85.6	213	79.2	72.9-85.6	304	77.8	72.2-83.5
18-69	**242**	**62.3**	**55.2-69.3**	**600**	**55.1**	**50.3-59.9**	**842**	**57.7**	**53.8-61.6**

As seen in table 8.1, it is estimated that only 57.7% of the adults with raised blood pressure were on medication (62.3% for males and 55.1% for females). More Individuals in the older age groups in both sexes were on medication than those in the younger age groups.

Of all adults, 5.7% adults (7.4% of the males and 4.7% of the females) were estimated to be seeing traditional healers for the treatment of high blood pressure, while 4.0% of the adults were taking traditional medicine. Higher proportion of males (6.6%) were on traditional medicine than of females (2.5%) (Annexure 4.2).

9. History of Diabetes

Practices related to detection of Diabetes and history of high blood sugar was assessed in the participants.

Table 9.1: Distribution of the males by self-reported high blood sugar levels

Men									
Age Group (years)	n	% Never mea-sured	95% CI	% measured, found not high	95% CI	% found high, but not within past 12 months	95% CI	% found high within past 12 months	95% CI
18-29	293	71.6	65.5-77.6	26.6	20.5-32.6	1.1	0.0-2.3	0.8	0.0-1.9
30-44	674	61.5	57.2-65.7	31.5	27.5-35.4	1.5	0.4-2.5	5.6	3.6-7.6
45-59	686	47.1	42.5-51.6	36.9	32.7-41.2	2.2	1.1-3.2	13.9	11.1-16.6
60-69	364	34.2	28.4-39.9	48.6	42.8-54.4	5.1	2.6-7.6	12.2	8.4-15.9
18-69	**2017**	**58.4**	**55.2-61.6**	**33.0**	**29.9-36.0**	**1.9**	**1.3-2.5**	**6.7**	**5.6-7.9**

Table 9.2: Distribution of the females by self-reported high blood sugar levels

Age Group (years)	Women								
	n	% Never measured	95% CI	% measured, found not high	95% CI	% found high, but not within past 12 months	95% CI	% found high within past 12 month	95% CI
18-29	504	61.6	56.3-66.9	37.1	31.9-42.2	1.1	0.2-2.0	0.2	0.0-0.6
30-44	1142	36.3	32.5-40.0	56.6	52.8-60.4	2.1	1.1-3.1	5.1	3.6-6.5
45-59	1000	34.0	30.3-37.6	50.3	46.4-54.2	1.7	0.8-2.7	14.0	11.7-16.3
60-69	502	28.9	24.0-33.9	45.5	40.1-50.9	3.1	1.4-4.8	22.4	18.3-26.6
18-69	**3148**	**43.1**	**40.2-46.1**	**47.3**	**44.5-50.1**	**1.8**	**1.2-2.3**	**7.8**	**6.8-8.8**

Nearly 7% of the adults (6.7% for males and 7.8% for females) who have had their blood sugar levels checked during last 12 months had found it to be raised.

Table 9.3: Distribution of the both sexes by self-reported high blood sugar levels

Both Sexes									
Age Group (years)	n	% Never measured	95% CI	% measured, found not high	95% CI	% found high, but not in past 12 months	95% CI	% found high in past 12 months	95% CI
18-29	797	66.8	62.5-71.1	31.6	27.3-35.9	1.1	0.3-1.8	0.5	0.0-1.1
30-44	1816	49.1	46.0-52.3	43.8	40.8-46.7	1.8	1.0-2.5	5.3	4.1-6.6
45-59	1686	40.4	37.2-43.5	43.8	40.7-46.9	1.9	1.2-2.7	14.0	12.1-15.8
60-69	866	31.6	27.5-35.6	47.1	42.9-51.2	4.1	2.6-5.6	17.3	14.5-20.1
18-69	**5165**	**50.9**	**48.4-53.4**	**40.0**	**37.7-42.3**	**1.8**	**1.4-2.3**	**7.3**	**6.5-8.0**

Out of the adults with self-reported high blood sugar, 69.5% (65.7% for males and 73.1% for females) were estimated to be taking medicine for raised blood sugar (Table 9.4). More individuals in older age groups were on treatment than the younger age groups among both sexes.

Table 9.4: Distribution of those currently taking drugs (medication) prescribed for diabetes among those previously diagnosed

Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	5	24.2	0.0-64.6	7	16.2	0.0-45.2	12	21.1	0.0-48.9
30-44	45	63.5	49.2-77.8	77	52.4	39.6-65.2	122	58.0	48.3-67.7
45-59	104	69.0	58.6-79.4	161	78.0	70.6-85.5	265	73.6	67.2-79.9
60-69	62	75.7	64.2-87.3	129	89.5	83.3-95.6	191	83.9	77.5-90.3
18-69	**216**	**65.7**	**58.0-73.5**	**374**	**73.1**	**67.9-78.2**	**590**	**69.5**	**65.0-74.1**

Among those previously diagnosed as having high blood sugar, 12.3% were on insulin (13.5% for males and 11.3 % for females).

Table 9.5: Distribution of those currently on insulin 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	5	24.2	0.0-64.6	7	16.2	0.0-45.2	12	21.1	0.0-48.9
30-44	45	1.7	0.0-5.1	77	9.6	2.6-16.7	122	5.6	1.7-9.5
45-59	104	15.7	8.4-22.9	161	8.8	3.8-13.7	265	12.2	7.6-16.7
60-69	62	18.0	7.4-28.6	129	15.6	8.0-23.2	191	16.6	10.0-23.1
18-69	**216**	**13.5**	**8.2-18.7**	**374**	**11.3**	**7.5-15.0**	**590**	**12.3**	**8.9-15.7**

Among the previously diagnosed as having high blood sugar, 9.5% were estimated as seeing traditional healers for treatment (11.1% for males and 8.1% for females) (Annexure 5.1).

10. Total Blood Cholesterol

Self-reported prevalence of high blood cholesterol is described in this section. It is estimated that 71.1% of the adults had never checked their blood cholesterol levels. Out of the adults who have had their blood cholesterol checked, 70.1% (72.7% for males and 67.6% for females) were estimated to be having normal cholesterol levels.

As seen below, 7.2% of males and 10.2% females were estimated to be diagnosed as having high total cholesterol levels (see also Annexure 6.1).

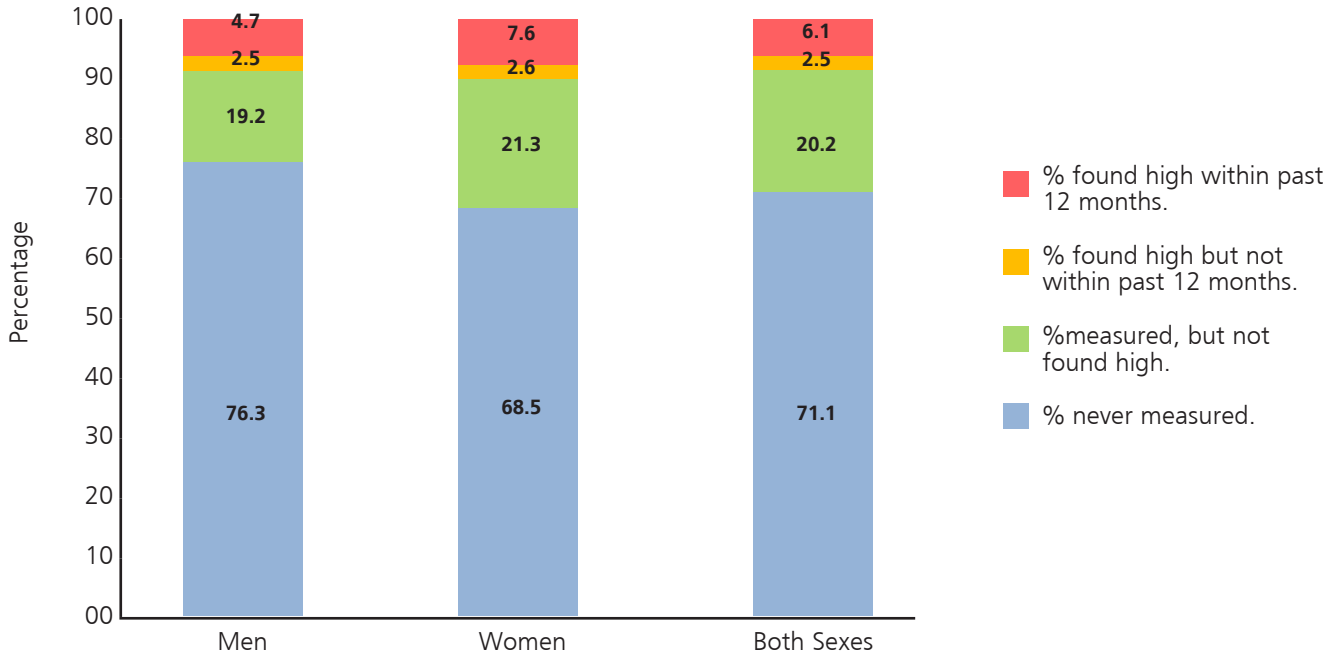

Figure 10.1: Distribution by history of total blood cholesterol measurements

Table 10.1: Distribution of population with high total cholesterol by the status of medication

Age Group	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	4	12.3	0.0-36.9	4	0.0	0.0-0.0	8	5.6	0.0-16.6
30-44	50	40.5	26.4-54.6	77	40.3	28.6-52.1	127	40.4	30.8-50.0
45-59	81	50.9	38.6-63.2	194	64.5	57.4-71.6	275	59.4	52.9-65.9
60-69	56	73.0	60.1-85.8	125	77.9	69.8-86.0	181	75.9	68.6-83.2
18-69	**191**	**51.5**	**43.5-59.6**	**400**	**60.7**	**54.9-66.5**	**591**	**56.8**	**51.9-61.8**

As seen in Table 10.1, nearly 57% diagnosed as having high total cholesterol levels were on medication for their condition. Proportion of females who were on treatment (60.7%) was more than the males (51.5%). In both sexes, more people in older age groups were taking treatment than the people in the younger age groups.

Similar proportions of males and females were estimated to be seeing traditional healer for the treatment of high cholesterol levels (9.0% males and 8.7% females) (Annexure 6.2).

11. History of Cardiovascular Diseases

Nearly equal proportion of males and females (4.5% of males and 4.2% of females) had a history of a heart attack or chest pain from heart disease.

Table 11.1: Distribution of those who ever had a heart attack or chest pain

Age Group	Men			Women			Both Sexes		
	n	% CVD history	95% CI	n	% CVD history	95% CI	n	% CVD history	95% CI
18-29	293	1.5	0.0-2.9	504	1.5	0.5-2.5	797	1.5	0.6-2.4
30-44	675	2.8	1.4-4.2	1142	3.1	2.0-4.2	1817	2.9	2.0-3.9
45-59	686	6.6	4.3-8.8	1000	6.2	4.4-8.1	1686	6.4	4.9-7.9
60-69	364	14.6	10.5-18.7	502	9.8	7.0-12.6	866	12.2	9.8-14.6
18-69	**2018**	**4.5**	**3.5-5.6**	**3148**	**4.2**	**3.4-5.0**	**5166**	**4.4**	**3.7-5.1**

Higher prevalence of cardiovascular diseases was observed with progression of age in the target population as expected, and the highest prevalence was observed in the age group of 60-69 years, with predominance in males (14.6%) over females (9.8%).

Table 11.2: Distribution of population taking aspirin regularly to prevent or treat heart disease

Age Group	Men			Women			Both Sexes		
	n	% taking aspirin	95% CI	n	% taking aspirin	95% CI	n	% taking aspirin	95% CI
18-29	293	0.3	0.0-0.7	504	0.3	0.0-0.8	797	0.3	0.0-0.7
30-44	675	1.0	0.3-1.8	1142	0.6	0.2-1.0	1817	0.8	0.4-1.2
45-59	686	4.5	2.5-6.4	1000	4.9	3.5-6.3	1686	4.7	3.5-5.9
60-69	364	11.9	8.2-15.7	502	10.5	7.4-13.5	866	11.2	8.7-13.7
18-69	**2018**	**2.8**	**2.1-3.5**	**3147**	**2.8**	**2.2-3.3**	**5166**	**2.8**	**2.3-3.2**

Table 11.3: Distribution of population taking statins regularly to prevent or treat heart disease

Age Group	Men			Women			Both Sexes		
	n	% taking statins	95% CI	n	% taking statins	95% CI	n	% taking statins	95% CI
18-29	293	0.3	0.0-0.7	504	0.2	0.0-0.6	797	0.3	0.0-0.6
30-44	675	2.3	1.2-3.4	1142	2.5	1.5-3.6	1817	2.4	1.7-3.2
45-59	686	7.4	4.9-9.8	1000	10.0	7.8-12.3	1686	8.7	7.0-10.4
60-69	364	18.3	13.9-22.8	502	19.6	15.6-23.7	866	19.0	15.9-22.0
18-69	**2018**	**4.6**	**3.7-5.5**	**3148**	**5.7**	**4.7-6.6**	**5166**	**5.1**	**4.4-5.8**

Only 2.8% of the target population was on aspirin regularly to prevent or treat cardiovascular disease and this was similar for both sexes.

12. Life Style Advice

Tables 12.1 to 12.4, present the estimated proportions of target population receiving life style advice from a doctor or health worker on major NCD risk factors.

It is estimated that of the total population; 18.7% were advised by a doctor or a health care worker to quit using tobacco or not to initiate. More than one fifths of the total population were advised to reduce salt in the diet. Nearly one third of the population were advised to eat at least 5 servings of fruits and or vegetables daily. More than one third of the target population (36.3%) were advised to reduce fat in their diet.

Table 12.1: Distribution of population advised to quit using tobacco or don't start

Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	293	21.5	16.0-27.0	504	8.2	5.0-11.4	797	15.1	11.4-18.9
30-44	675	26.5	22.3-30.7	1142	10.0	7.3-12.7	1817	18.4	15.6-21.2
45-59	686	33.8	29.3-38.4	1000	10.5	7.7-13.3	1686	21.9	19.0-24.8
60-69	364	36.2	30.4-41.9	502	9.2	5.8-12.6	866	22.8	19.0-26.5
18-69	**2018**	**27.7**	**24.6-30.8**	**3148**	**9.5**	**7.2-11.7**	**5166**	**18.7**	**16.4-21.0**

Table 12.2: Distribution of population advised to reduce salt in the diet

Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	293	10.0	6.0-13.9	504	19.3	15.2-23.4	797	14.4	11.3-17.5
30-44	675	18.0	14.5-21.5	1142	25.6	22.2-29.0	1817	21.7	19.1-24.3
45-59	686	27.6	23.5-31.7	1000	33.6	29.9-37.4	1686	30.7	27.6-33.7
60-69	364	27.9	22.6-33.2	502	34.8	29.6-40.0	866	31.3	27.5-35.2
18-69	**2018**	**18.7**	**16.2-21.2**	**3148**	**26.7**	**24.2-29.2**	**5166**	**22.6**	**20.5-24.8**

Table 12.3: Distribution of population advised to eat at least five servings of fruit and/or vegetables each day

Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	293	23.0	16.9-29.1	504	36.7	31.4-42.0	797	29.5	25.3-33.8
30-44	675	23.3	19.4-27.1	1142	38.3	34.5-42.0	1817	30.6	27.7-33.6
45-59	686	31.9	27.7-36.0	1000	37.2	33.3-41.0	1686	34.6	31.5-37.7
60-69	364	31.4	25.8-37.0	502	34.2	29.2-39.2	866	32.8	28.9-36.8
18-69	**2018**	**26.2**	**23.0-29.4**	**3148**	**37.0**	**34.1-39.9**	**5166**	**31.5**	**29.0-34.0**

Table 12.4: Distribution of population advised to reduce fat in the diet

Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	293	24.3	18.5-30.1	504	30.8	25.7-36.0	797	27.4	23.2-31.6
30-44	675	32.4	28.2-36.6	1142	42.3	38.5-46.2	1817	37.2	34.0-40.4
45-59	686	39.2	34.8-43.6	1000	49.2	45.3-53.0	1686	44.3	41.1-47.5
60-69	364	42.4	36.7-48.0	502	42.3	36.9-47.7	866	42.3	38.1-46.5
18-69	**2018**	**32.4**	**29.1-35.6**	**3148**	**40.4**	**37.5-43.3**	**5166**	**36.3**	**33.7-38.9**

Table 12.5: Distribution of population advised to start or do more physical activity

Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	293	23.3	17.5-29.2	504	25.1	20.2-30.0	797	24.2	20.0-28.4
30-44	675	25.0	20.9-29.1	1142	32.0	28.2-35.7	1817	28.4	25.3-31.5
45-59	686	29.2	25.1-33.2	1000	32.8	29.0-36.5	1686	31.0	28.0-34.0
60-69	364	31.7	25.9-37.6	502	31.0	26.0-36.0	866	31.4	27.1-35.7
18-69	**2018**	**26.2**	**23.1-29.3**	**3148**	**29.8**	**27.0-32.6**	**5166**	**28.0**	**25.4-30.5**

Table 12.6: Distribution of population advised to maintain a healthy body weight or to lose weight

Age Group (years)	Men			Women			Both Sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	293	18.8	13.0-24.6	504	26.5	21.5-31.5	797	22.5	18.2-26.7
30-44	675	23.0	19.1-26.9	1142	36.1	32.2-39.9	1817	29.4	26.3-32.5
45-59	686	24.5	20.4-28.6	1000	34.7	30.7-38.6	1686	29.7	26.5-32.9
60-69	364	25.5	20.1-31.0	502	28.1	23.3-33.0	866	26.8	22.8-30.9
18-69	**2018**	**22.2**	**19.1-25.3**	**3148**	**31.7**	**28.9-34.5**	**5166**	**26.9**	**24.3-29.4**

More than one fourth (28%) of the target population were advised to start or do more physical activity (26.2% of males and 29.8% females). One third (30%) of the target population were advised to maintain a healthy body weight or to lose weight. More females (31.7%) received the advice than the males (22.2%).

13. Cervical Cancer Screening

All the female participants were asked whether they had ever undergone cervical screening. Coverage of cervical screening in the in the females was only 15.2%. Further the coverage was only 14.9% and 22.0% for the age groups of 60-69 years and 45- 59 years, respectively.

Table 13.1: Distribution of females who have ever had a cervical cancer screening test

Women			
Age Group (years)	**n**	**% ever tested**	**95% CI**
18-29	467	1.8	0.3-3.4
30-44	1069	24.1	21.1-27.1
45-59	907	22.0	18.7-25.2
60-69	430	14.9	10.7-19.0
18-69	**2873**	**15.2**	**13.5-16.9**

Table 13.2: Distribution of females in the age group of 30-49 who have ever had a cervical cancer screening test

Women			
Age Group (years)	**n**	**% ever tested**	**95% CI**
30-49	**1408**	**24.5**	**21.8-27.3**

Coverage of cervical screening in the high risk age group of 30-49 years was only 24.5%.

14. Physical Measurements

14.1. Blood pressure measurements

Table 14.1: Mean systolic blood pressure in mmHg

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	262	122.1	120.6-123.6	470	113.2	111.7-114.6	732	117.8	116.7-118.9
30-44	617	124.8	123.5-126.0	1065	119.8	118.8-120.9	1682	122.4	121.5-123.2
45-59	640	131.3	129.6-133.0	948	131.3	129.7-132.8	1588	131.3	130.1-132.4
60-69	338	137.0	134.3-139.7	470	144.0	141.4-146.5	808	140.4	138.5-142.3
18-69	**1857**	**126.8**	**125.9-127.7**	**2953**	**123.4**	**122.4-124.4**	**4810**	**125.1**	**124.4-125.8**

Table 14.2: Mean diastolic blood pressure in mmHg

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	262	77.3	76.1-78.5	470	75.1	73.9-76.3	732	76.3	75.4-77.1
30-44	617	80.5	79.5-81.4	1065	79.9	79.1-80.7	1682	80.2	79.6-80.8
45-59	640	83.7	82.7-84.7	948	84.8	83.9-85.7	1588	84.3	83.6-85.0
60-69	338	83.3	81.7-84.9	470	87.0	85.7-88.2	808	85.1	84.1-86.1
18-69	**1857**	**80.5**	**79.8-81.1**	**2953**	**80.4**	**79.8-81.1**	**4810**	**80.5**	**80.0-81.0**

Mean systolic blood pressure of the target population was estimated to be 125.1 mmHg (95% CI: 124.4-125.8) with a mean of 126.8mmHg (95% CI: 125.9-127.7) in males, and 123.4mmHg (95% CI: 122.4-124.4) in females. Mean diastolic pressure was estimated to be 80.5 (95% CI: 80.0-81.0) mmHg for adults, and there was no significant difference between males and females (in males 80.5 mmHg (95% CI: 79.8-81.1) and in females 80.4 mmHg (95% CI: 79.8-81.1).

Table 14.3: Prevalence of raised blood pressure 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	262	10.0	6.1-13.9	468	8.4	5.6-11.3	730	9.2	6.7-11.8
30-44	598	20.8	17.2-24.3	1034	14.4	12.1-16.7	1632	17.7	15.5-19.9
45-59	592	34.7	30.3-39.1	828	32.8	29.2-36.4	1420	33.8	30.8-36.7
60-69	279	37.6	30.9-44.3	333	51.9	45.7-58.1	612	44.0	39.4-48.6
18-69	**1731**	**21.9**	**19.5-24.2**	**2663**	**20.2**	**18.3-22.0**	**4394**	**21.0**	**19.5-22.6**

Blood pressures of participants who were on medication for raised blood pressure and were not on medication was analysed separately. Raised blood pressure was defined as systolic blood pressure (SBP) ≥ 140 mmHg and/ or diastolic blood pressure (DBP) ≥ 90 mmHg.

As seen in table 14.1, nearly one fifths of the adults (21%) had raised blood pressure (21.9% among males and 20.2% among females).

Table 14.4: Prevalence of raised blood pressure including 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	262	10.0	6.1-13.9	470	8.8	5.9-11.6	732	9.4	6.9-11.9
30-44	617	22.8	19.2-26.4	1067	17.3	14.8-19.8	1684	20.1	17.8-22.4
45-59	643	40.1	35.7-44.4	954	42.0	38.4-45.6	1597	41.1	38.2-43.9
60-69	338	47.8	41.5-54.0	473	66.4	61.6-71.1	811	57.0	53.0-61.0
18-69	**1860**	**25.4**	**23.0-27.9**	**2964**	**26.7**	**24.7-28.6**	**4824**	**26.1**	**24.4-27.7**

Prevalence of blood pressure in the adults including currently those on medication was 26.1% (25.4 for males and 26.7 for females).

14.2. Mean heart rate

Estimated mean heart rate in the adults was 75.7 beats per minute (for males 72.9 and for females 78.6) (Annexure 7.1).

14.3. Body Mass Index (BMI)

Mean height for males was 165.4 cm and for females was 152.9 cm (Annexure 7.2). Mean weight for males was 61.4 kg and mean weight for females was 54.6 kg (Annexure 7.3).

Mean BMI for men was 22.4 and for females 23.5 (Annexure 7.4).

Table 14.3 and 14.4 shows the distribution of males and females by the BMI value. Table 14.5 shows the distribution of the adults by the BMI value. Only half of the adults (55.4%) had a normal BMI value (between 18.5 -24.9). 58.9% males and 51.6% of females had a normal BMI value (between 18.5 -24.9).

Table 14.5: Distribution of males by BMI classification

Men									
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	257	20.5	15.1-25.8	61.5	55.0-68.0	16.2	11.4-20.9	1.9	0.0-3.8
30-44	625	13.7	10.5-16.8	55.6	51.0-60.2	25.9	22.0-29.8	4.8	3.0-6.7
45-59	640	13.4	10.3-16.4	59.7	55.5-63.8	23.0	19.2-26.7	4.0	2.4-5.6
60-69	337	19.4	14.9-23.9	58.1	52.4-63.9	18.3	13.3-23.4	4.1	2.0-6.3
18-69	**1859**	**16.5**	**14.1-18.9**	**58.9**	**56.0-61.8**	**21.0**	**18.7-23.3**	**3.5**	**2.5-4.5**

Table 14.6: Distribution of females by BMI classification

Men									
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	438	23.3	18.7-27.9	57.0	51.7-62.4	15.5	12.0-18.9	4.2	2.3-6.2
30-44	1034	9.6	7.7-11.6	51.3	48.1-54.5	29.0	26.1-31.9	10.1	8.0-12.2
45-59	938	8.6	6.7-10.5	46.9	43.1-50.6	33.3	30.0-36.6	11.2	8.9-13.5
60-69	462	13.2	9.9-16.5	49.0	44.1-54.0	29.2	24.4-34.0	8.6	5.7-11.4
18-69	**2872**	**14.1**	**12.3-15.9**	**51.6**	**49.2-53.9**	**26.0**	**24.1-27.8**	**8.4**	**7.2-9.6**

Table 14.7: Distribution of both sexes by BMI classification

Men									
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	695	21.8	18.1-25.5	59.4	55.2-63.6	15.8	12.7-18.9	3.0	1.6-4.3
30-44	1659	11.7	9.8-13.7	53.5	50.7-56.4	27.4	24.9-29.8	7.3	6.0-8.7
45-59	1578	10.9	9.2-12.7	53.1	50.3-56.0	28.2	25.6-30.9	7.7	6.2-9.1
60-69	799	16.4	13.4-19.4	53.7	49.8-57.5	23.7	20.1-27.2	6.3	4.5-8.1
18-69	**4731**	**15.3**	**13.7-16.9**	**55.4**	**53.5-57.3**	**23.4**	**21.9-24.9**	**5.9**	**5.1-6.7**

Of all adults, 5.9% were obese (3.5% males and 8.4% females), while 15.3% (16.5% males and 14.1% females) were underweight. There were more females who were obese in the age category 45-59 years. Underweight was more prevalent in the age group of 18-29 years in both sexes.

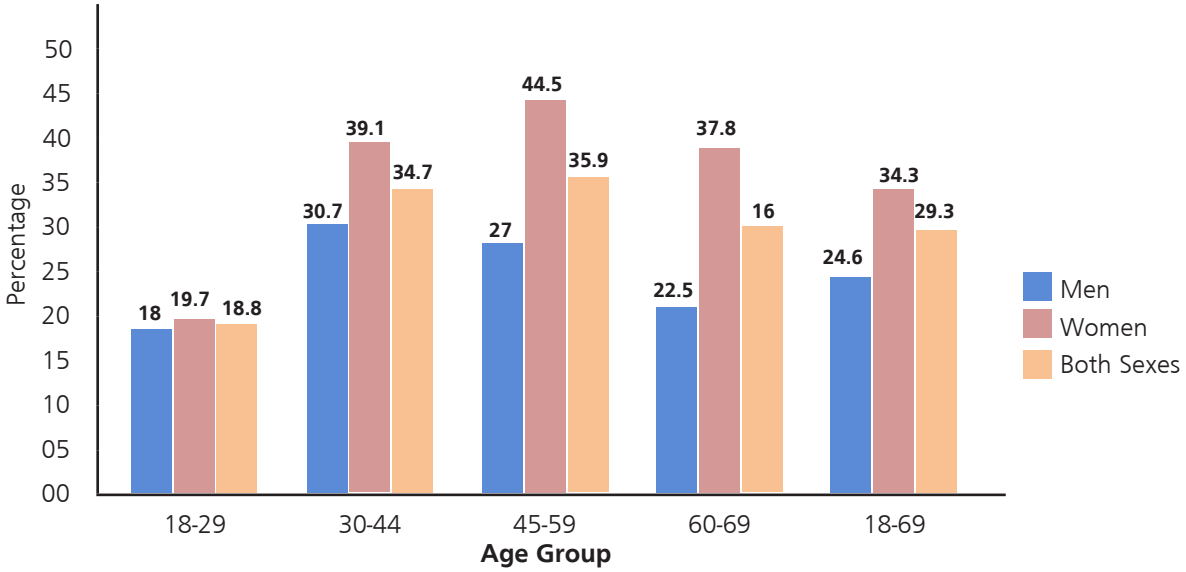

Figure 14.1: Distribution by overweight or obesity

Nearly 29% of the adults was estimated to be overweight or obese (95% CI: 27.5-31.1) with 24.6% men and 34.3% females.

14.4. Waist circumference (cm)

Mean waist circumference for the males was 82.3 cm and for females was 82.1 cm.

Table 14.8: Mean waist circumference in men

Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	262	79.7	78.1-81.4	446	76.6	75.4-77.7
30-44	621	83.4	82.3-84.6	1041	84.0	83.0-85.0
45-59	641	84.1	82.9-85.2	939	85.7	84.7-86.7
60-69	340	83.7	81.8-85.6	465	84.2	82.6-85.8
18-69	**1864**	**82.3**	**81.5-83.2**	**2891**	**82.1**	**81.3-82.9**

15. Biochemical Measurements

15.1. Blood sugar measurements

Impaired fasting glycaemia was defined as plasma venous value between 110mg/dl and 126mg/dl and raised blood glucose was defined as plasma venous value more than 126mg/dl.

Mean fasting blood sugar for males was 81.9 mg/dl and for females 81.4 mg/dl.

Table 15.1: 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	230	73.5	69.8-77.2	416	71.8	68.5-75.0	646	72.7	69.9-75.5
30-44	562	81.7	78.4-84.9	983	77.8	75.4-80.2	1545	79.8	77.5-82.1
45-59	584	91.3	86.8-95.8	877	91.1	87.0-95.1	1461	91.2	88.0-94.4
60-69	309	87.8	82.8-92.7	431	95.8	91.2-100.3	740	91.7	88.2-95.3
18-69	**1685**	**81.9**	**79.6-84.2**	**2707**	**81.4**	**79.3-83.5**	**4392**	**81.6**	**79.8-83.5**

Table 15.2: Prevalence of impaired fasting glycaemia

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	230	1.8	0.1-3.5	416	0.7	0.0-1.6	646	1.3	0.3-2.2
30-44	562	3.5	1.8-5.1	983	1.9	0.9-2.8	1545	2.7	1.7-3.6
45-59	584	7.4	4.7-10.1	877	6.3	4.4-8.2	1461	6.8	5.1-8.5
60-69	309	8.0	4.6-11.4	432	6.5	4.1-8.9	741	7.2	5.1-9.3
18-69	**1685**	**4.4**	**3.2-5.5**	**2708**	**3.2**	**2.4-4.0**	**4393**	**3.8**	**3.1-4.5**

Impaired fasting glycaemia was defined as plasma venous value between 110mg/dl and 126mg/dl and raised blood glucose was defined as plasma venous value more than 126mg/dl.

Nearly 4% of the adults were estimated to have impaired fasting glycaemia, with 4.4% males and 3.2% females.

The survey estimated that 7.4% of the adults (7.3% males and 7.6% females) either had raised blood glucose or were currently on medication for diabetes.

Table 15.3: Percentage with raised blood glucose (<126 mg/dl) or currently on medication for diabetes

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	230	2.8	0.4-5.2	416	2.2	0.4-3.9	646	2.5	1.0-4.0
30-44	562	6.6	4.3-8.9	983	5.7	3.9-7.4	1545	6.2	4.7-7.6
45-59	584	12.9	9.9-15.8	877	12.0	9.7-14.3	1461	12.4	10.5-14.3
60-69	309	10.6	6.5-14.6	432	18.2	14.2-22.3	741	14.4	11.3-17.4
18-69	**1685**	**7.3**	**5.9-8.7**	**2708**	**7.6**	**6.4-8.8**	**4393**	**7.4**	**6.4-8.5**

Table 15.4: Percentage who are currently on medication for diabetes

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	295	0.7	0.0-1.7	508	0.5	0.0-1.2	803	0.6	0.0-1.2
30-44	679	5.1	3.3-6.9	1143	3.9	2.6-5.2	1822	4.5	3.4-5.6
45-59	691	12.0	9.3-14.7	1004	12.8	10.6-15.0	1695	12.4	10.6-14.2
60-69	365	14.1	10.1-18.1	503	23.0	18.8-27.1	868	18.5	15.5-21.4
18-69	**2030**	**6.1**	**5.0-7.2**	**3158**	**7.2**	**6.3-8.1**	**5188**	**6.6**	**5.9-7.3**

It was estimated that 6.6% of the adults (6.1% of males and 7.2% of females) were currently on medication for diabetes. More proportion of people in the age group 60-69 years were on medication for diabetes as expected.

15.2. Cholesterol level

An abnormal lipid profile is known to be a major risk factor for cardiovascular diseases. Total cholesterol was measured by trained health care workers following the standard STEPS 3 protocol, using the validated equipment mentioned in the data collection section. Raised total cholesterol was defined as blood cholesterol levels ≥ 190 mg/dl.

Mean total serum cholesterol level for adults including those on medication was 152.2 mg/dl (males 146.8 mg/dl and females 157.8mg/dl). Highest mean cholesterol level among females was seen in the age group 60-69 years (Annexure 8.1).

Table 15.5: Prevalence with 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	235	9.8	5.7-13.8	432	17.4	13.1-21.7	667	13.4	10.4-16.5
30-44	583	19.1	15.2-23.0	1018	22.2	19.1-25.3	1601	20.6	17.9-23.3
45-59	603	26.3	22.0-30.6	909	40.8	36.8-44.7	1512	33.7	30.6-36.8
60-69	321	32.3	26.2-38.4	446	47.3	41.7-52.9	767	39.7	35.2-44.3
18-69	**1742**	**19.1**	**16.5-21.6**	**2805**	**28.4**	**26.0-30.9**	**4547**	**23.7**	**21.7-25.7**

Nearly one fourth of the adults (23.7%) was estimated to have either the total cholesterol ≥190 mg/dl or were currently on medication for raised cholesterol. This proportion was higher for females (28.4%) as compared to males (19.1%). Prevalence of high cholesterol was more in older age groups in both sexes.

Table 15.6 shows the prevalence of total cholesterol ≥ 240 mg/dl or currently on medication for raised cholesterol. Overall, 8.9% of the adults had raised total cholesterol ≥ 240 mg/dl or were currently on medication for raised cholesterol. It was again higher for females (11.3%) than males (6.5%).

Table 15.6: Prevalence with 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	235	1.5	0.0-3.3	432	3.8	1.7-5.9	667	2.6	1.2-3.9
30-44	583	5.7	3.7-7.6	1018	6.7	4.8-8.5	1601	6.1	4.7-7.6
45-59	603	9.6	6.9-12.3	909	19.7	16.8-22.6	1512	14.7	12.7-16.8
60-69	321	17.9	12.8-23.0	446	25.8	21.1-30.6	767	21.8	18.1-25.5
18-69	**1742**	**6.5**	**5.2-7.8**	**2805**	**11.3**	**9.9-12.8**	**4547**	**8.9**	**7.8-9.9**

16. Cardiovascular Disease Risk

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

The proportion of respondents in the age group 40–69 years with a 10-year CVD risk of ≥30% was 9.1% for both sexes (men 8.9%, women 9.3%). Both among men and women, this proportion was higher for the 55-69 years age group (Table 16.1).

Table 16.1: Prevalence of 10-year CVD risk or existing CVD

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
40-54	574	5.4	3.2-7.5	893	6.7	4.8-8.6	1467	6.0	4.6-7.5
55-69	474	13.7	10.0-17.4	682	13.3	10.5-16.1	1156	13.5	11.2-15.8
40-69	**1048**	**8.9**	**6.9-10.9**	**1575**	**9.3**	**7.6-11.1**	**2623**	**9.1**	**7.8-10.4**

Table 16.2: Percentage of eligible persons receiving drug therapy and counselling to prevent heart attacks and strokes

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
40-54	27	38.5	20.2-56.9	59	47.6	34.2-61.0	86	43.6	32.5-54.8
55-69	62	66.2	53.8-78.5	94	60.1	48.6-71.6	156	63.2	54.4-72.1
40-69	**89**	**56.4**	**45.7-67.2**	**153**	**54.7**	**45.5-64.0**	**242**	**55.6**	**48.2-62.9**

Only one in 2 adults (55.6%) who had the 10-year CVD risk of ≥30%, were receiving drug therapy and counselling to prevent heart attacks and strokes.

17. Summary of 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.

1. The first category was 'no risk factors'; the second '1-2 risk factors', and the third '3-5 risk factors'. The five major risk factors are: Current daily smoking
2. Less than five servings of fruit and/or vegetables per day
3. Not meeting WHO recommendations on physical activity for health (<150 minutes of moderate activity per week, or equivalent)
4. Overweight or obese (BMI ≥ 25 kg/m2)
5. Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP).

Majority of the adults (73.5%) was estimated to have 1-2 risk factors (76.0% males and 71.0% females). Those with 1-2 risk factors were more among the age group 18-44 years than 45-69 years in both sexes. Nearly 18% of the adults were estimated to have 3-5 risk factors. 20.2% of the females and 16.4% males had 3-5 risk factors. Prevalence of 3-5 risk factors was more among 45-69 years in both sexes (24% in males and 31.4% in females).

Table 17.1: Distribution by combined risk factors

Combined Risk Factors							
Men							
Age Group (years)	**n**	**% with 0 risk factors**	**95% CI**	**% with 1-2 risk factors**	**95% CI**	**% with 3-5 risk factors**	**95% CI**
18-44	834	8.1	5.7-10.5	79.9	76.6-83.1	12.1	9.6-14.5
45-69	927	6.8	4.8-8.9	69.1	65.6-72.7	24.0	20.8-27.2
18-69	**1761**	**7.6**	**5.9-9.4**	**76.0**	**73.5-78.4**	**16.4**	**14.3-18.5**
Women							
18-44	1411	11.5	9.0-14.0	75.5	72.7-78.3	13.0	10.9-15.0
45-69	1344	4.6	3.3-5.8	64.0	61.1-66.9	31.4	28.5-34.3
18-69	**2755**	**8.8**	**7.1-10.5**	**71.0**	**68.9-73.1**	**20.2**	**18.4-22.1**
Both Sexes							
18-44	2245	9.7	7.8-11.6	77.8	75.6-80.0	12.5	10.9-14.1
45-69	2271	5.7	4.4-7.0	66.6	64.3-68.9	27.8	25.5-30.0
18-69	**4516**	**8.2**	**6.8-9.6**	**73.5**	**71.9-75.2**	**18.3**	**16.8-19.7**

18. Conclusion and Recommendations

Similar to many developing countries, Sri Lanka is undergoing an epidemiological transition with an increasing burden of NCDs. Deaths due to ischaemic heart diseases and stroke rank high among the top causes of the mortality. This kind of NCD burden is likely to be even more problematic in the immediate future, considering the population's high exposure to commonly known risk factors of NCDs such as tobacco use, excessive alcohol consumption, physical inactivity, unhealthy diet, and high salt consumption.

The 2014-2015 Island wide STEP survey has provided rich information on the prevalence of key NCD risk factors in Sri Lanka, and has revealed high rates of tobacco and alcohol use, inadequate physical activity, unhealthy dietary behaviours, and low levels of health screening for major NCD risk factors. The prevalence of behavioural risk factors (tobacco smoking, alcohol, fruit and vegetable consumption, physical inactivity) show a downward trend when compared with prevalence in 2008.

Although prevalence of current tobacco smoking among males has not been reduced significantly in comparison to the prevalence observed in 2008 (29.4% in 2015 and 29.8% in 2008), prevalence of daily tobacco smoking has been reduced among males (19.9% in 2015 and 22.8% in 2006) and among females (0.1% in 2015 and 0.3% in 2006) indicating a trend in behaviour towards positive direction. This is a clear indication of successful implementation of tobacco control strategies adopted in the country as the prevalence of daily smokers is considered as valid measure of preventive and control activities conducted in a country.

However, approximately one fifths (22.3%) in the younger age group 18-29 are estimated to be current smokers. Mean age for initiation of smoking for male daily smokers was 20.5 years in comparison to the mean age observed in 2006 (27.6). These findings highlight the need for new strategies to strengthen preventive measures to reduce the incidence of smoking among the younger age groups.

As majority of the smokers are smoking manufactured cigarettes, the current strategies to reduce smoking such as pictorial warnings, and other legislative measures should be strengthened.

Current smokeless tobacco use among males is 26.0% and among females 5.3%. The prevalence of smokeless tobacco (daily users of smokeless tobacco) among males is higher (18.9%) than females (4.1%). Prevalence of smoking and smokeless tobacco use among males is 35.3%. This indicate that the there is still a high prevalence of smokeless tobacco usage in our country, warranting more attention towards prevention and control activities focusing on smokeless tobacco use.

Nearly half of the current smokers have tried to stop smoking which highlights the need for properly functioning island-wide tobacco cessation services giving more options to them. It is important to start tobacco cessation facilities including 24 hour tobacco cessation hotline.

Only 35% of the current smokers have been advised by a doctor to stop smoking which is inadequate, and should be intervened. Therefore, it will be useful to have regular training programmes for medical professionals in the country on advising the patients on tobacco cessation and brief interventions.

Around 25% of the male and 22% of females were exposed to second-hand smoke at home, while 36% of males and 11% of females were exposed to second-hand smoke at their work places highlighting the need to strengthen the implementation and enforcement of smoke-free policies.

Hazardous drinking of alcohol in excess of the recommended daily limit is damaging to health. Prevalence of current alcohol use among males has increased in comparison to the prevalence observed in 2008 (34.8% in 2015 and 26.0% in 2008). This is an alarming issue and brings out the need to evaluate the current strategies and policies in view of implementing an accelerated programme while giving more attention to implement "Best Buys". It is estimated that 16.8% of males adults had indulged in binge drinking (six or more drinks on a single occasion at least once during a month) compared to only 0.1 % of the females. This highlights the need to tailor the current programs to address these critical issues.

Intake of fruits and vegetables plays a protective role in the prevention of cancers, heart diseases and many other diseases. The World Health Organization (WHO) recommends a minimum of five daily servings of fruits and/or vegetables. The survey has estimated that while mean number of days of fruit consumption is 4 and vegetable consumption is 7 in the adults; however only 27.5% of the adults (26.9% of males and 28% of females) consume recommended levels of five or more portions of fruits and or vegetables per week. Although this shows improvement in practices (from the last STEP survey in 2008: males 18.6%, females 16.7%, and adults 17.6%), the amounts consumed is still below the recommended levels. This finding warrants for interventions which would not only improve health literacy, but also economic policy reforms geared towards improving availability and affordability of such food items, and also improving the buying power of the population.

Nearly 53% of the population admits to adding salt while cooking rice, 72.5% adding salt while cooking, 21.8% adding salt before or when eating. These practices show a trend in excessive usage of salt in food. Approximately 27% of the population always or often eat processed food high in salt. Furthermore, 61% of the males and 73% of the females knew that consuming too much of sodium could cause serious problems. The identified gap between their knowledge on slat consumption and actual practices of salt consumption should be addressed through properly designed awareness programmes. Findings related to dietary habits indicate the need to carry out appropriate and culturally- tailored programmes to promote healthy diet in the community.

The benefits of physical activity include prevention of heart diseases and diabetes, reduction in obesity, blood pressure and cholesterol, and improvement in mental health conditions. The survey revealed that 22.5% of the males and 38.4% of the females do not meet the minimum WHO recommendations activity (≥150 minutes of moderate intensity physical activity per week, or equivalent), which calls for more awareness programmes on healthy lifestyle, and improve facilities and incentives for engaging in physical activities.

Pattern of lifestyle advice received by the adults from health care providers reflects the current practice where advices on cessation of smoking, consumption of fruits or vegetables are given irrespective of the age of the recipient, while advices on salt and fat reduction from diet is given to older population where the risk of NCD is perceived to be high.

Nutritional problems in both spectrums of overweight and underweight are visible in the population. Of the males, 21% were overweight and 3.5% were obese where as 25.9% of females were overweight and 8.4% of females were obese which shall be given due attention. Meanwhile, 15.3% (16.5% males and 14.1% females) of the population being underweight reveals the fact that under nutrition is still a problem in the country.

The metabolic risk factors for NCDs are raised blood pressure, obesity, raised cholesterol and blood sugar. They will lead to a growing burden of NCDs. The 2014-15 survey estimated that 30.7% of the adults had never gotten their blood pressure measured by a doctor or a health person. In addition, 21.0% of the adults with raised blood pressure (>140/ 90 mmHg) were not on any medication for hypertension, which is higher than the prevalence in 2008 (16.1%). Taken together these two findings highlight the importance of popularizing already established healthy lifestyle centres, where individuals could get their blood pressure measured, and get health advices free of charge at the grass-root level. Nearly one fourth (26%) of the adults having either raised blood pressure or being on medication for hypertension warrants immediate attention on more focused prevention and control programmes.

Moreover, around half of the adults (50.9%) have never had their blood sugar measured, and around 70% of them never having their cholesterol measured also favour the implementation of a mass awareness programme throughout the country. However, it should be also noted that only 3.8% of the adults has impaired fasting glycaemia, while only 7.7% has raised bold sugar or were currently on treatment for diabetes.

Nearly one fourths of the adults (23.6%) were either had raised total cholesterol (≥ 190 mg/dl) or were currently on medication for raised cholesterol, indicating the need for more comprehensive, nation-wide interventions to prevent and control intermediate risk factors for NCD.

Approximately 9% of the adults were estimated to have cardiovascular risk ≥30% or with existing CVD. This highlights the need to identify the groups at risk in the community, and to plan and implement intervention early, in order to prevent pre-mature deaths. Out of the respondents who were having a CVD risk of ≥30% or with existing CVD, only half (55.6%) are receiving drug therapy and counselling to prevent heart attack and stroke which is highly unsatisfactory.

Exposure to a single risk factor as well as combination of more risk factors can substantially increase the risk of developing multiple NCDs. More than 90% of the Sri Lankan adults were estimated to have at least one of these risk factors (73.5% with 1-2 risk factors, and 18.3% with 3-5 risk factors), with similar prevalence in males and females. This situation should be intervened with timely implemented policies, and strategies at the national level.

NCDs will potentially emerge as a the biggest public health challenge in Sri Lanka due to the high prevalence of NCD risk factors, and the already existing gap between prevalence and treatment. However, if greater investments in NCD prevention and services are made through the right policies and public health measures, the imminent NCD epidemic could be controlled.

Health systems should be made more responsible for treatment and health-seeking behaviour. Both private and public health systems should be involved in integrating NCD services to promote as well as managing NCD patients. This requires the involvement of all government institutions as well as private sector, civil society, faith-based organizations, academia and community to have a comprehensive and multi-sectoral approach for preventing and controlling NCDs in Sri Lanka.

This National Survey was a dire need of the health sector in Sri Lanka as it gives an assessment for on-going efforts to control and prevent key risk factors for major non Communicable Diseases. Hence, the results of this survey will be a very useful tool for planning and implementation of relevant programmes in Sri Lanka.

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Annexures

Annexure I: Data Tables

1.Tobacco Use

1.1: Smoked tobacco consumption

Percentage of current smokers smoking each of the following products							
Men							
Age Group (years)	n	% Manuf. cigs.	95% CI	% Hand-rolled cigs.	95% CI	% Pipes of tobacco	95% CI
18-29	67	97.4	93.8-100.0	5.7	0.1-11.3	0.0	0.0-0.0
30-44	235	87.1	82.7-91.5	4.0	1.3-6.6	0.0	0.0-0.0
45-59	235	71.9	65.4-78.3	5.8	1.8-9.7	0.9	0.0-2.0
60-69	111	65.1	55.3-75.0	11.8	4.8-18.7	1.2	0.0-3.5
18-69	**648**	**83.0**	**79.7-86.2**	**5.8**	**3.4-8.1**	**0.4**	**0.0-0.8**
	n	**% Cigars,***	**95% CI**	**% Shisha**	**95% CI**	**% Other**	**95% CI**
18-29	67	1.0	0.0-2.8	9.9	1.4-18.4	3.5	0.0-7.5
30-44	235	2.7	0.3-5.1	21.8	16.0-27.7	1.7	0.0-3.9
45-59	235	7.0	3.2-10.8	41.0	33.6-48.4	1.8	0.3-3.4
60-69	111	14.7	7.0-22.4	39.2	29.4-49.1	1.1	0.0-3.3
18-69	**648**	**4.8**	**2.8-6.9**	**26.2**	**22.1-30.3**	**2.2**	**0.8-3.5**

Women							
Age Group (years)	n	% Manuf. cigs.	95% CI	% Hand-rolled cigs.	95% CI	% Pipes of tobacco	95% CI
18-29	0	0.0	-	0.0	-	0.0	-
30-44	0	0.0	-	0.0	-	0.0	-
45-59	4	0.0	-	0.0	-	0.0	-
60-69	0	0.0	-	0.0	-	0.0	-
18-69	**4**	**0.0**	**-**	**0.0**	**-**	**0.0**	**-**
	n	**% Cigars,***	**95% CI**	**% Shisha**	**95% CI**	**% Other**	**95% CI**
18-29	0	0.0	-	0.0	-	0.0	-
30-44	0	0.0	-	0.0	-	0.0	-
45-59	4	0.0	-	19.3	19.1-19.5	80.7	80.5-80.9
60-69	0	0.0	-	0.0	0.0-0.0	0.0	-
18-69	**4**	**0.0**	**-**	**19.3**	**19.1-19.5**	**80.7**	**80.5-80.9**

**cigars, cheroots, cigarillos*

Both sexes							
Age Group (years)	**n**	**% Manuf. cigs.**	**95% CI**	**% Hand-rolled cigs.**	**95% CI**	**% Pipes of tobacco**	**95% CI**
18-29	67	97.4	93.8-100.0	5.7	0.1-11.3	0.0	0.0-0.0
30-44	235	87.1	82.7-91.5	4.0	1.3-6.6	0.0	0.0-0.0
45-59	239	70.9	64.5-77.3	5.7	1.8-9.6	0.8	0.0-2.0
60-69	111	65.1	55.3-75.0	11.8	4.8-18.7	1.2	0.0-3.5
18-69	**652**	**82.6**	**79.4-85.9**	**5.8**	**3.4-8.1**	**0.4**	**0.0-0.8**
	n	**% Cigars,***	**95% CI**	**% Shisha**	**95% CI**	**% Other**	**95% CI**
18-29	67	1.0	0.0-2.8	9.9	1.4-18.4	3.5	0.0-7.5
30-44	235	2.7	0.3-5.1	21.8	16.0-27.7	1.7	0.0-3.9
45-59	239	6.9	3.2-10.7	40.7	33.3-48.1	2.9	0.8-5.0
60-69	111	14.7	7.0-22.4	39.2	29.4-49.1	1.1	0.0-3.3
18-69	**652**	**4.8**	**2.7-6.9**	**26.2**	**22.1-30.3**	**2.5**	**1.0-3.9**

1.2: Status of smokeless tobacco use

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	294	7.4	4.4-10.4	9.1	5.5-12.8	6.2	3.4-9.0	77.2	71.9-82.6
30-44	676	21.3	17.7-25.0	7.6	5.5-9.8	5.3	3.5-7.1	65.7	61.4-70.1
45-59	689	25.4	21.6-29.3	5.4	3.5-7.3	5.0	3.1-6.8	64.2	60.1-68.4
60-69	365	34.6	29.0-40.2	2.7	0.6-4.8	7.2	4.4-10.0	55.5	49.7-61.3
18-69	2024	18.9	16.7-21.2	7.1	5.5-8.6	5.7	4.5-7.0	68.3	65.4-71.2
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	504	0.5	0.0-1.3	0.4	0.0-1.0	0.6	0.0-1.2	98.5	97.3-99.6
30-44	1143	2.4	1.3-3.5	1.2	0.5-1.9	0.8	0.1-1.5	95.6	94.1-97.0
45-59	1002	7.7	5.7-9.7	2.3	1.3-3.3	2.2	1.2-3.1	87.8	85.3-90.4
60-69	502	10.7	7.3-14.1	0.7	0.0-1.4	2.1	0.7-3.5	86.5	82.8-90.2
18-69	3151	4.1	3.3-5.0	1.2	0.8-1.6	1.3	0.8-1.7	93.4	92.3-94.5
Both Sexes									
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	798	4.1	2.5-5.7	5.0	3.0-6.9	3.5	2.0-5.1	87.4	84.4-90.3
30-44	1819	12.1	10.1-14.0	4.5	3.3-5.7	3.1	2.1-4.1	80.3	77.9-82.8
45-59	1691	16.4	14.1-18.7	3.8	2.7-4.9	3.5	2.5-4.6	76.3	73.6-79.0
60-69	867	22.7	19.4-26.1	1.7	0.6-2.8	4.7	3.0-6.3	70.9	67.3-74.5
18-69	**5175**	**11.7**	**10.4-12.9**	**4.2**	**3.3-5.0**	**3.5**	**2.8-4.2**	**80.6**	**78.9-82.3**

2. Diet

2.1: Controlling salt intake

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Limit consumption of processed foods									
18-29	293	20.5	14.4-26.7	504	19.1	14.3-23.8	797	19.8	15.5-24.2
30-44	676	21.1	17.0-25.2	1143	25.3	21.6-29.1	1819	23.2	19.9-26.4
45-59	686	24.5	20.2-28.8	1002	26.1	22.0-30.1	1688	25.3	21.7-28.9
60-69	364	20.3	15.2-25.5	502	28.2	23.0-33.3	866	24.2	20.0-28.4
18-69	**2019**	**21.7**	**18.2-25.1**	**3151**	**23.8**	**20.7-26.9**	**5170**	**22.7**	**19.8-25.7**
Look at the salt or sodium content on food labels									
18-29	293	4.6	1.2-8.0	504	6.1	3.7-8.5	797	5.3	3.1-7.5
30-44	676	5.3	3.2-7.4	1143	7.1	5.0-9.2	1819	6.2	4.5-7.9
45-59	686	6.0	3.9-8.1	1002	6.5	4.4-8.6	1688	6.3	4.5-8.0
60-69	364	4.3	2.1-6.6	502	5.3	2.5-8.1	866	4.8	3.0-6.7
18-69	**2019**	**5.1**	**3.4-6.8**	**3151**	**6.4**	**4.9-8.0**	**5170**	**5.8**	**4.4-7.2**
Buy low salt/sodium alternatives									
18-29	293	3.5	0.3-6.7	504	2.8	1.2-4.4	797	3.1	1.3-5.0
30-44	676	2.0	0.9-3.1	1143	4.5	3.0-6.0	1819	3.2	2.1-4.3
45-59	686	2.4	1.1-3.7	1002	4.2	2.5-6.0	1688	3.3	2.0-4.7
60-69	364	1.3	0.2-2.3	502	2.5	1.0-4.0	866	1.9	0.9-2.8
18-69	**2019**	**2.5**	**1.2-3.9**	**3151**	**3.6**	**2.5-4.7**	**5170**	**3.1**	**2.1-4.1**
Avoid eating foods prepared outside of a home									
18-29	293	12.4	7.5-17.3	504	13.4	9.6-17.2	797	12.9	9.6-16.1
30-44	676	13.3	9.9-16.7	1143	17.3	13.9-20.6	1819	15.2	12.6-17.9
45-59	686	15.5	11.9-19.1	1002	19.7	16.0-23.5	1688	17.7	14.5-20.8
60-69	364	14.5	10.3-18.7	502	17.9	13.6-22.2	866	16.2	12.7-19.7
18-69	**2019**	**13.7**	**11.0-16.3**	**3151**	**16.7**	**14.0-19.5**	**5170**	**15.2**	**12.8-17.5**
Avoid putting salt into rice									
18-29	293	15.1	10.4-19.8	504	17.6	13.7-21.4	797	16.3	13.1-19.4
30-44	676	14.4	11.3-17.4	1143	22.9	19.8-26.0	1819	18.5	16.1-20.9
45-59	686	16.4	13.0-19.8	1002	23.5	20.0-26.9	1688	20.0	17.4-22.6
60-69	364	21.0	15.9-26.1	502	21.5	17.2-25.9	866	21.3	17.7-24.8
18-69	**2019**	**15.8**	**13.4-18.3**	**3151**	**21.2**	**19.0-23.4**	**5170**	**18.5**	**16.5-20.4**

3. Physical Activity

3.1: Domain-specific physical activity- mean

Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
Mean minutes of work-related physical activity on average per day									
18-29	289	128.1	106.1-150.2	503	53.3	43.1-63.5	792	92.2	78.9-105.4
30-44	660	169.1	151.8-186.5	1133	100.2	88.7-111.7	1793	135.1	123.7-146.5
45-59	675	180.2	162.6-197.9	989	97.5	86.9-108.1	1664	137.8	126.7-148.9
60-69	361	132.7	112.5-152.8	496	70.7	59.4-82.1	857	101.9	89.4-114.4
18-69	**1985**	**153.7**	**141.6-165.8**	**3121**	**80.8**	**73.2-88.4**	**5106**	**117.7**	**109.4-126.0**
Mean minutes of transport-related physical activity on average per day									
18-29	289	33.3	23.1-43.4	503	17.4	13.9-20.9	792	25.7	19.9-31.4
30-44	660	31.0	24.4-37.7	1133	19.7	16.1-23.3	1793	25.4	21.5-29.4
45-59	675	42.6	35.4-49.9	989	27.3	22.0-32.5	1664	34.8	29.8-39.7
60-69	361	43.4	33.9-53.0	496	19.7	15.7-23.8	857	31.7	26.1-37.3
18-69	**1985**	**36.1**	**30.7-41.4**	**3121**	**21.0**	**18.5-23.5**	**5106**	**28.6**	**25.3-32.0**
Mean minutes of recreation-related physical activity on average per day									
18-29	289	26.3	20.3-32.3	503	3.4	1.7-5.2	792	15.3	12.0-18.7
30-44	660	7.9	5.3-10.5	1133	2.3	1.2-3.4	1793	5.2	3.6-6.7
45-59	675	2.4	1.4-3.3	989	1.5	0.6-2.4	1664	1.9	1.2-2.6
60-69	361	4.4	1.5-7.3	496	2.2	0.0-4.8	857	3.3	1.3-5.3
18-69	**1985**	**12.6**	**10.1-15.0**	**3121**	**2.4**	**1.7-3.2**	**5106**	**7.6**	**6.2-8.9**

3.2: Composition of total physical activity

Composition of total physical activity							
Age Group (years)	Men						
	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
18-29	251	53.3	48.0-58.6	25.4	20.8-29.9	21.3	17.2-25.5
30-44	564	69.4	65.7-73.1	22.4	19.3-25.5	8.2	6.0-10.4
45-59	569	72.1	69.0-75.3	24.2	21.3-27.0	3.7	2.3-5.1
60-69	289	61.8	56.6-67.0	34.3	29.4-39.2	3.9	1.4-6.4
18-69	**1673**	**63.7**	**61.0-66.3**	**25.1**	**22.9-27.3**	**11.2**	**9.4-13.1**
Women							
18-29	375	49.9	44.2-55.5	43.3	37.8-48.9	6.8	4.1-9.6
30-44	906	64.4	60.7-68.2	32.5	28.8-36.2	3.0	1.8-4.3
45-59	775	63.8	60.0-67.6	33.8	30.1-37.6	2.4	1.2-3.5
60-69	349	60.6	55.0-66.2	37.3	31.7-42.9	2.1	0.5-3.8
18-69	**2405**	**59.2**	**56.1-62.3**	**36.8**	**33.8-39.9**	**4.0**	**2.8-5.2**
Both sexes							
18-29	626	51.8	47.7-55.8	33.4	29.6-37.3	14.8	12.1-17.5
30-44	1470	67.0	64.2-69.9	27.2	24.7-29.8	5.7	4.4-7.1
45-59	1344	68.0	65.4-70.6	29.0	26.5-31.5	3.0	2.1-4.0
60-69	638	61.2	57.2-65.3	35.7	31.7-39.6	3.1	1.4-4.7
18-69	**4078**	**61.5**	**59.3-63.8**	**30.6**	**28.6-32.7**	**7.8**	**6.6-9.1**

3.3: Sedentary activities

Minutes spent in sedentary activities on average per day					
Men					
Age Group (years)	**n**	**Mean minutes**	**95% CI**	**Median minutes**	**Inter-quartile range**
18-29	293	252.2	224.8-279.7	180.0	120.0-360.0
30-44	676	197.4	182.7-212.0	150.0	120.0-240.0
45-59	686	197.3	181.1-213.5	150.0	90.0-240.0
60-69	364	211.5	190.7-232.2	180.0	120.0-240.0
18-69	**2019**	**217.9**	**204.1-231.7**	**180.0**	**120.0-300.0**
Women					
18-29	504	261.1	240.0-282.1	240.0	120.0-360.0
30-44	1143	185.2	173.9-196.5	175.0	90.0-240.0
45-59	1001	187.6	176.6-198.6	180.0	120.0-240.0
60-69	502	216.7	198.3-235.1	180.0	120.0-300.0
18-69	**3150**	**214.1**	**202.9-225.4**	**180.0**	**120.0-300.0**
Both sexes					
18-29	797	256.5	236.7-276.3	180.0	120.0-360.0
30-44	1810	191.4	180.9-202.0	150.0	120.0-240.0
45-59	1687	192.4	181.7-203.0	150.0	120.0-240.0
60-69	866	214.1	198.2-230.0	180.0	120.0-270.0
18-69	**5169**	**216.1**	**205.0-227.1**	**180.0**	**120.0-300.0**

4. History of Raised Blood Pressure

4.1: Blood pressure measurement and diagnosis

Blood pressure measurement and diagnosis									
Men									
Age Group (years)	n	% Never measured	95% CI	% mesured, not diagnosed	95% CI	% found high, but not within past 12 months	95% CI	% found high within past 12 months	95% CI
18-29	293	53.7	47.4-59.9	45.5	39.3-51.8	0.7	0.0-1.8	0.1	0.0-0.4
30-44	675	39.1	34.7-43.6	55.3	50.9-59.8	2.7	1.5-3.9	2.8	1.6-4.1
45-59	686	25.4	21.6-29.3	58.3	53.9-62.8	3.8	2.2-5.4	12.5	9.6-15.3
60-69	364	17.1	12.7-21.5	57.7	51.9-63.5	6.6	3.7-9.4	18.6	14.3-23.0
18-69	**2018**	**38.4**	**35.2-41.6**	**52.9**	**49.8-56.1**	**2.7**	**1.9-3.4**	**6.0**	**5.0-7.0**
Women									
18-29	504	39.0	33.8-44.2	57.2	51.9-62.4	3.1	1.4-4.9	0.7	0.0-1.4
30-44	1142	17.2	14.1-20.3	71.9	68.5-75.3	5.9	4.4-7.3	5.0	3.6-6.3
45-59	1000	14.5	11.6-17.4	59.6	55.9-63.3	7.6	5.6-9.5	18.3	15.5-21.1
60-69	502	9.6	6.4-12.9	47.6	42.5-52.6	9.2	6.1-12.4	33.5	29.0-38.1
18-69	**3148**	**22.8**	**20.3-25.3**	**61.1**	**58.5-63.6**	**5.8**	**4.8-6.8**	**10.3**	**9.2-11.5**
Both sexes									
18-29	797	46.7	42.2-51.1	51.1	46.8-55.4	1.8	0.8-2.8	0.4	0.0-0.8
30-44	1817	28.4	25.3-31.6	63.4	60.3-66.6	4.2	3.3-5.2	3.9	3.0-4.8
45-59	1686	19.8	17.1-22.6	59.0	55.9-62.1	5.7	4.5-7.0	15.4	13.4-17.5
60-69	866	13.4	10.5-16.3	52.7	48.5-56.8	7.9	5.7-10.1	26.0	22.6-29.4
18-69	**5166**	**30.7**	**28.3-33.1**	**56.9**	**54.6-59.3**	**4.2**	**3.6-4.8**	**8.1**	**7.3-8.9**

4.2: Blood pressure advice by a traditional healer

Seen a traditional healer among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
18-29	3	0.0	0.0-0.0	16	0.0	0.0-0.0	19	0.0	0.0-0.0
30-44	43	2.2	0.0-6.5	123	2.9	0.0-6.2	166	2.6	0.0-5.2
45-59	105	7.8	2.4-13.3	248	5.8	2.6-9.0	353	6.6	3.5-9.6
60-69	91	10.7	3.9-17.4	213	5.6	2.1-9.1	304	7.5	4.2-10.8
18-69	**242**	**7.4**	**4.0-10.8**	**600**	**4.7**	**2.8-6.6**	**842**	**5.7**	**3.9-7.5**
Currently taking herbal or traditional remedy for raised blood pressure among those previously diagnosed									
18-29	3	0.0	0.0-0.0	16	0.0	0.0-0.0	19	0.0	0.0-0.0
30-44	43	4.5	0.0-10.6	123	3.7	0.1-7.4	166	4.0	0.8-7.2
45-59	105	7.6	2.2-13.1	248	2.2	0.1-4.2	353	4.2	1.7-6.7
60-69	91	7.0	1.0-13.0	213	2.9	0.3-5.5	304	4.4	1.7-7.2
18-69	**242**	**6.6**	**3.3-9.9**	**600**	**2.5**	**1.2-3.9**	**842**	**4.0**	**2.5-5.5**

5. History of Diabetes

5.1: Diabetes advice by a traditional healer

Seen a traditional healer for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI	n	% seen trad. healer	95% CI
18-29	5	0.0	0.0-0.0	7	16.2	0.0-45.2	12	6.3	0.0-18.5
30-44	45	10.2	0.5-20.0	77	9.0	2.2-15.8	122	9.6	3.7-15.5
45-59	104	9.4	3.9-14.8	161	8.1	3.4-12.9	265	8.7	5.1-12.4
60-69	62	19.9	8.3-31.4	129	6.1	1.5-10.7	191	11.7	6.1-17.2
18-69	**216**	**11.1**	**6.7-15.5**	**374**	**8.1**	**4.1-12.1**	**590**	**9.5**	**6.6-12.5**
Currently taking herbal or traditional treatment for diabetes among those previously diagnosed									
18-29	5	22.1	0.0-60.4	7	16.2	0.0-45.2	12	19.8	0.0-46.3
30-44	45	11.0	1.5-20.5	77	9.4	2.8-16.0	122	10.2	4.4-16.0
45-59	104	12.8	6.0-19.5	161	7.8	2.8-12.7	265	10.2	6.0-14.4
60-69	62	12.9	3.6-22.1	129	11.3	4.7-17.8	191	11.9	6.5-17.3
18-69	**216**	**13.1**	**7.7-18.4**	**374**	**9.5**	**5.2-13.8**	**590**	**11.2**	**7.6-14.9**

6. History of raised Cholesterol

6.1: History of raised cholesterol

History of Raised Cholesterol									
Age Group (years)	Men								
	n	% Never measured	95% CI	% measured, found not high	95% CI	% found high, but not within past 12 months	95% CI	% found high within past 12 months	95% CI
18-29	293	87.5	83.2-91.9	11.7	7.5-15.9	0.7	0.0-1.4	0.1	0.0-0.3
30-44	675	72.9	69.0-76.8	19.8	16.4-23.3	2.3	1.2-3.4	5.0	3.2-6.8
45-59	686	62.6	58.2-67.0	25.1	21.3-28.9	3.7	2.2-5.2	8.6	6.2-10.9
60-69	364	56.6	50.6-62.6	27.6	22.3-33.0	5.9	3.1-8.7	9.8	6.2-13.5
18-69	**2018**	**73.6**	**71.0-76.3**	**19.2**	**16.9-21.5**	**2.5**	**1.8-3.1**	**4.7**	**3.8-5.6**
	Women								
18-29	504	87.1	83.7-90.5	11.9	8.6-15.2	0.4	0.0-0.9	0.6	0.0-1.5
30-44	1142	70.9	67.7-74.1	22.0	19.1-24.9	2.4	1.4-3.3	4.8	3.4-6.2
45-59	1000	52.9	49.1-56.7	27.6	24.1-31.0	3.9	2.6-5.1	15.7	13.0-18.3
60-69	502	45.3	40.0-50.6	32.3	27.5-37.1	6.4	4.0-8.8	16.0	12.4-19.6
18-69	**3148**	**68.5**	**66.2-70.8**	**21.3**	**19.3-23.3**	**2.6**	**2.0-3.1**	**7.6**	**6.5-8.7**
	Both sexes								
18-29	797	87.3	84.5-90.2	11.8	9.0-14.6	0.5	0.1-1.0	0.4	0.0-0.8
30-44	1817	71.9	69.2-74.6	20.9	18.5-23.3	2.3	1.6-3.1	4.9	3.7-6.0
45-59	1686	57.6	54.4-60.9	26.4	23.6-29.2	3.8	2.8-4.8	12.2	10.4-14.0
60-69	866	51.0	46.7-55.3	30.0	26.2-33.7	6.1	4.3-8.0	12.9	10.4-15.4
18-69	**5166**	**71.1**	**69.1-73.1**	**20.2**	**18.5-21.9**	**2.5**	**2.1-3.0**	**6.1**	**5.4-6.8**

6.2: Cholesterol advice by a traditional healer

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	4	0.0	0.0-0.0	4	34.8	0.0-87.2	8	19.1	0.0-51.9
30-44	50	10.0	1.3-18.7	77	10.6	3.2-17.9	127	10.3	4.5-16.0
45-59	81	9.8	3.3-16.3	194	8.3	4.2-12.5	275	8.9	5.2-12.6
60-69	56	7.5	0.2-14.9	125	4.5	0.7-8.3	181	5.8	2.1-9.5
18-69	**191**	**9.0**	**4.7-13.2**	**400**	**8.7**	**5.1-12.4**	**591**	**8.8**	**6.0-11.6**
Currently taking herbal or traditional treatment for raised cholesterol among those previously diagnosed									
18-29	4	0.0	0.0-0.0	4	0.0	0.0-0.0	8	0.0	0.0-0.0
30-44	50	5.5	0.0-12.1	77	7.9	1.8-14.0	127	6.7	2.1-11.2
45-59	81	6.2	1.3-11.1	194	10.0	5.2-14.8	275	8.6	4.9-12.2
60-69	56	6.1	0.0-12.9	125	7.9	2.5-13.3	181	7.1	2.9-11.3
18-69	**191**	**5.7**	**2.4-9.1**	**400**	**8.7**	**5.7-11.8**	**591**	**7.5**	**5.2-9.8**

7. Physical Measurements

7.1: Mean heart rate

Mean heart rate (beats per minute)									
Age Group (years)	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
18-29	272	72.6	71.3-73.9	484	80.6	79.5-81.7	756	76.4	75.5-77.3
30-44	636	73.2	72.3-74.1	1106	78.5	77.7-79.2	1742	75.8	75.2-76.4
45-59	656	73.1	72.1-74.1	965	76.8	76.1-77.6	1621	75.0	74.3-75.7
60-69	345	72.5	71.0-73.9	480	77.8	76.8-78.8	825	75.1	74.2-76.0
18-69	**1909**	**72.9**	**72.2-73.5**	**3035**	**78.6**	**78.1-79.2**	**4944**	**75.7**	**75.3-76.2**

7.2: Mean height

Mean height (cm)						
Age Group (years)	Men			Women		
	N	Mean	95% CI	n	Mean	95% CI
18-29	260	167.5	166.4-168.5	447	155.0	154.2-155.7
30-44	625	165.8	165.1-166.5	1040	153.6	153.1-154.0
45-59	644	163.4	162.8-164.0	946	151.1	150.6-151.6
60-69	337	162.5	161.7-163.2	466	149.7	149.0-150.4
18-69	**1866**	**165.4**	**164.9-165.9**	**2899**	**152.9**	**152.5-153.3**

7.3: Mean weight

Mean weight (kg)						
Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	261	60.5	58.9-62.0	448	51.4	50.3-52.6
30-44	625	63.5	62.3-64.7	1042	57.1	56.3-58.0
45-59	643	61.4	60.2-62.7	943	56.1	55.3-57.0
60-69	338	58.3	56.7-59.8	467	53.0	51.8-54.2
18-69	**1867**	**61.4**	**60.6-62.2**	**2900**	**54.6**	**54.0-55.2**

7.4: Mean BMI

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	257	21.7	21.2-22.1	438	21.5	21.1-21.9	695	21.6	21.2-21.9
30-44	625	23.1	22.7-23.4	1034	24.3	23.9-24.6	1659	23.6	23.4-23.9
45-59	640	22.8	22.5-23.2	938	24.7	24.4-25.1	1578	23.8	23.5-24.0
60-69	337	22.1	21.5-22.6	462	23.7	23.2-24.3	799	22.9	22.5-23.3
18-69	**1859**	**22.4**	**22.2-22.7**	**2872**	**23.5**	**23.2-23.7**	**4731**	**22.9**	**22.7-23.1**

8. Biochemical measurements

8.1: Total cholesterol measurements

Total Cholesterol (mg/dl)									
Age group	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	235	137.0	131.3-142.7	432	147.1	141.9-152.3	667	141.8	137.8-145.8
30-44	583	150.9	146.4-155.5	1018	155.2	151.7-158.8	1601	153.0	149.7-156.4
45-59	603	153.6	149.1-158.0	909	167.5	163.0-172.1	1512	160.7	157.1-164.3
60-69	321	151.7	145.7-157.7	446	172.4	166.6-178.2	767	162.0	157.5-166.5
18-69	**1742**	**146.8**	**143.6-150.0**	**2805**	**157.8**	**154.7-160.9**	**4547**	**152.2**	**149.5-154.9**

Annexure II: STEPS Instrument

WHO STEPS Instrument
for Chronic Disease
Risk Factor Surveillance
Sri Lanka

Survey Information

Location and Date	Response	Code
Cluster ID	⌊_⌊_⌊_⌊_⌊_⌊_⌋	I1
Name of the PHM Area		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	English 1 *Sinhalese* 2 *Tamil* 3	I6
Name of the participant		I7
Address and a landmark		I8 I9
Additional Information that may be helpful		
Contact phone number where possible		I10

Step 1 Demographic Information

CORE: Demographic Information		
Question	**Response**	**Code**
Sex	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

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, Beedee, pipes? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T10*	T1
Do you currently smoke tobacco products **daily**? *This question is only for current smokers of tobacco products.*	Yes 1 No 2	T2
How old were you when you **first started** smoking? *For current smokers only.*	Age (years) ⌊_⌋⌊_⌋ *If Known, go to T6a/T6aw* Don't know 77	T3
Who introduced you to smoking?	School Friends 1 Work place colleagues 2 Relations 3 Self 4 Can't remember 5	T4
Do you remember how long ago it was? *(RECORD ONLY 1, NOT ALL 3)* *Don't know 77*	In Years ⌊_⌋⌊_⌋ *If Known, go to T6a/T6aw*	T5a
	OR in Months ⌊_⌋⌊_⌋ *If Known, go to T6a/T6aw*	T5b
	OR in Weeks ⌊_⌋⌊_⌋	T5c
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* *For current smokers only.*	DAILY↓ WEEKLY↓	
	Manufactured cigarettes ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T6a/T6aw
	If T6a/T6aw answered go T7	
	Hand-rolled cigarettes ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T6b/T6bw
	Pipes full of tobacco ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T6c/T6cw
	Cigars, cheroots, cigarillos ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T6d/T6dw
	Manufactured Beedee ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T6e/T6ew
	Other ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ *If Other, go to T6other, else go to T8*	T6f/T6fw
	Other (please specify): ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T6other/ T6otherw
Usually, do you buy cigarettes in packets or separately?	Packets 1 Separately 2	T7
During the past 12 months, have you tried to **stop smoking**? *For current smokers only.*	Yes 1 No 2	T8

During any visit to a doctor or other health worker in the past 12 months, were you advised to quit smoking tobacco? *For current smokers only.*	Yes 1 *If T2=Yes, go to T14; if T2=No, go to T11* No 2 *If T2=Yes, go to T14; if T2=No, go to T11* No visit during the past 12 months 3 *If T2=Yes, go to T14; if T2=No, go to T11*	T9
In the past, did you **ever smoke** any tobacco products? *(USE SHOWCARD) cross check*	Yes 1 No 2 *If No, go to T14*	T10
In the past, did you **ever** smoke **daily**?	Yes 1 *If T1=Yes, go to T14, else go to T12* No 2 *If T1=Yes, go to T14, else go to T12*	T11

EXPANDED: Tobacco Use		
Question	**Response**	**Code**
How old were you when you **stopped** smoking?	Age (years) ⌊_⌋⌊_⌋ *If Known, go to T14* Don't Know 77	T12
How **long ago** did you stop smoking? *(RECORD ONLY 1, NOT ALL 3)* *Don't Know 77*	Years ago ⌊_⌋⌊_⌋ *If Known, go to T14*	T13a
	OR Months ago ⌊_⌋⌊_⌋ *If Known, go to T14*	T13b
	OR Weeks ago ⌊_⌋⌊_⌋	T13c
Do you **currently use** any **smokeless tobacco** products such as *[chewing tobacco, betel with tobacco, babul, snuff]*? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T17*	T14
Do you **currently use smokeless tobacco** products **daily?** *For current users of smokeless tobacco products only.*	Yes 1 No 2 *If No, go to T16aw*	T15
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* *For current users of smokeless tobacco only.*	DAILY↓ WEEKLY↓	
	Chewing tobacco with betel ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T16a/ T16aw
	Snuff, by nose ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T16b/ T16bw
	Chewing tobacco ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T16c/ T16cw
	Babul ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T16d/ T16dw
	Other ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ *If Other, go to T16other, if T15=No, go to T18, else go to T19*	T16e/ T16ew
	Other (please specify): ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ *If T15=No, go to T18, else go to T19*	T16other/ T16otherw
In the **past**, did you **ever use** smokeless tobacco products such as *[chewing tobacco, betel with tobacco, babul, snuff]*?	Yes 1 No 2 *If No, go to T19*	T17

In the **past**, did you **ever use** smokeless tobacco products [such as *chewing tobacco, betel with tobacco, babul, snuff]* **daily**?	Yes 1 No 2	T18
During the past 30 days, did someone smoke **in your home**?	Yes 1 No 2	T19
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	T20

CORE: Alcohol Consumption		
Question	**Response**	**Code**
Have you **ever** consumed any alcohol such as arrack, kasippu, toddy, beer, spirits or wine *(USE SHOWCARD OR SHOW EXAMPLES)*	Yes 1 No 2 If No, go to D 1 ################	A1
Have you consumed any alcohol within the **past 12 months**?	Yes 1 *If Yes, go to A4* No 2	A2
##################################		
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 D1* ##############	A5
During the past 30 days, on how many **occasions** did you have at least one standard alcoholic drink?	Daily 5-6 days per week 3-4 days per week 1-2 days per week 1-3 days per month	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

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? *This question is for those participants that did not drink during the past 12 months, but that have drunk in their lifetime.*	Yes 1 If Yes, go to A16 No 2 If No, go to A16	A3

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.

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 D1* ##########	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

Question	Response	Code
In a typical week, on how many days do you **eat fruit**? *(USE SHOWCARD)*	Number of days Don't Know 77 ⌊_⌋⌊_⌋ *If Zero days, go to D4*	D1
How many **servings** of fruit do you eat on **one** of those days? *(USE SHOWCARD)*	Number of servings Don't Know 77 ⌊_⌋⌊_⌋	D2
During the past 30 days on how many days did you eat **fruits**?	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	D3

In a typical week, on how many days do you **eat vegetables**? *(USE SHOWCARD)*	Number of days Don't Know 77 └─┴─┘ *If Zero days, go to D6*	D4
How many **servings** of vegetables do you eat on one of those days? *(USE SHOWCARD)*	Number of servings Don't know 77 └─┴─┘	D5

EXPANDED: Diet

What type of **oil or fat is most often** used for meal preparation in your household? *(USE SHOWCARD)* *(SELECT ONLY ONE)*	Soya 1 Vegetable (palm) 2 Sunflower 3 Gingerly 4 Olive oil 5 Corn oil 6 Coconut oil 7 Ghee 8	D6
	Butter 9	
	Margarine 10	
	Other 11 *If Other, go to D6 other*	
	None in particular 12	
	None used 13	
	Don't know 77	
	Other └─┴─┴─┴─┴─┴─┴─┴─┘	D6other
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 └─┴─┘	D7

Dietary Salt

Dietary salt		
Question	**Response**	**Code**
How often do you **add salt when you cook rice**?	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	DS1
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? *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	DS2
How often is **salt, salty seasoning added** in cooking or preparing foods in your household?	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	DS3
How often do you eat **processed food high in salt**? *** *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	DS4
On average for how many people do you cook in a typical day?		DS5
How many salt packets do you consume in a month?	Salt crystals (1kg) No. of packets Salt powder(400g) No. of packets Don't know 77	DS6
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	DS7
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	DS8
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	DS9

Dietary salt, Continued		
Question	**Response**	**Code**
Do you do anything of the following on a regular basis to **control your salt intake**? *(RECORD FOR EACH)*		
Limit consumption of processed foods	Yes 1 No 2	DS10a
Look at the salt or sodium content on food labels	Yes 1 No 2	DS10b
Not to put salt into rice	Yes 1 No 2	DS10c
Use spices other than salt when cooking	Yes 1 No 2	DS10d
Avoid eating foods prepared outside of a home	Yes 1 No 2	DS10e
Do other things specifically to control your salt intake	Yes 1 *If Yes, go to S7other* No 2	DS10f
Other (please specify)	_____	DS10other

CORE: Physical Activity		
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? *(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? *(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, and volleyball]* for at least 10 minutes continuously? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to P16*	P13
In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational *(leisure)* activities?	Number of days ⌊__⌋	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. *(USE SHOWCARD)*		
How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes ⌊__⌋⌊__⌋ : ⌊__⌋⌊__⌋ hrs mins	P16 (a-b)
How many hours of sleep do you get per day, in a typical week?	Hours ⌊__⌋⌊__⌋	P17

Health Care

Health Care

Health Care Coverage

Please provide information about your current health insurance coverage.

Do you currently have **health insurance**?		Yes 1 No 2 ~~*If No, go to HC3*~~	HC1
During the **past 12 months**, which of the following **financial sources** did you use to pay for any **health expenditures** such as medicines, consultations, treatment, hospitalization or patient care?	Current income of any household members	Yes 1 No 2	HC2a
	Savings (e. g. bank account)	Yes 1 No 2	HC2b
	Payment or reimbursement from a health insurance plan	Yes 1 No 2	HC2c
	Sold items (e. g. furniture, animals, jewellery)	Yes 1 No 2	HC2d
	Family members or friends from outside the household	Yes 1 No 2	HC2e
	Borrowed from someone other than a friend or family	Yes 1 No 2	HC2f
	Other	Yes 1 *If Other, go to HC3other* No 2	HC2g
	Other (please specify): ⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌋		HC2 other

Health Care Utilization

Please think about your visits to any health center and the treatments you received there which were related to an NCD you may have.

Have you ever had or do you currently have **a non-communicable disease (NCD)** such as cardiovascular disease including heart disease and stroke, cancer, chronic respiratory disease, or diabetes?		Yes 1 No 2 *If No, go to [next section]*	HC3
Have you ever visited any **health care facility** due to an NCD you have? Please exclude any hospitalization.		Yes 1 No 2 *If No, go to HC10*	HC4
How much **time** did you spend **traveling** the **last time** you visited a health care facility (taking both ways into account)? *Don't know 77:77:77*	Days : hours : minutes	⌊_⌊_⌋ : ⌊_⌊_⌋ : ⌊_⌊_⌋ days hrs mins	HC5
How long was the **waiting time** before your appointment started when you **last** visited a health care facility? *Don't know 77:77*	Hours : minutes	⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	HC6
During the **past 30 days**, have you visited any health care facility due to an NCD you have? Please exclude any hospitalization.		Yes 1 No 2 *If No, go to HC11*	HC7

Health Care, continued		
During the **past 30 days**, how many times have you visited a health care facility due to an NCD you have? *(RECORD FOR EACH)* *[INSERT COUNTRY-SPECIFIC CATEGORIES]* *Don't know 77*	Health Center ⌊_⌋⌊_⌋	HCa
	Public Hospital ⌊_⌋⌊_⌋	HC8b
	Private Hospital ⌊_⌋⌊_⌋	HC8c
	Doctor's Office ⌊_⌋⌊_⌋	HC8d
	Other ⌊_⌋⌊_⌋ *If Other, go to HC8other*	HC8e
	Other (please specify): ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋	HC8other
During the **past 30 days**, taking all your visits to a health care facility due to an NCD into account, **how much did you pay yourself** for these visits in total? *(RECORD FOR EACH OR PUT TOTAL AMOUNT)* *Don't know 77777*	Health care provider's fees ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC9a
	Medicines ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC9b
	Tests ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC9c
	Transport ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC9d
	Other ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC9e
	OR Total Amount ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC9f
During the past 30 days, how much did you pay yourself for health care **not** related to any visit of a health care facility or hospital, such as routine medication? *Don't know 77777*	**Amount** ⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋ [Rupees]	HC10
During the **past 12 months**, have you been **hospitalized** due to an NCD?	Yes 1 No 2 *If No, go to H1*	HC11
During the **past 12 months**, **how many days** have you been hospitalized due to an NCD? *Don't know 777*	Number of days ⌊_⌋⌊_⌋⌊_⌋	HC12

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		
Question	**Response**	**Code**
Have you ever had your blood sugar measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H13*	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 H13*	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
Have you ever been told by a doctor or other health worker that you have **Gestational Diabetes**?	Yes 1 No 2	H12

CORE: History of Raised Total Cholesterol		
Questions	**Response**	**Code**
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H18*	H13
Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes 1 No 2 *If No, go to H18*	H14a
Have you been told in the past 12 months?	Yes 1 No 2	H14b
In the past two weeks, have you taken any oral treatment (medication) for raised total cholesterol prescribed by a doctor or other health worker?	Yes 1 No 2	H15
Have you ever seen a traditional healer for raised cholesterol?	Yes 1 No 2	H16
Are you currently taking any herbal or traditional remedy for your raised cholesterol?	Yes 1 No 2	H17

CORE: History of Cardiovascular Diseases		
Question	**Response**	**Code**
Have you ever had a heart attack or chest pain from heart disease (angina)?	Yes 1 No 2	H18
Have you ever had a stroke (Cerebrovascular accident or incident)?	Yes 1 No 2	H19
Are you currently taking aspirin regularly to prevent or treat heart disease? *"Regularly" means on a daily or almost daily basis.*	Yes 1 No 2	H20
Are you currently taking statins (Lovostatin/Simvastatin/Atorvastatin or any other statin) regularly to prevent or treat heart disease? *"Regularly" means on a daily or almost daily basis.*	Yes 1 No 2	H21

CORE: Lifestyle Advice		
Questions	**Response**	**Code**
During the past three years, has a doctor or other health worker advised you to do any of the following? *(RECORD FOR EACH)*		
Do not smoke or chew tobacco	Yes 1 No 2	H22a
Reduce salt in your diet	Yes 1 No 2	H22b
Eat at least five servings of fruit and/or vegetables each day	Yes 1 No 2	H22c
Reduce fat in your diet	Yes 1 No 2	H22d
Start or do more physical activity	Yes 1 No 2	H22e
Maintain a healthy body weight or lose weight	Yes 1 *If C1=1 go to M1* No 2 *If C1=1 go to M1*	H22f

CORE (for women only): Cervical Cancer Screening		
Question	**Response**	**Code**
Have you ever had a screening test for cervical cancer, using any of these methods (VIA, Pap, HPV)?	Yes 1 No 2 Don't know 77	CX1

Step 2 Physical Measurements

CORE: Blood Pressure		
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		
Device ID for waist	⌊_⌊_⌋	M13
Waist circumference	in Centimetres (cm) ⌊_⌊_⌊_⌋.⌊_⌋	M14

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

World Health Organization

Annexure III: Factsheet on NCD Risk Factors

FACTSHEET **Sri Lanka**

World Health Organization Sri Lanka

World Health Organization Regional Office for South-East Asia

Non Communicable Diseases Risk Factors: STEPS Survey Sri Lanka 2014

The STEPS survey of noncommunicable disease (NCD) risk factors in Sri Lanka was carried out from July 2014–May 2015. Sri Lanka carried out Step 1, Step 2 and Step 3.

Socio demographic and behavioural information was collected in Step 1.

Physical measurements such as height, weight and blood pressure were collected in Step 2.

Biochemical measurements were collected to assess salt intake, blood glucose and cholesterol levels in Step 3.

The survey was a population-based survey of adults aged 18-69.

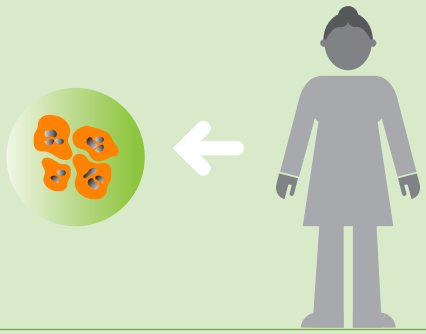
A multi-stage stratified cluster sampling design was used to produce representative data for that age range in Sri Lanka.

A total of 5188 adults participated in the survey. The overall response rate was 72%.

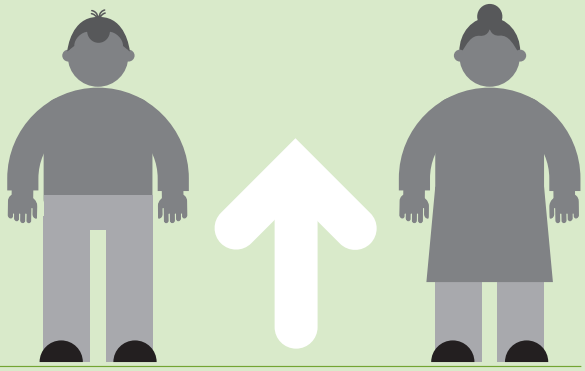
Results for adults aged 18-69 years	Both Sexes	Males	Females
Step 1: Tobacco Use			
Percentage who currently smoke tobacco	15.0%	29.4%	0.1%
Percentage who currently smoke tobacco daily	10.2%	19.9%	0.1%
Percentage who currently use smokeless tobacco	15.8%	26.0%	5.3%
Percentage who currently use smokeless tobacco daily	11.7%	19.0%	4.1%
Percentage who currently use tobacco in any any form (smoked and/ or smokeless)	25.8%	47.7%	5.3%
For those who smoke tobacco daily			
Average age started smoking (years)	20.7	20.5	46.2
Percentage of daily smokers smoking manufactured cigarettes	82.9%	82.4%	0.0%
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	3.7	3.7	0.0
Step 1: Alcohol Consumption			
Percentage who are lifetime abstainers	67.9%	40.2%	96.4%
Percentage who are past 12 month abstainers	5.8%	9.7%	1.8%
Percentage who currently drink (drank alcohol in the past 30 days)	17.9%	34.8%	0.5%
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	8.6%	16.8%	0.1%
Step 1: Diet			
Mean number of days fruit consumed in a typical week	3.6	3.5	3.8
Mean number of servings of fruit consumed on average per day	1.3	1.3	1.3
Mean number of days vegetables consumed in a typical week	6.6	6.5	6.6
Mean number of servings of vegetables consumed on average per day	3.0	3.0	3.1
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	72.5%	73.1%	72.0%
Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	21.8%	21.8%	21.8%
Percentage who always or often eat processed foods high in salt	26.6%	28.3%	24.8%
Step 1: Physical Activity			
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)*	30.4%	22.5%	38.4%
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	77.1	124.3	42.8
Percentage not engaging in vigorous activity	73.6%	58.3%	89.2%

Sri Lanka

25% **of women aged 30-49 years who have ever had a screening test for CERVICAL CANCER**

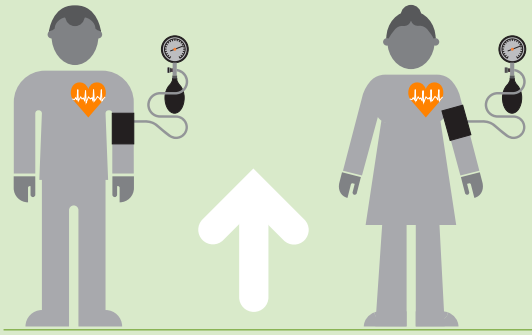


25% OVERWEIGHT **34%**

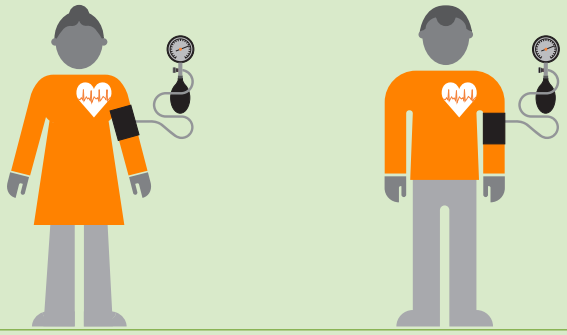


Mean BLOOD PRESSURE

126.8 (mmHg)	Systolic	**123.4** (mmHg)
80.5 (mmHg)	Diastolic	**80.4** (mmHg)

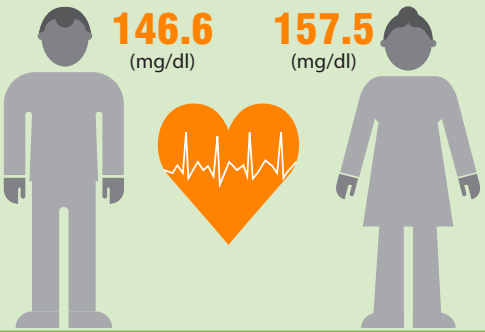


21% having **HIGH BLOOD PRESSURE were not on medicaiton**



Mean total BLOOD CHOLESTEROL, including those currently on medication for raised cholesterol

146.6 (mg/dl) **157.5** (mg/dl)



% with raised fasting fasting BLOOD SUGAR

7.4%

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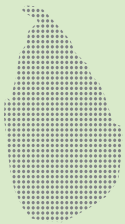
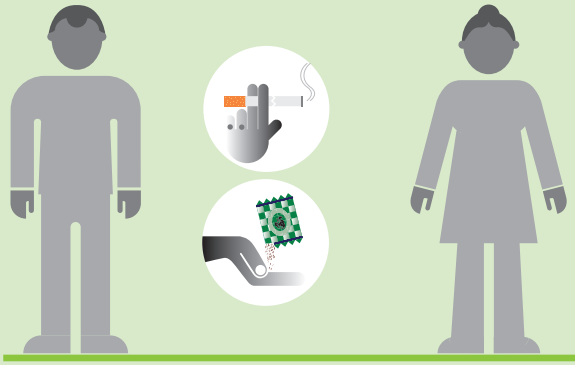
Sri Lanka



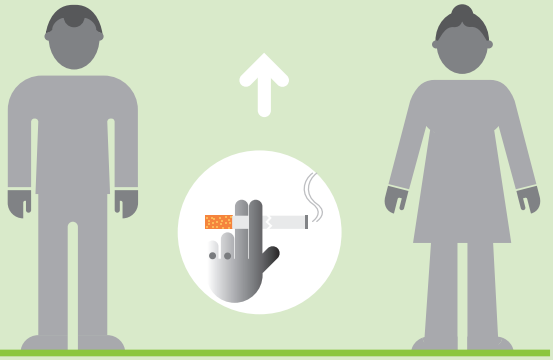
TOBACCO USE

46% 5%



SMOKE

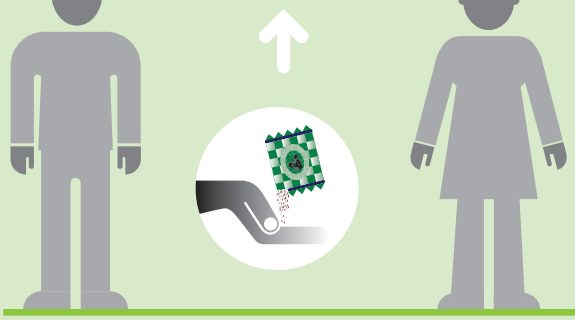
29% 0.1%

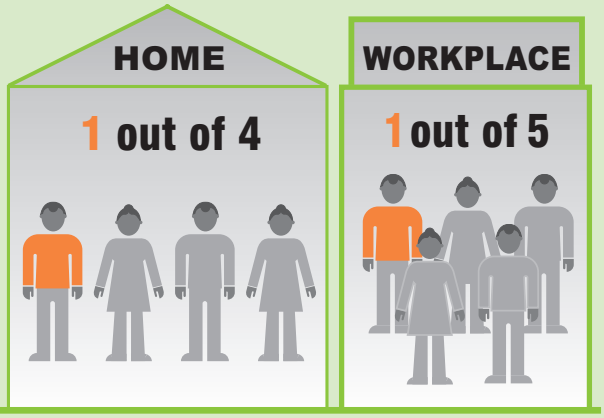


SECOND HAND SMOKING

SMOKELESS TOBACCO

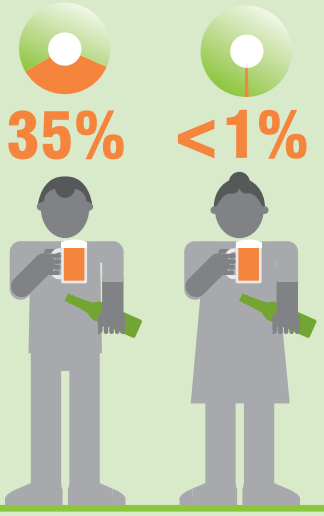
26% 5%

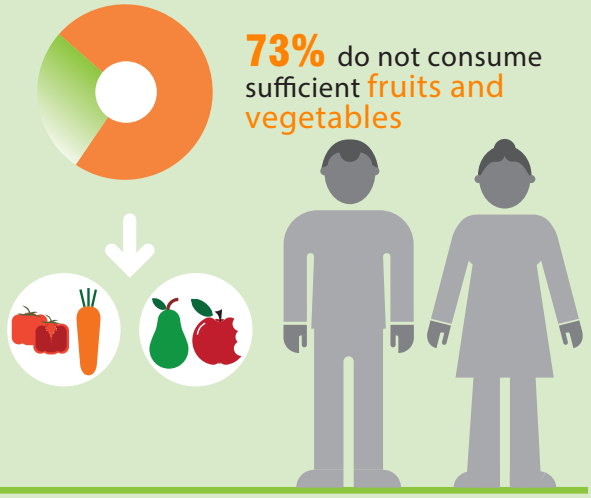




ALCOHOL DRINKERS

35% <1%





Annexure IV: Tabacco Factsheet

Tobacco Factsheet

Ministry of Health Nutrition and Indigenous medicine

World Health Organization Country Office for Sri Lanka

World Health Organization Regional Office for South-East Asia

Sri Lanka STEPS Survey 2015

The WHO STEPwise approach to surveillance (STEPS) is a simple, standardized method for collecting, analysing and disseminating data on noncommunicable diseases (NCDs) and risk factors. Data are collected on the established risk factors and NCD conditions that determine the major NCD burden, including tobacco use, harmful use of alcohol, unhealthy diet, insufficient physical activity, overweight and obesity, raised blood pressure, raised blood glucose, and abnormal blood lipids. Data from STEPS surveys can be used by countries to help monitor progress in meeting the global voluntary targets related to specific risk factors such as tobacco, alcohol, diet and physical inactivity. The tobacco indicators from STEPS can be used to evaluate and monitor existing tobacco-control policies and programs.*

The STEPS survey on NCD risk factors in Sri Lanka was carried out from July 2014 to May 2015. The STEPS survey in Sri Lanka was a population-based survey of adults aged 18-69 years. A multi stage cluster sampling design was used to produce representative data for that age range in Sri Lanka. Survey information was collected electronically using handheld devices. The survey was implemented by the Ministry of Health, Nutrition & Indigenous Medicine. A total of 5188 adults participated in the Sri Lanka STEPS survey. The overall response rate was 72%. A repeat survey is planned for 2018 if funds permit.

Highlights

Tobacco Use

- 45.7% of men, 5.3 % of women, and 25.8 % overall were current users of tobacco, in any form.
- 29.4% of men, 0.1% of women, and 15.0% overall were current smokers of tobacco.
- 26.0 % of men, 5.3 % of women, and 15.8 % overall were current users of smokeless tobacco.

Cessation

- 1 in 2 current smokers tried to stop smoking in the last 12 months.
- 3 in 10 current smokers were advised by a health care provider to stop smoking in the last 12 months.

Secondhand smoke

- 1 in 4 adults were exposed to tobacco smoke at the workplace.
- 1 in 4 adults were exposed to tobacco smoke at home.

Media

- 9 in 10 adults noticed anti-cigarette smoking information on the television.
- 1 in 2 adults noticed anti-cigarette smoking information on the radio.
- 3 in 10 current smokers thought about quitting because of warning labels on cigarette packages.
- 1 in 10 adults noticed cigarette marketing in stores where cigarettes are sold.
- 3 in 100 adults noticed any form of cigarette promotions.

Economics

- Average monthly expenditure on manufactured cigarettes was 2695.00 Sri Lankan Rupees.

Data presented in this fact sheet relate only to select tobacco indicators. Additional information on tobacco or other NCD risk factors from the survey is available from sources listed below.

For additional information, please contact:
WHO STEPS Team [Steps@who.int]
STEPS country focal point Dr. Lakshmi C. Somatunga email: lsomatunga@hotmail.com
*Tobacco questions are drawn from the Tobacco Questions for Surveys(TQS)
http://www.who.int/tobacco/publications/surveillance/tqs/en

Results for adults aged 18-69 years	Overall % (95% CI)	Males % (95% CI)	Females % (95% CI)
Tobacco use			
Current tobacco users (smoked and/or smokeless)[1]			
Current tobacco users	25.8 (24.1-27.6)	45.7 (42.7-48.6)	5.3 (4.3-6.3)
Current daily tobacco users	20.0 (18.5-21.5)	35.3 (32.6-38.0)	4.1 (3.3-5.0)
Current tobacco smokers			
Current tobacco smokers	15.0 (13.6-16.4)	29.4 (26.8-31.9)	**
Current cigarette smokers[2]	15.7 (13.7-17.6)	24.5 (22.0-27.1)	**
Current daily tobacco smokers	10.2 (9.1-11.3)	19.9 (17.8-22.0)	**
Current daily cigarette smokers	7.9 (6.9-9.0)	12.4 (11.1-13.7)	**
Average age started tobacco smoking (years)	20.6 (20.1-21.1)	20.5 (20.0-20.9)	**
Average number of cigarettes smoked per day (among daily cigarette smokers)	5.1 (4.3-5.9)	5.1 (4.3-5.9)	**
Current smokeless tobacco users			
Current smokeless tobacco users	15.8 (14.3-17.4)	26.0 (23.3-28.8)	5.3 (4.3-6.3)
Current daily smokeless tobacco users	11.7 (10.4-12.9)	18.9 (16.7-21.2)	4.1 (3.3-5.0)
Current non-users (smoked and/or smokeless)[1]			
Former tobacco users[3]	6.7 (5.7-7.7)	12.0 (10.2-13.8)	1.3 (0.8-1.7)
Former tobacco smokers[4]	8.5 (7.4-9.6)	16.7 (14.6-18.7)	0.0 (0.0-0.1)
Never users	67.4 (65.6-69.3)	42.3 (39.3-45.4)	93.4 (92.2-94.5)
Exposure to Second-hand smoke			
Adults exposed to second-hand smoke at home*	23.5 (21.5-25.5)	25.2 (22.5-28.0)	21.6 (19.3-23.9)
Adults exposed to second-hand smoke in the closed areas in their workplace*	24.1 (21.4-26.8)	36.1 (32.2-39.9)	11.1 (8.7-13.6)
Tobacco Cessation			
Current smokers who tried to stop smoking in past 12 months	51.8 (46.9-56.7)	51.8 (46.9- 56.8)	**
Current smokers advised by a health care provider to stop smoking in past 12 months[5]	35.0 (30.0-40.1)	35.2 (30.1-40.2)	**
Health Warnings			
Current smokers who thought about quitting because of a warning label*	54.6 (48.6-60.5)	54.5 (48.5-60.4)	**
Adults who noticed anti-cigarette smoking information on the television*	86.3 (84.1-88.4)	87.7 (85.2-90.2)	84.7 (82.3-87.2)
Adults who noticed anti-cigarette smoking information on the radio*	49.8 (46.4-53.3)	51.4 (47.4-55.4)	48.2 (44.3-52.0)
Adults who noticed anti-cigarette smoking information in newspapers or magazines*	64.4 (61.2-67.6)	67.8 (64.1-71.4)	60.7 (57.1-64.4)
Tobacco Advertisement and Promotion			
Adults who noticed cigarette marketing in stores where cigarettes are sold*	11.5 (9.5-13.4)	14.7 (11.9-17.5)	7.9 (6.1-9.6)
Adults who noticed any cigarette promotions*	2.8 (2.0- 3.6)	4.4 (3.0- 5.8)	0.9 (0.5-1.4)

Economics	**Local Currency LKR**
Average amount spent on 20 manufactured cigarettes	572.4
Average monthly expenditure on manufactured cigarettes	2695.0
Cost of 100 packs of manufactured cigarettes as a percentage of per capita Gross Domestic Product (GDP) 2014[6]	11.5%

1 Current use refers to daily and less than daily use. 2 Includes manufactured cigarettes and hand-rolled cigarettes. Adapted for other products as per country situation. 3 Current non-users. 4 Current non-smokers. 5 Among those who visited a health care provider in past 12 months. 6 http://data.worldbank.org/indicator/NY.GDP.PCAP.CD, 2014 * During the past 30 days. † Promotions include free cigarette sample, cigarettes at sale prices, coupons for cigarettes, free gifts upon purchase of cigarettes, clothing or other items with cigarette brand name or logo and cigarette promotions in mail. Adults refer to persons age 18-69 years. Data have been weighted to be nationally representative of all men and women age 18-69 years. ** The sample size "n" is less 50.Technical assistance for the survey was provided by the World Health Organization (WHO). This document has been produced with a partial grant from the CDC Foundation, with financial support from the Bloomberg Initiative to Reduce Tobacco Use, a program of Bloomberg Philanthropies. The contents of this document are the sole responsibility of the authors and can under no circumstances be regarded to reflect the positions of the CDC Foundation.

World Health Organization
COUNTRY OFFICE FOR Sri Lanka

WHO STEPS

Chronic Disease Risk Factor Surveillance

TOBACCO POLICY DATA BOOK

Tobacco Policy

Anti-cigarette information

Description: Percentage of all respondents who noticed information in newspapers or magazines, television or radio about the dangers of smoking or that encourages quitting during the past 30 days

Instrument questions:

- During the past 30 days, have you noticed information about the dangers of smoking cigarettes or that encourages quitting through the following media?
  - Newspapers or magazines

Noticed information in newspapers or magazines about dangers of smoking or that encourages quitting									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	274	67.0	60.4-73.5	450	64.9	59.3-70.6	724	66.0	61.1-71.0
35-44	630	69.3	64.8-73.9	1025	61.4	56.8-66.0	1655	65.5	61.8-69.3
45-54	622	66.8	62.0-71.7	853	57.2	52.3-62.0	1475	62.0	58.0-66.0
55-64	325	68.4	62.5-74.3	410	54.2	48.1-60.3	735	61.6	57.0-66.3
25-64	**1851**	**67.8**	**64.1-71.4**	**2738**	**60.7**	**57.1-64.4**	**4589**	**64.4**	**61.2-67.6**

Noticed information on television about dangers of smoking or that encourages quitting									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	289	89.5	85.1-94.0	491	84.7	80.8-88.7	780	87.2	83.9-90.6
35-44	657	87.1	83.9-90.3	1093	85.4	82.3-88.5	1750	86.3	83.8-88.8
45-54	654	86.6	83.5-89.7	919	85.6	82.4-88.7	1573	86.1	83.5-88.6
55-64	350	86.2	81.8-90.5	453	80.5	76.1-84.9	803	83.4	80.0-86.8
25-64	**1950**	**87.7**	**85.2-90.2**	**2956**	**84.7**	**82.3-87.2**	**4906**	**86.3**	**84.1-88.4**

Noticed information on the radio about dangers of smoking or that encourages quitting									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	271	48.3	41.4-55.3	446	50.7	44.4-57.0	717	49.4	44.3-54.5
35-44	615	53.0	47.9-58.2	984	47.3	42.5-52.0	1599	50.3	46.3-54.3
45-54	604	52.0	46.8-57.2	842	46.9	42.0-51.8	1446	49.4	45.3-53.6
55-64	320	55.9	49.2-62.6	416	45.7	39.7-51.8	736	51.0	45.9-56.1
25-64	**1810**	**51.4**	**47.4-55.4**	**2688**	**48.2**	**44.3-52.0**	**4498**	**49.8**	**46.4-53.3**

Analysis Information:

- Questions used: TP1a-c
- Epi Info program name: TPdanger (unweighted); TPdangerWT (weighted)

Cigarette advertising

Description: Percentage of all respondents who noticed advertisements or signs promoting cigarettes in stores where cigarettes are sold during the past 30 days.

Instrument questions:

- During the past 30 days, have you noticed any advertisements or signs promoting cigarettes in stores where cigarettes are sold?

Noticed advertisements or signs promoting cigarettes in stores									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	282	12.7	7.6-17.9	443	7.6	4.9-10.3	725	10.4	7.1-13.6
35-44	647	17.6	13.7-21.6	1027	9.1	6.5-11.6	1674	13.6	10.9-16.2
45-54	633	14.9	10.9-18.9	876	7.5	5.1-9.9	1509	11.2	8.6-13.8
55-64	341	12.6	8.5-16.7	418	6.3	3.3-9.3	759	9.6	6.8-12.4
25-64	**1903**	**14.7**	**11.9-17.5**	**2764**	**7.9**	**6.1-9.6**	**4667**	**11.5**	**9.5-13.4**

Analysis Information:

- Questions used: TP2
- Epi Info program name: TPcigads (unweighted); TPcigadsWT (weighted)

Instrument questions:

- During the past 30 days, have you noticed any of the following types of cigarette promotions?

Noticed free samples of cigarettes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	270	2.4	0.0-5.1	404	0.5	0.0-1.1	674	1.6	0.0-3.2
35-44	613	3.1	1.4-4.7	917	1.0	0.3-1.7	1530	2.1	1.1-3.1
45-54	606	3.9	1.8-5.9	784	1.0	0.3-1.8	1390	2.5	1.3-3.7
55-64	320	1.7	0.2-3.2	384	0.6	0.0-1.7	704	1.2	0.2-2.2
25-64	**1809**	**2.9**	**1.5-4.3**	**2489**	**0.8**	**0.4-1.2**	**4298**	**1.9**	**1.1-2.8**

Noticed sale prices on cigarettes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	267	2.0	0.0-4.0	406	0.2	0.0-0.6	673	1.2	0.0-2.3
35-44	606	3.7	1.9-5.5	917	1.1	0.3-2.0	1523	2.5	1.4-3.6
45-54	601	3.7	1.9-5.5	776	1.0	0.2-1.7	1377	2.4	1.3-3.4
55-64	318	2.0	0.2-3.7	384	1.1	0.0-2.5	702	1.6	0.4-2.7
25-64	**1792**	**2.9**	**1.8-4.0**	**2483**	**0.8**	**0.3-1.2**	**4275**	**1.9**	**1.3-2.6**

Noticed coupons for cigarettes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	265	0.0	0.0-0.0	401	0.0	0.0-0.0	666	0.0	0.0-0.0
35-44	604	1.0	0.1-1.8	901	0.2	0.0-0.5	1505	0.6	0.1-1.1
45-54	597	1.3	0.3-2.2	770	0.2	0.0-0.5	1367	0.7	0.2-1.3
55-64	317	0.4	0.0-1.2	377	0.0	0.0-0.0	694	0.2	0.0-0.7
25-64	**1783**	**0.6**	**0.3-1.0**	**2449**	**0.1**	**0.0-0.2**	**4232**	**0.4**	**0.2-0.6**

Noticed free gifts or special discount offers on other products when buying cigarettes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	260	0.5	0.0-1.4	398	0.0	0.0-0.0	658	0.3	0.0-0.8
35-44	599	0.8	0.0-1.6	899	0.3	0.0-0.7	1498	0.6	0.1-1.0
45-54	596	1.4	0.3-2.5	769	0.3	0.0-0.7	1365	0.9	0.3-1.5
55-64	316	0.3	0.0-0.8	376	0.1	0.0-0.4	692	0.2	0.0-0.5
25-64	**1771**	**0.8**	**0.3-1.3**	**2442**	**0.2**	**0.0-0.3**	**4213**	**0.5**	**0.2-0.8**

Noticed clothing or other items with a cigarette brand name or logo									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	267	5.0	1.9-8.2	408	1.3	0.0-2.6	675	3.4	1.4-5.3
35-44	610	4.1	2.0-6.3	923	2.6	1.0-4.3	1533	3.4	1.9-5.0
45-54	604	4.0	1.8-6.2	782	1.8	0.4-3.1	1386	2.9	1.5-4.4
55-64	315	1.4	0.1-2.6	376	2.1	0.1-4.0	691	1.7	0.6-2.8
25-64	**1796**	**4.1**	**2.6-5.7**	**2489**	**1.9**	**1.0-2.8**	**4285**	**3.1**	**2.0-4.2**

Noticed cigarette promotions in the mail									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	253	0.0	0.0-0.0	378	0.0	0.0-0.0	631	0.0	0.0-0.0
35-44	561	0.6	0.0-1.3	840	0.4	0.0-0.9	1401	0.5	0.0-0.9
45-54	532	0.6	0.0-1.4	708	0.1	0.0-0.4	1240	0.4	0.0-0.8
55-64	291	0.0	0.0-0.0	352	0.0	0.0-0.0	643	0.0	0.0-0.0
25-64	**1637**	**0.3**	**0.0-0.6**	**2278**	**0.1**	**0.0-0.3**	**3915**	**0.2**	**0.1-0.4**

Analysis Information:

- Questions used: TP3a-TP3f
- Epi Info program name: TPcigpromos (unweighted); TPcigpromosWT (weighted)

Cigarette package health warnings

Description: Percentage of current smokers who noticed health warnings on cigarette packages during the past 30 days.

Instrument questions:

- During the past 30 days, did you notice any health warnings on cigarette packages?

Current smokers who noticed health warnings on cigarette packages									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	64	83.7	75.2-92.2	0	-	-	64	83.7	75.2-92.2
35-44	205	78.4	72.4-84.4	0	-	-	205	78.4	72.4-84.4
45-54	195	77.9	71.5-84.2	3	67.6	67.6-67.6	198	77.8	71.5-84.1
55-64	95	73.1	63.3-82.8	0	-	-	95	73.1	63.3-82.8
25-64	**559**	**79.3**	**75.2-83.3**	**3**	**67.6**	**67.6-67.6**	**562**	**79.2**	**75.2-83.3**

Analysis Information:

- Questions used: TP4
- Epi Info program name: TPwarnings (unweighted); TPwarningsWT (weighted)

Quitting

Description: Percentage of current smokers who noticed health warnings on cigarette packages during the past 30 days that thought about quitting due to the health warnings they saw.

Instrument questions:

- During the past 30 days, did you notice any health warnings on cigarette packages?
- During the past 30 days, have warning labels on cigarette packages led you to think about quitting?

Current smokers who saw health warnings on cigarette packages that thought of quitting									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	50	52.5	38.8-66.1	0	-	-	50	52.5	38.8-66.1
35-44	152	49.6	40.7-58.5	0	-	-	152	49.6	40.7-58.5
45-54	145	62.4	54.0-70.9	1	100	-	146	62.8	54.4-71.1
55-64	66	54.6	41.6-67.6	0	-	-	66	54.6	41.6-67.6
25-64	**413**	**54.5**	**48.5-60.4**	**1**	**100**	**-**	**414**	**54.6**	**48.6-60.5**

Analysis Information:

- Questions used: TP4, TP5
- Epi Info program name: TPquitting (unweighted); TPquittingWT (weighted)

Cigarette costs

Description: Average price paid for 20 manufactured cigarettes, based on the last manufactured cigarette purchase.

Instrument questions:

- The last time you bought manufactured cigarettes for yourself, how many cigarettes did you buy in total?
- In total, how much money did you pay for this purchase?

Average price paid for 20 manufactured cigarettes									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean LKR	95% CI	n	Mean LKR	95% CI	n	Mean LKR	95% CI
25-34	64	604.3	564.0-644.6	0	-	-	64	604.3	564.0-644.6
35-44	207	610.1	520.4-699.9	0	-	-	207	610.1	520.4-699.9
45-54	184	936.3	233.9-1638.7	2	38.7	33.2-44.2	186	933.3	233.2-1633.4
55-64	86	490.4	439.5-541.3	0	-	-	86	490.4	439.5-541.3
25-64	**541**	**683.0**	**472.3-893.8**	**2**	**38.7**	**33.2-44.2**	**543**	**682.5**	**471.9-893.0**

Analysis Information:

- Questions used: TP6, TP7
- Epi Info program name: TPcost (unweighted); TPcostWT (weighted)

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