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150 YEARS OF CELEBRATING THE MAHATMA

सत्यमेव जयते
MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA

NATIONAL NONCOMMUNICABLE DISEASE MONITORING SURVEY (NNMS) 2017-18

2020

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NATIONAL NONCOMMUNICABLE DISEASE MONITORING SURVEY (NNMS) 2017–18

Bengaluru, India

2020

This report was prepared by the Indian Council of Medical Research - National Centre for Disease Informatics and Research, through funding from Ministry of Health and Family Welfare, Government of India.

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TABLE OF CONTENTS

File No.T.21020/56/2018-NCD-II/NPCDCS 624

I/3322227/2020

सबका साथ, सबका विकास, सबका विश्वास
Sabka Saath, Sabka Vikas, Sabka Vishwas

सत्यमेव जयते

डॉ हर्ष वर्धन
Dr Harsh Vardhan
स्वास्थ्य एवं परिवार कल्याण, विज्ञान और प्रौद्योगिकी व पृथ्वी विज्ञान मंत्री, भारत सरकार
Union Minister for Health & Family Welfare, Science & Technology and Earth Sciences Government of India

Message

It gives me pleasure to note that the report of the "National Non- Communicable Disease (NCD) Monitoring Survey (NNMS)" conducted with the support of Ministry of Health and Family Welfare by the Indian Council of Medical Research (ICMR) - National Centre for Disease Informatics & Research (NCDIR), Bengaluru is being released.

The country is facing epidemiologic transition towards NCD and their occurrence in younger age groups amongst the poorer sections of the society remains a matter of concern demanding greater attention.

The Government has accorded highest policy priority to address NCDs by implementation of National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS); putting in place the National NCD Monitoring Framework; National NCD Action Plan; National NCD Multi-sectoral Action Plan, and providing comprehensive health care through Ayushman Bharat.

The NNMS is an important step towards strengthening surveillance of NCDs and their determinants and I am sure that it will bring out critical data on various aspects of NCDs including prevalence of its risk factors at the national level. The data will not only provide baseline for measuring future progress but also facilitate implementation of National NCD Multi-sectoral Action Plan engaging relevant key stakeholders.

Ministry of Health and Family Welfare is committed to NCD control and would continue to extend all possible support for implementation of findings of the survey and assessments.

I extend all my good wishes and hope the data will be useful to provide significant insights that will help in control of NCDs.

(Dr Harsh Vardhan)

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अश्विनी कुमार चौबे
Ashwini Kumar Choubey

सत्यमेव जयते
सर्वेसन्तु निरामया

स्वास्थ्य एवं परिवार कल्याण राज्य मंत्री
भारत सरकार
MINISTER OF STATE FOR
HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA

MESSAGE

I am happy to note that findings of the National NCD Monitoring Survey: 2017-18 conducted by the ICMR National Center for Disease Informatics and Research, Bengaluru, have become available. Being a survey conducted on a national sampling framework, it provides a useful snapshot on NCD risk factors, morbidity patterns, and the required health response.

Findings of the report will be utilised for planning and programmatic actions to address the growing burden of Non communicable Diseases in the country. The results will be relevant to take forward the multi-sectoral actions towards prevention of NCDs, since most of the work needs to be done outside the health sector.

For continuous monitoring of health indicators relating to NCDs, this survey is a foundation stone towards strengthening surveillance of NCDs. Only based on reliable and continuous information, relevant and timely actions can be taken.

I would like to see the strengthening of such initiatives with wider collaborations with stakeholders to improve policy and programs.

(Ashwini Kumar Choubey)

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सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare

MESSAGE

India faces a rising burden of Non-Communicable Diseases (NCDs), across all sections of society along with their escalating risk factors. The existing health systems therefore need to meet this ever increasing challenge of NCDs. High out-of-pocket expenditure and financial burden, on account of this preclude optimal health care for the people. The Government of India and the Ministry of Health are responding through a slew of policy and programmatic measures to strengthen various interventions to tackle NCDs. These include National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS), National Health Policy, National Tobacco control program, National NCD monitoring framework, National NCD Multi-Sectoral Action Plan, and Ayushman Bharat. Within the NPCDCS, screening for hypertension, diabetes and cancers of breast, cervix and oral cavity has been rolled out throughout the country.

Recognising the need to measure all these efforts across the country and be able to assess progress being made towards achieving targets on NCDs, the Ministry of Health and Family Welfare supported the ICMR National Center for Disease Informatics and Research, Bengaluru as the nodal agency for undertaking the National NCD monitoring survey. This comprehensive survey covers various aspects of the NCD monitoring framework and multi-sectoral action plan. The protocols, tools and expert capacities developed during this exercise will be helpful for doing similar surveys at state levels also. I am confident that the results of the survey will be extremely useful from policy and program perspectives.

(Rajesh Bhushan)

Place : New Delhi
Date : 2-12-2020

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World Health Organization
India

MESSAGE

Noncommunicable diseases (NCDs) are the leading cause of death in the world. The four main NCDs — cardiovascular disease, cancer, chronic lung diseases and diabetes — kill three in five people worldwide. In India, the four main NCDs accounts for nearly 57% of premature deaths. The rise of premature deaths due to NCDs has been driven primarily by four major risk factors: tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets. NCDs pose devastating health consequences for individuals, families and communities, and threaten to overwhelm health systems. The socioeconomic costs associated with NCDs make the prevention and control of these diseases a major development imperative.

Premature deaths from NCDs can be prevented by designing effective policies, targeted actions and proactive engagement in health and related sectors. Availability of reliable data on NCDs and their determinants will form the very building blocks to formulate an effective response towards the prevention and control of NCDs. Hence, strengthening capacity to collect, analyse and communicate data is critical for advocacy, policy development and guiding national actions.

The significance of strengthening monitoring and surveillance systems to track social disparities in vulnerability to NCDs and their risk factors was highlighted in the High-level Political Declaration of United Nations General Assembly in 2011.The World Health Organization (WHO) has been continuously working with Member States to strengthen investments in monitoring and surveillance systems to improve the availability of high-quality data on NCDs.

I am delighted to share that India was the first country globally to adopt the Global NCD Monitoring Framework, define 10 targets and a wide range of indicators based on the country context. The National NCD Monitoring Survey (NNMS) launched by the Ministry of Health & Family Welfare (MoHFW) and Indian Council of Medical Research monitors the progress towards the targets outlined in India's National NCD Monitoring Framework.

WHO India congratulates India's efforts in conducting the survey and developing the much needed NNMS report, which provides valuable information on the health system's capacity and distribution of NCD risk factors among adults and adolescents. We are confident that the report will give new impetus to the implementation of the National Multisectoral Action Plan for Prevention and Control of NCDs 2017-2022 and NCD interventions outlined in India's National Health Policy, 2017. We stand committed to supporting the government in stepping up sustained and coordinated actions to reduce the burden of NCDs, promote good health and wellbeing.

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महानिदेशक, आई सी एम आर

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FOREWORD

Non-communicable Diseases (NCDs) accounted for nearly 65% of all deaths in the country and has surpassed several communicable diseases, maternal and child related deaths. India faces a rising burden of Non-communicable Diseases across all sections of society along with their escalating risk factors. The existing health systems are overburdened and overstretched to meet this huge demand. High out of pocket expenditure and financial burden preclude optimal health care for the people. The Government of India and the Ministry of Health are responding through a slew of policy measures to enable adequate ways to tackle NCDs- National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS), National Health Policy 2017, National Tobacco control program, National NCD monitoring framework and NCD action plan 2025, adaptation of Sustainable Development Goals 2030, National NCD multi-sectoral action plan 2030, Ayushman Bharat and Pradhan Mantri Jan Aarogya Yojna, the Health and Wellness Centers and many more. Screening for hypertension, diabetes and cancers of breast, cervix and oral cavity, tertiary cancer care scheme/state cancer institute scheme have been rolled out and are gaining momentum. The Department of Health Research and the Indian Council of Medical Research have responded with several research activities to address the rising burden of NCDs in the country.

Recognizing the need to measure all these efforts across the country and be able to assess progress being made towards achieving targets on NCDs, the Ministry of Health supported the ICMR National Center for Disease Informatics and Research, Bengaluru as the nodal agency for undertaking the National NCD Monitoring Survey (NNMS) during 2017-2018. This comprehensive survey covers various aspects of the National NCD Action Plan and NCD Monitoring Framework. The NNMS – 2017-18 uniquely involved a large number of diverse stakeholders, covered topics ranging from NCD risk factors, diseases, health systems response, covered adults (18-69 years) and adolescents (15-17 years) in urban and rural areas of the country based on a robust national sampling framework. Standard global tools were adapted to meet our requirements. It has developed protocols and capacities for undertaking similar surveys at state levels also. The results will be useful from policy and program perspectives, especially to augur multi-sectoral actions.

The Department of Health Research, Ministry of Health & Family Welfare, Govt of India would continue its support for strengthening surveillance of NCDs and their risk factors through various mechanisms in order to inform policy and program development and their implementation.

Balram Bhargava

(Balram Bhargava)

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ICMR - National Centre for Disease Informatics and Research
Department of Health Research, Ministry of Health and Family Welfare, Government of India

ACKNOWLEDGEMENT

The National Noncommunicable Disease Monitoring Survey (NNMS) – 2017-18 was undertaken in 600 Primary Sampling Units spread in urban and rural areas of the country based on a national sampling framework and sample size on adults (18-69 years) and adolescents (15-17 years). The ICMR-National Centre for Disease Informatics & Research (NCDIR), Bengaluru takes pride in being the nodal agency for such a comprehensive survey on NCDs for the first time in the country.

During the period of planning, implementation, data analysis and report preparation, several key persons and organizations/institutions provided whole hearted support to us. We are grateful to the Ministry of Health and Family Welfare and the Directorate General of Health Services, Government of India, New Delhi to have set up this survey and provided financial support. The World Health Organization (WHO) Country and Regional Offices in India, and Headquarters, Geneva provided valuable technical and financial supports on critical elements. We are thankful to the Director General's ICMR and Secretaries Department of Health Research (Dr Vishwa Mohan Katoch, Dr Soumya Swaminathan, Prof. Balram Bhargava) for their encouragement and guidance. The support rendered by ICMR Headquarters is duly acknowledged.

We express our gratitude to the members of the Technical Working Group: Co-Chairs (Dr Jai P Narain, Prof Rajesh Kumar), Prof Surendra S Shastri, Prof Gopalakrishna Gururaj, Dr Damodar Bachani, Dr V Mohan, Dr N S Murthy, Dr B L Jailkhani, Prof K R Sundaram, Dr Mohammed Shaukat, Dr FT Tullu, Directors of ICMR NIE Chennai and NIMS Delhi. The exemplary contribution of the survey implementing agency Principal Investigators at AIIMS New Delhi, National Institute of Epidemiology Chennai, National Institute of Medical Statistics New Delhi, National Centre for Disease Control New Delhi, AIIMS Jodhpur, AIIMS Bhopal, Assam Medical College Dibrugarh, AIIMS Bhubaneshwar, BJ Medical College Pune, National Institute of Nutrition Hyderabad, AMCHSS SCTIMST Thiruvananthapuram made it possible to undertake the survey smoothly and efficiently. All were ably supported by Co-Principal Investigators, State collaborators and all the other staff who worked under difficult circumstances and faced of many hardships in the field. We acknowledge gratefully the support provided by the State, District and local level officials in facilitating the implementation of the survey.

I am thankful to my scientific, technical, project and administrative staff at ICMR-NCDIR, Bengaluru for their hard work, patience and commitment for the survey. Special thanks to Dr K Vaitheeswaran, Mr Vinay Urs K S, Dr Sravya L, Mr N Suresh Kumar, Mr Ramesha N M, and Mr Harish Siddaraju.

All this could not have been possible without the survey participants who voluntarily agreed to share their time and information. We look forward to this work ushering in better Health for All!

(Prashant Mathur)

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LIST OF ABBREVIATIONS

AIIMS	All India Institute of Medical Sciences
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BMI	Body Mass Index
BP	Blood Pressure
CCU	Central Coordinating Unit
CHC	Community Health Centre
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardiovascular Disease
DH	District Hospital
ECG	Electrocardiogram
FSSAI	Food Safety and Standards Authority of India
GBD	Global Burden of Disease
HFSS	High Fat Sugar and Salt
ICMR	Indian Council of Medical Research
IDSP	Integrated Disease Surveillance Project
MoHFW	Ministry of Health and Family Welfare
MSW	Medical Social Worker
NCD	Noncommunicable Disease
NCDIR	National Centre for Disease Informatics and Research
NFHS	National Family Health Survey
NNMS	National NCD Monitoring Survey
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
PSU	Primary Sampling Unit
SDG	Sustainable Development Goal
SHS	Second Hand Smoke
TWG	Technical Working Group
WC	Waist Circumference
WHO	World Health Organization

LIST OF TABLES

LIST OF ANNEXURE TABLES

LIST OF FIGURES

LIST OF DEFINITIONS

1. Household characteristics

1.	**Type of house** was defined based on roof, floor and walls. **Pucca houses** were those made with high quality materials throughout, including the floor, roof, and exterior walls, **semi-pucca houses** were those that used partly low-quality and partly high-quality materials and **kachha houses** were made from mud, thatch, or other low-quality materials.
2.	**Toilet facility** included own or shared flush or pit toilets.
3.	**Solid fuels** included coal/lignite/charcoal/wood/straw/shrubs/grass/agricultural crop waste/dung cakes as fuel for cooking.
4.	**Clean energy sources** included electricity, LPG/natural gas and biogas as sources of energy for cooking.

2. Tobacco use – adults and adolescents

1.	**Never tobacco users** were defined as those who had never smoked/used smokeless tobacco in their lifetime.
2.	**Current tobacco use** was defined as use of any form of tobacco (smoke and/or smokeless) in the last 12 months preceding the survey.
3.	**Current daily tobacco use** was defined as use of any form of tobacco (smoke and/or smokeless) daily over the last 12 months preceding the survey.
4.	**Past tobacco use** was defined as use of smoke and/or smokeless tobacco in the past either daily or occasionally prior to 12 months preceding the survey.
5.	**Exposure to second hand smoke** was defined as those who reported being exposed to tobacco smoke on one or more than one occasion due to someone smoking tobacco close by either at home/workplace (closed areas)/during travel in car/bus/train/metro etc., in the past 30 days.
6.	**Ever user/experimented tobacco** were defined as those who ever tried or experimented with consumption of any form of tobacco (smoked and/or smokeless) in their lifetime.

3. Alcohol use – adults and adolescents

1.	**Lifetime abstainers** were defined as those who had never consumed one or more drink of any type of alcohol in their lifetime.
2.	**Ever consumed** were defined as those who consumed any alcoholic products (such as beer, wine, whisky, locally prepared alcohol etc.) at least once in their lifetime.

3.	**Current alcohol use** was defined as consumption of alcohol in the last 12 months preceding the survey.
4.	**One standard drink** was defined as the amount of ethanol in a standard glass (with net pure alcohol content of 10 gm) of beer, wine, fortified wine such as sherry and spirits.
5.	**Heavy episodic drinking** in adults (18–69 years) was defined as those engaged in consuming six or more standard drinks (60 grams) in a single drinking occasion over the past 30 days. **Heavy episodic drinking** in adolescents was defined as those engaged in five or more standard drinks of alcohol for boys and four or more for girls in a single drinking occasion over the past 30 days.
6.	**Unauthorized sources of alcohol use** were defined as those who consumed either smuggled/untaxed, home brewed, illegally brewed and alcohol not intended for drinking such as alcohol-based medicines, perfumes, after shaves or any other untaxed alcohol over the last 7 days.
7.	**Source of alcohol** was defined as the consumption of alcohol bought from any one of the following sources over the last 30 days; bought from store/shop/street vendor; gave money to someone else to buy; got it from friends; got it from family; stole it or got it without permission and some other way.

4. Diet – adults and adolescents

1.	**One standard serving** of fruits and/or vegetables is equivalent to 80-100 grams. The quantity of intake was measured by servings; for vegetables this refers to one cup of raw, leafy green vegetables (spinach, salad etc.), half cup of other vegetables, cooked or raw (tomatoes, pumpkin, beans etc.), or a half cup of vegetable juice. For fruits, this refers to one medium-sized piece of fruit (banana, apple etc.) or a half cup of raw, cooked or canned fruit or a half cup of juice from a fruit (not artificially flavored). Fruit juice and/or vegetable juice included fresh juice made at home/shop.
2.	**Inadequate consumption of fruits and/or vegetables** was defined as proportion who ate less than five servings of fruit and/or vegetables on an average per day.

5. Physical activity – adults and adolescents

1.	**Metabolic equivalent (MET)** is the ratio of a person's working metabolic rate relative to the resting metabolic rate. One MET is defined as the energy cost of sitting quietly and is equivalent to a caloric consumption of 1 Kcal/Kg/Hour.
2.	**Insufficient physical activity** in adults was defined as proportion of adults aged 18-69 years who spent <150 minutes of moderate-intensity physical activity per week* OR <75 minutes of vigorous-intensity physical activity per week* OR

	an equivalent combination of moderate-and-vigorous intensity physical activity accumulating <600 MET- minutes** per week. Minutes of physical activity accumulated over the course of a week for a minimum duration of at least 10 minutes was also used. *Weekly minutes calculated by multiplying the number of days on which vigorous/moderate activity is done by the number of minutes of vigorous/moderate activity per day. **Weekly MET-minutes is calculated by multiplying the weekly minutes of vigorous activity by 8 and the number of weekly minutes of moderate activity by 4 and then adding these two results together. **Insufficient physical activity** in adolescents was defined as proportion doing less than 60 minutes of moderate to vigorous intensity physical activity daily, which is equivalent to <1680 MET-minutes per week and calculated as [60 minutes × 4 MET × 7 days].
3.	**Moderate intensity physical activity** included activities which took moderate physical effort and made them breathe somewhat harder than normal. In context to adolescents this included activities like dancing, gardening or playing cricket, kabaddi etc.
4.	**Vigorous intensity physical activity** referred to activities which took hard physical effort, and which made them breathe much harder than normal. In context to adolescents this included activities like weightlifting in a gym, while running an errand at home, playing games like football etc.
5.	**Physical activity at work** was defined as a combination of vigorous and moderate level activities done at home and/or at workplace.
6.	**Physical activity during travel** was defined as moderate level activities done while travelling either by walk or use of cycle.
7.	**Leisure time activity** was defined as a combination of vigorous (sports, fitness related or recreational) and moderate (swimming, cycling, volleyball etc.) level activities done during recreation time.
8.	**Sedentary physical activity** included activities like sitting, reclining and watching television, working on a computer, playing games in mobile/tablet, talking with friends, or doing other sitting activities like knitting, embroidery etc., including time spent sitting in school/college/office and excluding time spent sleeping.
9.	**Physical activity per day at school** in adolescents, included those who reported doing any physical activity (moderate or vigorous) for at least 10 minutes at a stretch either during assembly or games/physical training period/free period or lunch break per day among those who attended school during the last 1 year.

6a. Physical measurements – adults

1. **Body mass index (BMI)** was calculated by dividing weight in kilograms by height in meters square.

2. **Classification of BMI**

BMI categories	WHO cut-off (BMI)	Asian cut-off (BMI)
Underweight	<18.5 Kg/m^2	<18.5 Kg/m^2
Normal	18.5 – 24.9 Kg/m^2	18.5 - 22.9 Kg/m^2
Overweight	25.0 – 29.9 Kg/m^2	23.0 - 24.9 Kg/m^2
Obesity	≥30.0 Kg/m^2	≥25.0 Kg/m^2

3. **Central obesity** in adults aged 18-69 years was defined as those with a waist circumference of ≥90cm in males and ≥80cm in females (as per South Asia Pacific Guidelines).

4. **Raised blood pressure** in adults aged between 18-69 years with a systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg including those on medication for raised blood pressure.

5. **Normal blood pressure** in adults aged 18-69 years with systolic blood pressure <120 mmHg and diastolic blood pressure <80 mmHg among those measured.

6. **Pre-hypertension** in adults aged 18-69 years with systolic blood pressure between 120-139 mmHg or diastolic blood pressure between 80-89 mmHg among those measured.

7. **Hypertension Stage 1** in adults aged 18-69 years with systolic blood pressure between 140-159 mmHg or diastolic blood pressure between 90-99 mmHg among those measured.

8. **Hypertension Stage 2** in adults aged between 18-69 years with systolic blood pressure ≥160 mmHg or diastolic blood pressure ≥100 mmHg among those measured.

6b. Physical measurements – adolescents

1. **Overweight** was >+1SD BMI for age and sex (equivalent to BMI 25.0 Kg/m^2) as per WHO.

2. **Obesity** was >+ 2SD BMI for age and sex (equivalent to BMI 30.0 Kg/m^2) as per WHO.

7. Biochemical measurements - adults

1. **Normal fasting blood glucose** in adults aged between 18-69 years with fasting blood glucose value <100 mg/dl among those measured.

2. **Raised blood glucose** in adults aged 18-69 years with fasting blood glucose value ≥126 mg/dl including those on medication for raised blood glucose.

3.	**Mean salt intake of population:** Estimated using the spot urine samples for Sodium (Na), Potassium (K) and Creatinine (Cr) excretion. Following which the INTERSALT equation with Potassium, was applied to arrive at a value in mmol/L. This was multiplied with a constant of 2.54 and divided by 1000 to obtain the salt intake of population in grams. The equation is given below: **INTERSALT equation with Potassium** **Men:** 23 × (25.46 + [0.46 × spot Na (mmol/L)] – [2.75 × spot Cr (mmol/L)] - [0.13 × spot K(mmol/L)] + [4.10 × BMI (Kg/m^2)] + [0.26 × age (years)]) **Women:** 23 × (5.07 + [0.34 × spot Na (mmol/L)] – [2.16 × spot Cr (mmol/L)] - [0.09 × spot K(mmol/L)] + [2.39 × BMI (Kg/m^2)] + [2.35 × age (years)] – [0.03 × age^2 (years)])

8. Composite risk assessment

1.	**Clustering of risk factors** included presence of ≥3 risk factors; daily tobacco use, inadequate fruits and/or vegetable intake, insufficient physical activity, overweight (BMI ≥25.0Kg/m^2), raised blood pressure and raised fasting blood glucose including those on medication among adults aged 18-69 years.
2.	**A 10-year Cardiovascular diseases (CVDs) risk of ≥30%** was defined as per WHO/ISH prediction charts for CVD risk for South-East Asia Region, according to the age (40-69 years), gender, systolic blood pressure, current smoked tobacco use and diabetes (previously diagnosed/fasting blood glucose concentration ≥126 mg/dl).

9. Health seeking behaviours and management indicators

1.	AYUSH here refers to consulting/obtaining medications for raised blood glucose, raised blood pressure and raised cholesterol from any one of the following practitioners; Ayurveda, Unani, Siddha and Homeopathy systems of medicine.
Raised blood glucose	
2.	**Awareness of raised blood glucose** included all adults aged between 30-69 years with raised blood glucose and who reported being diagnosed with diabetes either by a doctor or health worker.
3.	**On treatment** included all those adults aged between 30-69 years with raised blood glucose and were on medication (oral or insulin) on any one day in the last 2 weeks preceding the survey.
4.	**Control of blood glucose** was when the fasting blood glucose values were <126 mg/dl among adults aged between 30-69 years with raised blood glucose.

Raised blood pressure	
5.	**Awareness of raised blood pressure** included all adults aged between 30-69 years with raised blood pressure and who reported being diagnosed with hypertension either by a doctor or health worker.
6.	**On treatment** included all those adults aged between 30-69 years with raised blood pressure and were taking medication on anyone day in the last 2 weeks preceding the survey.
7.	**Control of blood pressure** was when the systolic blood pressure was <140 mmHg and diastolic blood pressure <90 mmHg among those adults aged between 30-69 years with raised blood pressure.
Reported Raised Cholesterol	
8.	**Raised cholesterol** included all adults aged between 30-69 years, who reported being diagnosed as having raised blood cholesterol either by a doctor or health worker.
9.	**On treatment** included all those adults aged between 30-69 years with raised blood cholesterol who were taking medication on any one day in the last 2 weeks preceding the survey.
10.	**Adherence** included all those adults aged between 30-69 years with raised blood cholesterol who were on medication daily in the last 2 weeks preceding the survey.
Cardiovascular conditions	
11.	**Cardiovascular conditions** diagnosed in a hospital which includes chest pain (heart related) or a heart attack (angina) or a stroke (cerebrovascular accident).
Cancer Screening	
12.	**Screening for oral cancer** was defined as any clinical oral examination done ever in both men and women between 30-69 years by a healthcare professional for early signs of oral cancer.
13.	**Screening for breast cancer** was defined as any clinical breast examination done ever in women ≥30 years of age by a healthcare professional for breast cancer.
14.	**Screening for cervical cancer** was defined as any screening tests done ever for cervical cancer in women aged between 30-49 years, by means of either/and Visual Inspection with Acetic Acid (VIA), pap smear or Human Papilloma Virus (HPV) test.
Drug therapy and Counselling to prevent heart attacks and Stroke	
15.	**Drug therapy** among adults aged 40-69 years was defined as those taking medication for raised blood glucose/diabetes, raised total cholesterol, or raised blood pressure or taking aspirin or statins to prevent or treat heart disease.

16.	**Counselling** among adults aged 40-69 years was defined as received advice from a doctor or other health worker to quit or not to start the use of tobacco, reduce salt intake in diet, consume at least five servings of fruit and/or vegetables per day, reduce fat in diet, start or do more physical activity, maintain a healthy body weight or lose weight.

10. Health facility indicators

1.	**Essential medicines and technologies for NCDs as per WHO** were defined as percentage of public and private primary health care facilities based on the availability of the following:
All the **medicines** to be available are at least one of each "aspirin, a statin, an ACE inhibitor, diuretic, a long acting calcium channel blocker, metformin, insulin, a bronchodilator and a steroid inhalant".	
All **technologies** to be available are at least one "blood pressure measuring instrument, weighing scale, stadiometer, stethoscope, glucometer, glucostrips, urine strips".	
2.	**Essential medicines and technologies according to NPCDCS guidelines were defined as** percentage of public secondary health care facilities based on the availability of the following:
All the **medicines** to be available for major NCDs are at least one of each "hypoglycaemic agent, insulin, anti-platelet agent, statin/cholesterol lowering drugs, ACE inhibitor, diuretic, nitrates, long acting calcium channel blocker, beta blocker, drugs for shock and heart failure, bronchodilator, a steroid inhalant, sedative/tranquilizer, local anaesthetic".	
All technologies related to major NCDs are at least one "glucometer, biochemical analyser, glucostrips, urine strips reagents/kits for glucose test, reagents/kits for lipid profile, centrifuge, lancets, blood pressure measuring instrument, weighing scale, stadiometer/wall markings for height, measuring tape, stethoscope, cardiac monitor, defibrillator, ECG machine, 12-Channel stress ECG tread mill, ECG roll, nebuliser and pulse oximeter, torch/examination light, vaginal speculum, x-ray machine, ultrasound machine, CT Scan machine, haemoglobinometer, microscope, dental chair, dental mirror, 5% acetic acid and cotton tipped swabs".	

11. Yoga Practices – adults

1.	**Yoga practices** among adults aged 18-69 years was defined as percentage who reported practicing yoga [which includes activities like asana (sitting in a particular posture, which is comfortable and which could be maintained steadily for long time), pranayam (breathing techniques which are related to the control of breath or respiratory process) or meditation (a practice which helps in concentration of the body and mind)].

EXECUTIVE SUMMARY

A. Introduction

B. Methodology

C. Results

D. Conclusion

A. Introduction

India is undergoing a rapid health transition and facing a high burden of Noncommunicable Diseases (NCDs). The total percent of deaths due to NCDs reported in 2018, by the World Health Organization (WHO)* was 63%. With set time-bound national targets adopted by the Ministry of Health and Family Welfare (MoHFW), Government of India, the country needs to monitor progress towards achieving the National NCD monitoring framework and NCD action plan by 2025.** It would guide in policy making and develop strategies for prevention and control of the 10 targets and 21 indicators *(Table 1.1.2)* for NCDs.

The Government of India is committed to addressing the burden of NCDs in the country. The National Programme on Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS) launched in 2010, aimed at institutionalizing response to NCDs by setting up of state level NCD cells and integrating it within the National Health Mission (NHM) framework. Thus, increasing the momentum for prevention and management of major NCDs. The National Health Policy, 2017*** recognized the pivotal importance of Sustainable Development Goals (SDGs) and the need to halt and reduce the growing burden of NCDs in the country. The policy aimed to support an integrated approach for screening and prevention of the most prevalent NCDs. Ayushman Bharat, which is flagship scheme of Government of India is working towards strengthening the delivery of primary health care through the establishment of Health and Wellness Centres as the platform. Against this backdrop, the Indian Council of Medical Research (ICMR) was identified as the nodal agency for monitoring, evaluation and surveillance under the national NCD monitoring framework. The National Noncommunicable Disease Monitoring Survey (NNMS) was commissioned by MoHFW to provide information on key indicators to measure progress towards achieving the National NCD targets.

NNMS was conducted during 2017-18 by ICMR-National Centre for Disease Informatics and Research (NCDIR), Bengaluru as the Central Co-ordinating Unit (CCU) for implementation, coordination and monitoring in partnership and collaboration with several institutions across the country. A National Technical Working Group (TWG) was set up to guide the survey which was carried out by ten implementing agencies. The objective of the survey was to generate national level estimates of key NCD related indicators (risk factors and health system response) identified in the national NCD monitoring framework.

B. Methodology

NNMS 2017–18 followed a multistage cluster sampling design covering the age range of 15-69 years. The estimated sample size for the survey was 12000 adults (18-69 years) and 1700 adolescents (15-17 years). To cover the calculated sample size, the required number of households was 12000 equally distributed among urban and rural areas in a total of 600 primary sampling units (PSUs). Twenty households were selected in every PSU and among each household, one adult (using KISH method) and all eligible available adolescents were included.

The survey questionnaires were adapted from standard tools like WHO-STEPS, Global School Student Health Survey (GSHS), Global Adult Tobacco Survey (GATS) – India, Global Youth Tobacco Survey (GYTS), Integrated Disease Surveillance Project – NCD risk factor survey and WHO-Service Availability and Readiness Assessment (SARA). Information on household characteristics, behavioural risk factors (tobacco use, unhealthy diets, alcohol use and physical inactivity) was done by face to face interview with adults and adolescents. Physical measurements (height, weight, waist circumference and blood pressure) and biochemical measurements (fasting blood glucose and spot urine analysis for urinary sodium), history of raised blood pressure, raised blood glucose, raised cholesterol and cardiovascular diseases (CVDs) were obtained only for adults. Anthropometry (height and weight) and school/college related information were specifically captured for adolescents. The survey also addressed the awareness levels and attitudes towards the risk factors. The health facilities (one each of public primary, community health centres, district and primary private hospitals) within and near to the PSUs were included in the survey sample.

The survey was approved by the ICMR-NCDIR institutional ethics committee (IEC) and the respective survey implementing agencies IECs. Informed consent was obtained for all subjects aged 18-69 years, while assent was obtained from the adolescent along with parental consent.

Data were collected electronically using personal digital assistants (PDAs) and cleaned using *IBM Statistical Package for the Social Sciences (SPSS) for Windows version 22.0*. The cleaned data was weighted and analysed in *STATA 14.1* using complex survey analysis. The results have been presented in descriptive statistics as mean and proportions with 95% confidence interval (CI).

C. Results

C.1 Participation and response

The response rates for the survey were, household 95.5% and adults 96.3%. The response rates for biochemical testing among adults for fasting blood glucose was 89.5% and urinary sodium estimation was 85.7%. The adolescent response rate was 93.2%. A total of 537 public primary care facilities, 415 community health centres (CHCs) and 335 districts hospitals (DHs) serving the selected PSUs were surveyed in the public health care system. Besides, 512 private primary care facilities were surveyed in the same PSUs.

C.2 Household characteristics

Of the total number of households (N = 10659) surveyed, 45.1% were pucca houses, 38.2% of rural households had no access to a toilet facility. More than two-third (69.6%) of the households used solid fuels for cooking, with a proportion of 86.5% in rural areas. More than half of the households (54.3%) used mustard oil for cooking (36.1% urban and 63.0% rural), while more than one–fourth (28.7%) reported using pure ghee for cooking (35.3% urban and 25.5% rural).

C.3 Tobacco use

Of the total number of adult respondents (N = 10659), the prevalence of current tobacco use was 32.8% (only smoked 8.1%, only smokeless 20.2% and both forms 4.5%) and 28.0% used tobacco daily. Among those who used tobacco daily, 65.8% smoked bidis in rural areas, while 36.6% smoked manufactured cigarettes in the urban areas and 68.6% chewed smokeless tobacco. Nearly one-third respondents at home (32.1%), a quarter at the workplace (24.6%) and during travel (24.4%) reported exposure to second hand smoke during the past 30 days. The mean age of initiation and cessation of any form of tobacco use in adults was 21.1 years and 31.7 years, respectively.

Of the total number of adolescent respondents (N = 1402), the prevalence of current daily tobacco use was 3.1% (boys 5.5% and girls 0.4%). Amongst them, 89.2% smoked manufactured cigarettes while 79.7% chewed gutkha. The mean age of initiation of tobacco use in adolescents was at 14.2 years (boys 14.2 years and girls 14.4 years). Nearly half (44.7%) of adolescents reported presence of shop selling tobacco within 100 metres of school/college.

C.4 Alcohol use

Four out of five adult respondents (81.1%) were lifetime abstainers of alcohol. A total of 15.9% (men 28.3% and women 2.4%) of respondents reported drinking alcohol in the past 12 months, and only one in every 20 respondents (5.9%) was an episodic heavy drinker. The proportion of episodic heavy drinking in men (10.9%) was twenty times that in women (0.5%). As many as 20.1% adults consumed alcohol procured from unauthorized sources in the past 7 days. The mean age of initiation of alcohol was 22.2 years (men 22.2 years and women 21.1 years).

3.5% adolescents were ever users of alcohol, 1.3% reported consuming alcohol in the last 12 months and amongst them more than half of the respondents (57.8%) reported consuming countryside liquor. The mean age of initiation of alcohol use was 13.4 years (boys 13.5 years and girls 12.8 years).

C.5 Diet

The consumption of fruits and/or vegetables was inadequate with 98.4% adult reported consuming less than five servings per day (men 98.0% and women 98.8%). The mean number of servings of fruit and/or vegetables per day was 1.7, which did not meet the WHO recommendations. The estimated mean salt intake per day was 8.0g (8.9g in men and 7.1g in women per day); and 45.4% practiced some steps (any) to lower daily salt intake. Mustard oil was the most frequently used oil for cooking (48.8%).

One-third (33.9%) of the adolescent respondents reported consuming fresh fruits/fruit juices daily or at least once a week, while nearly half of them consumed fried items, chips/namkeen and chocolates daily or at least once a week.

C.6 Physical activity

Almost half of the adult respondents (41.3%) did not meet WHO recommendations on physical activity of 600 Metabolic equivalents (METS) per week; urban and rural (51.7% and 36.1%); men and women (30.9% and 52.4%). The mean minutes spent being sedentary in a day were 308.9 minutes (men 290.5 minutes and women 328.5 minutes). A total of 3.5% of the surveyed adults practiced yoga, with a majority from the urban areas (6.3%) than rural areas (2.1%).

A quarter of (25.2%) adolescent respondents were insufficiently active and 64.2% reported being taught the benefits of physical activity at schools/colleges. The mean minutes of physical activity spent in school were 16.1 minutes per day, with 20.1 minutes spent by boys and 11.8 minutes by girls. The mean minutes spent being sedentary in a day were 340.7 minutes.

C.7 Anthropometric measurements

The mean body mass index (BMI) was 22.5 Kg/m^2 [(urban 24.3 Kg/m^2 and rural 21.6 Kg/m^2) and (men 22.3 Kg/m^2 and women 22.8 Kg/m^2)]. As per the WHO cut-off, 54.7% [(urban 46.4% and rural 58.7%) and (men 57.5% and women 51.5%)] were of normal BMI (18.5-24.9 Kg/m^2), one in every five (19.9%) and more than one in twenty (6.2%) were overweight and obese, respectively. In urban and rural areas, the prevalence of overweight with BMI ≥25.0 Kg/m^2 was 42.5% and 18.0%, respectively and obesity with BMI ≥30.0 Kg/m^2 was 11.2% and 3.7% correspondingly, while 19.2% were underweight (11.1% urban and 23.3% rural). The mean waist circumference (WC) was 79.6 cm and 32.2% were found to be centrally obese (men 24.4% and women 40.7%). Nearly half (48.2%) of the surveyed urban population were centrally obese than rural (24.2%).

Among the surveyed adolescent population for physical measurements, the mean BMI was 18.8 Kg/m^2 and 6.2% were overweight (including obesity) and 1.8% were obese. The prevalence of overweight and obesity in urban areas was found to be more than three times that of rural areas, respectively.

C.8 Blood pressure measurement

The mean systolic and diastolic blood pressure (including people taking medication for hypertension) among adult respondents was 124.1 mmHg and 80.9 mmHg, respectively. Nearly three out of ten respondents (28.5%) had raised blood pressure. An increase in proportion of population with raised blood pressure was observed in urban areas and with increasing age. Newly detected cases with raised blood pressure were 20.6%, while 7.9% were reported being diagnosed previously.

C.9 Blood glucose measurement

The mean fasting blood glucose (including those on medication for diabetes) was 96.7 mg/dl. Nearly one in ten respondents (9.3%) had raised blood glucose. The proportion of respondents with fasting blood glucose level of 100 mg/dl to 125 mg/dl were 25.4% (men 22.6% and women 28.4%). Newly detected cases with raised blood glucose were 5.0%, while 4.3% reported being diagnosed previously.

Assessment of management of hypertension

Amongst the 10592 adult respondents aged 18-69 years, 28.5% had raised blood pressure, of which 27.9% were aware of their raised blood pressure status. Of those who were aware, 52.1% were on treatment and of those who were on treatment, 44.4% had their blood pressure in control (Systolic BP <140 mm Hg and Diastolic BP <90 mm Hg). *(Figure a)*

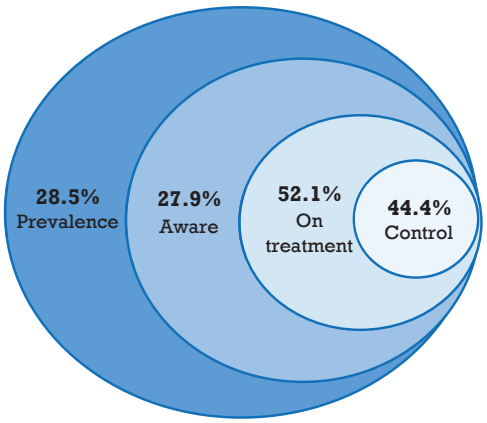

Figure a Assessment of management of hypertension among adults (18-69 years)

Assessment of management of diabetes mellitus

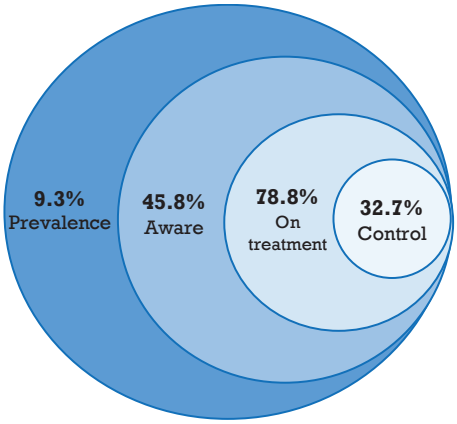

Figure b Assessment of management of diabetes mellitus among adults (18-69 years)

Amongst the 9581 adult respondents aged 18-69 years, 9.3% had raised blood glucose including those on medication, of which 45.8% were aware of their raised blood glucose status. Of those who were aware, 78.8% were on treatment for raised blood glucose, and amongst them 32.7% had their blood glucose in control (fasting blood glucose <126 mg/dl). *(Figure b)*

Figures (c and d) summarizes the prevalence of risk factors associated with NCDs amongst adults and adolescents.

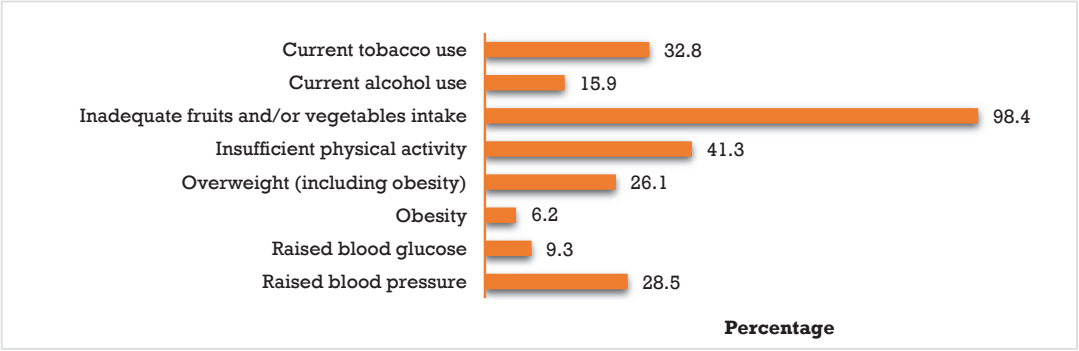

Figure c Summary of prevalence of risk factors associated with NCDs among adults (18-69 years)

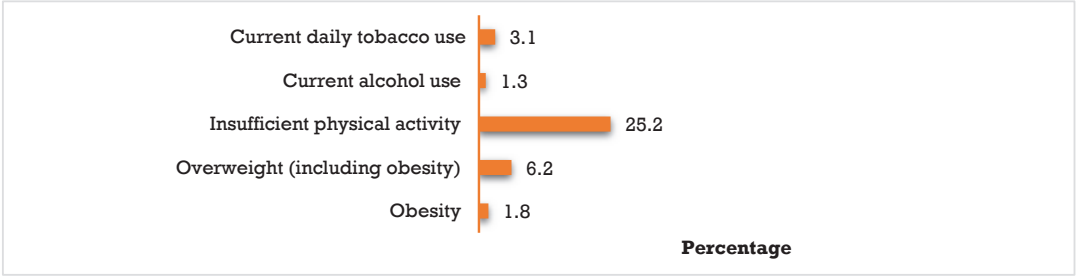

Figure d Summary of prevalence of risk factors associated with NCDs among adolescents (15-17 years)

C.10 Composite risk assessment and Health seeking behaviours and management indicators

The survey showed that 40.2% of the adult respondents aged between 18–69 years had clustering of ≥3 risk factors (daily tobacco use, inadequate fruits and/or vegetable intake, insufficient physical activity, overweight of BMI ≥25.0 Kg/m^2, raised blood pressure and raised fasting blood glucose including those on medication) for NCDs and this figure increased proportionately with age. The risk in the urban areas was 52.8% and in rural areas was 34.2%.

Among the surveyed adults aged between 40-69 years, 12.8% had ten-year CVD risk of ≥30% or with existing CVD. A total of 29.3% received drug therapy and counselling to prevent heart attack and stroke, the percentage in urban areas was 40.6% and rural areas was 21.9%.

Among those with raised blood glucose (30-69 years), 47.6% reported being known or aware of their condition, 38.5% were currently on allopathic treatment and 16.3% had their blood glucose in control. Among those with raised blood pressure (30-69 years), 29.2% reported being known or aware of their condition, 16.0% were currently on allopathic treatment and in 12.3% blood pressure was under control. Among those with known (1.8%) raised cholesterol (30-69 years), 38.4% were currently on treatment, 11.2% and 4.8% consulted and currently received treatment from Ayurveda, Unani, Siddha and Homeopathy practitioners, respectively.

C.11 Cancer screening

Among the surveyed population aged 30-69 years, the proportion who had ever undergone screening for oral cancer (men and women) were 1.7%. Only 1.6% women had been screened for breast cancer by clinical examination and 2.2% for cervical cancer. Screening for cervical cancer in rural areas was three times lesser than urban areas.

C.12 Health system response indicators

Of the total public primary care facilities (urban, n=257 and rural, n=280), emergency services were being provided in 34.2% urban and 46.4% rural public primary care facilities. A total of 49.0% and 26.1% of the surveyed public primary care facilities in the urban and rural areas, reported availability of written standard treatment guidelines under NPCDCS for NCDs. More than seven in ten urban (76.7%) and rural (77.9%) public primary care facilities offered NCD services to patients daily. More than two-thirds (68.1% urban and 70.4% rural) public primary care facilities had laboratory facilities available for diagnosis and management of NCDs. Nearly one out of four and one out of three facilities in urban and rural areas, respectively were providing inpatient care for diabetes and hypertension. More than 65.0% of urban and rural public primary care facilities had medical officers, nurses, pharmacist, auxiliary nurses and laboratory technician. Only 2.3% and 1.1% of public primary care facilities in urban and rural areas had all the essential technologies and medicines as per WHO guidelines.

Among the total public secondary health care facilities surveyed (CHCs-NPCDCS implemented 281 and 105 NPCDCS non-implemented); and (DHs-NPCDCS implemented 290 and 44 NPCDCS non-implemented), most of them were providing out-patient and in-patient care. However, provision of Cardiac Care Unit/Intensive Care Unit services was observed to be available only in one out of ten in CHCs and six out of ten DHs. In general, availability of services for cancer care at the CHCs and DHs were low. Among the NPCDCS implemented CHCs and DHs (n=281 and n=290 respectively), the NCD clinics were being run in 49.5% and 60.3% of the facilities, while NCD counselling services were available in 37.7% and 64.1%, respectively. Availability of cardiologist (16.9%), medical oncologist (7.2%) and cytopathologist (15.2%) was proportionately low in DHs. Only 1.7% of NPCDCS implemented district hospitals had all the essential medicines and technologies as defined by NPCDCS guidelines.

D. Conclusion

The National Noncommunicable Disease Monitoring Survey has established a comprehensive data set for the selected indicators of the National NCD monitoring framework. Further progress can be assessed against it. The presence of NCD risk factors at high proportions among adults and adolescents residing in urban and rural areas calls for stepping up of response to provide affordable healthcare in accessible manner universally to all. Such surveys should be conducted periodically through committed funding and mandate. Efforts to strengthen surveillance of NCDs needs to be put in place and strong multi-sectoral actions will help in mitigating several NCD risk factors.

*Noncommunicable diseases country profiles 2018 [Internet]. World Health Organization. 2019 [cited 7 June 2019]. Available from: https://www.who.int/nmh/publications/ncd-profiles-2018/en/

**National action plan and monitoring framework for prevention and control of noncommunicable diseases (NCDs) in India. Ministry of Health and Family Welfare, Government of India. Developed through the WHO-Government of India 2012-2013 biennial work plan. [Internet]. SEARO World Health Organization. 2019 [cited 11 July 2018]. Available from: http://www.searo.who.int/india/topics/cardiovascular_diseases/National_Action_Plan_and_Monitoring_Framework_Prevention_NCDs.pdf

***National Health Policy 2017, Ministry of Health and Family Welfare. [Internet] Government of India [cited 12 July 2018]. Available from: https://mohfw.gov.in/sites/default/files/9147562941489753121.pdf

CHAPTER 1:

BACKGROUND, RATIONALE AND OBJECTIVES

1.1 BACKGROUND

Noncommunicable Diseases (NCDs)

Global burden of Noncommunicable Diseases

The Noncommunicable Diseases (NCDs) like CVDs, cancer, diabetes and chronic respiratory diseases are the leading causes of mortality in the world.[1] NCDs kill 41 million people every year, corresponding to a total of 71% of all deaths world-wide. These four groups of diseases account for over 80% of all premature deaths from NCDs. Tobacco use, physical inactivity, use of alcohol and unhealthy diet are some of the major modifiable risk factors contributing to these NCDs. Every year between the ages of 30 and 69 years 15 million people die from NCDs, over 85% of these "premature" deaths occur in low and middle-income countries. Cardiovascular diseases account for 17.7 million deaths annually, followed by cancer (9.0 million), respiratory diseases (3.9 million), and diabetes (1.6 million).[2]

Magnitude of Noncommunicable Diseases and their associated risk factors in India

NCDs are estimated to account for 63% of all deaths in India.[3] The burden of NCDs have surpassed communicable diseases posing new challenges in the 21st century and this transition is clearly evident over the past few decades. Generations who had survived the early childhood diseases are now prone to lifestyle diseases. The key determinants driving NCD risk factors have been linked to ageing population, globalization, relentless urbanization, which has led to lifestyle changes, opening markets for food, alcohol and tobacco industries. Also, low levels of education, poverty, poor housing conditions and inadequate spaces for physical activity compounds to the burden jeopardizing the sustainable growth and productivity of the Nation. The most vulnerable group to NCDs are constituted by the younger age groups and the poorer sections of population. The *table 1.1.1*, shows the total percentage of deaths from NCDs in India for the year 2016.

Table 1.1.1 Deaths from Noncommunicable Diseases in India [2016] (Percentage) [4, 5]

Major NCDs	Total deaths in 2016 (%)
Cardiovascular Diseases (CVDs)	28.1
Stroke	7.1
Hypertension	1.3
Chronic Respiratory Diseases	10.9
Chronic Obstructive Pulmonary Disease (COPD)	8.6
Cancer	8.3
Diabetes Mellitus	3.1

A “risk factor” is any attribute, characteristic, or exposure of an individual which increases the likelihood of developing a disease. The prevailing risk factors to major NCDs have been well documented and are more or less common to both men and women. Behavioural risk factors like unhealthy diet, inadequate physical activity, tobacco use, exposure to tobacco smoke, air pollutants and excessive alcohol use, alter

the physiology contributing to the development of metabolic risk factors like overweight, obesity, raised blood pressure, raised blood glucose and high cholesterol. On the whole, these could be avoided before initiation, and when recognized over the life course, they should be interrupted by behavioural and lifestyle counselling, or with medications at an economical cost. These risk factors are embedded within the socio-cultural milieu of the society and modifying them is very challenging. It requires commitment and co-operation from varied government and private sectors. The *figure 1.1.1* summarizes the causation pathway for NCDs and the underlying risk factors based on the established evidence.

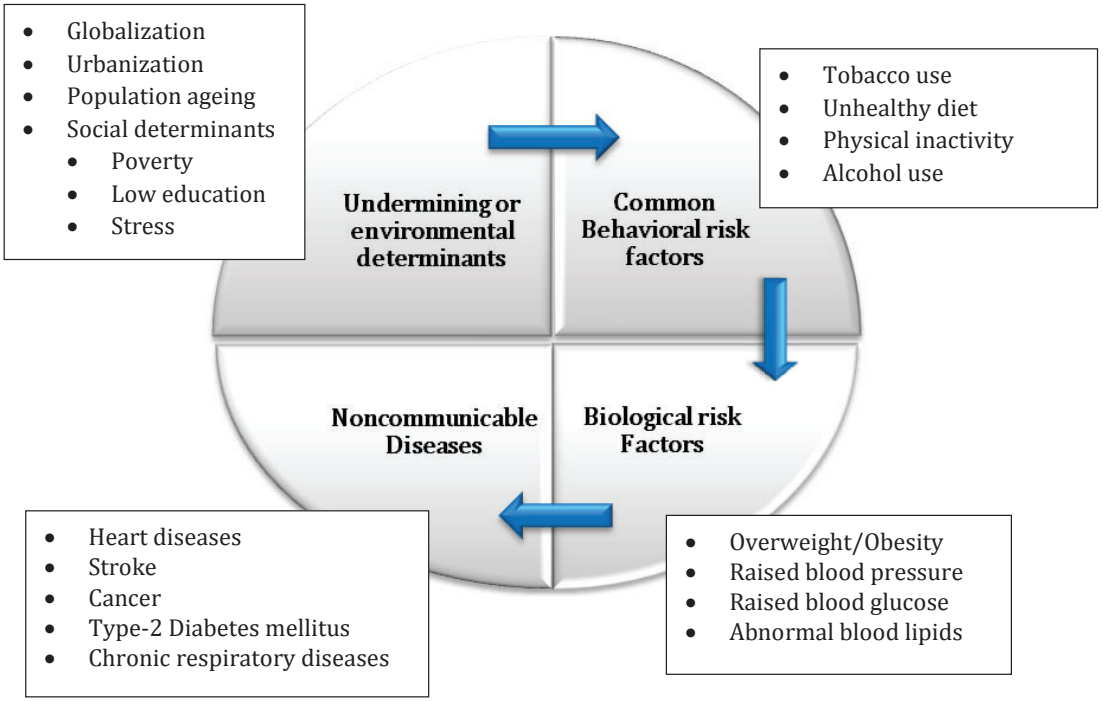

Figure 1.1.1 Causal pathway for NCDs[6,7]

Risk factors to NCDs are not limited only to adults but exist even among adolescents. Adolescence (10–19 years) is an important stage of life for initiation or experimenting with unhealthy behaviours posing greater risks. Multiple risk behaviours inculcated during the most vulnerable phase determines their future health status. Furthermore, promoting healthy behaviours during adolescence has wider prospects of leading a healthy adulthood.

National NCD response

India is committed to the National NCD Monitoring framework and NCD Action Plan[8] with 10 targets and 21 indicators on mortality, risk factors and health systems response to NCDs by year 2025 *(Figure 1.1.2 and table 1.1.2)* and the Sustainable Development Goals[9] agenda by 2030. The spectrum of 17 SDGs and 169 targets are interconnected *(Figure 1.1.3).* Access to basic household amenities like proper housing, provision of piped drinking water, sanitation facilities and clean cooking fuel are important measures of

socio-economic status of the population. In turn, these have implications on their health and living conditions, they provide a context for interpreting the relationship between risk factors and demographics to inform policy debates.

The NCDs are associated with poverty, prevailing gross inequity and high cost of health care. It is estimated that 55 million people in India are pushed every year into poverty and approximately 38 million are poor only because of out-of-pocket payments to purchase medicines.[10] Healthcare needs are not just uncertain and changeable but also catastrophic to many of the families. To address the health inequalities and improve health outcomes, an architectural correction in public healthcare system was attempted by the Ministry of Health and Family Welfare (MoHFW), Government of India, to strengthen the rural as well as the urban infrastructure, human resource capacity and service delivery at the public health facilities. India's commitment towards achieving the Universal Health Coverage (UHC) is clearly reflected through the institutional mechanisms and policies, directed towards increasing coverage and access to health services.

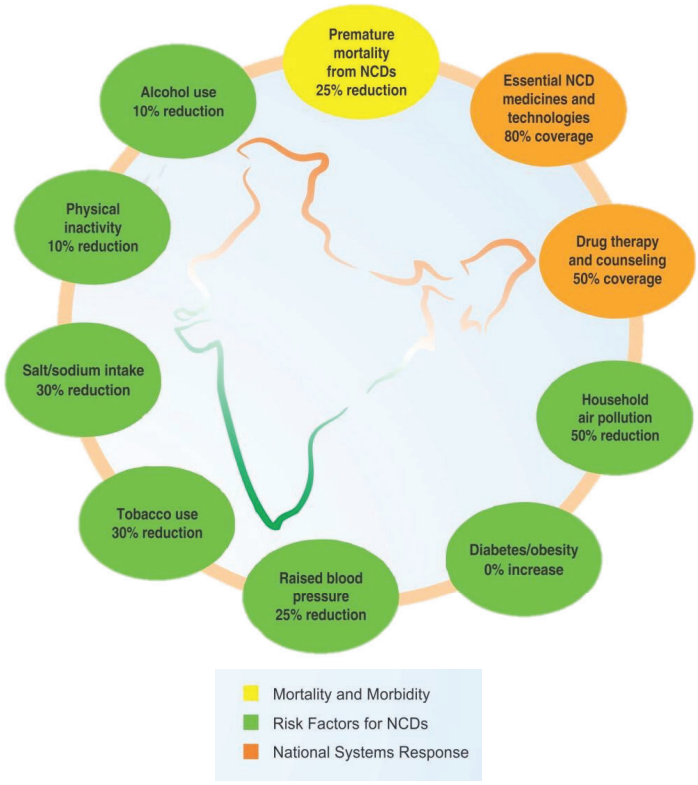

Figure 1.1.2 National NCD Monitoring Targets - NCD Action Plan for 2025

Figure 1.1.3 Sustainable Development Goals (SDGs) by 2030

World Health Organization (WHO), proposed three core dimensions of UHC, (i) the existing healthcare systems and their coverage for the population, (ii) available range of healthcare services to the

population, and (iii) the extent of financial risk protection available to local populations. The National Health Policy, 2017 aims to deliver quality health services at affordable cost for the achievement of UHC.[11,12]

More than half of households in India do not usually seek health care from the public sector, 48% reported due to poor quality of care and unavailability of government facilities. Nevertheless, the use of public health facilities has increased from 34% between 2005-06 to 45% during 2015-16.[13] The public health sector was the main source of health care services for 42% and 46% of households in urban and rural areas respectively.[13] Nearly 51% households sought health care from the private sector, which was the primary source of health care in 56% and 49% urban and rural households respectively.[13]

Table 1.1.2 Targets and indicators for NCD prevention and control in India under National NCD Monitoring Framework[8]

SL. NO	FRAMEWORK ELEMENT	TARGETS			INDICATORS
		OUTCOMES	2020	2025	
Mortality and Morbidity					
1.	Premature mortality from NCDs	Relative reduction in overall mortality from cardiovascular disease, cancer, diabetes, or chronic respiratory disease	10%	25%	1. Unconditional probability of dying between ages 30-70 from cardiovascular disease, cancer, diabetes, or chronic respiratory diseases 2. Cancer incidence, by type of cancer, per 10,00,00 population
NCD risk factors					
2.	Alcohol use	Relative reduction in alcohol use	5%	10%	3. Age-standardised prevalence of current alcohol consumption in adults aged 18+ years
3.	Obesity and diabetes	Halt the rise in obesity and diabetes prevalence	No mid-term target set	Halt the rise in obesity and diabetes prevalence	4. Age-standardised prevalence of obesity among adults aged 18+ years (defined as body mass index greater than 30 Kg/m^2) 5. Prevalence of obesity in adolescents (defined as two standard deviations BMI for age and sex overweight according to the WHO Growth Reference) 6. Age-standardised prevalence of raised blood glucose/diabetes among adults aged 18+ years (defined as fasting plasma glucose value 126 mg/dl or on medication for raised blood glucose)
4.	Physical inactivity	Relative reduction in prevalence of insufficient physical	5%	10%	7. Age-standardised prevalence of insufficient physical activity in adults aged 18+

		activity			years (defined as less than 150 minutes of moderate-intensity activity per week, or equivalent) 8. Prevalence of insufficiently physically active adolescents (defined as less than 60 minutes per day of physical activity)
5.	Raised blood pressure	Relative reduction in prevalence of raised blood pressure	10%	25%	9. Age-standardised prevalence of raised blood pressure among adults aged 18+ years (defined as systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg) and mean systolic blood pressure
6.	Salt/sodium intake	Relative reduction in mean population intake of salt, with aim of achieving recommended level of less than 5 g per day	20%	30%	10. Age-standardised mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years
7.	Tobacco use	Relative reduction in prevalence of current tobacco use	15%	30%	11. Age-standardised prevalence of current tobacco use (smoking and smokeless) among adults aged 18+ years 12. Prevalence of current tobacco use (smoking and smokeless) among adolescents
8.	Household indoor air pollution	Relative reduction in household use of solid fuels as a primary source of energy for cooking	25%	50%	13. Proportion of households using solid fuels as a primary source of energy for cooking
		Additional indicator			14. Age-standardised prevalence of adults (aged 18+ years) consuming less than 5 total servings (400 g) of fruit and vegetables per day
National systems response					
9.	Drug therapy to prevent heart attacks and strokes	Eligible people receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	30%	50%	15. Proportion of eligible adults (defined as aged 40 years and older with a 10-year cardiovascular risk greater than or equal to 30% including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes
10.	Essential NCD medicines and basic	Availability and affordability of quality, safe and	60%	80%	16. Availability and affordability of quality, safe and efficacious essential NCD

	technologies to treat major NCDs	efficacious essential NCD medicines including generics, and basic technologies in both public and private facilities			medicines including generics, and basic technologies in both public and private facilities
11.	**Additional indicators**				17. Access to palliative care assessed by morphine-equivalent consumption of strong opioid analgesics (excluding methadone) per death of cancer 18. Vaccination coverage against hepatitis B virus monitored by number if third doses of Hep-B vaccine (Hep B3) administered to infants 19. Proportion of women aged between 30-49 screened for cervical cancer at least once 20. Proportion of women aged 30 and above screened for breast cancer by clinical examination by trained health professional at least once in lifetime 21. Proportion of high-risk persons (using tobacco, smoking and smokeless and betel nut) screened for oral cancer by examination of oral cavity

Behavioural Risk factors: *Modifiable risk factors include tobacco and alcohol use; unhealthy diet; and physical inactivity which are categorized into primary risk factors.*

Tobacco use and NCDs

India is the second leading consumer of tobacco and third largest tobacco leaf grower in the world. Tobacco use poses greatest threat to mankind and a biggest public health challenge. It is the sole source of preventable deaths of 1.3 million in the country.[4] It is one of the key risk factor to a wide array of chronic diseases, comprising of cancer, respiratory diseases and cardiovascular diseases including stroke. India alone accounts for almost half of all oral cancer cases in the world. Lung cancer is highest among the male tobacco users. The prevalence of tobacco use of any form was 28.6% among adults and 4% among adolescents aged 15-17 years.[14] The Global Adult Tobacco Survey (GATS)-2 reports that, 23% of adults were exposed to second-hand smoke at a public place.[14] The National NCD Monitoring Framework[8] aims to reduce tobacco use by 15% and 30% by the year 2020 and 2025 respectively. *(Table 1.1.2)*

Alcohol use and NCDs

The use of alcohol is one of the identified risk factor for causation of heart diseases, cancers, liver diseases, a range of mental and behavioural disorders, other noncommunicable conditions and injuries including domestic violence. Several studies report, the highest number of alcohol users belonged to the age group of 20–35 years.[15-17] The NFHS-3 reports alcohol use, amongst 15 to 19 years to be 11.0% in males and 1.0% in females.[16] The gender differentials in alcohol consumption have been reported, with majority of the Indian studies, conclusively pointing towards very low use among women when compared to men. The prevalence of alcohol use among women consistently has been estimated at <5%.[17] The NFHS-4 reported that 29% and 1% of men and women respectively consume alcohol.[13] The recent data from the magnitude of substance use in India 2017-18, showed that 14.6% of population consumed alcohol (10–75 years of age). The report highlights that, for every one woman who consumes alcohol, there were 17 men consuming alcohol and 2.7% of the population showed alcohol dependence.[18] The National NCD Monitoring Framework[8] aims to reduce alcohol use by 5% and 10% by the years 2020 and 2025 respectively. *(Table 1.1.2)*

Dietary factors

The shift from traditional to 'modern' foods has affected dietary behaviours and their perception of food. The diet-related risk factors, like low consumption of fruits and vegetables, processed foods high in trans fats, saturated fats, sugar and salt, plus sugar-sweetened beverages contribute to majority of the NCDs (CVDs including hypertension and stroke, diabetes mellitus, cancer etc.). Preference for energy-dense foods, diets with high sugar and salt content pose a serious health risk to the people, especially children. The results from the NFHS-4 revealed that 6.5% and 9.8% of men and 4.5% and 9.8% of women consumed aerated drinks and fried foods daily among those aged between 15-49 years.[13]

The recommended daily intake of fruits and vegetables for optimal health benefits is more than or equivalent to 5 servings.[19] The Integrated Disease Surveillance Project (IDSP) – NCD risk factor survey (2008–09) reports showed that, 86.7% adults had inadequate consumption of fruits and vegetables per day.[20] NFHS-4 reported that 47% and 46.6% of men and women respectively consumed dark green and leafy vegetables daily, while consumption of fruits was less common (12.4% women and 10.9% men).[13]

High dietary salt intake contributes to raised blood pressure, thus increasing risk for heart diseases and stroke. Studies indicate that majority of the population consume 9-12 grams of salt in a day, which is about twice the recommended daily intake limit of 5 grams.[21] Results from a systematic review done in 2017, revealed that the mean salt consumption in India was 11g/day.[21] The National NCD Monitoring Framework[8] aims to reduce salt/sodium intake by 20% and 30% by the year 2020 and 2025 respectively. *(Table 1.1.2)*

Physical inactivity

Increased urbanization, adoption of sedentary lifestyle, high-density traffic, and pollution can discourage people from becoming more physically active. It is one of the 10 leading risk factors for global deaths, causing an estimated 3.2 million deaths each year.[5] Insufficient or lack of physical activity paves way for obesity, dyslipidaemia, insulin resistance, diabetes mellitus and raised blood pressure. It is recommended that, adults should engage in at least 150 minutes of physical activity per week while children and adolescents aged 5-17 years need at least 60 minutes of physical activity every day.[19] The evidence from various sources like ICMR-INDIAB study reports that 54.5% were physically inactive.[22] More recent meta-analysis reveals the prevalence of insufficient physical activity in India was 34% [95% CI: 22.3–47.7].[23] In view with the rising burden of NCDs, the National NCD Monitoring Framework[8] aims to reduce physical inactivity by 5% and 10% by the year 2020 and 2025 respectively. *(Table 1.1.2)*

Physiological/ Metabolic risk factors: *Risk factors like overweight, raised blood pressure, raised blood glucose and raised total cholesterol levels are considered as intermediate risk factors.*

Overweight/Obesity

Obesity is no more an issue of adults, when globally 42 million children under the age of five were considered overweight or obese in the year 2015.[24] Overweight or obesity has been linked to poor health outcomes, with increasing risk of developing major NCDs like cancer and diabetes. The increasing drive to prefer energy dense foods, diets rich in high sugar, high fat, increase in physical inactivity due to the sedentary nature of work, modes of transportation, and increasing urbanization are all contributing to the rise in obesity. The NFHS-4 reported that 21.1% and 19% of women and men were overweight and obese in the 15-49 years age group.[13] According to WHO-countrywide estimates, the prevalence of overweight in adults 18+ in 2006 was 14.6%, while in 2016 it was 19.7%, showing an increase over the last 10 years.[25] The National NCD Monitoring Framework[8] aims to halt the rise in obesity by 2025.

Raised blood pressure

Hypertension is not an inevitable consequence of ageing and its development often compromises the healthy living of an individual requiring expensive and lifelong treatment. Common risk factors like use of alcohol, tobacco, overweight or obesity, physical inactivity and high salt intake contribute to hypertension. If left uncontrolled, hypertension could cause stroke, myocardial infarction, cardiac failure, renal failure and blindness. According to NFHS-4 report, the prevalence of hypertension among the age group of 15–49 years was 14.4% in men and 11% in women. The report also reveals details on the percentage who ever had their blood pressure (BP) measured (60.4%) and were on medication to lower BP (3%).[13] The estimates from the global burden of disease (GBD) 2016, showed that deaths due to hypertension constituted 1.33% of the total deaths in India. High dietary sodium/salt intake, overweight or obesity, tobacco and alcohol use attribute to a

risk of 15%, 24%, 11% and 7% respectively.[5] The National NCD Monitoring Framework[8] aims to reduce raised blood pressure by 10% and 25% by the year 2020 and 2025 respectively. *(Table 1.1.2)*

Raised blood glucose

Raised fasting blood glucose is a 100% attributable risk factor for diabetes mellitus, 19% to stroke, 7.2% for lung cancer, 6.8% to colorectal cancer, 6% for breast cancer and 7.15% to pancreatic cancer.[20] Diabetes mellitus contributes to 3.11% of total deaths in 2016.[5] Type-2 diabetes is a chronic, progressive and damaging ailment, which can be prevented with systematic interventions. The overall prevalence of diabetes as per the ICMR-INDIAB study was 7.3% among the 15 surveyed states[26] and 8.8% according to the International Diabetes Federation, 2017.[27] The risk factors attributable to diabetes mellitus are elevated fasting blood glucose (100%), overweight or obesity (25%), low dietary fruits intake (10%), physical inactivity (2.5%), tobacco (11%) and alcohol (0.55%) use.[5] The National NCD Monitoring Framework[8] aims to have 0% increase in diabetes by 2025. *(Table 1.1.2)*

Raised cholesterol levels

Raised cholesterol increases the risk of heart diseases and stroke. According to the GBD estimates for India in 2016, raised total cholesterol is an attributable risk factor for stroke (8%).[5] Evidence also reveals that a 10% reduction in serum cholesterol in men aged 40 years results in a 50% reduction in heart disease; while for men aged 70 years, an average of 20% reduction in heart disease occurrence within 5 years.[28] There is no specific target under the National NCD Monitoring Framework.

Other NCD risk factors and National NCD targets

Household air pollution

Household air pollution is a unique target included for India in addition to the nine targets set globally. The National NCD Monitoring Framework[8] aims for a 25% and 50% reduction in household air pollution by 2020 and 2025 respectively. Exposure to smoke inside home is greater than outdoors and the major sources being smoke generated while cooking using solid fuels (wood, dung cakes etc.) indoors, which have potential harmful health hazards. The fourth national family health survey 2015 reported that 54.7% of households in India (16.4% urban and 75.2% rural) use some type of solid fuels for cooking with most of them being wood or dung cakes.[13]

National target on drug therapy to prevent heart attacks and stroke

The National NCD Monitoring Framework[8] aims that at least 30% and 50% eligible individuals by year 2020 and 2025 respectively must receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and stroke. Providing drug therapy (including glycaemic control of diabetes mellitus and control of hypertension using a total risk approach) and counselling to high-risk individuals has been identified as one of the most cost-effective measures to prevent heart attacks and stroke.

Availability of essential NCD medicines and basic technologies to treat major NCDs

A 60% and 80% availability of affordable essential NCD medicines and basic technologies to treat major NCDs in both public and private facilities is the National NCD Monitoring Framework[8] target by the year 2020 and 2025 respectively.

NCD prevention and control in India

The National Programme on Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS) launched in October 2010, aimed at institutionalizing response to NCDs and supplementing State efforts through setting up of State level NCD Cells and integrating it within the National Health Mission (NHM) framework. It is a key implementing entity for these activities, with its coverage expected to increase from 100 to all districts across India. The programme components include: (i) establishment/strengthening of health infrastructure; (ii) early diagnosis and treatment; (iii) human resource development; (iv) health promotion; and (v) monitoring, surveillance and research.[29, 30] Some of the regulatory initiatives undertaken by the MoHFW, Government of India, include the Cigarettes and Other Tobacco Products Act (COTPA) 2003, which aimed at prohibition on advertisement and regulation on production, supplies and distribution of tobacco products.[31] India was among the first few countries to endorse WHO-Framework Convention on Tobacco Control (WHO-FCTC) in 2004. The National Tobacco Control Programme has been in implementation in 21 states of the country. The Food Safety and Standards Authority of India (FSSAI) under the MoHFW, launched the "Eat Right India" movement in the context of India's increasing burden of NCDs, obesity and micro-nutrient deficiencies. There are combined efforts that are aligned with Ayushman Bharat, Swachh Bharat Mission and POSHAN Abhiyaaan (Prime Minister's overarching scheme for holistic nutrition). Food Safety and Standards (Prohibition and Restrictions on Sales) Regulations, 2011 dated 1st of August 2011, issued under the Food Safety and Standards Act, 2006 by the FSSAI, laid down that tobacco and nicotine shall not be used as ingredients in any food products and gutkha has been banned. In 2017, FSSAI also proposed a tax and advertisement ban on unhealthy foods.[31, 32]

The National Health Policy, 2017[12] recognizes the pivotal importance of SDGs and the need to halt and reverse the growing incidence of NCDs. The policy aims to support an integrated approach for screening and prevention of most prevalent NCDs, which would make a significant impact on reduction of morbidity and preventable mortality.

The NITI Aayog (National Institution for Transforming India) in collaboration with the MoHFW, Government of India is exploring opportunities to enhance private sector engagement through public-private partnerships for addressing the growing burden of NCDs in the country. The mandate of NITI Aayog is to co-ordinate the work on SDGs through synergistic approaches. A comprehensive mapping of SDG targets with schemes and programmes have been developed for sustainable development with a focus on their interlinkages.[9]

1.2 RATIONALE FOR NATIONAL NCD MONITORING SURVEY

National NCD Monitoring Framework

As a follow up to the high-level United Nations summit on NCDs in September 2011, the World Health Assembly in May 2013, adopted the comprehensive global NCD monitoring framework. This included a set 9 targets and their 25 indicators capable of application across regional and country settings to monitor trends and to assess progress made in the implementation of national strategies and plans on NCDs. Government of India finalized the national NCD targets and indicators based on regional consultations. A total of 10 targets and 21 indicators were adopted by the MoHFW, Govt. of India, with the year 2010 serving as a baseline for assessing progress made for achieving the NCD targets in 2015, 2020 and 2025[8] *(Table 1.1.2).* Thus, to monitor at a national level, the estimates of these key NCD indicators would require a nationally representative survey.

Increasing burden of NCDs in India, prompted the MoHFW, Govt. of India to prioritize time bound national targets based on WHO guidance. This paved the way for a nation-wide NCD risk factor monitoring survey to arrive at national estimates for the identified indicators. The pivotal role of measuring risk factors for NCDs in predicting future NCD burden in the population is a useful advocacy tool for disease prevention and control programmes. There is a need for a specific sustainable systems for monitoring NCDs in India.

Recognizing the limitations, challenges and the need for a robust system for monitoring, evaluation of NCDs and their risk factors and to further produce evidence for policy and strategies for NCD prevention and control, ICMR was identified as the nodal agency for monitoring, evaluation and surveillance under the national NCD monitoring framework. This activity would establish national baseline estimates to monitor the country's progress towards achieving the National NCD targets. This survey is the first nationwide NCD monitoring survey in India to estimate the National NCD monitoring framework indicators.

1.3 MANDATE AND SCOPE OF THE SURVEY

After reviewing the existing NCD related data collection activities, the national technical working group (TWG) on NCD surveillance recommended ICMR to undertake a separate national level survey to generate estimates on nationally representative sample. It was also recommended that the same protocol would serve as a prototype for future surveys with some modifications as felt appropriate by the TWG at the time of the prospective surveys (2020, 2025). States could adopt the protocol to conduct similar surveys to arrive at State based estimates in the corresponding time periods. ICMR will provide all technical and operational support in conducting these surveys. These activities will help in strengthening

national and sub-national capacities to monitor NCDs and their risk factors and setting up of their surveillance mechanisms.

The National NCD monitoring framework has 21 indicators, of which three are related to adolescents (defined as 10-19 years age group), and the remaining are related to adults (18-69 years age group) and health system response. The present survey covered the age range of 15-69 years which included adolescents between 15-17 years.

1.4 SURVEY OBJECTIVES

Primary objective

- To generate national level estimates of key NCD related indicators (risk factors and health systems response) identified in the national NCD monitoring framework for the year 2017-18.

Secondary objectives

- To set a baseline to track changes and monitor future trends in the prevalence of risk factors associated with NCDs at the national level.
- To create a central and regional pool of resources (capacities, protocols, standard tools, training manuals etc.) to support conduct of similar surveys at State level.

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CHAPTER 2:

METHODOLOGY AND DATA COLLECTION

2.1 TARGET STUDY POPULATION

Geographically, the country was divided into six zones mainly north, south, east, west, central and north-east zone. The target study population for National NCD Monitoring Survey (NNMS) – 2017-18 was the entire adult population between age 18-69 years and adolescent population aged 15-17 years which includes both gender, and those living in the urban and rural areas of the country.

2.2 SAMPLE SIZE AND DESIGN

2.2.1 Study design

The National NCD Monitoring Survey (NNMS) was a cross-sectional survey, conducted during the period 2017–18. Multistage cluster sampling design was adopted to cover an age range of 15-69 years. Since the information for NCD indicators was to be obtained separately for adults and adolescents as listed in the *table 1.1.2*, the required sample size was calculated independently for each of the target group of adult and adolescent population. Of the twenty-one indicators for NCDs, ten indicators are related to adults (Indicators 1-4, 6, 7, 9-11, 14), three indicators for adolescents (5, 8, 12), one indicator (13) for household level; and rest of the indicators (15-21) are associated with health system responses *(Table 1.1.2).* Out of the 21 indicators, eight indicators pertaining to adults; three indicators for adolescents, one indicator for household level and five indicators related to the response of national systems were estimated for the NNMS – 2017-18. The remaining would be ascertained from other reliable sources.

2.2.2 Determination of sample size

The target study population was divided into four subgroups (urban and rural, men and women) (2 x 2 = 4). Accordingly, the sample size determined for one subgroup was inflated four times to get the required sample size for the target population of adults and adolescents separately.

For sample size estimation of adults and adolescents, the prevalence of a few key NCD indicators was derived from IDSP-NCD risk factors survey (2008-09) report assuming no appreciable changes. These included tobacco and alcohol use, obesity, physical activity; among these, the expected prevalence of obesity was observed to be comparatively low among adults and adolescents. Hence, the prevalence of obesity was taken, to arrive at sample size estimates for the National NCD Monitoring Survey – 2017-18.

Prevalence of obesity (9% among adults and 6% in adolescents), the relative precision of 15% for adults and 50% for adolescents, a non-response rate of 15% and a design effect of 1.5, the required sample size for estimating the NCD indicators for four strata for the NNMS was calculated as 12000 adults (18-69 years) and 1700 adolescents (15-17 years). One adult was selected from each household, i.e. 12000 households were required for the survey.

The proportion of the adolescent population from Census 2011 is 10 to 15%. Assuming 12% of adolescents would be available in the selected households of 12000 for adults, the expected sample size for adolescents

to be recruited was 1440, assuming if one adolescent was selected from each household. However, we included all the adolescents who were available at the selected households to reach the required sample size.

The survey had fixed the same sampling frame for adult and adolescent. The selection of adult was restricted to only one for each household, using the KISH method developed in Computer-Assisted Personal Interviewing (CAPI). Considering that the prevalence of some indicators (like smoking and use of alcohol among females may be lower) at the subgroup level were lower than 7%, the sample size computed would be optimum for arriving at reliable estimates. Further not affecting the overall operational cost of the survey. This sample size was also considered to be adequate to capture sufficient number of diagnosed cases of hypertension/myocardial infarction/angina/stroke/diabetes among the targeted adult population i.e. proportion of those who received drug therapy and counselling.

As this was the first time in the country that urinary sodium was being estimated at national level, it was done in a subsample of 3000 adults (18-69 years), which was 25% of the overall sample size.

The health facility survey was also conducted simultaneously. According to the National NCD framework, the target set for availability with essential medicines and technologies is 80%. Based on this set 80% target and assuming 50% and 15% of relative precision, a sample size of 302 was estimated for the health facility survey. There were four strata – rural/urban and private/public facilities. Thus, a sample of 300 was considered for each strata totalling to 1200 in all the four strata (urban/rural and public and private). Even though the indicator was related to primary level health facilities, keeping in view with the NPCDCS strategy, the level of facilities was expanded to include community health centres (CHCs) and district hospitals (DHs). However, for private facilities only the primary care facilities were surveyed.

2.2.3 Allocation of sample size

The national representative sample size of 12000 households was equally allocated to both the urban and rural areas, i.e. 6000 households for each. The PSUs for rural area was a village or group of villages and it was Census Enumeration Block (CEB) or ward for the urban areas. By selecting a total of 600 PSUs (300 from urban and 300 from rural) and 20 households from each PSU, the desired number of samples of 12000 households was made available for national survey.

2.2.4 Sampling frame

The national level sampling frame of PSUs for rural and urban areas were prepared using the standard procedure. At first stage, a sampling frame of all the districts with geographic contiguity was prepared and divided into 60 groups of districts with more or less equal population size using the 2011 census data. Within each of the 60 groups, the PSUs (i.e. villages for rural and wards for urban) were arranged in an ascending and descending order alternatively (implicit stratification) based on female literacy rates and proportion of agriculture workers. Thereafter, the rural and urban PSUs listed within each district of 60 groups were separated for preparing the rural and urban frame of PSUs/wards (urban).

2.2.5 Selection of PSUs and households

The 300 PSUs from rural sampling frame and 300 wards from urban sampling frame were selected using probability proportional to population size (PPS) method. The PSUs were villages in rural areas and CEBs in urban areas.

In every village/CEB selected, a mapping and household listing operation was carried out. The census location map was used to identify all the boundaries of the selected sampling unit [village or CEB] correctly. Assistance from the local authorities was obtained for identifying those new boundaries for those sampling units, whose boundaries had changed (2011 census location map). A boundary map was prepared using standard mapping symbols in the provided forms.

The household listing involved preparing up-to-date national and layout sketch maps, assigning numbers to structures, recording addresses or the location of the structures and identifying residential structures in the selected villages.

The rural sample of households was selected in two stages: the selection of PSUs, which were villages were selected with PPS at the first stage, followed by the random selection of households within each PSUs at second stage using circular systematic sampling (done at the time of survey). In case, the village size was too big (>400 households) the village was segmented into multiple zones and two zones were selected by PPS for household listing. *(Figure 2.2.5.1a)*

In urban areas, a three-stage procedure was followed: In the first stage, wards were selected with PPS sampling. In the second stage, one CEB was selected randomly. In the final stage, the households were randomly selected within each CEB using the circular systematic sampling procedure at the time of the survey. *(Figure 2.2.5.1b)*

From each selected PSU, 20 households were selected after house listing. The procedure of house listing is described in detail in the *section 2.3, Field survey procedure.*

2.2.6 Selection of individual at household level

From each of the selected household, all adolescents in the age group of 15-17 years were included in the survey, if available; and one adult was selected from the age group 18-69 years using the KISH method.

The KISH method used was representative of all the age groups and gender. The grid assigned an equal probability of selection for each possible survey participant, thus addressing the selection bias. The probability of selection against the very young or very old was overcome by assigning numbers to each member of the household, based on their age. The age of an individual was recorded as completed age in years on the day of survey. The grid had a column for each household that was visited and a row for the number of eligible people within the household visited. All the eligible members of the household were labelled in order of increasing age, to give the youngest member a slightly greater chance of being chosen,

since it was difficult to track down younger adults at home. The KISH method [STEP wise approach to surveillance (STEPS)-WHO]** has been described in detail with an example in *annexure 01*.

The description of KISH methodology of selection of one individual at household level was provided as an alternative if the CAPI was not having a program or not being used due to any reason.

The three-level stratification and sampling frame in rural and urban areas are given in *Figure 2.2.5.1a and b*.

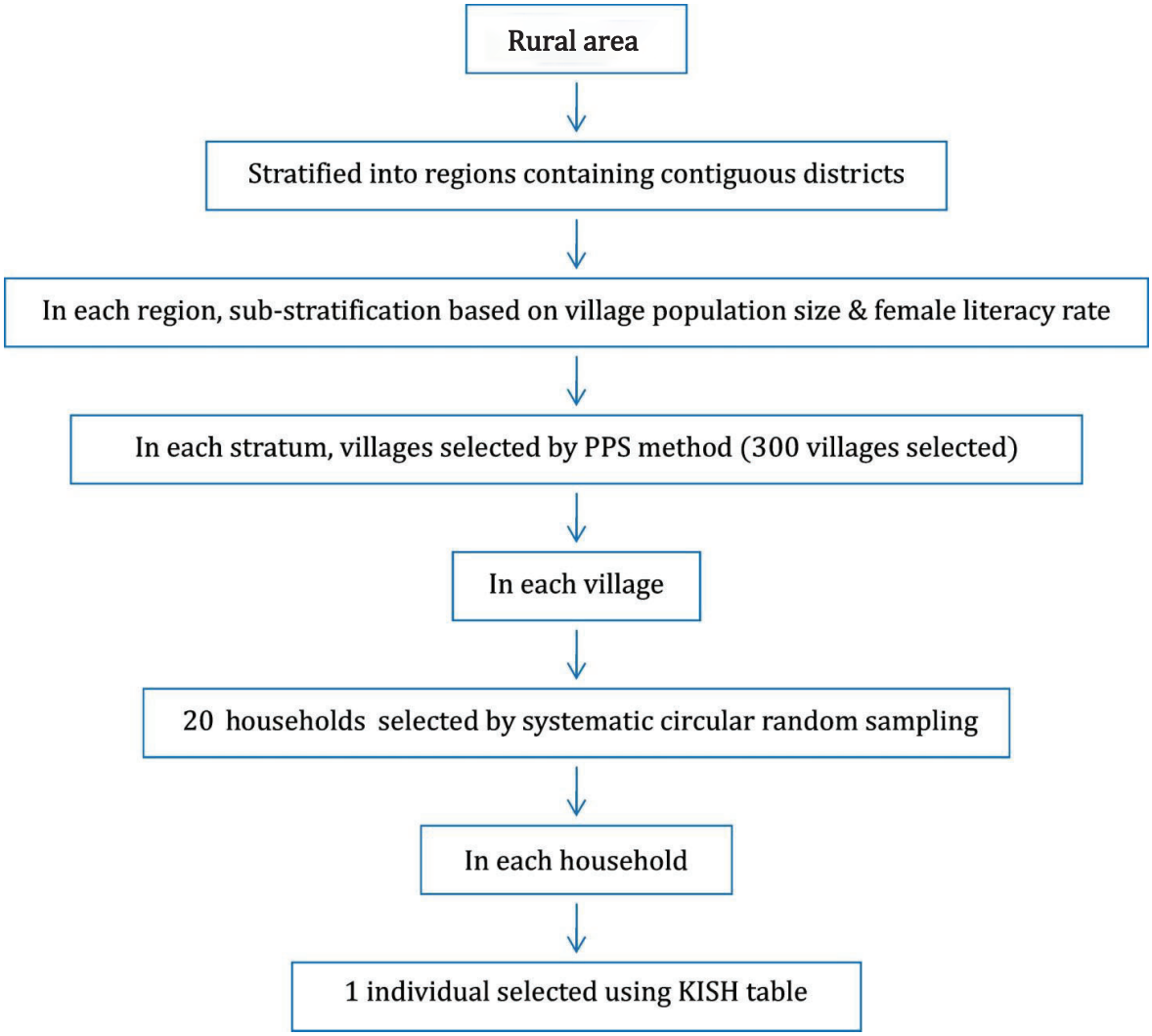


Figure 2.2.5.1a NNMS sampling design in rural areas

**Monitoring and surveillance of noncommunicable diseases, STEPwise approach to surveillance (STEPS) [Internet]. World Health Organization [cited 7 June 2018]. Available from: https://www.who.int/ncds/surveillance/steps/en/

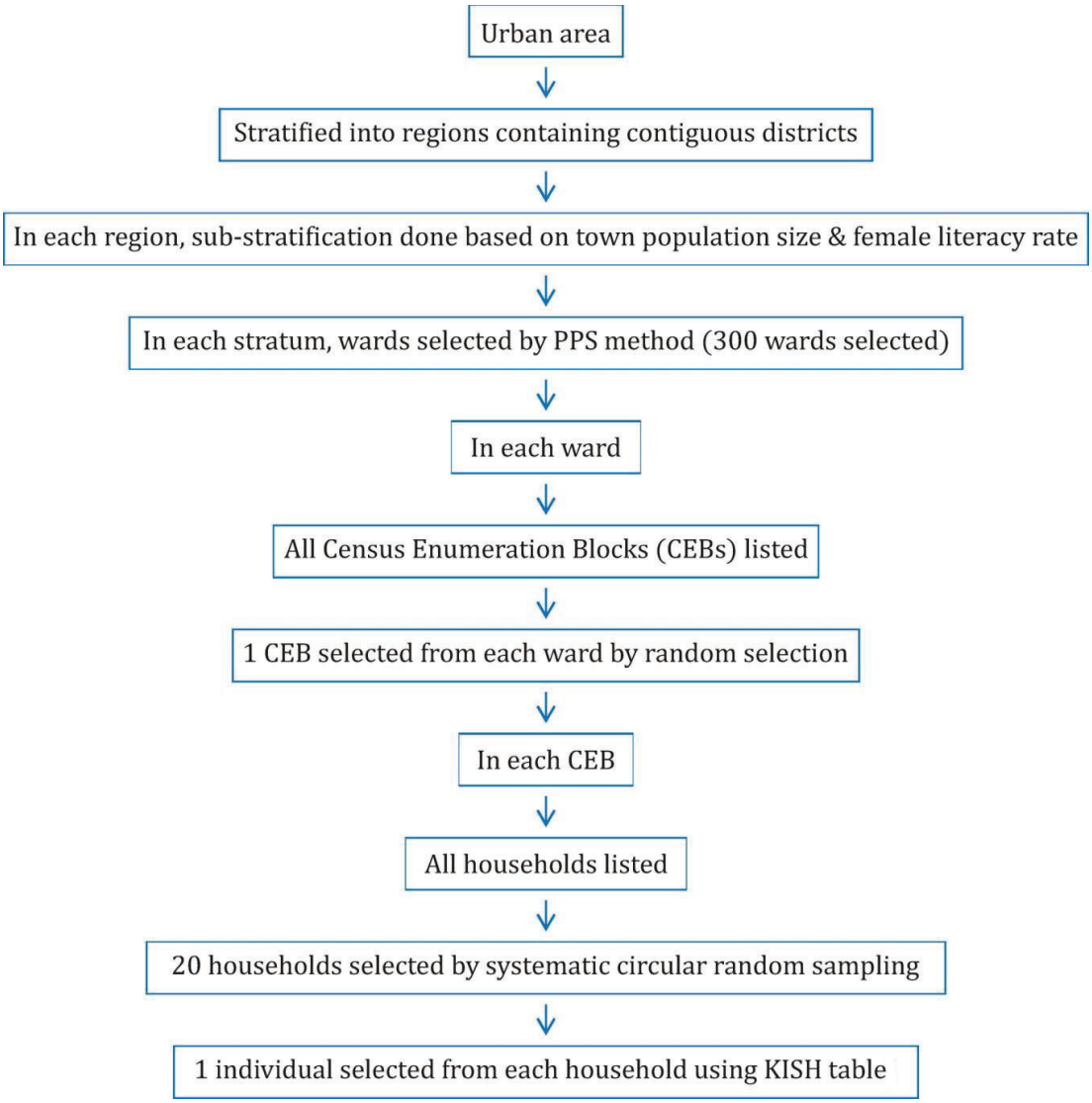


Figure 2.2.5.1b NNMS sampling design in urban areas

2.2.7 Sampling of health facility

Four types of health facilities (three public and one private) were identified for inclusion in the health facility survey based on the operational feasibility. A private primary health care facility was defined as one which has inpatient facility (not necessarily for NCDs) but has between 5-30 beds. A list of primary private health facilities in the nearby areas preferably within 5 or 10 Km range of selected PSUs was prepared. Specialized facilities like that of maternity, paediatric or orthopaedics were not included in the list. From the list of private health facilities, one each was selected randomly for health facility survey. For public primary care and secondary health care facilities (CHCs and DHs) survey, the facilities within the selected cluster were included (if 2 clusters fell in the same district, only one common DH was included).

2.3 FIELD SURVEY PROCEDURE

The field survey procedure included preparation of uniform guidelines and procedures, and the same were followed by the field teams while conducting the survey in the selected list of rural and urban PSUs.

Each survey team collected the name of PSU with state, district and block/sub-districts (with codes). Mapping and listing included preparation of a list of all households residing in the selected PSUs to ensure coverage of all households in the selected PSU. The prepared household listing information was used for selection of the 20 households as per the selected PSU. The same information was also utilized for developing sampling weights during analysis.

2.3.1 Locating the primary sampling units

The coordinator provided the listing team with a location map of the village and/or urban ward or block containing the selected PSU assigned to the team. The PSU was identified by a PSU number with three-digit PSU code and also the code corresponding to the census village. Upon arrival in the area, the team used the census location map to identify all the boundaries of the selected PSU. There were recognizable natural features such as streams or lakes, and other features such as roads or railroads. However, if the boundaries of the PSU had changed, the team obtained assistance from local authorities or people living in the vicinity to identify the boundaries.

Before doing the listing, the panchayat leaders briefed to get an idea of the layout of the village, and the team toured the PSU to determine an efficient route of travel for listing all the structures. The PSUs were divided into sections (if possible) and a section could be a block of structures. This was useful to make a rough sketch map of the PSU indicating the boundaries of the sections, as well as the relative location of landmarks, public buildings - such as schools, temples, markets and main roads. This rough sketch served as guide for the team before they began the survey work.

2.3.2 Mapping and household listing

The objective of mapping and listing was to ensure that all households in the PSUs were included in the sampling frame. PSU boundaries were identified, location and layout maps were prepared, all structures within the area were numbered and a complete list of dwellings and households was prepared. *(Annexure 02)*. A household was defined as group of persons who lived together and shared same kitchen. All institutions, commercial establishments and hostels were excluded from the sampling frame.

The listing operation consisted of visiting each selected PSU/CEB, recording on listing forms a description of every structure together with the names of the heads of the households found in the structure and drawing a location map as well as the layout map of the structures in the PSUs.

2.4 SURVEY PREPARATION

2.4.1 Survey preparation and management

All study tools and procedures were pilot tested at four sites in collaboration with WHO-country office for India, All India Institute of Medical Sciences (AIIMS) New Delhi, AIIMS Jodhpur, AIIMS Bhubaneshwar and ICMR-NIE Chennai. Lessons learnt during piloting were incorporated in the form of changes in questionnaire wordings and changes in operational plan. Piloting also helped to revamp the field staff training plan.

In the absence of previous information on the urinary sodium excretion levels at population level, a pilot was also done to assess the validity of known equations (Kawasaki, Tanaka and INTERSALT) for estimation of urinary sodium excretion using both spot urine samples as well as 24-hr urine sample in the same individual.

The survey was implemented, coordinated and monitored by the central coordinating unit (CCU) at ICMR-National Centre for Disease Informatics & Research (NCDIR), Bengaluru. The technical working group (TWG) on National NCD Surveillance guided the overall conduct and supervised the survey in a timely manner. The country was divided into 10 contiguous zones each with approximately 60 survey clusters.

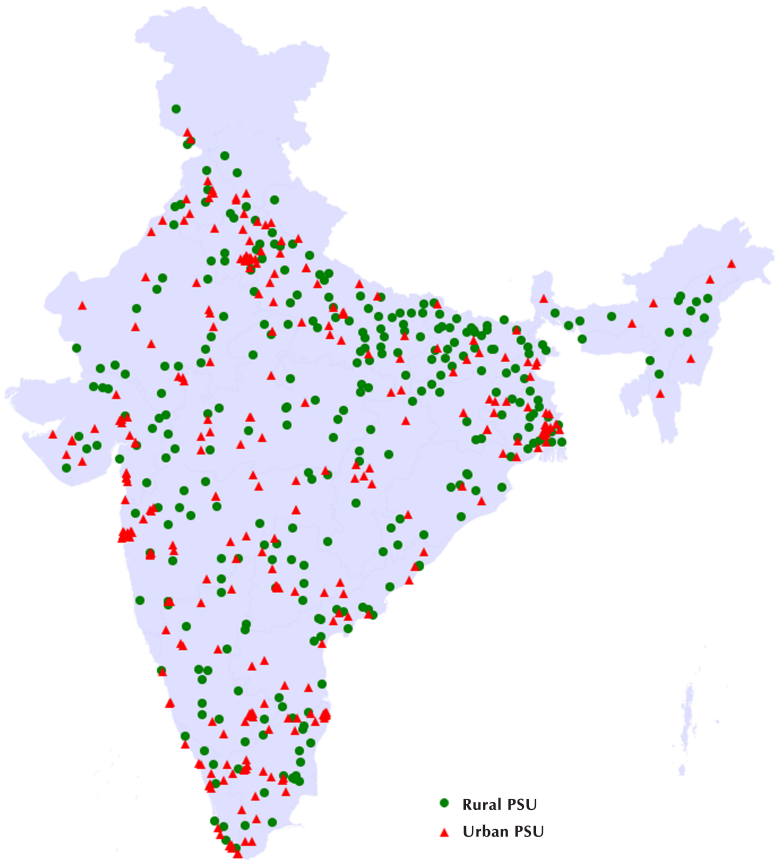


Figure 2.4.1.1a Geographical distribution of PSUs under NNMS - 2017-18

A total of 10 implementing agencies were identified by the CCU to carry out the survey, one for each zone *(Table 2.4.1.1)*. The team of each implementing agency was led by a Principal Investigator (PI) and at least one co-investigator with prior field survey experience. Agencies conducting the survey in more than one state, included one or more collaborating investigators in states outside their place to provide support for local language issues and facilitate logistics. The *figure 2.4.1.1a* depicts the coverage of PSUs, *figure 2.4.1.1b* shows the coverage of PSUs for urinary sample for sodium estimation and *figure 2.4.1.1c* depicts the coverage of health facilities for the NNMS – 2017–18.

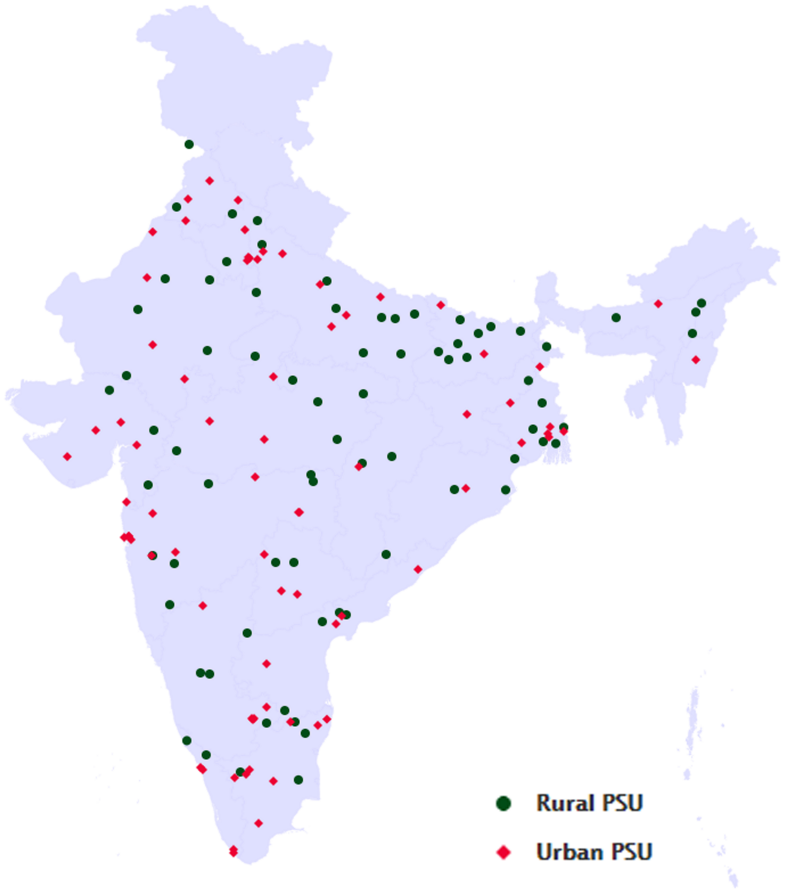


Figure 2.4.1.1b Geographical distribution of PSUs for urinary sample under NNMS - 2017-18

Table 2.4.1.1 List of survey implementing agencies, allotted states and number of PSUs covered for NNMS - 2017-18

Agency Name	List of allotted States	Urban	Rural	Total
All India Institute of Medical Sciences, New Delhi*	• Uttar Pradesh	29	46	75
National Centre for Disease Control, New Delhi	• Jammu & Kashmir • Himachal Pradesh • Punjab • Haryana • Chandigarh • Delhi NCR • Uttarakhand	33	19	52
All India Institute of Medical Sciences, Jodhpur	• Gujarat • Rajasthan	33	30	63
All India Institute of Medical Sciences, Bhopal	• Madhya Pradesh • Chhattisgarh • Jharkhand	26	35	61
Assam Medical College, Dibrugarh	• West Bengal • Sikkim • Assam • Nagaland • Mizoram • Manipur	31	38	69
All India Institute of Medical Sciences, Bhubaneshwar	• Orissa • Bihar	13	44	57
Byramjee Jeejeebhoy Medical College, Pune	• Maharashtra	41	23	64
ICMR-National Institute of Nutrition, Hyderabad	• Andhra Pradesh • Telangana	25	26	51
Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram	• Karnataka • Kerala	35	22	57
ICMR-National Institute of Epidemiology, Chennai	• Tamil Nadu	34	17	51
	Total	**300**	**300**	**600**

*Also acted as the reference laboratory for urinary Sodium, Potassium and Creatinine testing

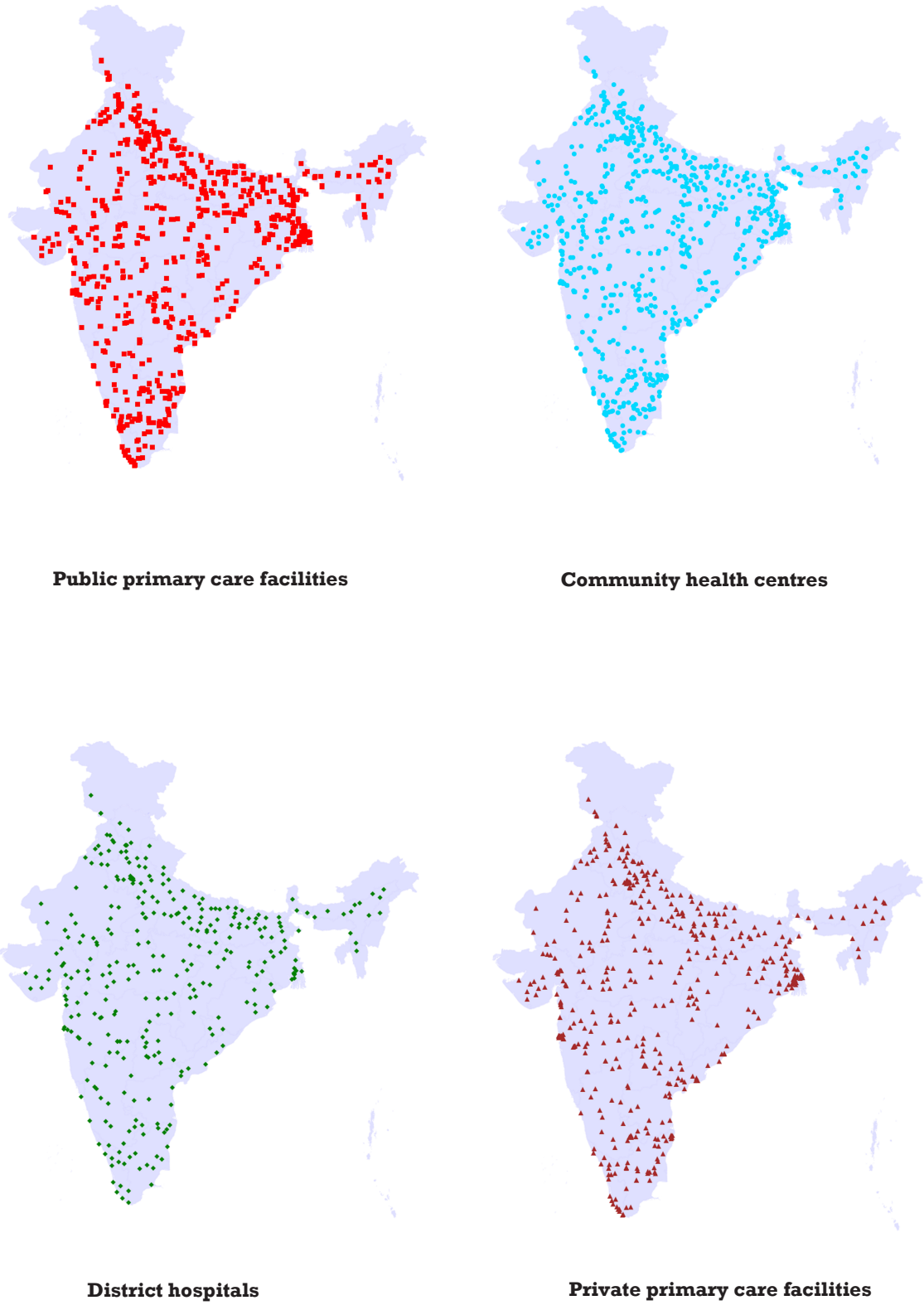


Figure 2.4.1.1c Geographical distribution of health facilities under NNMS – 2017-18

Official approvals were obtained from the MoHFW, Government of India. Health officials of selected states and districts were involved at all stages. CCU made all necessary official communications with principal secretaries of State health departments. They in turn, informed the concerned Chief Medical Officers/Chief

Medical and Health Officers/Civil Surgeons and district health officials for providing necessary support to the survey. An official letter by Principal Investigator (PI) of the State was also issued to the survey team for establishing their identity and obtaining local support. The team met community leaders before the survey and sought their concurrence. The survey team informed concerned village and ward authorities through issued official letters and documents.

2.4.2 Ethical approval

The survey received ethical clearance from the "Ethics review committee" of the CCU, ICMR-NCDIR. All other participating implementing agencies obtained approval from their respective institutional ethics committees.

The survey identified concerns that would require the highest level of ethical standards. These included:

1. Obtaining written informed consent from the study participants and in case of adolescents, their assent as well as their parents/guardian's consent was to be attained.
2. Concerns related to urine and blood sample collection and physical measurements especially weight and waist circumference.
3. Approvals and co-operation from the health officials and community leaders.
4. Maintaining data confidentiality and privacy.
5. Communicating health findings with the participants after the interview and referral to a nearby public health facility for further evaluation and management.

The CCU and each state implementing agency addressed to these concerns at every level.

Confidentiality

All the survey staff were trained in ethical procedures to protect confidentiality during data collection, no sharing of collected information and respondent referral. It was ensured that all the data collected through the hand-held devices were secured through a password-protected mechanism.

Informed consent

All the individual respondents were clearly explained and briefed about the survey objectives and details on the information to be captured as part of the survey. The participants were ensured regarding the confidentiality of the data collected and clarified that their participation was voluntary. Following their verbal consent to participate, a written informed consent was sought from each of the selected respondent. In case of an adolescent, the approvals and consent were obtained from their parents/guardians. An assent from the adolescent was obtained before data collection. Separate participant anthropometry and blood sugar reporting forms were used to obtain consent for the physical and biochemical measurements.

Protection of human participants

The survey teams were well trained in aseptic measures of sample collection and waste management. Highest level of standards during biochemical specimen collection was ensured by sterile aseptic procedures, to protect both the respondents and the survey staff. The risk of participation for all the

respondents was minimal, limited mostly to temporary discomfort associated with the finger prick blood collection process.

As a part of the survey, brief health promotion materials on NCDs and their associated risk factors were given to all the respondents following the interview. Those identified for referral were directed to the nearest public health care facility for further evaluation using a referral form/card. Every implementing agency maintained a recorded documentary of the referrals. Strict confidentiality towards circulation of results was maintained.

2.4.3 Training

The survey implementation was done under the supervision, coordination and monitoring of the CCU at ICMR-NCDIR, Bengaluru.

- **Training of Trainers (TOT)**: A four-day TOT was held for 2 investigators from each institution (total of about 20 investigators) which constituted the Principal Investigators (PIs)/Co-PIs/Collaborators from the Implementing agencies. The training was held between 26th July 2017 and 29th July 2017 in New Delhi.
- **Regional training of field teams**: Field teams underwent a five-day training including training in mapping and listing, data collection, measurement and data entry in handheld devices. It included a field visit and a pilot run of field work. The two investigators already trained were supported by the central team for the zonal trainings which were conducted for two institutions jointly (about 24 people). These were held in the respective zones. The trainings were conducted during August and September 2017.
- **Retraining:** Retraining of survey staff was conducted on survey methods and procedures after two months of the initiation of field activities. This was to refresh the knowledge of team members regarding survey methods, interview procedures and anthropometric measurements. This was also essential to clarify issues faced by them on the field.
- CCU conducted several sessions of online trainings with the staff of implementing agencies.

2.5 SURVEY INSTRUMENTS

2.5.1 Survey questionnaires

The NNMS 2017-18 used questionnaires at the household level, individual-adolescent, individual-adult, adult biochemical measurement, public primary care and secondary health care (CHCs and DHs) facilities and private health facility (primary care level). These instruments were adapted from WHO-STEPS and WHO-Service Availability and Readiness Assessment (SARA), WHO- Global School Student Health Survey (GSHS), Global Adult Tobacco Survey (GATS), Global Youth Tobacco Survey (GYTS) tools for Indian context and IDSP-NCD risk factor survey tools. The tools were pilot tested to suit the requirements of the National NCD monitoring framework.

Measurements

The household form captured details on housing type, type of toilet facility, source of drinking water, fuel used for cooking, type of cooking oil used and details on ration card.

The individual questionnaires for adults and adolescents included questions on socio-demographic factors and the following:

1. **Behavioural risk factors:** Through a face-to-face interview, questions and show cards were used to capture details for tobacco and alcohol use, details on diet and physical activity among adults and adolescents.
2. **Health seeking behaviours and management indicators (only adults)**: Participants were questioned about their history of raised blood pressure, raised blood glucose, raised cholesterol, history of CVDs including cerebrovascular accidents and details on cancer screening for cancer of breast, cervix and oral cavity.
3. **Physical measurements**: Height and weight were measured for both adults and adolescents, while waist circumference and blood pressure were measured only for adults.
4. **Biochemical analysis (only adults):** Fasting blood glucose (dry chemistry – strip method) and urinary sodium excretion in spot urine samples.
5. **Health system responses of public and private health facilities**: For availability of human resources, technologies, medicines and services being provided related to NCDs.

2.5.2 Physical measurements

The physical measurements included assessment of height, weight, waist circumference (WC) and blood pressure. The height *(Stadiometer, SECA 213, Seca Gmbh Co, Hamburg, Germany)*, weight (*Weighing machine, SECA 803, Seca Gmbh Co, Hamburg, Germany)* and WC *(Measuring tape, SECA 201, Seca Gmbh Co, Hamburg, Germany)* were measured using standard procedures to calculate BMI and central obesity. Blood pressure was measured after ensuring a rested phase of 10 minutes using standard automatic blood pressure machine *(OMROM HEM–7120, Omron corporation, Kyoto, Japan).* Second and third readings were obtained after 3 minutes resting interval between the readings. After discarding first reading, the mean of the second and third measurements of blood pressure were used for analysis.

Stadiometer

Weighing machine

Measuring tape

Automatic blood pressure machine

2.5.3 Biochemical estimation

The biochemical estimation was done only for adults and it included measurement of fasting blood glucose and the urinary sodium in spot urine samples. Bio-specimens were collected from adults through a camp-based approach and the participants were given appointment slips on a day prior to the camp along with instructions for fasting and for providing spot urine samples (in selected clusters only).

The estimation of fasting blood sugar (dry method) was done under aseptic conditions following all biosafety precautions of handling of bio-specimen and disposal of waste in the field. One place in the cluster was identified based on operational feasibility. All participants were called to that facility in a fasting state early in the morning. Date and time of their last meal were asked and noted in the camp activity sheet. Glucometer *(Gluco spark, Sensa core, Telangana, India)* based testing for fasting blood glucose was done after confirmation of fasting status.

Glucometer Lancet Holder Lancet Strip Box Control Solution

Equipment used to estimate capillary fasting blood glucose

Spot urine samples were collected from all the adult respondents who consented for this test in randomly selected 150 PSUs (75 Rural and 75 Urban PSUs) in a labelled sterile container which were stored appropriately, finally all samples were sent to the laboratory (Department of Biochemistry, C N Centre), AIIMS, New Delhi for analysing levels of Sodium (Na) excretion. The urinary Sodium and Potassium (K) levels were estimated on automated analyzer *(AU680 Chemistry analyzer, Beckman Coulter, CA, USA)* using indirect Ion Selective Electrode (ISE) method. Urinary Creatinine (Cr) levels were measured by Jaffe's method on Roche analyzer *(P800 Modular Analytics, Roche diagnostics, Mannheim, Germany)* using

commercially available kit *(Ref. 11875418-216, Roche diagnostics, Germany)*. The urinary sodium excretion (for sodium intake assessment) estimation in spot urine samples were done using the INTERSALT equation with Potassium.

INTERSALT equation with Potassium

Men: $23 \times (25.46 + [0.46 \times \text{spot Na (mmol/L)}] - [2.75 \times \text{spot Cr (mmol/L)}] - [0.13 \times \text{spot K(mmol/L)}] + [4.10 \times \text{BMI (Kg/m}^2\text{)}] + [0.26 \times \text{age (years)}])$

Women: $23 \times (5.07 + [0.34 \times \text{spot Na (mmol/L)}] - [2.16 \times \text{spot Cr (mmol/L)}] - [0.09 \times \text{spot K(mmol/L)}] + [2.39 \times \text{BMI (Kg/m}^2\text{)}] + [2.35 \times \text{age (years)}] - [0.03 \times \text{age}^2\text{ (years)}])$

The calculated value in mmol/L was multiplied with a constant of 2.54 and divided by 1000 to arrive at the salt intake of population in grams.

2.5.4 Calibration (standardization) of equipments

The calibration of equipments was done by verifying measuring equipment against an accurate standard to determine any deviation and to correct any errors found. This was done periodically before start of every PSU. The calibration results were documented in log sheets and checked for any corrective actions. Each equipment had to be pre-coded and the code label had to be stuck at the back of the machine to help in documentation.

All the equipment used for the survey were checked for their working condition, damages, if all parts of the equipment were present and if the batteries were in place and carried charge. Before measuring the height, weight and WC of the study participants in the field, one of the technicians whose measurements were known (was measured during the field before start of every PSU) was used as a control, to confirm the correct functioning of the equipment. Other calibration checks performed have been described below:

Stadiometer calibrations were also done with the help of a new measuring tape. This was placed against the stadiometer and the markings of both were compared for accuracy.

Weighing machine calibrations were done with the help of known weights (pre-weighted sand bags of 250g, 500g, 1Kg, 1.5Kg, 2Kg, 5Kg etc.) or metal weights. Known weights were carried along with field kit.

Measuring tape was placed against a scale/ruler and/or a fresh/new tape and checked for accuracy of the readings.

Automatic blood pressure machines were calibrated by recording blood pressure for one field team member with the device to be checked. A new automated BP machine was used to re-check the BP of the same member and the values between them were compared for precision.

Glucometers were calibrated by comparing control solution values against the reference values provided by the manufacturer along with the kit.

If any extreme deviations were noted with measured values against the standard, the equipments were replaced with another. This information was intimated to concerned study implementing authority for repair or replacement of the equipment.

2.6 DATA COLLECTION

The team at implementing agency was led by a principal investigator with prior field survey experience and at least one co-investigator. Some agencies also co-opted a collaborator investigator in States outside their own place to provide logistics, language and local coordination facilitation.

The teams were trained for all survey related work like house numbering/mapping, data entry on handheld device, interview tool use, equipment handling, equipment calibration, laboratory procedures and sample handling etc. In every team amongst the three MSWs recruited for the survey, the most competent one was designated as the team leader; at least one of the MSW was a female, who interviewed and conducted anthropometry of female respondents. The overview of data collection has been presented in *figure 2.6.1.*

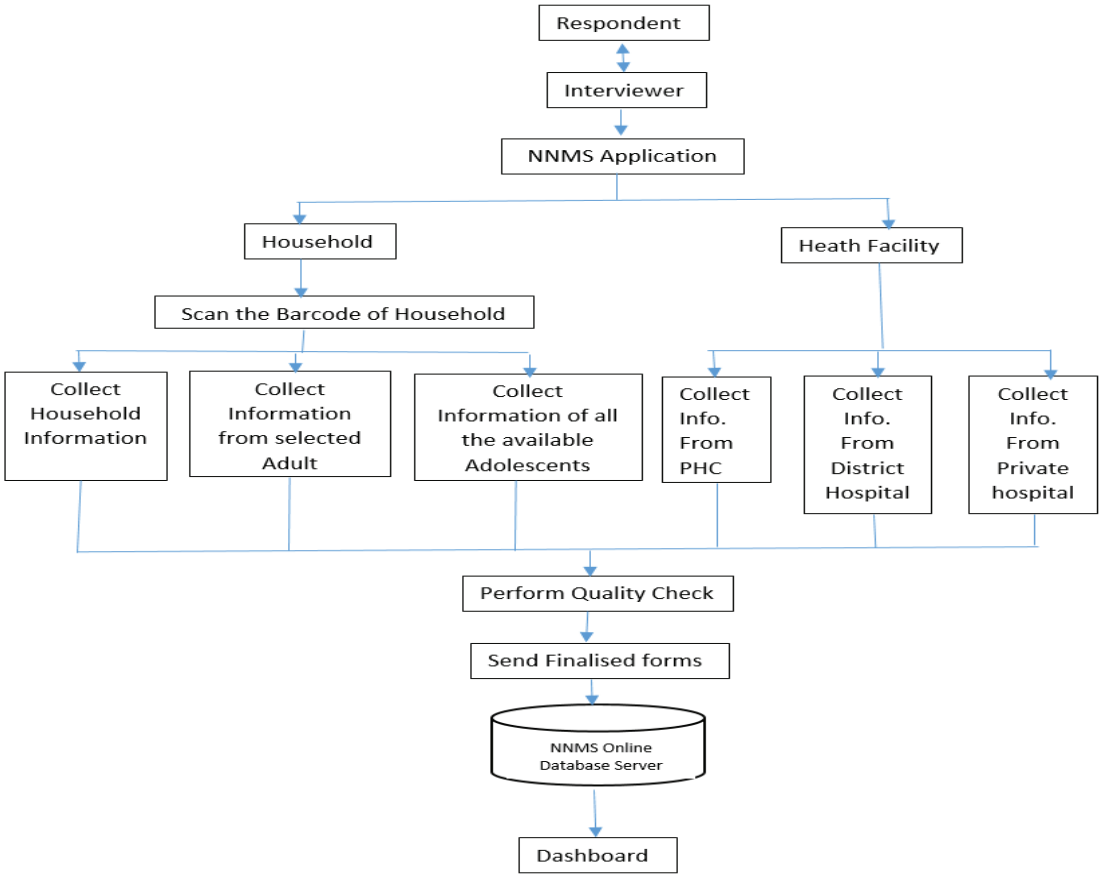


Figure 2.6.1 Data collection flowchart

2.7 QUALITY ASSURANCE MEASURES

Standards of quality control were achieved at various levels of the survey. All the study tools were reviewed and pre-tested in the field following expert group inputs. The household and individual level instruments were translated into local languages namely Hindi, Tamil, Telugu, Malayalam, Kannada, Marathi, Assamese, Gujarati, Bengali, Odia, Punjabi and all the translations were validated.

Each survey institution appointed one co-coordinator and one of its own faculty/scientist investigators to assure quality control. The quality assurance mechanisms followed were training, calibration and standardization of equipment and data collection tools, field data collection, recording and storage of data, handling of blood and urinary samples and their safe disposal and communication and counselling to the survey participants. Central coordinating unit was responsible for coordinating overall supervision, monitoring, data cleaning, data analysis and report writing with the technical support from its partners. Some of the quality assurance mechanisms followed have been listed in *table 2.7.1* below:

Table 2.7.1 Key quality assurance mechanisms followed

Standardization of manuals	• Survey questionnaires, field survey operational and training manuals • Laboratory biochemistry testing protocol & manual • Equipment manual • Quality assurance and monitoring manual • PDA and data management manual
Standardization of study tools	• Reviewed by experts - Study tools used: WHO-STEPS NCD risk factor survey instrument, WHO-GSHS tool, GATS, GYTS, IDSP-NCD risk factor survey and WHO-SARA tool • Review of questionnaires - National level group of experts • Pilot testing of questionnaires
Standardization of equipment	• Identified standard instruments for use across sites • Central purchase of equipments • Accuracy checks for equipments • Maintenance of calibration logs of equipments
Supervisory visits	• By the PI's • By NNMS Core group members • By TWG Members • WHO India Office
Field level quality checks	• Daily calibration checks of equipments • Field supervision form - completion of data collection, transmission, storage and safety of all equipments • Safe disposal of blood & urinary samples

CHAPTER 3:

DATA MANAGEMENT AND ANALYSIS

3.1 QUESTIONNAIRE, SOFTWARE DEVELOPMENT & HANDHELD DEVICES

The questionnaire programming was done through Open Data Kit (ODK), which is an open source application used for development of NNMS application in English and 11 different local languages. It was built-in with quality assurance checks for range and consistency errors. The application used barcode scanning to uniquely identify each household thus, eliminating the typographical errors across various forms. The application also had an option to save partially filled forms as a draft copy. The data was synced by team leaders with centralised online server from all the devices.

3.2 DATA MANAGEMENT

Data cleaning was performed using the *IBM SPSS for Windows version 22.0*. This step included checking for duplicates, missing, or conflicting data and implausible or illogical responses; performing descriptive statistics, frequency tables to look for outliers; checking variables and value labels, for example typing mistakes; ensuring that variables were of the appropriate type (numerical or string); and proper coding for missing data, skip pattern or unanswered questions was followed.

3.3 WEIGHTING OF DATA

Weighting the data was a critical step to have representative results of the entire population of the country. The data from all PSUs were compiled and weighting procedures were followed for adjusting for sampling, population proportions and response rates. For all the steps, data collected from the sample was weighted to provide prevalence estimates at the level of the population, households, area of residence (urban and rural), individuals for age group and gender (adults), only gender for adolescents and urinary samples. *(Annexure 03)*

The detailed statistical analysis plan was prepared based on the identified indicators and subgroups.

3.4 STATISTICAL ANALYSIS

The data analysis was done using *STATA 14.1* with prior developed analysis commands by complex survey analysis. The results of the survey have been presented by descriptive statistics with means and proportions with 95% confidence intervals (CIs) as a measure of precision on the estimated population parameters.

CHAPTER 4:

SURVEY RESULTS

SECTION 4.1:

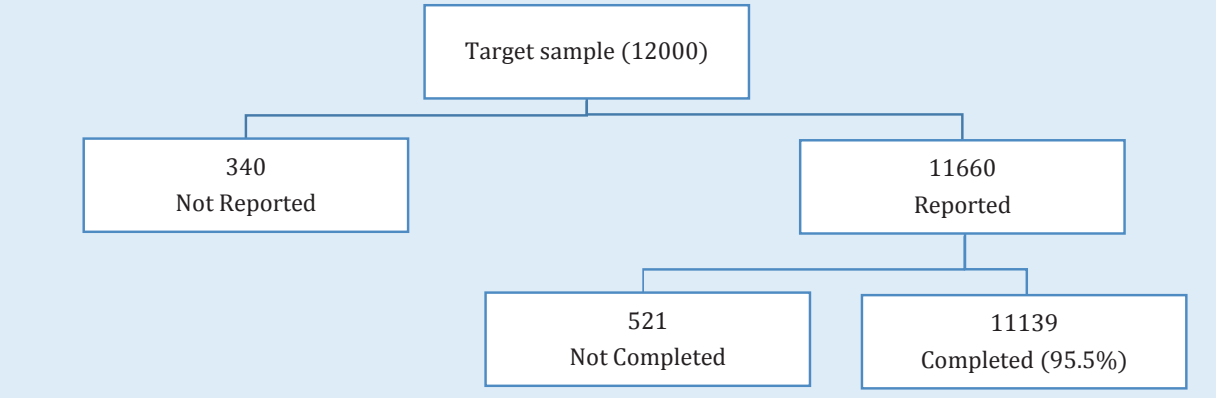
CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

4.1.1 SAMPLE COVERAGE AND SURVEY RESPONSE RATES

This section gives information on the response rates for the National Noncommunicable disease Monitoring Survey – 2017-18. Reported includes those who completed the survey, not consented to participate, refused participation in the survey midway, not available at the time of interview, postponed the interview, and incompletely filled forms; and not reported includes households being locked or no eligible study participants found.

Household response rates

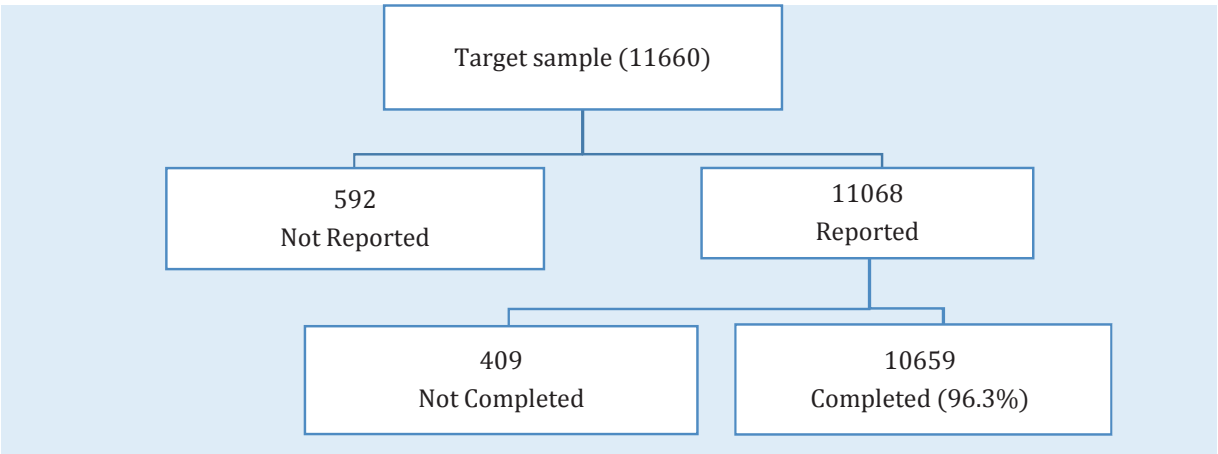
Of the target sample of 12,000 households, 11139 households completed the survey with a response rate of 95.5 percent (92.7% urban and 98.4% rural).



Individual-level response rates

Response rates for adults

Amongst the total 11,660 adults aged 18–69 years, 10,659 completed the interview with an overall response rate of 96.3 percent (94.5% urban and 98.0% rural).



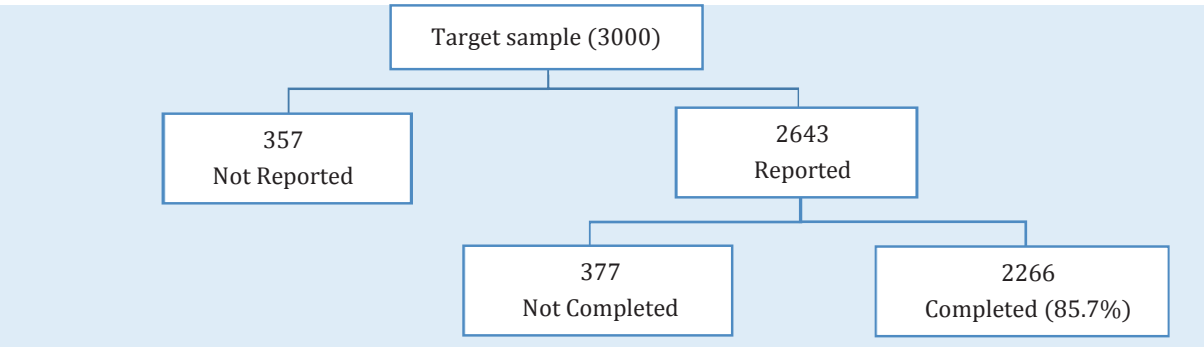
The response rates for measurements of height, weight and waist circumference among adults was 96.7% urban and 98.1% in rural areas, while for blood pressure it was 98.9% urban and 99.5% in rural areas.

The response rates for fasting blood glucose estimation among adults was 89.5% (86.7% urban and 91.9% rural).

For analysis N = 10659 was considered, which included the total number of households and adults who have completed both the household and adult interview forms.

Response rates for urine samples for sodium excretion estimation in adults

Of the targeted sample of 3000 for urinary sodium excretion, the overall response rate was 85.7% (urban 81.2% and rural 89.9%).



Response rates for adolescents

A total of 1819 adolescents (15-17 years) were available among in 1402 participated households, of which 1643 participated (176 did not participate as the households were locked) in the survey. A total of 1531 adolescents completed the survey (112 adolescents refused after initial acceptance or refuse mid-way). The overall response rate was 93.2%. Among the adolescent respondents aged between 15-17 years, the response rates according to place of residence were 90.1% for urban areas and 95.9% among those from the rural areas. *(Figure 4.1.1)*

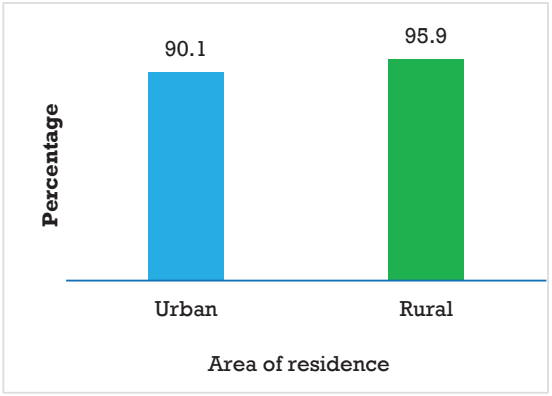


Figure 4.1.1 Response rates for adolescents by area of residence (Percentage)

Health facility response rates

A total of 537 primary health centres (PHCs), 415 community health centres (CHCs) and 335 districts hospitals (DHs) serving the selected PSUs were surveyed in the public health care system. Also, 512 private primary care facilities were surveyed in the same PSUs.

4.1.2 HOUSEHOLD CHARACTERISTICS

This section describes the information on the household level; type of house, type of toilet facility, main sources of drinking water, types of fuel used for cooking, main source of fuel for cooking, type of oil for meal preparation and other characteristics.

Type of house

According to survey results, 45.1% of households were pucca houses, 33.9% were semi-pucca houses and 21.0% were kachha houses.

(Figure 4.1.2.1 and annexure table 4.1.2.1a)

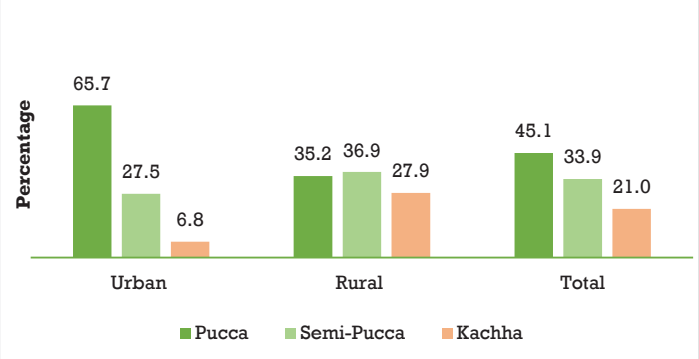


Figure 4.1.2.1 Type of house by area of residence (Percentage)

Type of toilet facility

The survey results showed that 63.5% households reported having own toilets (own flush 29.0% and own pit 34.5%), while 8.2% households reported having shared toilet (shared flush 3.8% and shared pit 4.4%). A total of 28.0% households stated no toilet facility (urban 6.7% and rural 38.2%) *(Figure 4.1.2.2).* The *annexure table 4.1.2.1a* shows details of type of toilet facility.

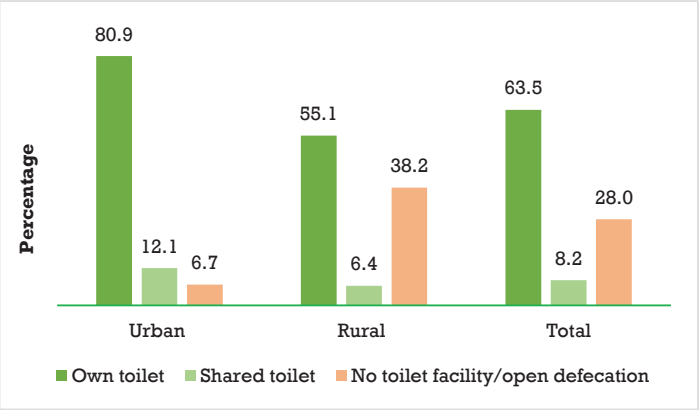


Figure 4.1.2.2 Type of toilet facility in households by area of residence (Percentage)

Main source of drinking water

Clean and safe drinking water is a primary requisite for healthy human life and 49.8% of households in India, report their main source of drinking water being the public – tap/well/hand pump/tanker. Whereas, in 49.0% households main source of drinking water was piped supply, hand pump, well at dwelling/packaged water (56.2% urban and 45.5% rural households). *(Figure 4.1.2.3 and annexure table 4.1.2.1a)*

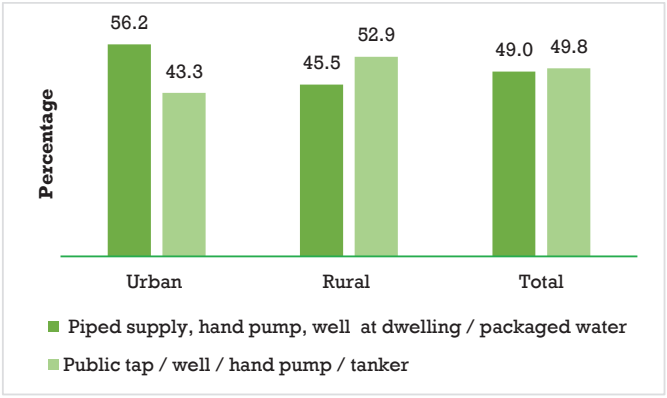


Figure 4.1.2.3 Main source of drinking water in households by area of residence (Percentage)

Type of fuel used for cooking

Indoor air pollution is one of the prominent risk factor for noncommunicable diseases. The primary source of indoor air pollution is smoke from burning of solid fuels (wood, coal/lignite, charcoal, straw/shrubs/grass, agricultural crop waste and dung cakes). The survey showed that overall, 69.6% households used different types of solid fuels for cooking, while 67.2% used cleaner sources of energy for cooking which include electricity, LPG/natural gas and biogas. *(Figure 4.1.2.4 and annexure table 4.1.2.2a)*

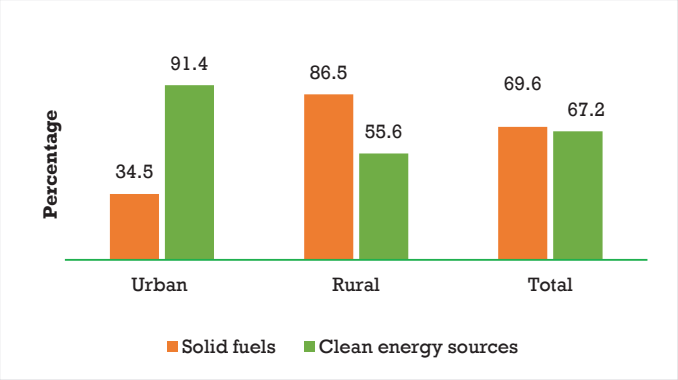


Figure 4.1.2.4 Type of fuel used for cooking in households by area of residence (Percentage)

Main type of fuel used for cooking

83.5% of urban households used LPG/natural gas as their main source of fuel and 58.6% of rural households used wood as their main source of fuel for cooking *(Figure 4.1.2.5).* Details on the main type of fuels used for cooking are given in *annexure table 4.1.2.2a.*

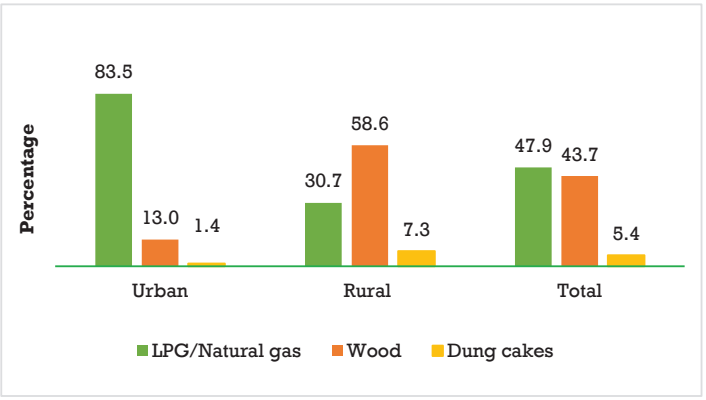


Figure 4.1.2.5 Main type of fuel used for cooking in households by area of residence (Percentage)

Type of oil used for cooking

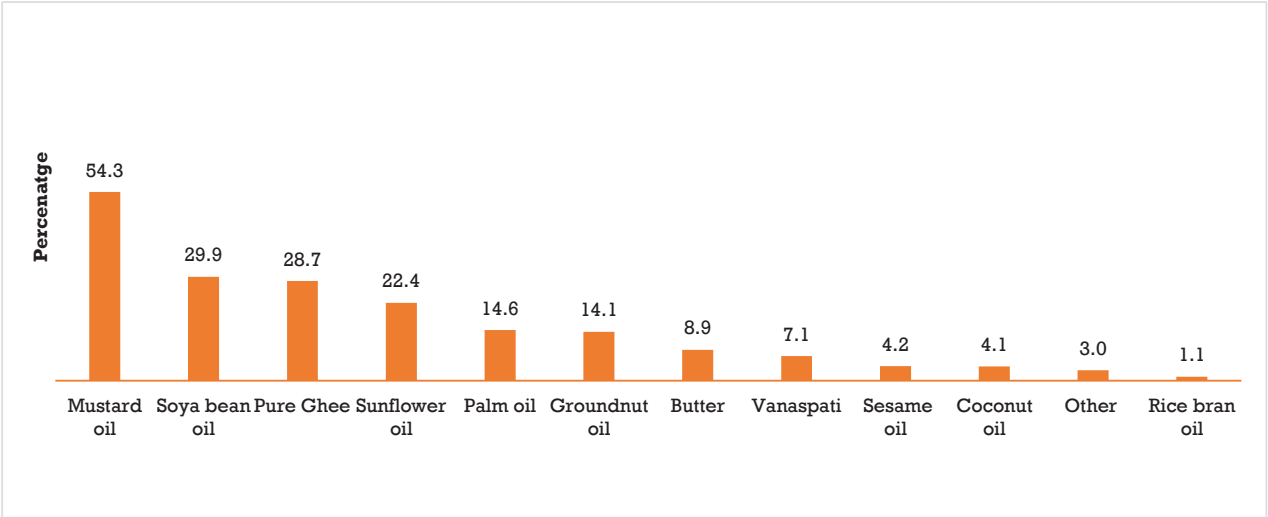


Figure 4.1.2.6 Type of oil used for cooking in households (Percentage)

According to the survey results, 54.3% of the households (36.1% urban and 63.0% rural) used mustard oil for cooking. Pure ghee was used in 28.7% of households (35.3% urban and 25.5% rural) and 8.9% used butter for cooking (urban 11.4% and rural 7.7%). Vanaspati as the type of cooking oil was used by 7.1% of households *(Figure 4.1.2.6).* The detailed list of types of cooking oils used are given in *annexure table 4.1.2.3*a.

Type of ration card

50.2% of surveyed households reported having ration card identified as below poverty line (BPL) (45.0% in urban and 52.7% in the rural households). A total of 15.0% households had no ration card. Details in *annexure table 4.1.2.4a.*

4.1.3 INDIVIDUAL RESPONDENT CHARACTERISTICS

This section covers the demographic information of the adult and adolescent respondents corresponding to age, gender, residence, educational status, occupation and marital status.

Adult respondents (18-69 years) demographic information

1. Age and gender distribution

Of the total surveyed respondents aged between 18–69 years, 69.7% (70.2% men and 69.1% women) belonged to 18–44 years age group and 30.3% were in the 45–69 years (29.8% men and 30.9% women) age group. *(Figure 4.1.3.1 and annexure table 4.1.3.1a)*

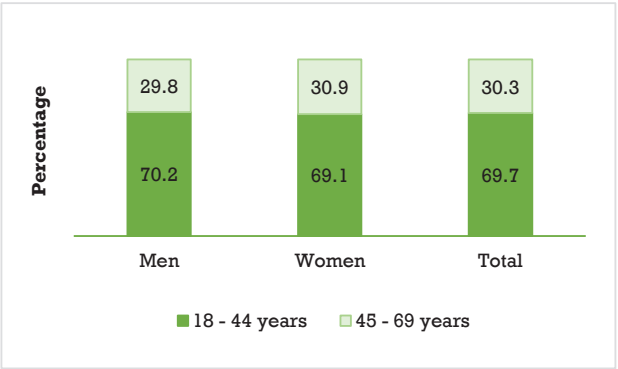


Figure 4.1.3.1 Age and gender distribution of adult respondents (Percentage)

2. Age and area of residence distribution

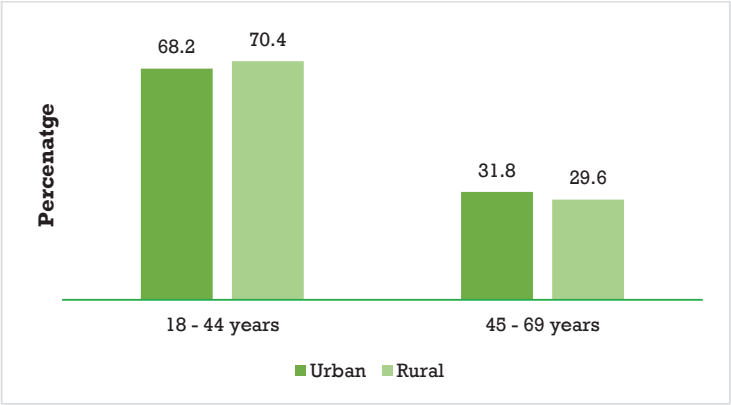


Figure 4.1.3.2 Age distribution of adult respondents by area of residence (Percentage)

Adult respondents who belonged to age group of 18–44 years, 68.2% were from the urban areas and 70.4% belonged to the rural areas. Among adults who belonged to the age group of 45–69 years, 31.8% were from urban and 29.6% from the rural areas. *(Figure 4.1.3.2 and annexure table 4.1.3.1a)*

3. Education status

The survey results showed that 71.0% of adults aged between 18–69 years had received formal education (85.1% urban and 63.9% rural areas), 28.8% reported no education and 0.2% reported receiving education at home *(Figure 4.1.3.3).* For details refer to *annexure table 4.1.3.1a.*

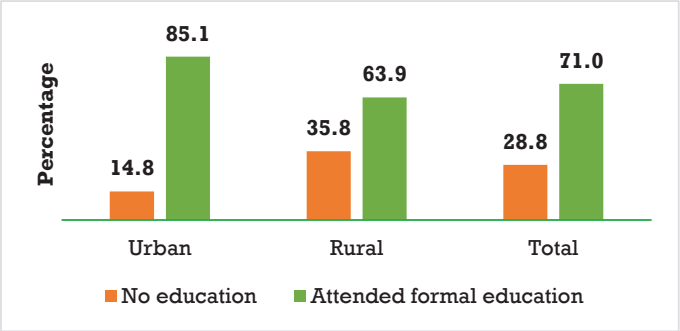


Figure 4.1.3.3 Educational status of adults by area of residence (Percentage)

4. Highest level of education

23.1% of survey respondents received education less than 6th standard (14.7% urban and 28.9% rural areas), 44.3% had completed class 6–10th standard (40.0% urban and 47.2% rural areas), 14.9% received class 11-12th standard, 12.9% completed graduation or diploma (18.7% urban and 8.9% rural areas; 14.8% men and 9.9% women) and 4.7% reported post graduate (8.8% urban and 1.9% rural areas) degree as their highest level of education. For details refer to *annexure table 4.1.3.1a.*

5. Occupation status

Table 4.1.3.1 Occupational status of adults by area of residence and gender (Percentage)

Occupation	Urban	Rural	Men	Women	Total
Professional	9.9	2.9	7.9	2.2	5.4
Medium or large business	3.1	0.7	2.8	0.1	1.5
Middle/senior executive/officer in organization	2.6	0.5	1.9	0.5	1.2
Agricultural land owner	1.1	8.0	9.6	1.6	5.7
Sales and marketing executives/clerk	2.9	0.6	2.3	0.4	1.4
Self-employed and small business	11.5	5.2	12.2	2.0	7.3
Skilled manual labourer	11.1	7.5	13.3	3.8	8.7
Unskilled manual/agricultural labourer	13.1	31.5	34.0	16.1	25.4
Student	5.7	4.1	6.1	3.0	4.6
Homemaker	31.4	33.1	0.7	66.9	32.5
Retired	2.3	0.9	2.4	0.3	1.3
Unemployed (but able to work)	3.5	3.4	4.7	2.0	3.4
Unemployed (but unable to work)	1.7	1.5	2.0	1.0	1.5

It was observed that, nearly one-third (32.5%) were homemakers, followed by unskilled manual/agriculture labourers (25.4%), skilled manual labourer (8.7%), self-employed and small business (7.3%), agriculture land owners (5.7%), while 5.4% were professionals, 4.6% were students and 3.4% were unemployed but able to work. *(Table 4.1.3.1 and annexure table 4.1.3.1a)*

6. Marital status and gender distribution

The highest percentage (79.4%) of adult respondents aged between 18–69 years were living in or cohabiting or currently married including non-cohabitation. While 6.3% of adults were widowed and 0.8% were not-living together/separated/divorced, 13.5% adults had never married. For details refer to *annexure table 4.1.3.1a* .

Adolescent respondents (15-17 years) demographic information

1. Area of residence and gender distribution

Of the total survey respondents aged between 15–17 years, 47.3% were boys and 52.7% were girls. From the urban areas, 48.4% were boys and 51.6% girls and from the rural areas 46.4% were boys and 53.6% were girls.

2. Education status

The survey shows that, a total of 94.2% adolescents (97.3% urban and 92.7 % rural areas; 95.6% boys and 92.6% girls) had received formal education. *(Annexure table 4.1.3.2a)*

3. Highest level of education

As seen in *figure 4.1.3.4 and 4.1.3.5* below, maximum percentage (79.3%) of adolescents at the age of 15–17 years reported being in high school (86.7% urban and 75.8% rural areas; 84.2% boys and 73.9% girls). 2.3% reported doing their graduation (2.0% urban and 2.5% rural areas; 1.5% boys and 3.3% girls). *(Annexure table 4.1.3.2a)*

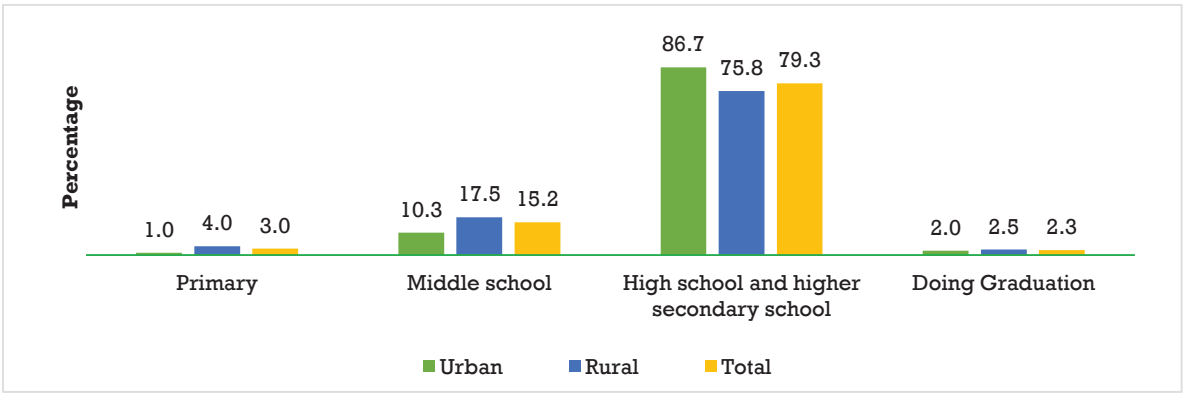


Figure 4.1.3.4 Highest level of education among adolescents by area of residence (Percentage)

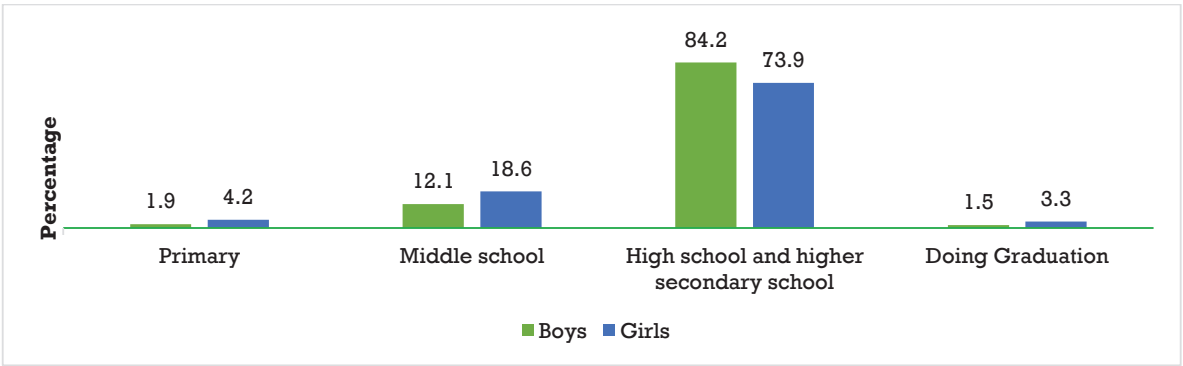


Figure 4.1.3.5 Highest level of education among adolescents by gender (Percentage)

SECTION 4.2:

NCD RISK FACTORS – ADULTS (18–69 YEARS)

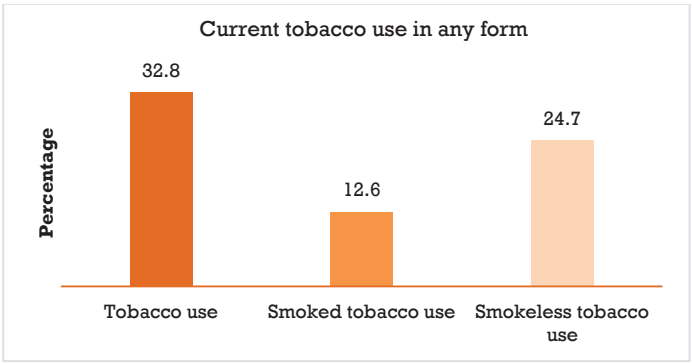
4.2.1 TOBACCO USE

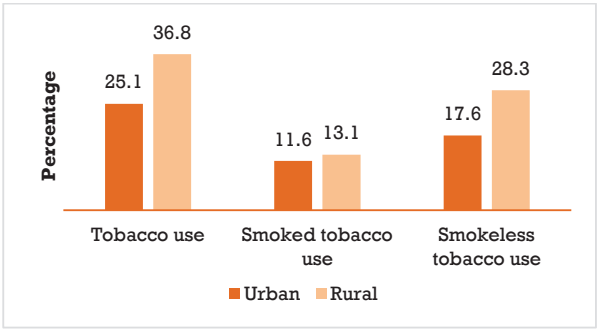
In the surveyed population, respondents were asked about their current and past tobacco (smoked or smokeless) use status, age of initiation, quantity and types of tobacco used daily and details on exposure to second hand smoke (SHS). The results are presented in figures and tables.

KEY FINDINGS

- Prevalence of current tobacco use was **32.8%** (smoked tobacco use was **12.6%** and smokeless tobacco use was **24.7%**).
- **48.5%** adults were exposed to second hand smoke either at home or at workplace or during travel.

Current tobacco use (in any form; smoked or smokeless)





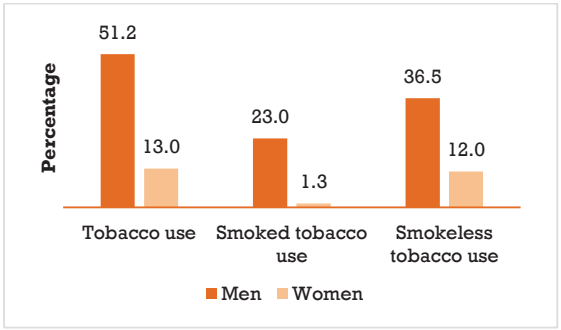


Figure 4.2.1.1 Current tobacco use (any form) by area of residence and gender (Percentage)

Figure 4.2.1.1 shows, the overall prevalence of current tobacco use was 32.8% [(25.1% urban and 36.8% rural) and (51.2% men and 13.0% women)]. 19.4% women from older age group (45–69 years) and 10.2% in the younger age group (18-44 years) were currently using tobacco. (*Annexure table 4.2.1.1a and b*)

The prevalence of smoked tobacco and smokeless tobacco was 12.6% (11.6% urban and 13.1% rural) and 24.7% (17.6% urban and 28.3% rural) respectively. While, 7.9% urban and 14.0% rural women currently used smokeless tobacco. In the age group of 45-69 years, 3.0% and 17.1% of women currently used smoked and smokeless tobacco.*(Annexure table 4.2.1.2a and b; 4.2.1.3a and b)*

Never, past and current use of tobacco

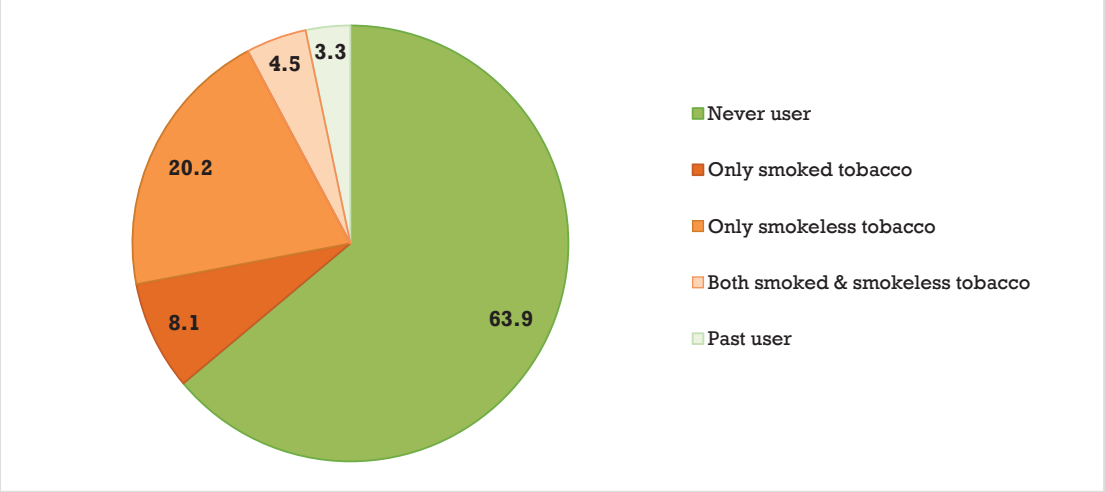


Figure 4.2.1.2 Tobacco use among adults (Percentage)

Figure 4.2.1.2 shows that 63.9% of the population had never used tobacco, while 3.3% were past users. However, among the tobacco users, 4.5% used both smoked and smokeless tobacco, while 8.1% used only smoked tobacco and 20.2% used only smokeless tobacco.*(Annexure table 4.2.1.1a; 4.2.1.4a and b)*

28.1% and 14.7% men; 11.7% and 1.0% of women used only smokeless and only smoked tobacco, respectively. A higher proportion of tobacco use was among the older age group of 45-69 years.*(Annexure 4.2.1.4a and 4b)*

Current daily tobacco use

Table 4.2.1.1 Current daily tobacco use by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Smoked tobacco	15.4	1.0	8.7	18.6	1.3	10.1	17.5	1.2	9.7
Smokeless tobacco	21.0	6.9	14.4	35.7	12.3	24.3	30.6	10.5	21.0
Both smoked & smokeless tobacco	4.6	0.3	2.6	5.1	0.2	2.7	4.9	0.2	2.7
Either (smoked or smokeless) tobacco	31.8	7.6	20.5	49.2	13.3	31.7	43.2	11.4	28.0

Table 4.2.1.1 shows that, 28.0% of adults either smoked or used smokeless tobacco daily. This proportion was higher in the older age group of 45-69 years *(Annexure table 4.2.1.5a and b*). Smokeless tobacco (21.0%) was the preferred choice of tobacco among the current daily tobacco users.

Table 4.2.1.2 Daily tobacco use (any form) by type of product*, area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Smoked tobacco									
Bidi	42.9	36.5	42.5	66.3	56.3	65.8	59.0	50.5	58.6
Manufactured cigarettes	36.3	41.3	36.6	12.2	7.6	12.0	19.6	17.4	19.5
Hand-rolled cigarettes	0.3	0.4	0.3	2.1	24.5	3.3	1.5	17.5	2.3
Others**	8.3	6.9	8.3	8.9	7.0	8.8	8.7	7.0	8.7
Smokeless tobacco									
Chewing tobacco	67.4	55.5	64.9	73.2	58.6	69.7	71.8	57.9	68.6
Paan with tobacco	23.4	31.4	25.1	27.2	34.5	28.9	26.2	33.8	28.0
Tobacco snuff by mouth	4.9	10.3	6.0	4.1	11.1	5.8	4.3	10.9	5.9
Tobacco snuff by nose	0.1	6.2	1.4	0.1	0.8	0.3	0.1	2.0	0.6

*Among current tobacco users. **others include pipes, cigars, cheroots, hookah/shisha and other local smoked tobacco products.

Table 4.2.1.2 discusses the use of different (any of them) tobacco products (smoke or smokeless forms) among current tobacco users. Overall, 58.6% of the daily smokers were using bidis and one-fifth (19.5%) were using manufactured cigarettes. Use of manufactured cigarettes was more prevalent in the age group of 18-44 years *(Annexure table 4.2.1.6a and b)*. 68.6% used chewing form of smokeless tobacco and 28.0%used paan with tobacco. *(Table 4.2.1.2)*

Table 4.2.1.3 Number of tobacco products of different types used daily by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Smoked tobacco									
Bidi	12.6	2.5	12.1	12.1	10.2	12.0	12.2	8.6	12.0
Manufactured cigarettes	6.1	6.9	6.1	4.8	11.2	5.0	5.5	8.2	5.6
Hand-rolled cigarettes	1.8	1.0	1.7	3.8	5.2	4.4	3.7	5.2	4.3
Others*	6.1	2.2	5.9	4.3	1.4	4.2	4.8	1.6	4.7
Smokeless tobacco									
Chewing tobacco	6.5	5.5	6.3	6.2	4.6	5.9	6.3	4.8	6.0
Paan with tobacco	5.5	5.7	5.6	4.0	4.4	4.1	4.4	4.6	4.4
Tobacco snuff by mouth	5.9	3.3	5.0	8.0	3.4	5.9	7.4	3.4	5.7
Tobacco snuff by nose	5.1	3.9	3.9	5.4	4.2	4.6	5.3	4.0	4.2

*Others include pipes, cigars, cheroots, hookah/shisha and other local smoked tobacco products.

Tobacco use daily has been measured by the number of cigarettes and bidis smoked by a daily smoker and the number of times smokeless tobacco was used in a day by the daily users. *Table 4.2.1.3* shows that daily smokers used an average of 12 bidis per day and daily smokeless tobacco users chewed tobacco 6 times in a day. These were similar across all age groups. *(Annexure table 4.2.1.7a and b)*

Exposure to second hand tobacco smoke (SHS)

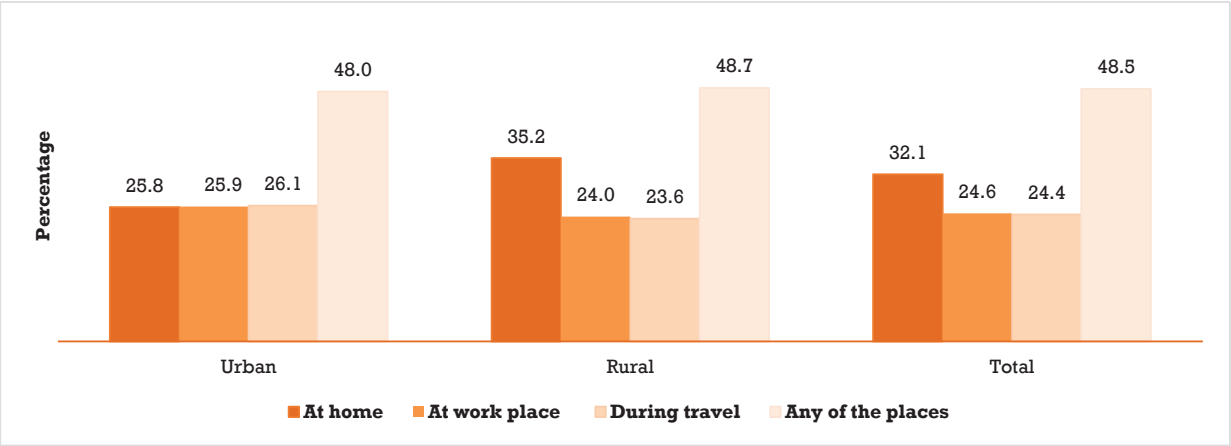


Figure 4.2.1.3 Exposure to second hand tobacco smoke in past 30 days by area of residence (Percentage)

Overall, 48.5% of adults (58.6% men and 37.5% women) reported being exposed to SHS in past 30 days at any of the places (32.1% at home, 24.6% at workplace and 24.4% during travel) *(Figure 4.2.1.3*). The exposure to SHS was observed to be highest at home (35.2%) in rural areas, while in the urban areas exposure was similar across the three places*(Annexure table 4.2.1.8a)* . 50.2% and 44.7% of younger adults (18-44 years) and older adults (45-69 years) reported being exposed to SHS respectively.*(Annexure table 4.2.1.8a and b)*

Age of initiation and cessation of tobacco use

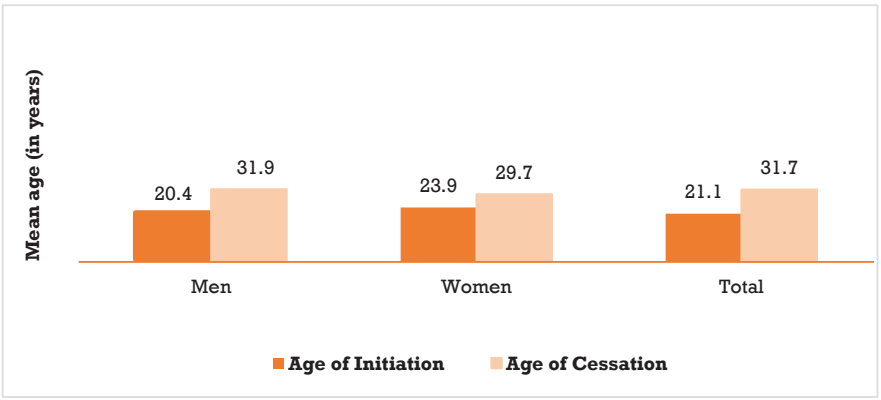


Figure 4.2.1.4 Age (in years) of initiation and cessation of any form of tobacco use by gender (Mean)

The mean age of initiation of any form of tobacco use in adults was at 21.1 years (20.4 years for smoked and 21.9 years for smokeless tobacco) and mean age of cessation was 31.7 years (31.8 years for smoked and 30.5 years for smokeless tobacco).

Women started tobacco use at an older age and quit the use at an earlier age when compared to men (20.4 and 31.9 years respectively for men; 23.9 and 29.7 years respectively for women) *(Figure 4.2.1.4),* with not much differences by area of residence. *(Annexure table 4.2.1.9a)*

Among the age groups, adults of 18-44 years initiated and quit the use of any form of tobacco at an earlier age than those of 45-69 years. *(Annexure table 4.2.1.9b)*

Table 4.2.1.4 Quit attempts/advices by doctor/health care worker on tobacco use by area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Quit attempts to tobacco use									
Tried to stop smoking	36.5	74.1	38.3	34.7	35.6	34.7	35.2	46.8	35.8
Advised to quit									
Tobacco use[1]	20.3	18.0	19.9	17.2	14.5	16.6	18.1	15.3	17.5
Smoking[2]	27.3	53.6	29.1	23.3	50.2	25.3	24.5	51.2	26.4
Smokeless tobacco use[3]	11.9	6.4	10.8	11.1	7.9	10.3	11.3	7.6	10.4

1- Advised to quit tobacco among those who use tobacco of any form; 2 - Advised to quit tobacco among those who used smoked tobacco; 3 - Advised to quit tobacco among those who used Smokeless tobacco.

Table 4.2.1.4 above shows that, an overall of 35.8% (men 35.2% and women 46.8%) of current smokers had attempted to stop smoking. 26.4% were advised to stop smoking by a health care provider in the last 12 months. 88.9% and 54.6% of urban women from the age group of 45-69 and 18-44 years had attempted to quit smoking. *(Annexure table 4.2.1.10a and b)*

DISCLAIMER

"The second round of Global Adult Tobacco Survey [GATS-2] - India was conducted in 2016-17 in the age-group 15 years and above involving 74,037 individuals [34.5% urban and 65.5% rural distribution] adopting a multistage cluster sampling state wise.

Whereas, the National Noncommunicable Diseases Monitoring Survey (NNMS) was conducted during the year 2017-18 in the age-group 15-17 and 18-69 years involving 12000 households [equal rural and urban distribution] adopting a multi-stage cluster sampling nationally.

Therefore, there are expected few differences observed in the results related to use of tobacco between NNMS and the GATS-2 (India). Upon expert review, it is stated that these could be related to differences in study design, sampling strategy, coverage, age groups selected, weighting procedures and the questionnaires adopted."

This issues with the approval of Competent Authority.

Under Secretary to the Government of India

Disclaimer approved: File No. Z.21020/39/2019-TC, Government of India, Ministry of Health & Family Welfare (Tobacco Control Division), dated on 26th August, 2020.

4.2.2 ALCOHOL USE

During the survey, the respondents were asked about alcohol use. Those who reported that they had never used alcohol during their life, were classified as lifetime abstainers. The other categories consisted of those who reported using alcohol during past 30 days, 12 months and those who had ever consumed alcohol.

KEY FINDINGS

- **15.9%** adults had used alcohol in the past 12 months.
- Mean age of initiation of alcohol use was **22.2** years.
- **5.9%** were engaged in heavy episodic drinking.

Alcohol use

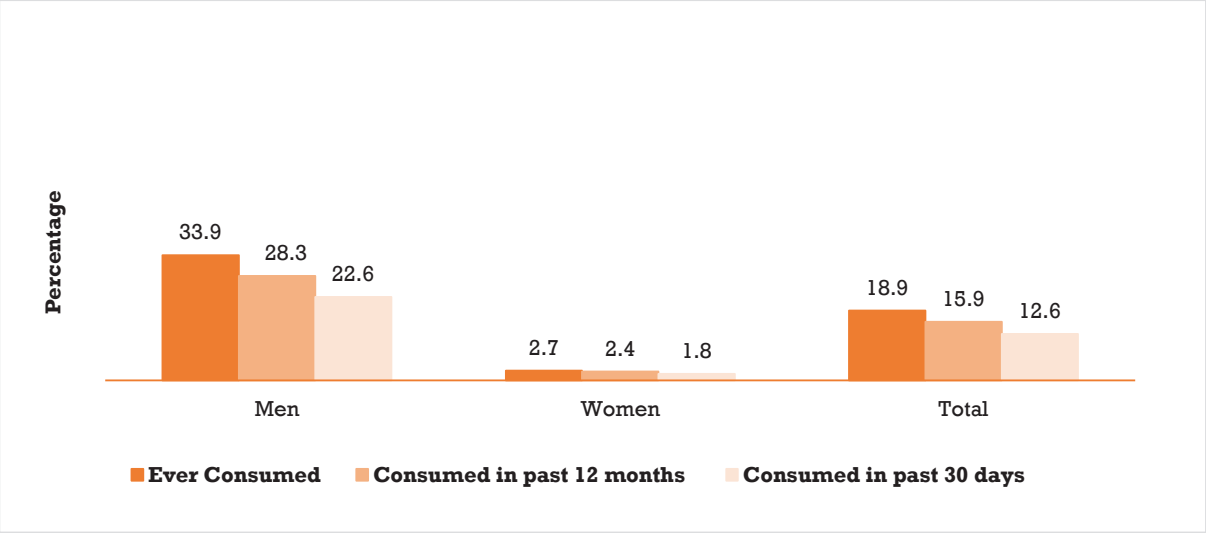


Figure 4.2.2.1 Alcohol use by gender (Percentage)

Overall, 18.9% of the respondents had ever consumed alcohol, while 15.9% and 12.6% were alcohol users in the past 12 months and 30 days respectively *(Figure 4.2.2.1).* The age wise distribution of alcohol use showed that, 19.2% in 45-69 years and 18.7% in 18-44 years had ever consumed alcohol; 16.4% in the 18-44 years and 14.7% among the 45-69 years consumed alcohol in the past 12 months; and 12.8% in 18-44 years and 12.0% among 45-69 years consumed in past 30 days. *(Annexure table 4.2.2.1a and b)*

81.1% were lifetime abstainers (82.8% urban and 80.2% rural areas; 66.1% men and 97.3% women) *(Annexure table 4.2.2.1a),* with a higher percentage in the 18-44 years age group. *(Annexure table 4.2.2.1b)*

Behavioural patterns among alcohol users in the past 12 months

The current alcohol users (those who used alcohol in the past 12 months) were asked about their behaviour patterns on how often they found that they were unable to stop drinking once started, failed to do what was

normally expected due to drinking and how often they needed alcohol as the first drink in the morning. The responses to these questions at daily/almost daily have been presented as percentages by area of residence and gender in the *table 4.2.2.1*.

Table 4.2.2.1 Patterns of alcohol use in the past 12 months* daily or almost daily by area of residence and gender (Percentage)

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Daily or almost daily									
Unable to stop drinking once started	6.6	0.2	6.4	4.8	6.2	4.9	5.3	5.2	5.3
Failed to do routine activities due to drinking	2.9	0.0	2.8	1.4	3.3	1.5	1.9	2.8	1.9
Needed drink first in the morning	1.1	0.0	1.1	1.8	3.3	1.9	1.6	2.8	1.7

*Among those who consumed alcohol in the past 12 months

Among those who used alcohol in the past 12 months, 5.3% (6.4% urban and 5.3% men) reported being unable to stop drinking; 1.9% (2.8% urban and 2.8% women) failed to do routine activities due to drinking and 1.7% (1.9% rural and 2.8% women) needed a drink first in the morning, daily or almost daily *(Table 4.2.2.1).* The age group distribution showed that the proportions increased from 18-44 to 45-69 years. *(Annexure table 4.2.2.2b)*

Quantity of alcohol use in the past 30 days

The survey respondents, who reported consuming alcohol in the past 30 days were asked about the number of standard drinks consumed per drinking occasion in past 30 days. The responses are presented in *tables 4.2.2.2, 4.2.2.3 and figure 4.2.2.2* by mean and percentages.

Table 4.2.2.2 Number of standard drinks* consumed in one drinking occasion in the past 30 days by area of residence and gender (Mean)

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Among alcohol consumers in the past 30 days									
No. of standard drinks in one drinking occasion	5.0	2.1	5.0	5.5	5.2	5.4	5.3	4.9	5.3
Maximum number of standard drinks in one drinking occasion	5.6	1.8	5.5	6.7	5.9	6.6	6.3	5.6	6.3

*One standard drink equivalent to 10 grams of alcohol

Table 4.2.2.2 shows that, an average of 5.3 standard drinks were consumed in one drinking occasion reaching up to a maximum of 6.3 standard drinks. This was higher in the rural areas and men. The age-wise results

showed that the mean number of standard drinks and maximum number of standard drinks increased with increasing age. *(Annexure table 4.2.2.4b)*

Table 4.2.2.3 Maximum number of standard drinks* consumed in one drinking occasion by area of residence and gender (Percentage)**

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
<3 standard drinks	18.3	74.6	19.4	16.4	19.4	16.6	16.9	23.8	17.4
3–5 standard drinks	34.7	22.3	34.4	38.6	50.9	39.7	37.4	48.6	38.2
≥6 standard drinks	47.0	3.1	46.2	45.0	29.7	43.7	45.7	27.6	44.4

*One standard drink equivalent to 10 grams of alcohol ** Among alcohol consumers in past 30 days

Table 4.2.2.3 shows, the percentage of those who consumed <3, 3-5 and ≥6 standard drinks in one drinking occasion in the past 30 days. Among those who consumed alcohol in the past 30 days, 44.4% consumed ≥6 standard drinks (46.2% urban, 43.7% rural; and 45.7% men, 27.6% women). It was observed that higher proportion of rural women (29.7%) reported consuming ≥6 standard drinks on a single drinking occasion than the women from urban areas (3.1%), while 74.6% of urban women consumed less than 3 standard drinks (single drinking occasion) than rural women (19.4%). *(Table 4.2.2.3)*

The age-wise distribution showed that, those who consumed <3 and ≥6 standard drinks decreased with increasing age, while those who consumed 3-5 standard drinks at one single occasion increased with age [35.4% (18-44 years) and 44.8% (45-69 years)]. *(Annexure table 4.2.2.5b)*

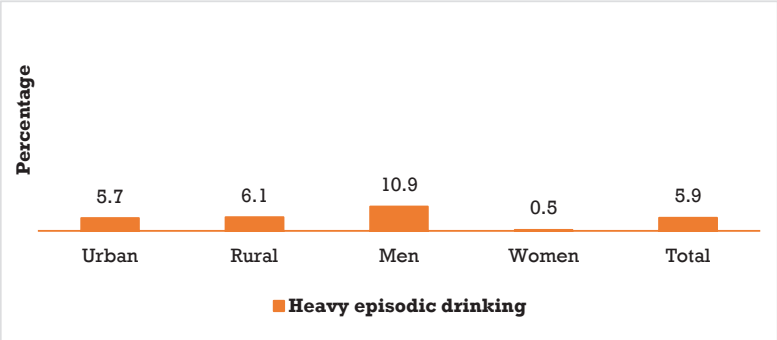


Figure 4.2.2.2 Adults who engaged in heavy episodic drinking in past 30 days by area of residence and gender (Percentage)

Heavy episodic drinking is consumption of ≥6 standard drinks [1 standard drink = 10g of pure alcohol (ethanol) and hence, ≥6 standard drinks is equivalent to 60 grams of pure alcohol] in a single drinking occasion.

5.9% of adults were engaged in heavy episodic drinking in the past 30 days, 5.7% urban, 6.1% rural, 10.9% men and 0.5% women. *(Figure 4.2.2.2)*

Only 0.8% of rural and 0.01% of urban women indulged in ≥6 standard drinks in a single drinking occasion in the past 30 days. This was similar even across age groups. *(Annexure table 4.2.2.6a and b)*

Unauthorized source of alcohol used in the past 7 days

Respondents were also questioned on the consumption of alcohol obtained from sources other than authorized shops like smuggled (untaxed, from another country), home-brewed, illegally-brewed and other untaxed alcohol in the country during the past 7 days. Only those respondents who reported a 'yes' to the listed unauthorized sources have been presented in *table 4.2.2.4* .

Table 4.2.2.4 Consumption of alcohol from unauthorized sources in past 7 days by area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Unauthorized sources	11.4	9.0	11.4	23.6	24.8	23.7	19.8	23.4	20.1
Smuggled	3.9	9.6	4.0	2.9	0.0	2.6	3.0	0.3	2.8
Home-brewed	34.3	31.7	34.3	46.7	92.4	50.9	44.5	90.3	48.1
Illegally-brewed	13.5	0.0	13.3	22.3	0.0	20.3	20.7	0.0	19.1
Other untaxed alcohol	8.3	22.1	8.5	15.3	10.8	14.9	14.1	11.2	13.9

It was observed that 20.1% adults consumed alcohol obtained from unauthorized sources in the past 7 days with a higher proportion from the rural areas (23.7%) and women (23.4%). Among the unauthorized sources, 48.1% used home-brewed alcohol, especially women (90.3%), while none reported drinking alcohol which was not intended for drinking. The alcohol use from unauthorized sources in the past 7 days was reported to be high among the older age group. *(Annexure table 4.2.2.7b)*

Age of initiation of alcohol use

The mean age of initiation of alcohol use was 22.2 years. (22.9 years urban and 21.9 years rural; 22.2 years men and 21.1 years women). It was observed that the youngest to start were the urban women at 20.8 years (urban men began at 23.0 years). Across the age groups, younger adults (18-44 years) reported earlier age of initiation of alcohol (21.1 years). *(Annexure table 4.2.2.8a and b)*

4.2.3 DIET

The survey assessed the dietary practices of the respondents through structured questions on the intake of fruits and vegetables and knowledge, attitude and behaviour of adults. The survey also recorded details on dietary salt consumption.

KEY FINDINGS

- **98.4%** adults did not consume enough fruits and/or vegetables as per WHO recommendations.
- The mean servings of fruits and/or vegetables consumed in a day was **1.7**.
- Mean dietary salt intake of population was **8.0 g/day.**

Type of oil most often used for cooking

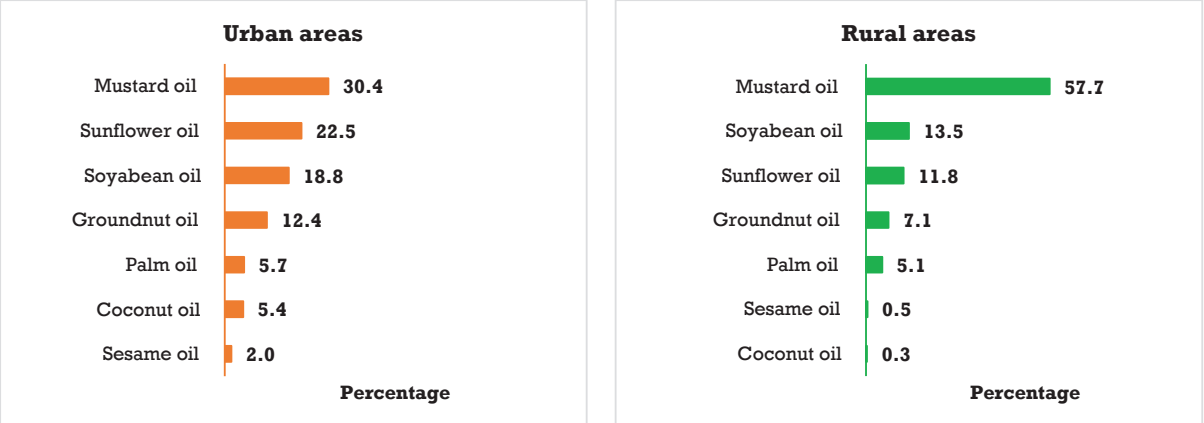


Figure 4.2.3.1 Type of oil most often used for cooking in households by area of residence (Percentage)

48.8% of the surveyed households most often used mustard oil for cooking (30.4% urban and 57.7% rural). The next preferred choice of oil in rural households was soyabean oil (13.5%) while that of urban households was sunflower oil (22.5%) *(Figure 4.2.3.1).* Vanaspati, pure ghee and rice bran oil were used minimally across the surveyed households. 1.6% urban households, 3.2% rural and 2.7% overall reported using other type of oils for cooking not listed in the survey questionnaire. *(Annexure table 4.2.3.1a)*

Consumption of fruits and/or vegetables

This section includes information on the frequency of consumption and quantity (as serving size) of fruits, vegetables and fruit/vegetable juices.

To establish risk behavior, we took account of the WHO recommendation of daily consumption of at least five servings of fruits and vegetables per day as adequate. Inadequate fruits and/or vegetables intake was defined as eating less than five servings of fruits and/or vegetables in a day. The information was recorded for a "Typical week", which was defined as a week when the diet was not affected by cultural, religious, sickness or other special events. The participants were also asked about the consumption of fresh fruits or

vegetable juices prepared at home or a shop. The results have been presented below in *table 4.2.3.1* and *figure 4.2.3.2.*

Table 4.2.3.1 Number of servings of fruits, vegetables and fruit and/or vegetable juices consumed per day by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Serving of fruits	0.8	0.6	0.7	0.5	0.5	0.5	0.6	0.5	0.6
Serving of vegetables	1.3	1.3	1.3	1.4	1.2	1.3	1.4	1.2	1.3
Serving of fresh fruit and/or vegetable juices	0.5	0.5	0.5	0.5	0.3	0.5	0.5	0.4	0.5

Table 4.2.3.1 above shows that, respondents reported consuming a mean of 0.6, 1.3 and 0.5 servings of fruits, vegetables and fruit and/or vegetable juice per day respectively. Additionally, it was observed that respondents consumed more servings of vegetables than fruits and fresh juices (fruits and/or vegetables) in a day. These findings were similar across all strata. *(Annexure table 4.2.3.2b)*

The mean number of servings of fruits and/or vegetables per day among the respondents was 1.7 (1.9 urban and 1.6 rural; 1.8 men and 1.6 women) *(Annexure table 4.2.3.3a).* It was observed that the mean servings of fruits and/or vegetables per day were lower than the WHO recommended cut-offs across all strata. *(Annexure table 4.2.3.3a and b)*

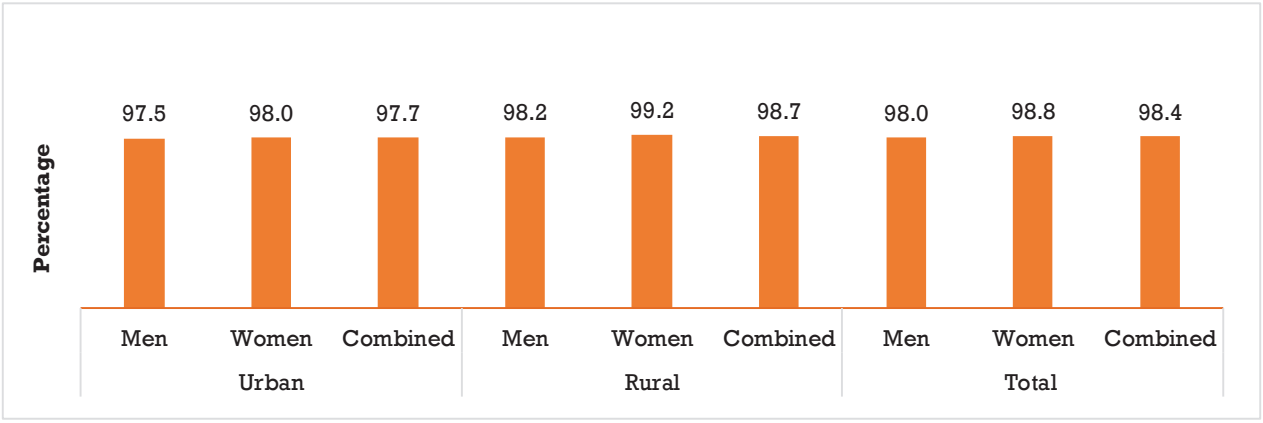


Figure 4.2.3.2 Inadequate consumption of fruits and/or vegetables per day by area of residence and gender (Percentage)

Figure 4.2.3.2 shows that 98.4% of respondents consumed inadequate fruits and/or vegetables per day, which was nearly similar across all strata. *(Annexure table 4.2.3.4a)*

In the surveyed population, 11.9% (21.0% urban and 7.4% rural) and 60.0% (65.2% urban and 57.4% rural) consumed at least one serving of fruit and vegetables per day respectively. This pattern of distribution was similar across all age groups. *(Annexure tables 4.2.3.5a and b)*

Dietary Salt intake

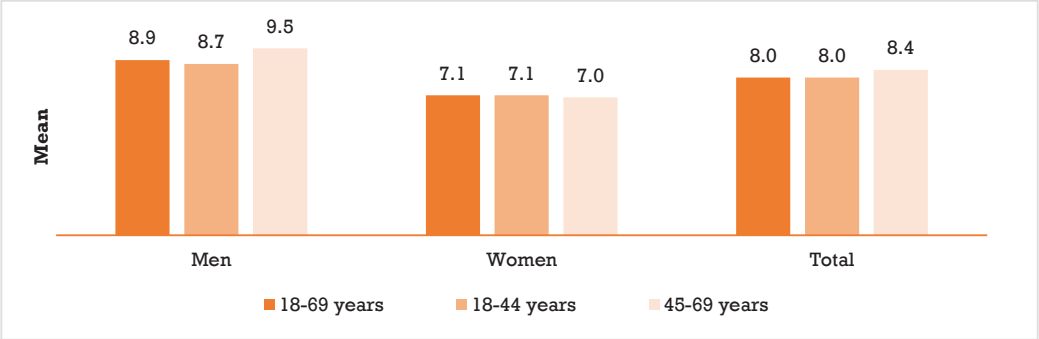


Figure 4.2.3.3 Salt intake of population by age group and gender (g/day) (Mean)

Based on the spot urinary sodium excretion estimation, the mean daily salt intake of population was 8.0g (8.9 g/day men and 7.1 g/day women) as shown in *figure 4.2.3.3*. The mean salt intake of men belonging to the age group of 45–69 years was 9.5 g/day, while that of men in the age group 18-44 years was 8.7 g/day. *(Annexure table 4.2.3.6b)*

Almost all (96.3%) adults were consuming higher amounts (≥5 g/day) of salt than the recommended daily intake by WHO (<5 g/day). Across all age groups and area of residence, the salt intake among women was lower than men. *(Annexure table 4.2.3.7a and b)*

Perception and practices regarding salt intake

The perception and practices of the adult population towards dietary salt consumption were assessed using structured questions. The results have been presented in *table 4.2.3.2.*

Table 4.2.3.2 Perception related to salt intake by area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Believe extra salt intake affects health	34.6	35.6	35.1	30.8	27.4	29.1	32.1	30.1	31.1
Very or somewhat important to lower salt in diet	77.4	65.0	71.6	65.7	55.2	60.6	69.7	58.4	64.3

31.1% of the adults thought that daily salt intake affects health (35.1% urban and 29.1% rural). Whereas similar proportion of adults also believed that it was not important to lower salt in the diet. Overall, 64.3% of respondents had the perception that it was very or somewhat important to lower salt in diet, 71.6 % urban and 60.6% rural; 69.7% men and 58.4% women. *(Table 4.2.3.2 and annexure table 4.2.3.8a, 4.2.3.8b, 4.2.3.9a and 4.2.3.9b)*

60.0% of adults perceived that they were consuming just the right amount of salt, this was 68.7% in urban and 55.6% in rural individuals *(Annexure table 4.2.3.10a)*. The percentage of those, who (in their opinion) "never added extra salt to food" were 55.8% among the urban respondents and 41.2% among the rural

respondents. 15.1% reported to always add salt in their food before eating, with higher proportion among men in the age group of 18-44 years and in adults from the rural areas. *(Annexure table 4.2.3.11a and b)*

Salt control measures

The respondents were asked a series of questions about the steps they took to control salt intake on a regular basis and the responses (in percentage) to these have been presented below.

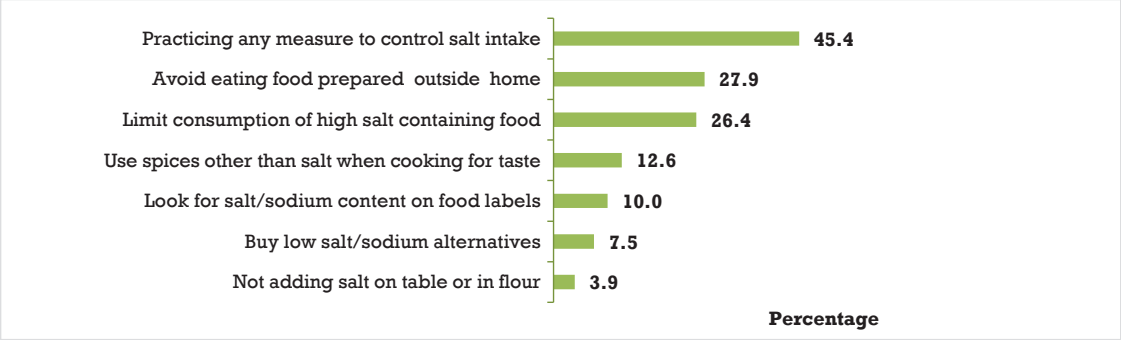


Figure 4.2.3.4 Adults who practiced any salt control measures regularly (Percentage)

45.4% of adults practiced methods (any) to lower their daily salt intake. The most used practices to reduce salt intake was to avoid eating food prepared outside home (27.9%) and limiting consumption of high salt containing foods (26.4%). Overall, 10.0% of the respondents checked the food labels to establish the salt content (15.8% urban and 7.1% rural adults). This practice was higher in older age groups. *(Figure 4.2.3.4, Annexure table 4.2.3.12a and b)*

Consumption of high salt containing food items

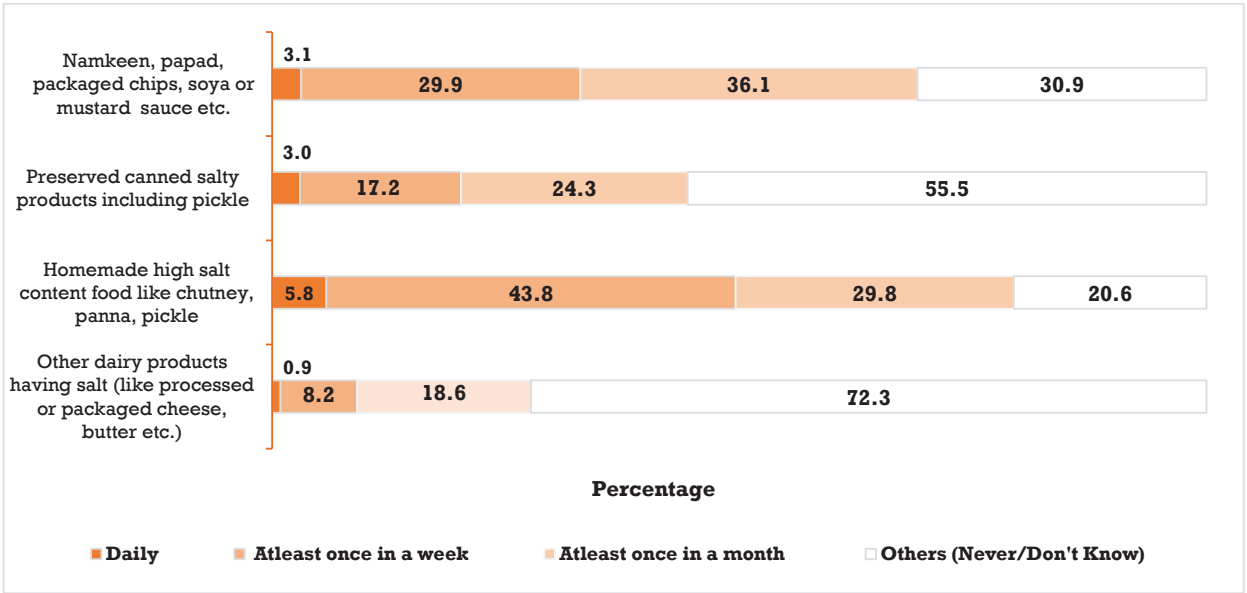


Figure 4.2.3.5 Consumption of high salt containing foods among adults (Percentage)

43.8% of adults reported consumption of homemade high salt content food items at least once a week (1-6 days in a week) and 36.1% reported the consumption of namkeen, papad, packaged chips etc., at least once in a month (1-3 days and/< once in a month). Daily consumption of high salt containing food items was

lower across all the strata. Overall, the urban population consumed a higher amount of salt containing foods than the rural population. *(Figure 4.2.3.5, Annexure table 4.2.3.13a and b)*

Consumption of food cooked outside home in a week

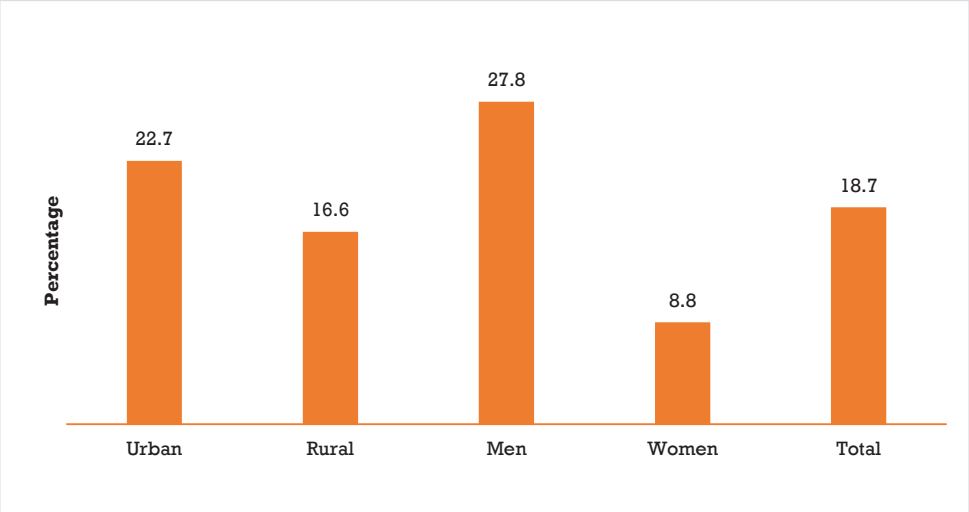


Figure 4.2.3.6 Adults who consumed food cooked outside home in a week by area of residence and gender (Percentage)

Figure 4.2.3.6 shows that, 18.7% of adults reportedly consumed food cooked outside home in the past one week. This proportion was high in urban areas and amongst men particularly in the age group (18–44 years). *(Annexure table 4.2.3.14b)*

Table 4.2.3.3 Number of meals consumed outside home in a week by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Number of meals consumed outside home	3.2	2.1	2.9	3.1	2.5	3.0	3.2	2.3	3.0

Table 4.2.3.3 shows that on an average, adults who were eating outside cooked food reported to consume three meals in a week that were not cooked at home (men 3.2 meals and women 2.3 meals) and this finding was similar among the age groups. Details have been presented in *annexure table 4.2.3.15b.*

4.2.4 PHYSICAL ACTIVITY

This chapter covers responses to the questions on the following areas asked in this survey; level of physical activity, duration, physical activity at work and/or home, during travel, leisure time/recreational activity and sedentary behaviours.

KEY FINDINGS

41.3% of adults did not meet the **WHO** recommended physical activity levels.

Sufficient and insufficient physical activity status

WHO recommends that, adults aged 18+ years should engage in at least 150 minutes of moderate-intensity physical activity per week or at least 75 minutes of vigorous-intensity physical activity per week or an equivalent combination of moderate and vigorous intensity activity accumulating at least 600 METS-minutes in a week. The percentage of adults engaged in sufficient and insufficient physical activity is presented in *figure 4.2.4.1.*

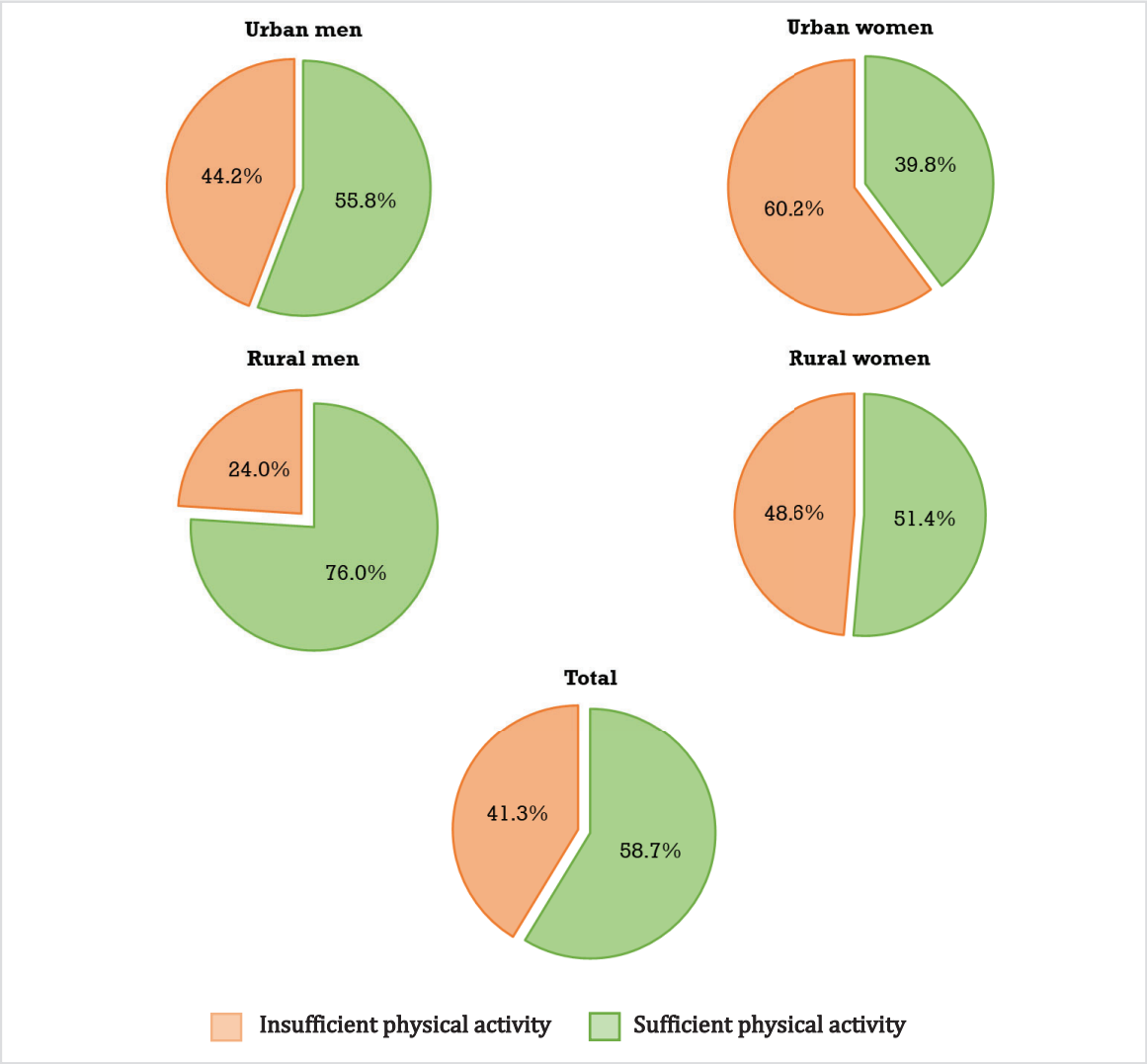


Figure 4.2.4.1 Physical activity levels by area of residence and gender (Percentage)

Total physical activity per day was recorded, considering all domains (work at home/workplace, transport and recreation related activities). Analysis of the collected data showed that 41.3% of the adults in the surveyed population did not meet the WHO recommendations on physical activity *(Figure 4.2.4.1 and annexure table 4.2.4.1a)* . Insufficient physical activity among urban women was 60.2% and rural women was 48.6%.

The age-wise distributions shows, that 44.5% adults aged 45-69 years and 39.9% adults 18-44 years were engaged in insufficient physical activity.*(Annexure table 4.2.4.1b)*

Sufficient physical activity was seen among 58.7% of the population. The proportion of men engaging in sufficient physical activity was 69.1% and women was 47.6%, while 48.3% urban and 63.9% rural adults also engaged in adequate physical activity.*(Figure 4.2.4.1 and annexure table 4.2.4.1a)*

Time spent in physical activity per day

Table 4.2.4.1 Time (minutes) spent in vigorous and moderate level activities per day by area of residence and gender (Mean)

Level of physical activity (18 - 69 years)	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Vigorous activity	9.4	1.1	5.5	17.5	4.0	10.9	14.7	3.1	9.1
Moderate activity	71.1	40.6	56.7	121.3	57.8	90.2	104.1	52.2	79.0

Table 4.2.4.1 above shows that, in a day an average of 9.1 minutes were spent in vigorous activity, 5.5 minutes among adults from urban areas and 10.9 minutes rural areas; men spent 14.7 minutes and women 3.1 minutes.

The average minutes spent by adults in moderate level activities was estimated to be 79.0 minutes per day. The areas of residence and age categories distribution showed, that urban adults spent 56.7 minutes and rural adults 90.2 minutes *(Table 4.2.4.1)* . Adults aged 18-44 years spent a total of 80.8 minutes and those in age group of 45-69 years spent 74.8 minutes per day in moderate activities. *(Annexure table 4.2.4.2b)*

Table 4.2.4.2 Time (minutes) spent in physical activity at work, during travel and leisure by area of residence and gender (Mean)

Place of physical activity (18 - 69 years)	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Work	37.0	30.0	33.7	83.3	46.3	65.1	67.4	41.0	54.6
Travel	15.3	6.3	11.0	35.1	13.2	24.4	28.3	10.9	19.9
Leisure time activity	28.2	5.5	17.5	20.4	2.4	11.6	23.1	3.4	13.6

Overall, respondents spent an average of 54.6 minutes in work-related physical activities at home/work place. Rural adults spent almost double the time (65.1 minutes) on work related physical activities than urban adults (33.7 minutes). Men spent 67.4 minutes and women 41.0 minutes *(Table 4.2.4.2).* This pattern was similar across all age groups. *(Annexure table 4.2.4.2b)*

Overall, 19.9 minutes were spent in travel related physical activities, 11.0 minutes urban and 24.4 minutes rural; 28.3 minutes by men and 10.9 minutes by women *(Table 4.2.4.2).* The age-wise distribution showed, that the time spent in travel related physical activities by adults from 18-44 years (19.9 minutes) and across 45-69 years (19.8 minutes) were similar. *(Annexure table 4.2.4.2b)*

The mean time spent in recreational activities like running, playing football, cycling, swimming, volleyball, walking etc., among the population was 13.6 minutes per day. Urban adults reported spending 17.5 minutes per day on leisure related physical activities while rural adults spent 11.6 minutes; men spent 23.1 minutes and women 3.4 minutes *(Table 4.2.4.2).* Time spent on leisure related physical activities decreased with the increase in the age of the population. *(Annexure table 4.2.4.2b)*

Overall, 88.1 minutes were spent on physical activity in a day; 62.2 and 101.1 minutes urban and rural; 118.8 minutes and 55.3 minutes in men and women, respectively. Age wise distribution showed, that 91.3 minutes were spent by 18-44 years and 80.8 minutes by 45-69 years. *(Annexure table 4.2.4.2a and b)*

Voluntary physical activity during recreational time

Table 4.2.4.3 Voluntary physical activity during recreational time by area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Voluntary physical activity	22.7	5.9	14.8	14.3	2.1	8.3	17.2	3.4	10.5

It was observed that, only 10.5% of all adults were engaged in doing any form of voluntary physical activity (like sports, fitness etc.) during recreational time, urban 14.8% and rural 8.3%; men 17.2% and women 3.4%; 18-44 years 11.8% and 45-69 years 7.6%. *(Table 4.2.4.3 and annexure table 4.2.4.3a)*

Time spent in being sedentary

Table 4.2.4.4 Time (minutes) spent being sedentary per day by area of residence and gender (Mean)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Sedentary	314.8	335.2	324.4	277.9	325.2	301.1	290.5	328.5	308.9

Table 4.2.4.4 shows, average minutes spent in sedentary behaviours like sitting, reclining and watching television, working on a computer, playing games in mobile/tablet, talking with friends or doing other sitting activities like knitting, embroidery etc., including the time spent sitting in office and excluding time spent sleeping in a typical day.

The time spent in being sedentary in a typical day was 308.9 minutes (290.5 minutes for men and 328.5 for women). Urban adults spent a mean of 324.4 minutes in a day being sedentary while, rural adults spent 301.1 minutes *(Table 4.2.4.4).* The mean minutes spent increased with age.*(Annexure table 4.2.4.4a)*

4.2.5 PHYSICAL MEASUREMENTS

During the survey, respondents (18-69 years) who consented for physical measurements underwent measurements of height (in cm), weight (in Kg), waist circumference (in cm) and blood pressure (mm of Hg). The Body Mass Index (BMI) was calculated using the information of height and weight of the participant by the formula: BMI = Weight (Kg)/Height (m^2). BMI was used to categorize respondents into underweight, normal, overweight and obese. This section presents the BMI categories (as per WHO and Asian cut-offs), known and newly detected cases of raised blood pressure identified during the survey in the tables below. BMI was not calculated for pregnant women.

KEY FINDINGS

Prevalence of:

- Overweight (including obesity) - **26.1%**
- Obesity - **6.2%**
- Central obesity - **32.2%**

Higher proportion in the urban areas and among women.

- Prevalence of raised blood pressure including those on medication was **28.5%**
- Survey observed **20.6%** of newly detected cases of raised blood pressure.

Anthropometric measurements

Table 4.2.5.1 Measurements of height, weight, BMI and waist circumference by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Height (cm)	165.3	152.3	159.3	163.6	151.3	157.7	164.2	151.6	158.2
Weight (Kg)	65.8	57.4	61.9	57.2	50.2	53.8	60.1	52.6	56.5
BMI (Kg/m^2)	24.0	24.7	24.3	21.4	21.9	21.6	22.3	22.8	22.5
Waist circumference (cm)	86.6	82.3	84.6	78.8	75.3	77.1	81.4	77.6	79.6

The mean weight (Kg) of adults was 56.5 Kg (60.1 Kg men and 52.6 Kg women). Adults from the urban areas weighed a mean of 61.9 Kg and those from the rural areas were 53.8 Kg. *(Table 4.2.5.1)*

The mean BMI of the surveyed respondents was 22.5 Kg/m^2, the BMI of adults in the urban areas was 24.3 Kg/m^2 and those in rural areas was 21.6 Kg/m^2 *(Table 4.2.5.1).* The gender wise distribution of BMI was nearly similar to both men and women, but across the age groups, older adults (45-69 years) had a BMI 23.1 Kg/m^2 and younger adults (18-44 years) of 22.3 Kg/m^2. *(Annexure table 4.2.5.1b)*

The mean waist circumference was 79.6 cm (urban 84.6 cm and rural 77.1 cm), among men it was 81.4 cm and women it was 77.6 cm. The mean waist circumference was observed to be higher in the older age group of 45-69 years (82.7cm). *(Annexure table 4.2.5.1b)*

BMI categories as per WHO and Asian cut-offs

The distribution of BMI categories as per WHO and Asian cut-off BMI among the surveyed population have been presented below.

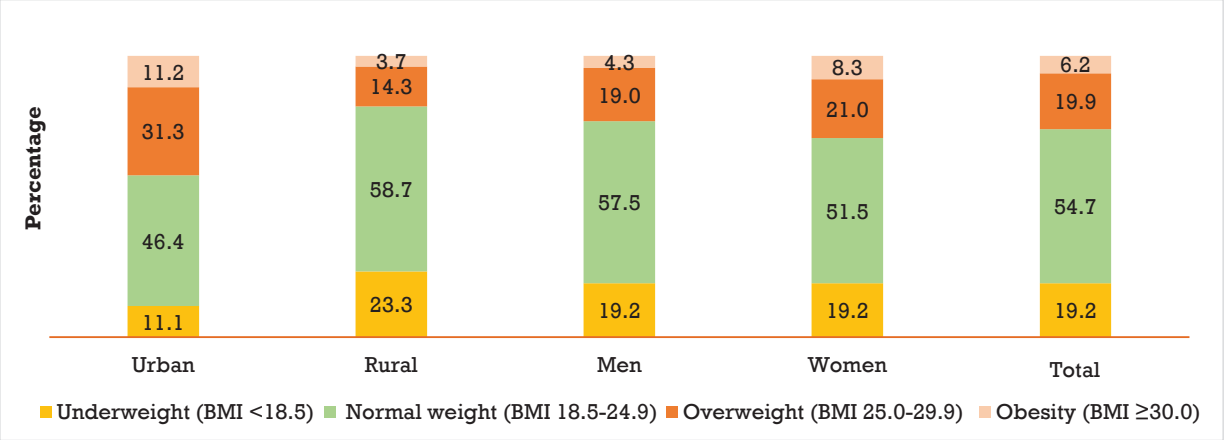


Figure 4.2.5.1 BMI categories (WHO cut off) by area of residence and gender (Percentage)

The proportion of underweight, overweight and obese adults were 19.2%, 19.9% and 6.2% respectively. *(Figure 4.2.5.1)*

In the rural areas, twice the percentage of adults (23.3%) were underweight to those in the urban areas (11.1%). Proportion of adults who were overweight and obese in the urban areas were 31.3% and 11.2% and rural areas were 14.3% and 3.7% respectively.

Across the gender, similar proportion of men and women were underweight, while women were proportionately overweight and obese (21.0% overweight and 8.3% obese) than men (19.0% overweight and 4.3% obese).

The age group distribution showed that higher proportion of older adults aged 45-69 years were overweight (23.4%) and obese (7.8%) than the adults of 18-44-year age group (overweight 18.4% and obese 5.5%). The opposite was observed for underweight category.*(Annexure table 4.2.5.2b)*

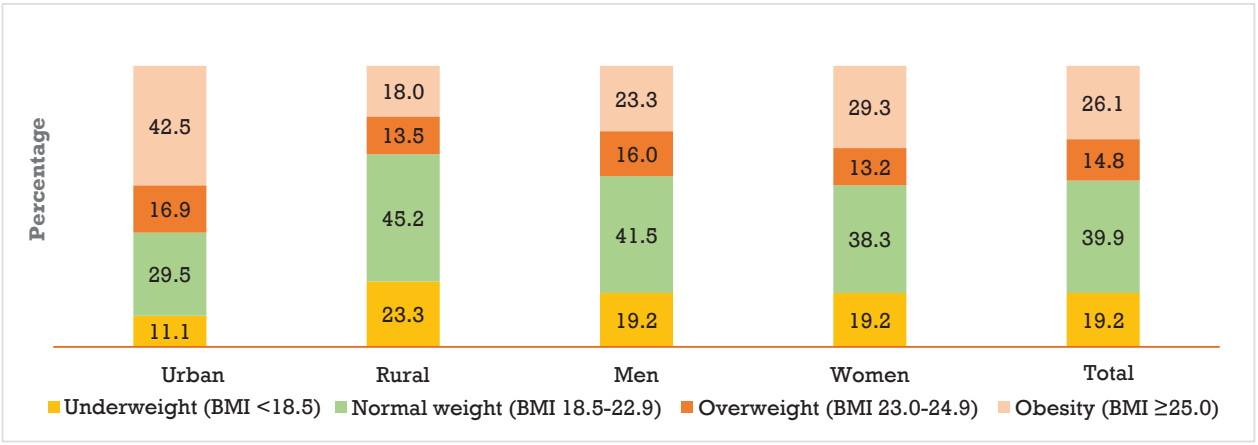


Figure 4.2.5.2 BMI categories (Asian cut off) by area of residence and gender (Percentage)

As per the Asian cut-offs of BMI, the differences for BMI cut-offs were observed in the overweight and obesity categories, while underweight and normal BMI were similar to WHO cut-offs. Overall, 39.9% of the surveyed population were of normal weight, 19.2% were underweight, while 14.8% were overweight and 26.1% were obese. In the urban areas and rural areas, the proportion of overweight and obesity were 16.9% and 13.5%; 42.5% and 18.0% respectively. *(Figure 4.2.5.2)*

Gender wise distribution showed that, higher percentage of men were overweight (16.0%), while higher proportion of women were obese (29.3%). It was observed that higher proportion of adults aged 45-69 years were obese.*(Annexure table 4.2.5.3b)*

Prevalence of overweight (including obesity) and obesity

The prevalence of overweight (including obesity) and obesity has been defined as overweight (including obesity; BMI ≥25.0 Kg/m^2) and obesity (BMI ≥30.0 Kg/m^2). The *table 4.2.5.2,* presents the following:

Table 4.2.5.2 Adults categorized as overweight (including obesity) and obese by area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Overweight (BMI ≥25.0 Kg/m^2)	40.2	45.1	42.5	14.6	21.7	18.0	23.3	29.3	26.1
Obesity (BMI ≥30.0 Kg/m^2)	8.6	14.1	11.2	2.1	5.5	3.7	4.3	8.3	6.2

The prevalence of overweight (including obesity) was 26.1% and obesity was 6.2% with a higher prevalence in the urban areas, in women and adults of age group 45-69 years. *(Annexure table 4.2.5.4b)*

Central obesity

The table below has details on central obesity, waist circumference ≥90 cm for men and ≥80 cm for women were used to define central obesity.

Table 4.2.5.3 Adults with central obesity by area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Central obesity	39.5	58.1	48.2	16.6	32.4	24.2	24.4	40.7	32.2

As shown in *table 4.2.5.3*, the overall proportion of adults with central obesity were 32.2%. Distribution by area of residence, gender and age groups showed that 48.2% of adults from the urban areas, 40.7% women and 41.9% of age 45-69 years were centrally obese. *(Annexure table 4.2.5.5a)*

Blood pressure measurement

Three readings of blood pressure were recorded during the survey and the mean of last two readings were considered. The results of blood pressure measurement are presented in *table 4.2.5.4 to 4.2.5.6 and figure 4.2.5.3*.

Table 4.2.5.4 Blood pressure measurements by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Systolic BP (mmHg)	129.4	123.6	126.7	124.4	121.0	122.7	126.1	121.8	124.1
Diastolic BP (mmHg)	84.3	80.8	82.7	80.4	79.7	80.1	81.8	80.1	80.9

The mean systolic blood pressure (SBP) was 124.1 mm of Hg and diastolic blood pressure (DBP) was 80.9 mm of Hg *(Table 4.2.5.4)* , with a SBP mean of 126.1 mm of Hg among men and 121.8 mm of Hg in women; and 133.6 mm of Hg among age group of 45-69 years. While the mean DBP was 81.8 mm of Hg in men; 80.1 mm of Hg in women and 83.1 mm of Hg in the older age group. *(Annexure table 4.2.5.6b)*

Table 4.2.5.5 Adults with raised blood pressure (known and newly detected) by area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Known	8.6	12.4	10.4	5.8	7.6	6.7	6.8	9.2	7.9
Newly detected	28.7	17.8	23.6	20.2	17.7	19.0	23.1	17.8	20.6

Raised blood pressure has been defined as ≥140 and/or ≥90 mm of Hg. 7.9% reported a diagnosed history of raised blood pressure; 10.4% urban and 6.7% rural; 9.2% women and 6.8% men. By age groups, 16.4% were from 45-69 years and 4.2% belonged to the younger age group of 18-44 years. *(Table 4.2.5.5 and annexure table 4.2.5.7b)*

Overall, the newly detected proportion of cases of raised blood pressure identified in the survey were 20.6%, urban 23.6% and rural 19.0%. Gender and age-wise distribution showed, 23.1% were men and 17.8% were women *(table 4.2.5.5)* , while 30.7% were from the 45-69 years age group and 16.1% belonged to 18-44 years. *(Annexure table 4.2.5.7b)*

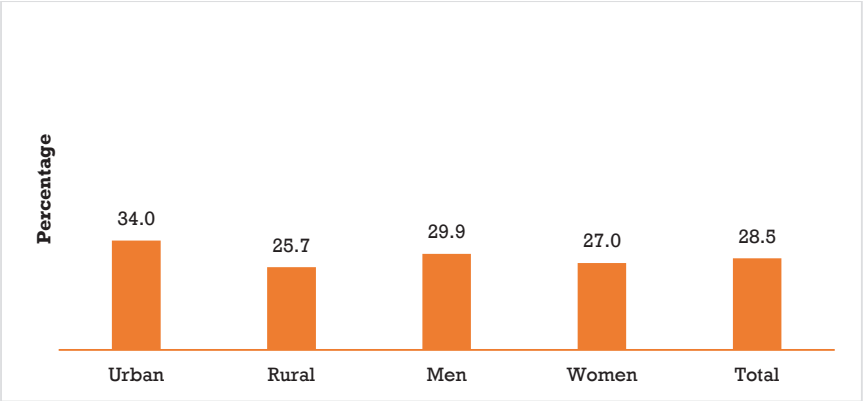


Figure 4.2.5.3 Adults with raised blood pressure including those on medication by area of residence and gender (Percentage)

The estimated prevalence of raised blood pressure including those on medication was 28.5% (29.9% men and 27.0% women) *(Figure 4.2.5.3)*. In the older age group (45-69 years) the prevalence was 47.1%. *(Annexure table 4.2.5.8a)*

Table 4.2.5.6 Blood pressure categories* among those measured by area of residence and gender (Percentage)

18-69 years		Urban			Rural			Total		
		Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Normal		22.4	36.5	29.0	33.6	42.4	37.9	29.8	40.5	34.9
Pre-hypertension		43.1	38.6	41.0	43.6	35.8	39.8	43.4	36.7	40.2
Hypertension	Stage 1	21.5	16.5	19.2	16.7	15.2	16.0	18.4	15.6	17.0
	Stage 2	13.0	8.4	10.8	6.1	6.6	6.3	8.4	7.2	7.9

*Classification of hypertension (as recommended by JNC-7) is based on Systolic Blood Pressure (SBP) and Diastolic Blood Pressure (DBP) values: Normal (SBP<120; DBP<80) (mmHg), Pre-hypertension (SBP: 120-139; DBP=80-89); Hypertension Stage 1 (SBP: 140-159; DBP=90-99) (mmHg); Hypertension Stage 2 (SBP: ≥160; DBP: ≥100) (mmHg) among those measured.

Table 4.2.5.6 shows, the distribution of blood pressure according to the Seventh report of the Joint National Committee (JNC-7)** classification of hypertension. Overall, 34.9% were normotensive, 40.2% were pre-hypertensive (43.4% men and 36.7% women), 17.0% were in the stage-1 hypertension and 7.9% were in stage-2 hypertension.

The age wise distribution showed that, 25.3% of older adults (45-69 years) belonged to stage-1 hypertension and 42.1% of younger adults (18-44 years) were pre-hypertensive. *(Annexure table 4.2.5.9b)*

** Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo L Jr, et al. National Heart, Lung, Blood Institute; National High Blood Pressure Education Program Coordinating Committee. Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Hypertension 2003; 42:1206–1252.

4.2.6 BIOCHEMICAL MEASUREMENTS

This section includes information obtained through biochemical measurements of capillary blood for fasting blood glucose and urine samples for urinary sodium, potassium and creatinine levels. The results have been presented in *tables 4.2.6.1 to 4.2.6.3 and figure 4.2.6.1*.

KEY FINDINGS

- Prevalence of raised fasting blood glucose including those on medication was **9.3%.**
- **5.0%** newly detected cases were identified in the survey.

Blood glucose

Table 4.2.6.1 Fasting blood glucose levels (mg/dl) by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Mean fasting blood glucose	100.4	102.9	101.6	92.4	96.5	94.4	95.1	98.5	96.7

The mean fasting blood glucose was 96.7 mg/dl, 101.6 mg/dl urban, 98.5 mg/dl women and 105.6 mg/dl among 45-69 years of age. *(Table 4.2.6.1 and Annexure table 4.2.6.1a)*

Table 4.2.6.2 Adults with raised fasting blood glucose (known and newly detected) by area of residence and gender (Percentage)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Known	8.9	7.5	8.2	2.1	2.7	2.4	4.3	4.2	4.3
Newly detected	5.2	7.2	6.1	3.6	5.4	4.5	4.2	6.0	5.0

Among the surveyed adult population, those who reported with a diagnosed history of raised blood glucose were 4.3%, 8.2% urban and 2.4% rural areas, while not much differences were observed by gender *(Table 4.2.6.2)* . The diagnosed cases of raised blood glucose were almost eight times higher in the 45-69 years age group (10.8%) than 18-44 years (1.4%). 5.0% cases were newly detected during the survey, higher percentage were detected in the urban areas, in women and age group of 45-69 years. *(Table 4.2.6.2 and annexure table 4.2.6.2b)*

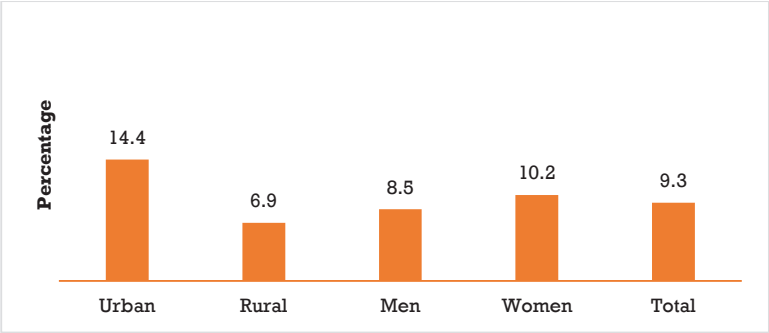


Figure 4.2.6.1 Adults with raised fasting blood glucose including those on medication by area of residence and gender (Percentage)

The prevalence of raised blood glucose, including those on medication was 9.3%, 14.4% urban and 6.9% rural areas; 10.2% women and 8.5% men; and 19.2% among 45-69 years.*(Figure 4.2.6.1 and annexure table 4.2.6.3a)*

Table 4.2.6.3 Fasting blood glucose categories among those measured by area of residence and gender (Percentage)

Fasting Blood Glucose	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
<100 mg/dl	62.6	54.2	58.7	74.7	67.3	71.1	70.7	63.2	67.1
100–125 mg/dl	27.2	33.8	30.3	20.4	26.0	23.1	22.6	28.4	25.4
≥126 mg/dl	10.2	12.0	11.0	4.9	6.7	5.8	6.7	8.4	7.5

Those measured for fasting capillary blood glucose have been categorized into those with fasting blood glucose levels <100 mg/dl, 100-125 mg/dl and ≥126 mg/dl. *(Table 4.2.6.3)*

25.4% and 7.5% were found to have fasting blood glucose of 100–125 mg/dl and ≥126 mg/dl, respectively. The proportion with 100–125 mg/dl and ≥126 mg/dl were higher in the urban areas, among women and 45-69 years age group, respectively. *(Table 4.2.6.3 and annexure table 4.2.6.4b)*

Estimation of urinary Sodium, Potassium and Creatinine excretion

Table 4.2.6.4 Spot urinary Sodium, Potassium and Creatinine excretion levels by area of residence and gender (Mean)

18-69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Sodium (mmol/L)	109.1	102.1	105.8	111.5	109.9	110.8	110.7	107.4	109.1
Potassium (mmol/L)	26.4	24.9	25.7	26.1	27.3	26.7	26.2	26.5	26.4
Creatinine (mmol/L)	90.6	59.1	76.0	86.0	64.4	75.7	87.6	62.7	75.8

Among the respondents who consented for spot urine analysis, the mean Sodium, Potassium and Creatinine levels were found to be 109.1 mmol/L, 26.4 mmol/L and 75.8 mmol/L respectively. *(Annexure table 4.2.6.5a and b)*

4.2.7 COMPOSITE RISK ASSESSMENT

This section provides information on composite risk assessment, which comprises of clustering of risk factors for respondents aged 18-69 years and ten-year CVD risk proportion for adults aged 40-69 years.

The clustering of risk factors contains the presence of ≥3 risk factors among adults, which include daily tobacco use, inadequate fruits and/or vegetable intake, insufficient physical activity, overweight (≥25.0 Kg/m^2), raised blood pressure, and raised fasting blood glucose including those on medication.

A 10-year CVD risk* of <10%, (10 - <20%), (20 - <30%), (30 - <40%) and ≥40% has been defined according to the age (40-69 years), gender, systolic blood pressure, current smoked tobacco use and diabetes (previously diagnosed/fasting plasma glucose concentration ≥126 mg/dl) as for South-East Asia Region.

KEY FINDINGS

- **40.2%** aged 18-69 years had presence of ≥3 risk factors.
- **12.8%** aged 40-69 years were at ≥30% ten-year CVD risk or with existing CVD.
- Older adults (60-69 years) at a higher risk than younger adults (40-49 years).

Clustering of risk factors

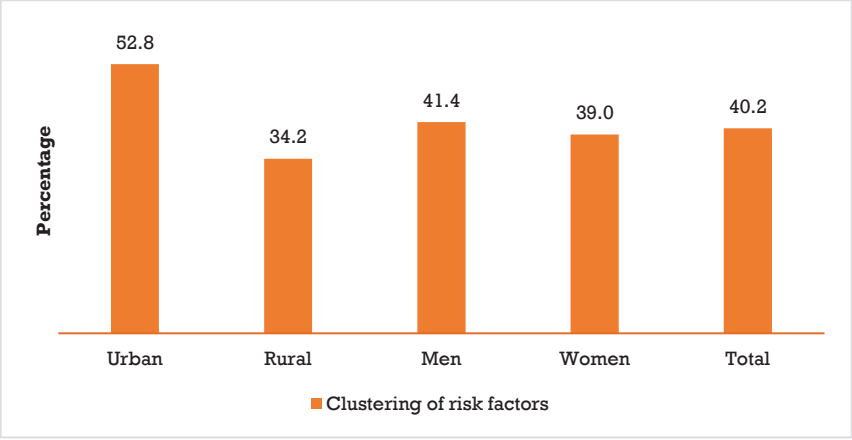


Figure 4.2.7.1 Clustering of at least ≥3 risk factors among adults (18–69 years) by area of residence and gender (Percentage)

40.2% of surveyed adults had the presence of at least ≥3 risk factors; urban areas (52.8%) and rural areas (34.2%) *(Figure 4.2.7.1)*. Across the age groups the proportion of clustering of risk factors increased with age. *(Annexure table 4.2.7.1a)*

*WHO/ISH Risk prediction charts for 14 WHO epidemiological sub-regions [internet]. 2007. [cited 11 December 2018]. Available from: http://ishworld.com/downloads/activities/colour_charts_24_ Aug_07.pdf

Ten-year CVD risk assessment

Table 4.2.7.1 Adults (40–69 years) with 10-year CVD risk (as per WHO guidelines) by area of residence and gender (Percentage)*

10-year CVD risk	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
<10%	76.1	69.7	73.1	78.5	72.7	75.7	77.6	71.5	74.7
10 - <20%	8.6	12.2	10.3	11.0	13.8	12.3	10.1	13.2	11.5
20 - <30%	7.7	9.9	8.7	5.2	8.2	6.6	6.2	8.9	7.4
30 - <40%	3.3	1.2	2.3	2.5	2.1	2.3	2.8	1.8	2.3
≥40%	4.2	7.1	5.6	2.8	3.2	3.0	3.4	4.7	4.0

*excluding those with existing CVD

Among survey respondents aged between 40–69 years, 11.5% had 10 - <20%, 7.4% had 20 - <30%, 2.3% had 30 - <40% and 4.0% had ≥40% ten-year CVD risk. The percentage of adults in the urban areas were at a higher risk than those in the rural areas. Similarly, women were at a higher risk when compared to men *(Table 4.2.7.1).* The 10-year CVD risk of ≥40% increased with age, older adults of age 60-69 years were at a higher risk when compared to the younger adults (40-49 years). *(Annexure table 4.2.7.2a and b)*

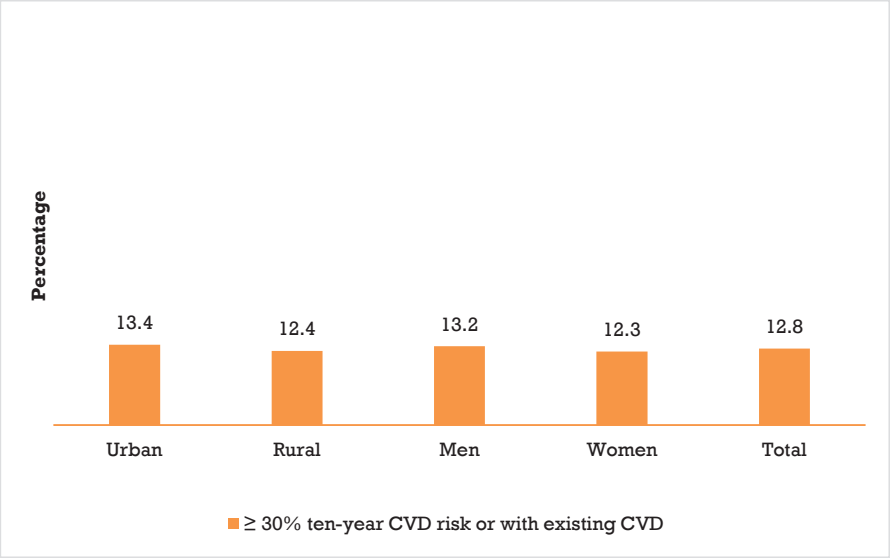


Figure 4.2.7.2 Adults (40–69 years) with 10-year CVD risk of ≥30% or with existing CVD by area of residence and gender (Percentage)

12.8% of adults aged 40-69 years were at ≥30% ten-year CVD risk or with existing CVD, higher percentage from urban areas (13.4%) and were men (13.2%) *(Figure 4.2.7.2).* Across the age groups of 40-49, 50-59 and 60-69 years, the risk was higher with increasing age (6.4%, 12.7% and 22.8% respectively). *(Annexure table 4.2.7.3a)*

SECTION 4.3:

NCD RISK FACTORS – ADOLESCENTS (15–17 YEARS)

4.3.1 TOBACCO USE

The respondents aged between 15-17 years were asked if they had ever tried or experimented with any amount of smoked or smokeless tobacco.

KEY FINDINGS

- Current daily tobacco use in any form among adolescents was 3.1% and the mean age of initiation of tobacco use was at 14.2 years.
- **85.2%** thought that inhaling smoke from other people's tobacco smoking can cause harm.

Either smoked or smokeless tobacco use

Table 4.3.1.1 Tobacco use of any form among adolescents by area of residence and gender (Percentage)

15 - 17 years	Urban	Rural	Boys	Girls	Total
Never user	94.4	92.3	88.1	98.3	93.0
Ever user/experimented	5.6	7.7	11.9	1.7	7.0

93.0% of adolescents had never used tobacco and 7.0% reported ever use or experimented with tobacco with a higher percentage from rural areas (7.7%) and among boys (11.9%). *(Table 4.3.1.1 and annexure table 4.3.1.1a)*

Smoked tobacco use

Table 4.3.1.2 Smoked tobacco use among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Never user	96.4	96.5	93.6	99.5	96.5
Ever user/experimented	3.6	3.5	6.4	0.5	3.5

96.5% of adolescents had never smoked tobacco, while 6.4% of boys reported ever use or experimented with smoked tobacco. *(Table 4.3.1.2 and annexure table 4.3.1.2a)*

Smokeless tobacco use

Table 4.3.1.3 Smokeless tobacco use among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Never user	96.7	94.3	91.8	98.6	95.0
Ever user/experimented	3.3	5.7	8.2	1.4	5.0

According to the survey, 5.0% of adolescents were ever users or experimented with smokeless tobacco, 5.7% from rural areas and 8.2% among boys. *(Table 4.3.1.3 and annexure table 4.3.1.3a)*

Current daily tobacco use

Table 4.3.1.4 Current daily tobacco use among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Current daily tobacco use (any form)	1.9	3.6	5.5	0.4	3.1
Only smoked tobacco	0.01	0.2	0.3	0.0	0.2
Only smokeless tobacco	1.8	3.2	5.1	0.2	2.8
Both smoked and smokeless tobacco	0.1	0.2	0.2	0.2	0.2

The prevalence of current tobacco use daily among adolescents was 3.1%, rural areas (3.6%) and among boys (5.5%). Those who reported consuming both forms of tobacco (smoked and smokeless) were 0.2%. The prevalence of only smokeless tobacco use was 2.8% and only smoked tobacco use was 0.2%. *(Table 4.3.1.4 and annexure table 4.3.1.4a)*

Type of tobacco product used

Manufactured cigarettes (89.2%) and gutka (79.7%) were the preferred types of smoked and smokeless tobacco products that were used respectively among current daily tobacco users. None reported the use of pipes, hookah/shisha, tuibur, tobacco snuff by nose and mouth.*(Annexure table 4.3.1.5a)*

Perception that other people's tobacco smoking can cause harm

Table 4.3.1.5 Adolescents who thought that inhaling smoke from other people's tobacco smoking can cause harm by area of residence and gender (Percentage)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Thought that inhaling smoke from other people's tobacco smoking can cause harm	86.9	84.4	86.6	83.6	85.2

85.2% of adolescents thought that inhaling smoke from other people's tobacco smoking can cause harm. *(Table 4.3.1.5 and annexure table 4.3.1.6a)*

Age of initiation of tobacco

The mean age of initiation of tobacco use in adolescents who had ever tried/experimented tobacco was at 14.2 years. It was observed that, adolescents from the rural areas (13.9 years) initiated the use of tobacco

at an early age when compared to those from the urban areas (15.1 years). Across gender, the mean age of initiation was 14.2 years in boys and 14.4 years in girls. *(Annexure table 4.3.1.7a)*

Attempted to quit tobacco use

It was observed that, 43.1% attempted to quit using tobacco among those who ever tried or experimented with tobacco in any form (45.0% boys), while 39.6% and 43.1% attempted to quit smoked (41.9% boys) and smokeless tobacco (45.5% boys) respectively, while none of the girls reported any attempts to quit. *(Annexure table 4.3.1.8a)*

DISCLAIMER

"The second round of Global Adult Tobacco Survey [GATS-2] - India was conducted in 2016-17 in the age-group 15 years and above involving 74,037 individuals [34.5% urban and 65.5% rural distribution] adopting a multistage cluster sampling state wise.

Whereas, the National Noncommunicable Diseases Monitoring Survey (NNMS) was conducted during the year 2017-18 in the age-group 15-17 and 18-69 years involving 12000 households [equal rural and urban distribution] adopting a multi-stage cluster sampling nationally.

Therefore, there are expected few differences observed in the results related to use of tobacco between NNMS and the GATS-2 (India). Upon expert review, it is stated that these could be related to differences in study design, sampling strategy, coverage, age groups selected, weighting procedures and the questionnaires adopted."

This issues with the approval of Competent Authority.

Under Secretary to the Government of India

Disclaimer approved: File No. Z.21020/39/2019-TC, Government of India, Ministry of Health & Family Welfare (Tobacco Control Division), dated on 26th August, 2020.

4.3.2 ALCOHOL USE

The survey respondents were asked about their alcohol consumption during past 12 months and past 30 days. The results are presented below.

KEY FINDINGS

1.3% adolescents consumed alcohol in the past 12 months and the mean age of initiation was **13.4 years.**

Alcohol use

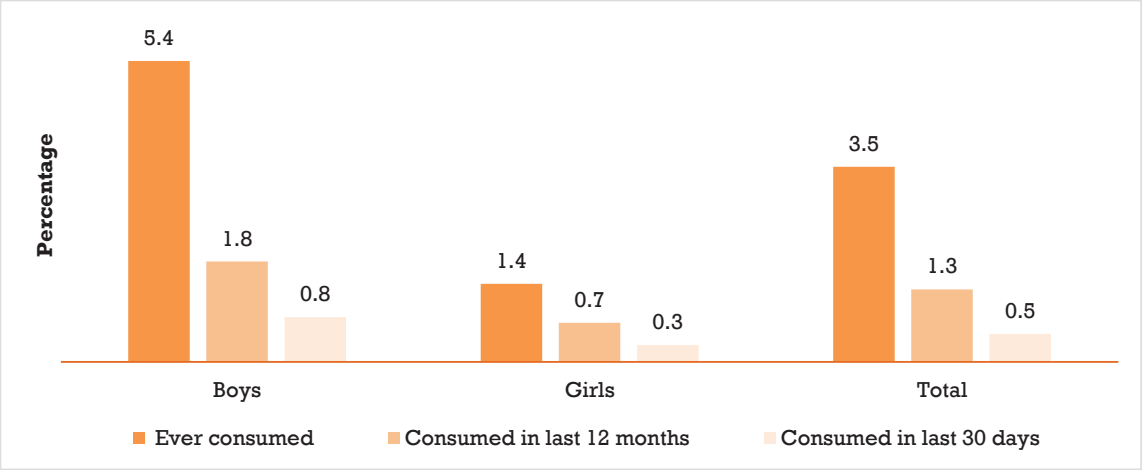


Figure 4.3.2.1 Alcohol use among adolescents by gender (Percentage)

Figure 4.3.2.1 shows, 3.5% had ever used alcohol in their life, while 1.3% and 0.5% used alcohol in past 12 months and past 30 days respectively. It was observed that, the use of alcohol was higher among boys. By area of residence, 3.6% and 3.2% were ever users and 1.4% and 1.1% were users in the past 12 months in rural and urban areas respectively. *(Annexure table 4.3.2.1a)*

Type of alcohol used

According to the survey results, among those who used alcohol in the past 12 months, the most preferred type of alcohol was country liquor/some other type (57.8%) with a higher percentage from rural areas, followed by beer (34.0%). *(Annexure table 4.3.2.2a)*

Pattern of drinking among alcohol users in the past 30 days

The survey respondents, who reported consuming alcohol in the past 30 days were asked about the maximum number of standard drinks consumed per drinking occasion in the past 30 days. One standard drink is equivalent to a net alcohol content of 10 grams. The responses are presented as percentage who consumed <5 and ≥5 maximum number of standard drinks in one drinking occasion in the past 30 days.

It was observed that, 0.4% adolescents (0.6% were boys and 0.3% were girls) consumed <5 standard drinks and 0.1% consumed ≥5 standard drinks. *(Annexure table 4.3.2.3a)*

Heavy episodic drinking in the past 30 days

It is estimated that 0.1% adolescents indulged in heavy episodic drinking [≥5 (boys) and ≥4 (girls) standard drinks per occasion] during the past 30 days. 0.2% boys and none of the girls reported being engaged in heavy episodic drinking. *(Annexure table 4.3.2.4a)*

Age of initiation of alcohol use

Table 4.3.2.1 Age (in years) of initiation of alcohol use among adolescents by area of residence and gender (Mean)

15 - 17 years	Urban	Rural	Boys	Girls	Total
Age of initiation	14.1	13.1	13.5	12.8	13.4

The mean age of initiation of alcohol use was 13.4 years, with almost a year difference among boys (13.5 years) and girls (12.8 years). It was observed that the youngest to start were girls from rural areas (11.4 years). *(Table 4.3.2.1 and annexure table 4.3.2.5a)*

Source of alcohol used in the past 30 days

Table 4.3.2.2 Source from where alcohol was consumed in past 30 days by area of residence and gender (Percentage)

Source of alcohol use	Urban	Rural	Boys	Girls	Total
Store/shop/street vendor	21.3	41.8	40.2	0.0	30.7
Friends	6.9	23.9	19.2	0.0	14.6
Family	70.0	34.3	39.4	100.0	53.7

Table 4.3.2.2 shows that, the source of alcohol for more than half of the adolescents (53.7%) was from the family, 30.7% got it from the store/shop/street vendor and 14.6% from friends. The other sources included giving money to someone else for purchasing alcohol (1.0%). *(Annexure table 4.3.2.6a)*

4.3.3 DIET

The survey assessed dietary practices of adolescents, which included a series of questions related to breakfast information and frequency of consumption of high salt, high sugar and oily food. The responses to these questions are presented in figures and tables below.

KEY FINDINGS

- **48.3%** had skipped breakfast on at least any one day in the past 30 days.
- **54.9%** consumed chocolates or toffees, **52.1%** consumed chips or namkeen and **18.2%** consumed cold drinks or other aerated drinks at least once in a week.

Skipping breakfast

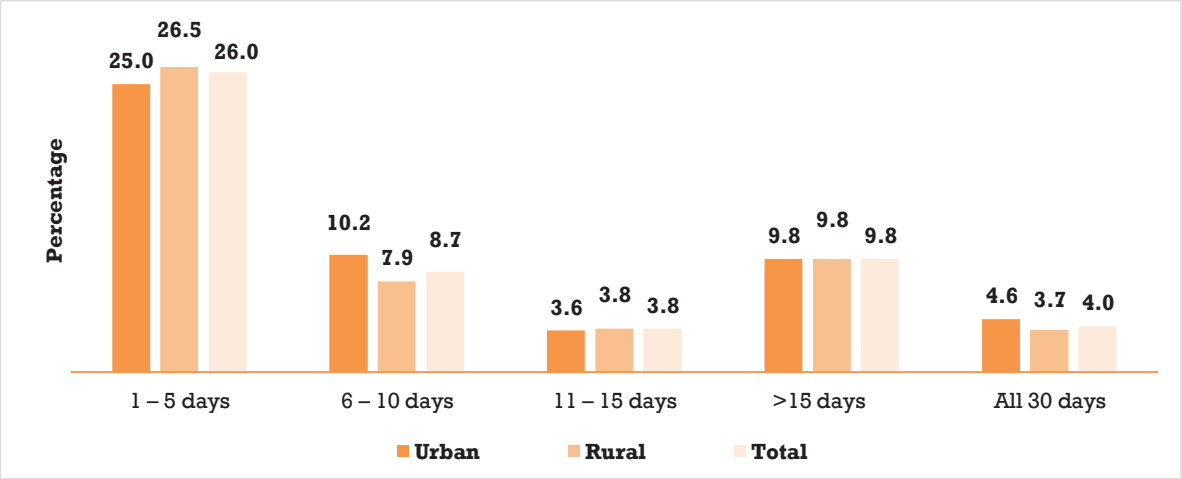


Figure 4.3.3.1 Adolescents who skipped breakfast in the past 30 days by area of residence (Percentage)

Table 4.3.3.1 Number of days breakfast was skipped in past 30 days by area of residence and gender (Mean)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Mean number of days breakfast was skipped	9.5	9.7	9.3	10.0	9.6

The mean number of days breakfast was skipped in the past 30 days was 9.6 days, girls skipped an extra day than boys with least difference across area of residence *(Table 4.3.3.1).* 48.3% skipped breakfast on at least one day in the past 30 days (50.9% girls and 45.8% boys) *(Annexure table 4.3.3.1a)* and 4.0% skipped breakfast on all 30 days. *(Figure 4.3.3.1)*

Frequency of consumption of food items

The survey captured responses on frequency of consuming food items like achar/papad, fried items (chole bature/pakora/samosa/kachori/bhajji/bonda/vada/pazhampori), chips/namkeen, pizza/burger, instant noodles, cake/pastry/patties, cold drinks/other aerated drinks, fresh fruits/fruit juices, high energy/high protein drinks or drinks rich in caffeine, ice cream/milk shakes, chocolates/toffees, salads/fruit/fruit chaat, canned fruit juice, sweets, and french fries. The responses were recorded as daily (>5 days a week) or at least once a week, at least once a month or less than once a month, never or don't know or no response have been presented below.

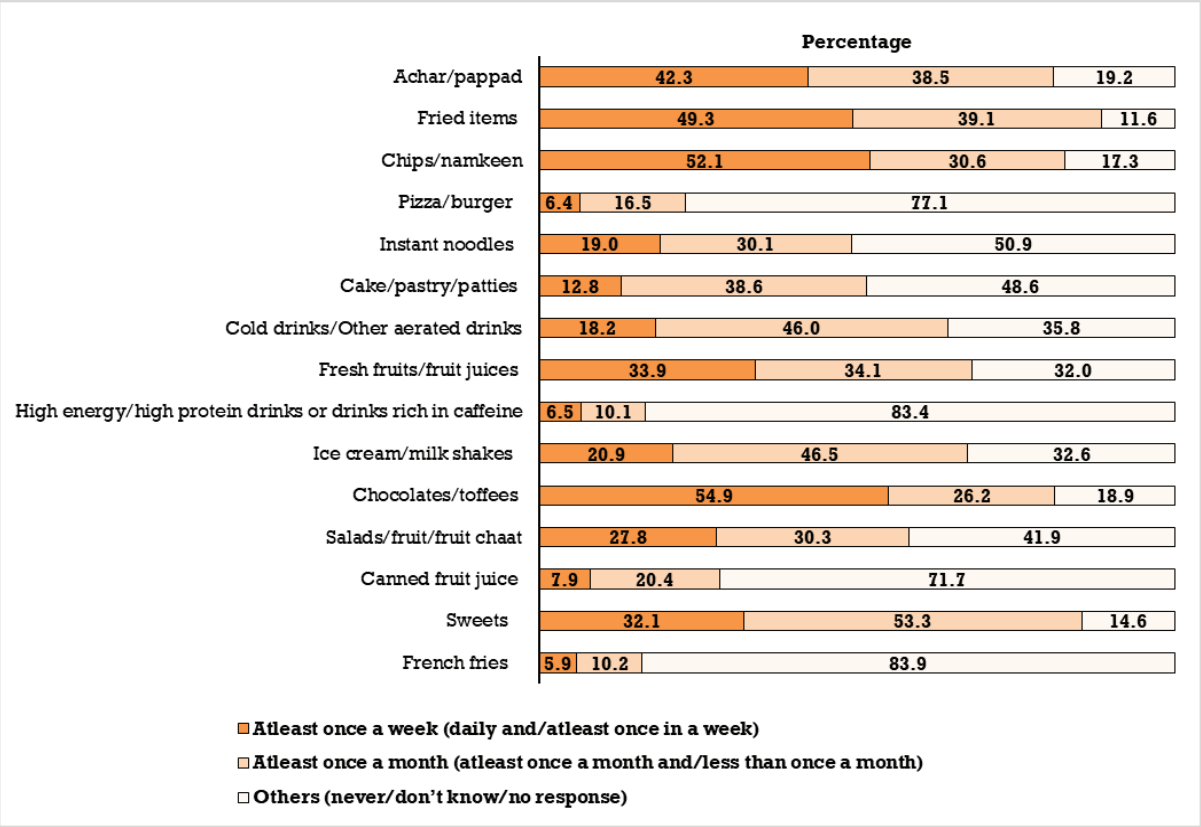


Figure 4.3.3.2 Frequency of consumption of food items (Percentage)

Chocolates/toffees (54.9%) and chips/namkeen (52.1%) consumption constituted majorly, followed by sweets (32.1%) and ice cream/milk shakes (20.9%) in daily and/at least once a week interval. 33.9% and 27.8% consumed fruits in the form of fresh fruits/fruit juices and salads/fruit chaat daily and/at least once a week respectively. 20.4% had canned fruit juice at least once a month. 19.0% and 30.1% had instant noodles daily and/at least once a week and at least once a month respectively. *(Figure 4.3.3.2 and annexure table 4.3.3.3a)*

4.3.4 PHYSICAL ACTIVITY

This chapter covers responses to the questions on type, duration and levels of physical activity at school, home, during travel and leisure time. It also includes information on time spent being sedentary.

KEY FINDINGS

25.2% adolescents had not met the WHO recommended levels of physical activity.

Levels of physical activity

The *figure 4.3.4.1* below presents the physical activity of the adolescent study population using definitions of physical activity per day as per WHO recommendations.

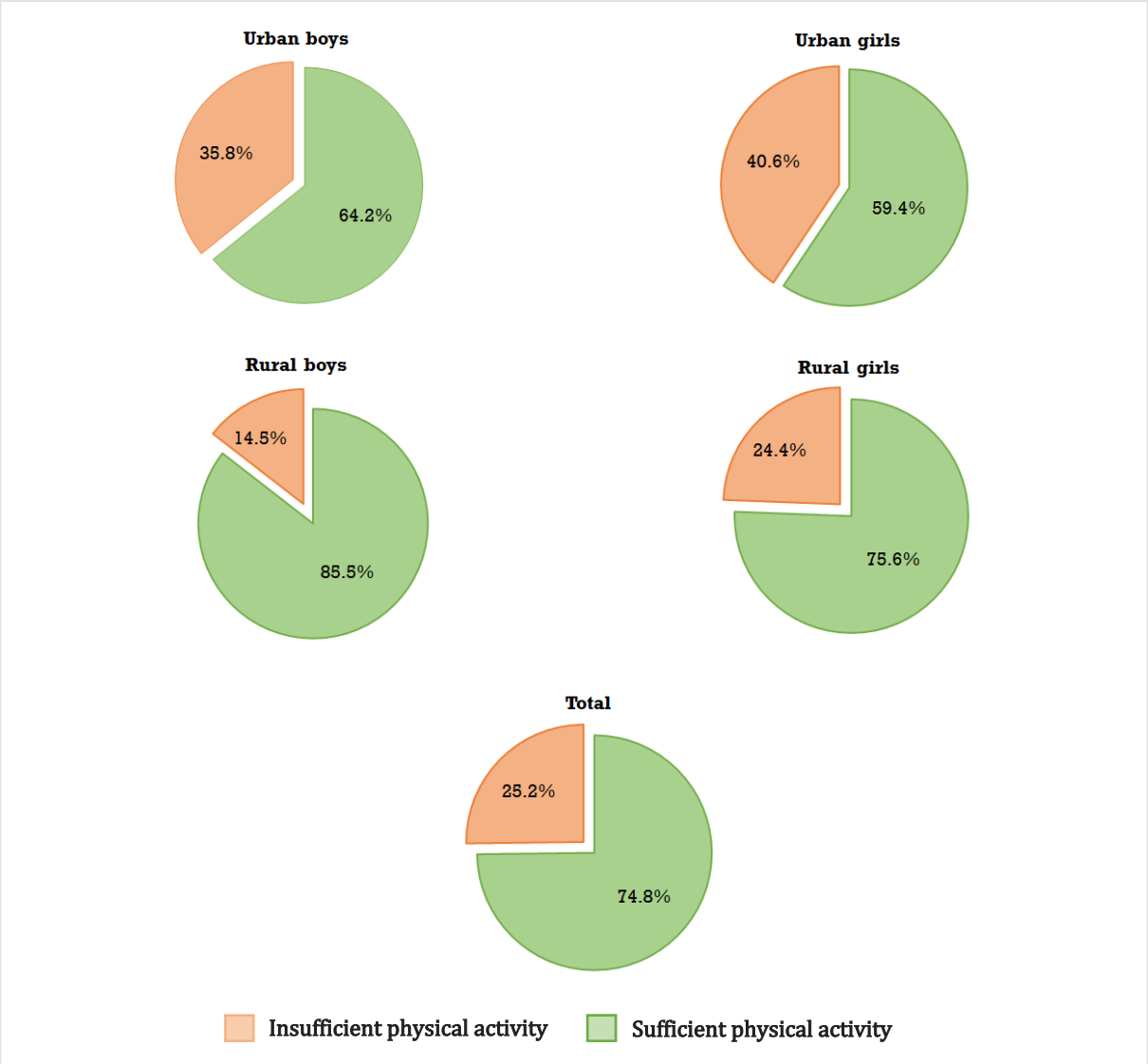


Figure 4.3.4.1 Physical activity levels among adolescents (Percentage)

Figure 4.3.4.1 shows that 25.2% of the adolescents were engaged in insufficient physical activity, 38.0% urban, 19.3% rural, 21.5% boys and 29.3% girls. *(Annexure table 4.3.4.1a)*

Table 4.3.4.1 Time (minutes) spent in physical activity* per day at school by area of residence and gender (Mean)

15 - 17 years	Urban	Rural	Boys	Girls	Total
Time spent per day in physical activity at school	18.0	15.3	20.1	11.8	16.1

*among adolescents who were physically active for at least 10 minutes at a stretch either during assembly, or games/Physical training period/free period or lunch break.

Adolescents spent an average of 16.1 minutes in school related physical activity, with girls spending 11.8 minutes and boys 20.1 minutes per day. *(Table 4.3.4.1 and annexure table 4.3.4.2a)*

Table 4.3.4.2 Time (minutes) spent in physical activity per day by area of residence and gender (Mean)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Vigorous activity	11.1	33.1	31.9	19.9	26.2
Moderate activity	59.3	87.1	67.8	89.9	78.3
Total minutes spent in physical activity	70.4	120.2	99.7	109.8	104.5
Leisure time activity	14.3	10.6	17.2	5.9	11.8

Total mean minutes spent per day in physical activity was 104.5 minutes, 70.4 minutes urban and 120.2 minutes rural; 99.7 minutes boys and 109.8 minutes girls. While an average of 78.3 minutes was spent in moderate intensity activities, 26.2 minutes in vigorous activity and 11.8 minutes in leisure time activity or recreational activities. Most time was spent in moderate physical activity (78.3 minutes). Boys spent more time (17.2 minutes) in leisure time physical activities compared to girls (5.9 minutes). *(Table 4.3.4.2 and annexure table 4.3.4.3a)*

Time spent in being sedentary

Table 4.3.4.3 Time (minutes) spent being sedentary in a day by area of residence and gender (Mean)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Time spent in being sedentary	361.4	331.2	331.1	351.2	340.7

The mean minutes spent in being sedentary in a typical day like sitting, reclining and watching television, working on a computer, playing games in mobile/tablet, talking with friends, or doing other sitting activities like knitting, embroidery etc., including time spent sitting in school/college and excluding time spent sleeping were 340.7 minutes (361.4 minutes urban; 331.2 minutes rural and 331.1 minutes boys and 351.2 minutes girls). *(Table 4.3.4.3 and annexure table 4.3.4.4a)*

4.3.5 PHYSICAL MEASUREMENTS

This section presents information obtained from survey respondents aged 15-17 years, who were willing to undergo physical measurements of height (in cm) and weight (in Kg).

The Body Mass Index (BMI) was calculated using height and weight of the participants by the formula: BMI = Weight (Kg)/Height (m^2). The BMI (as per WHO)** was used to categorize the respondents into overweight and obesity. Overweight: >+1SD (equivalent to BMI 25.0 Kg/m^2) and Obesity: >+2SD (equivalent to BMI 30.0 Kg/m^2).

KEY FINDINGS

Prevalence of overweight including obesity among adolescents (15-17 years) was **6.2%** and obesity was **1.8%.**

Physical measurements

Table 4.3.5.1 Measurements of height, weight and BMI by area of residence and gender (Mean)

15 - 17 years	Urban	Rural	Boys	Girls	Total
Height (cm)	159.2	157.2	162.9	152.4	157.9
Weight (Kg)	49.5	45.5	49.0	44.4	46.8
BMI (Kg/m^2)	19.5	18.4	18.5	19.1	18.8

The mean BMI was 18.8 Kg/m^2, urban areas (19.5 Kg/m^2) and rural areas (18.4 Kg/m^2). *(Table 4.3.5.1 and annexure table 4.3.5.1a)*

Prevalence of overweight (including obesity) and obesity

Table 4.3.5.2 Adolescents categorized as overweight (including obesity) and obese by area of residence and gender (Percentage)

15 – 17 years	Urban	Rural	Boys	Girls	Total
Overweight (including obesity)	11.9	3.6	6.4	6.1	6.2
Obesity	3.5	0.9	2.6	0.8	1.8

The prevalence of overweight (including obesity) and obesity was estimated to be 6.2% and 1.8% respectively. In the urban areas (11.9% overweight and 3.5% obese) and rural areas (3.6% overweight and 0.9% obese). By gender 6.4% boys and 6.1% girls were overweight and 2.6% boys and 0.8% girls were obese. *(Table 4.3.5.2 and annexure table 4.3.5.2a)*

**Growth reference 5-19 years [Internet]. World Health Organization [cited 3 December 2018]. Available from: https://www.who.int/growthref/who2007_bmi_for_age/en/

4.3.6 SCHOOL/COLLEGE RELATED INFORMATION

This section provides information collected through a series of questions to adolescents aged 15-17 years who attended school/college in the past 12 months. The questions were related to the presence of canteen and the food items available; also details on tobacco, alcohol, benefits of healthy diet and physical activity were collected. The responses to these questions have been presented below as proportions.

KEY FINDINGS

- **88.2%** adolescents reported availability of **HFSS foods** in their school/college canteens.
- **44.7%** reported presence of any shop selling tobacco within 100 metres of school/college.
- **17.5%** adolescents reported to have noticed teacher/staff smoke in school/college premises.

Overall, 78.0% adolescents (86.8% urban areas and 74.0% rural areas), 84.0% boys and 71.5% girls reported attending school/college in the last 12 months.

School/college canteen related information

Table 4.3.6.1 Reported presence of school/college canteen by area of residence and gender (Percentage)

School/college canteen related information	Urban	Rural	Boys	Girls	Total
Presence of canteen	34.7	21.4	24.7	27.7	26.0

Table 4.3.6.2 Reported availability of food items in school/college canteen by area of residence and gender (Percentage)

Food items	Urban	Rural	Boys	Girls	Total
Chips/Namkeen	76.1	73.2	68.0	82.0	74.5
Samosa/Kachori	67.3	52.9	53.2	67.0	59.6
Instant Noodles	28.3	29.3	23.4	35.1	28.9
Fruit/Fruit chaat/ Salad	17.6	13.7	10.0	21.8	15.5
Aerated drinks	38.3	43.9	42.7	39.7	41.3
Bakery items (cakes/pastries/patties)	52.8	40.7	48.2	44.2	46.3
High fat, salt and sugar (HFSS) foods	94.0	83.0	86.1	90.6	88.2

As per *table 4.3.6.2*, 74.5% reported availability of chips/namkeen in their school/college canteen, followed by samosa/kachori (59.6%), bakery items like cakes/pastries/patties (46.3%) and aerated drinks (41.3%). Only 15.5% of the adolescents reported the availability of fruit/fruit chaat/salad at their school/college canteens. It was observed that respondents from the rural areas reported availability of

aerated drinks (43.9%) and instant noodles (29.3%) at a higher percentage in their school/college canteen, while availability of the remaining food items were more in the urban areas. *(Annexure tables 4.3.6.1a and 4.3.6.2a)*

Tobacco use

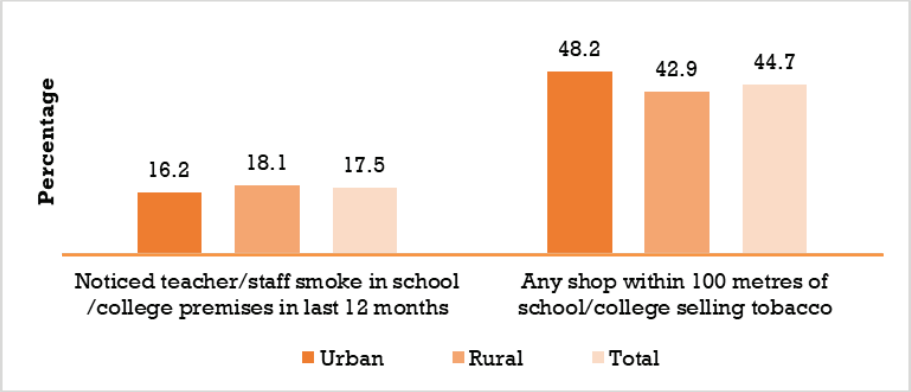


Figure 4.3.6.1 Noticed school teacher/staff smoking tobacco within premises and its sale around 100 metres by area of residence (Percentage)

17.5% adolescents reported to have noticed a teacher/staff smoke in school/college premises in the last 12 months, while 44.7% reported presence of shop selling tobacco within 100 metres of schools/colleges. *(Figure 4.3.6.1 and annexure table 4.3.6.3a)*

Health promotion and education related information

Table 4.3.6.3 Health promotion and education related information by area of residence and gender (Percentage)

Health promotion and education	Urban	Rural	Boys	Girls	Total
Noticed any poster/wall painting/signboard/display on the following topics					
Harmful effects of tobacco	41.4	40.5	42.7	38.4	40.8
No smoking sign	45.7	43.1	46.4	41.0	44.0
Harmful effects of alcohol	35.3	26.3	31.8	26.4	29.4
Promotion material on healthy diet	43.6	31.6	35.9	35.8	35.8
Promotion material on physical activity	40.8	30.4	33.4	34.9	34.1
Being taught in school/college about					
Ill effects of tobacco	67.0	66.5	67.3	65.9	66.7
Ill effects of alcohol	65.0	66.6	67.2	64.6	66.0
Benefits of healthy diet	69.0	65.2	67.7	65.1	66.6
Benefits of physical activity	63.2	64.8	63.1	65.6	64.2

66.7% reported that they were being taught about the ill effects of tobacco in their schools/colleges, 40.8% and 44.0% reported presence of either a poster/wall painting/signboard/display on harmful effects of tobacco and no smoking sign respectively *(Table 4.3.6.3).* In the last 12 months, 29.4% adolescents reported they noticed either a poster/wall painting/signboard/display on harmful effects of alcohol (urban 35.3% and rural 26.3%) and 66.0% reported ill effects of alcohol being taught in their school/college *(Table 4.3.6.3)*. Overall, 66.6% and 64.2% adolescents were being taught the benefits of healthy diet and physical activity at school/college and 35.8% and 34.1% reported noticing any promotional material on healthy diet and physical activity being displayed at schools/colleges, respectively. *(Table 4.3.6.3 and annexure table 4.3.6.4a)*

Physical activity in school/college

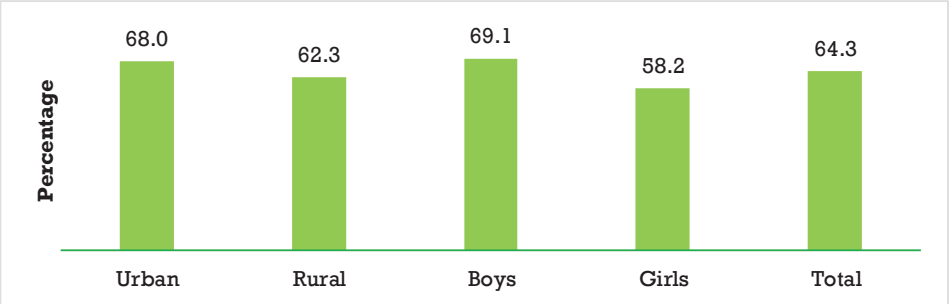


Figure 4.3.6.2 Adolescents engaged in physical activity in school/college in last 12 months by area of residence and gender (Percentage)

According to the survey results, 64.3% adolescents were engaged in physical activity at schools/colleges, a higher proportion from urban areas (68.0%) and were boys (69.1%).*(Figure 4.3.6.2 and annexure table 4.3.6.5a)*

SECTION 4.4:

HEALTH SEEKING BEHAVIOURS AND MANAGEMENT INDICATORS (30–69 YEARS)

4.4.1 RAISED BLOOD GLUCOSE

This section presents the results on blood glucose measurements ever in life or in last 12 months and pre-diagnosed history of raised blood glucose, treatment and control among adults aged between 30-69 years. The results are presented in *figures 4.4.1.1, 4.4.1.2a - c and table 4.4.1.1* below.

KEY FINDINGS

47.6% reported being **aware** of their raised blood glucose status, **38.5%** were currently **on treatment** (any one day in last 2 weeks) and **16.3%** had their raised blood glucose in **control** (fasting blood glucose <126 mg/dl).

Practices on measurement of blood glucose

Figure 4.4.1.1 presents the practices related to measurement of blood glucose ever in life and in last 12 months. Overall, 26.3% (42.3% urban and 17.4% rural; 25.4% men and 27.1% women) and 21.2% (34.5% urban and 13.9% rural; 21.2% men and 21.2% women) of respondents had their blood glucose levels measured ever in life and in last 12 months respectively. Age wise distribution showed, 38.0% and 20.9% aged 50-69 years and 30-49 years had reported getting their blood glucose measured ever in life while, 32.1% and 16.2% had it measured in the last 12 months respectively. *(Annexure table 4.4.1.1a and 4.4.1.1b)*

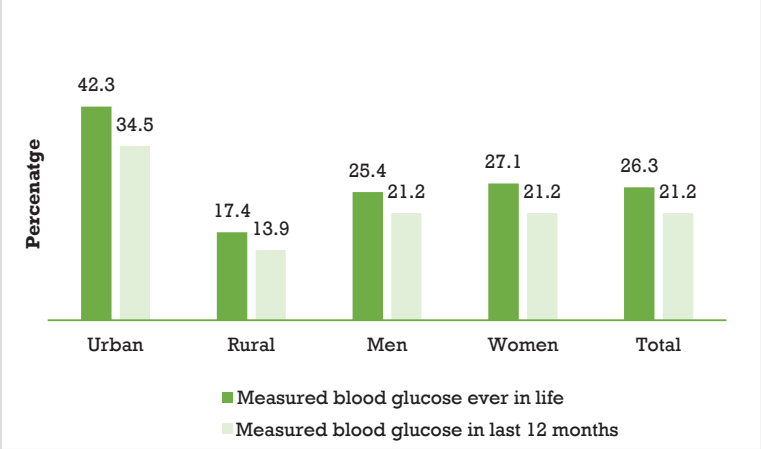


Figure 4.4.1.1 Practices reported for blood glucose measurement by area of residence and gender (Percentage)

Awareness, treatment and control among those with raised blood glucose

Among those with raised blood glucose, 47.6% (58.2% urban and 36.3% rural; 52.8% men and 42.6% women) reported being aware of their status, 38.5% (49.1% urban and 27.2% rural; 44.2% men and 33.1% women) were currently on treatment (oral medication 37.5% and insulin 6.1%) for any one day in past 2 weeks preceding the survey.

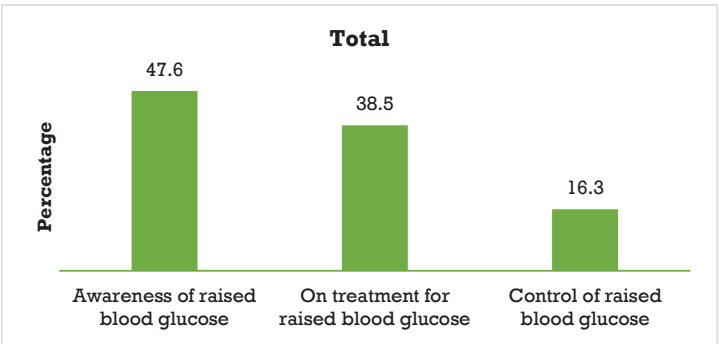


Figure 4.4.1.2a. Awareness, treatment and control of blood glucose among those with raised blood glucose (Percentage)

Among those who were aware of their diabetes status, 16.3% (17.1% men and 15.5% women) had their raised blood glucose under control (fasting blood glucose <126 mg/dl). *(Figure 4.4.1.2a - c and Annexure table 4.4.1.2a)*

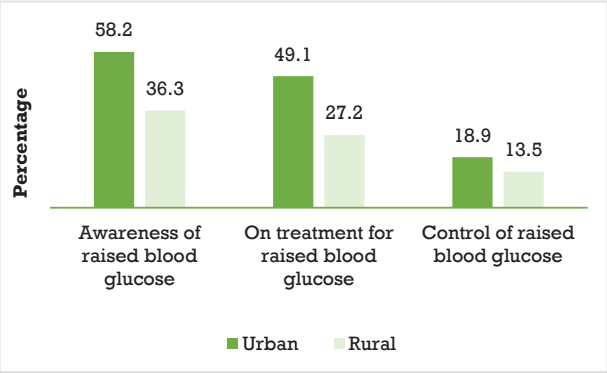


Figure 4.4.1.2b. Awareness, treatment and control of blood glucose among those with raised blood glucose by area of residence (Percentage)

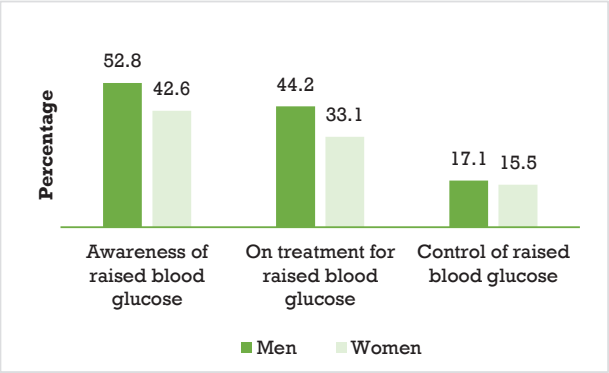


Figure 4.4.1.2c. Awareness, treatment and control of blood glucose among those with raised blood glucose by gender (Percentage)

Overall, higher proportion of adults from urban areas, men and older adults (50-69 years) had reported being aware, on treatment and had a control on their blood glucose level.*(Annexure table 4.4.1.2a and b)*

Consultation and source of medication for raised blood glucose

Table 4.4.1.1 Source of current consultation and treatment among those with known raised blood glucose by area of residence and gender (Percentage)

30 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Currently consulting allopathic practitioner in public sector	14.3	25.7	19.2	17.8	26.8	22.5	15.5	26.2	20.4
Currently on treatment with public sector as source of medicines in last 2 weeks	17.4	25.7	20.9	15.8	16.8	16.3	16.9	22.0	19.2
Currently on treatment with chemist/private/NGO dispensary as source of medicines in last 2 weeks	68.3	55.6	62.9	66.0	58.9	62.3	67.5	57.0	62.7
Currently consulting AYUSH[1] practitioner in public sector	14.3	12.9	13.7	26.9	25.1	26.0	18.4	18.0	18.2
Currently on medication from AYUSH practitioners	10.7	11.3	11.0	18.0	20.4	19.3	13.1	15.1	14.1

[1]The systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

Among those who reported their raised blood glucose status, 20.4% and 18.2% had consulted an allopathic practitioner in public sector and AYUSH practitioner respectively, of which 22.5% and 26.0% were from rural areas. It was also observed that 19.2% (16.9% men and 22.0% women) adults aged 30-69 years reported procuring medicines from public sector in the last 2 weeks, while 62.7% (67.5% men and 57.0% women) reported obtaining medicines from chemist/private/NGO dispensaries in the last 2 weeks. Those who reported taking medication from AYUSH practitioners were 14.1%. *(Table 4.4.1.1)*

4.4.2 RAISED BLOOD PRESSURE

Respondents aged 30-69 years were asked if they ever had their blood pressure measured by a doctor or other health worker and for those measured if they had been diagnosed with raised blood pressure.

KEY FINDINGS

29.2% were **aware** of their raised blood pressure status and **16.0%** were currently **on treatment** (last 2 weeks) and **12.3%** had their blood pressure in **control** (<140/90mm of Hg).

Practices on measurement of blood pressure

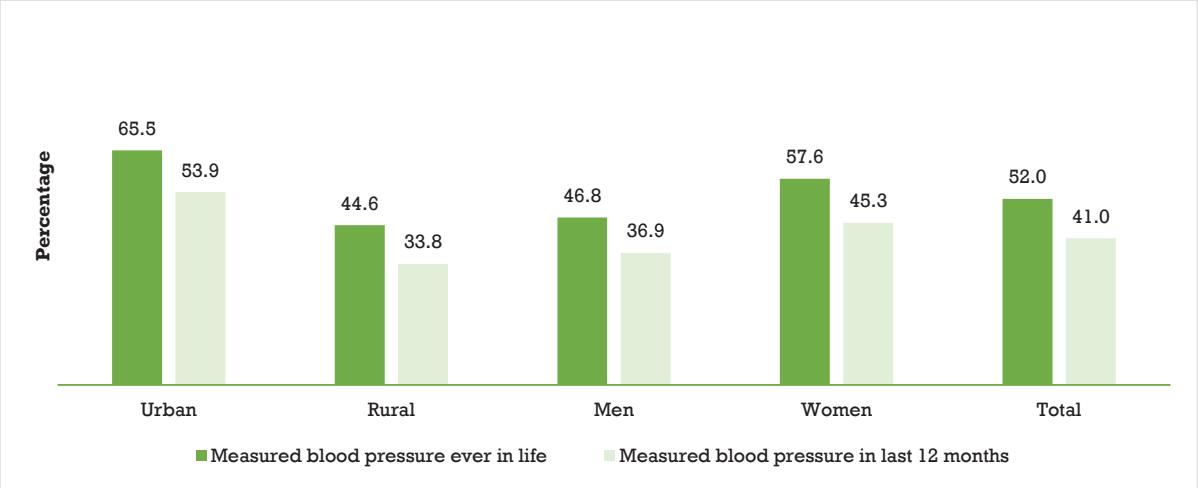


Figure 4.4.2.1 Practices reported for blood pressure measurement by area of residence and gender (Percentage)

It was observed that, half of the adults never got their blood pressure measured in their life. While, a proportion of 41.0% had it measured during the last 12 months, urban (53.9%) and women (45.3%) *(Figure 4.4.2.1).* 61.3% of older adults aged between of 50-69 years had their blood pressure measured ever in life and 51.3% in the last 12 months. *(Annexure table 4.4.2.1a and b)*

Awareness, treatment and control of raised blood pressure

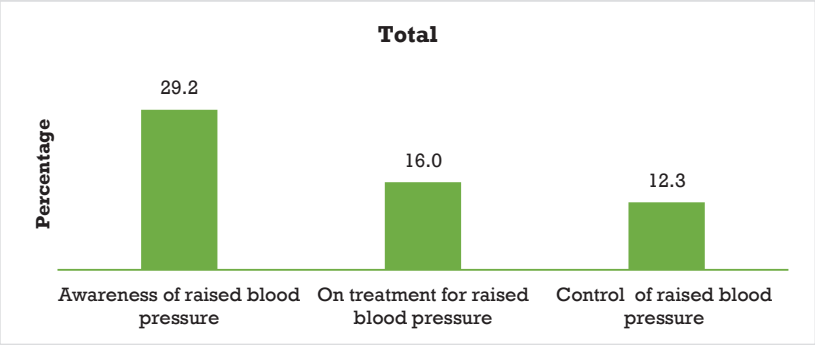


Figure 4.4.2.2a. Awareness, treatment and control of blood pressure among those with raised blood pressure (Percentage)

Among those with raised blood pressure, 29.2% reported being aware of their status (31.2% urban and 27.8% rural; 24.2% men and 34.9% women) and 16.0% were currently on treatment (last 2 weeks), 19.0% from urban areas and 20.6% were women.

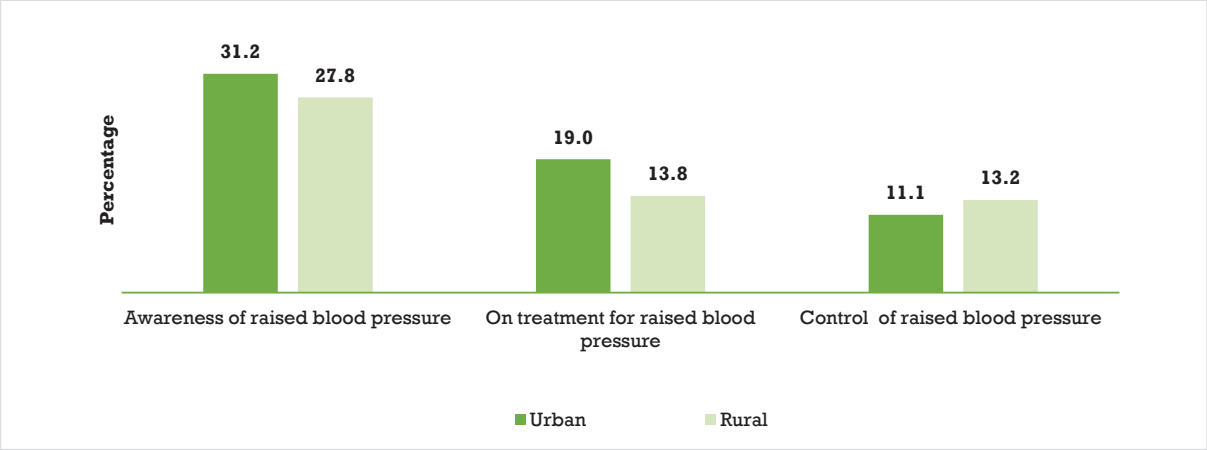


Figure 4.4.2.2b. Awareness, treatment and control of blood pressure among those with raised blood pressure by area of residence (Percentage)

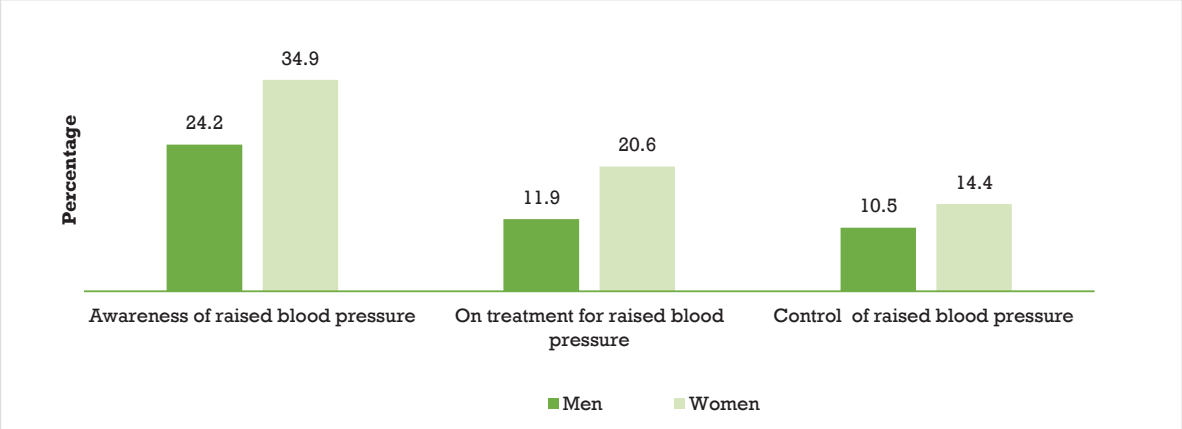


Figure 4.4.2.2c. Awareness, treatment and control of blood pressure among those with raised blood pressure by gender (Percentage)

Among those with history of raised blood pressure, 12.3% had their blood pressure level under control (SBP <140mmHg and DBP <90mmHg), with low controls observed in urban areas (11.1%) than rural areas (13.2%) and similar observations were found among men (7.5% urban men and 12.7% rural men) *(Figure 4.4.2.2a - c).* The proportions (awareness, on treatment and control) were higher among adults aged 50-69 years. *(Annexure table 4.4.2.2b)*

Consultation and source of medication for raised blood pressure

Table 4.4.2.1 Source of current consultation and treatment among those with known raised blood pressure by area of residence and gender (Percentage)

30 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Currently consulting allopathic practitioner in public sector	17.1	22.3	20.1	10.5	23.2	17.5	13.3	22.8	18.6
Currently on treatment with public sector as source of medicines in last 2 weeks	5.6	16.4	11.7	9.6	10.2	9.9	7.9	13.0	10.7
Currently on treatment with chemist/private/NGO dispensary as source of medicines in last 2 weeks	49.4	48.3	48.8	37.0	42.6	40.1	42.3	45.2	43.9
Currently consulting AYUSH[1] practitioner in public sector	16.1	19.2	17.8	14.7	17.9	16.5	15.3	18.4	17.1
Currently on medication from AYUSH practitioners	10.1	16.4	13.7	9.0	7.7	8.3	9.5	11.5	10.6

[1]The systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

Among those with a history of raised blood pressure, 18.6% and 17.1% consulted allopathic practitioner in public sector and AYUSH practitioner, respectively. Additionally, only 10.7% reported public sector as source of obtaining medicines for raised blood pressure. *(Table 4.4.2.1)*

4.4.3 REPORTED RAISED CHOLESTEROL

This section presents results on practices on checking blood cholesterol ever in life, self-reported prevalence of raised blood cholesterol as informed by a health professional, their treatment history in the last 2 weeks and source of medication for raised blood cholesterol among surveyed participants aged 30-69 years. ***In the present survey, blood cholesterol was not measured.***

Table 4.4.3.1 Practices reported for blood cholesterol measurement ever in life and history of raised cholesterol by area of residence and gender (Percentage)

30- 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Measured ever in life	12.2	13.0	12.6	2.7	3.1	2.9	6.2	6.5	6.4
Reported raised cholesterol	3.2	4.2	3.7	0.9	0.8	0.8	1.7	2.0	1.8

Table 4.4.3.1 shows, that 6.4% of respondents aged 30-69 years had their blood cholesterol levels measured ever in life, 12.6% from urban and 2.9% from the rural areas. Only 1.8% gave a self-reported history of raised cholesterol, 3.7% in urban areas. Nearly equal proportion of men (1.7%) and women (2.0%) reported history of raised cholesterol. 3.2% from the older age group (50-69 years) reported with raised cholesterol. *(Annexure table 4.4.3.1a and b)*

Table 4.4.3.2 Source of current consultation, treatment and medication for raised blood cholesterol* by area of residence and gender (Percentage)

30 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
On treatment[1]	31.9	35.0	33.6	64.1	34.2	50.2	42.2	34.8	38.4
Adherence[2]	29.5	28.0	28.7	55.4	31.9	44.5	37.8	29.0	33.3
AYUSH[3]									
Consulting	9.8	5.1	7.3	18.8	23.2	20.9	12.7	9.8	11.2
On treatment	6.0	2.4	4.1	8.2	5.0	6.7	6.7	3.1	4.8
Public sector as source of medicines in last 2 weeks	2.4	9.9	6.4	8.8	1.1	5.2	4.4	7.6	6.1
Currently on treatment with chemist/private/NGO dispensary as source of medicines in last 2 weeks	29.6	28.4	28.9	56.1	33.2	45.4	38.0	29.6	33.7

*among those with raised cholesterol
[1]On treatment any one day in the last 2 weeks
[2]Took prescribed medication daily in last 2 weeks
[3]The systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

Among those with history of raised cholesterol, 38.4% were currently on treatment on any one day in the last 2 weeks preceding the survey (urban 33.6% and rural 50.2%), while 33.3% were taking medication daily (urban 28.7% and rural 44.5%), 37.8% and 29.0% were men and women respectively. Overall proportion of 6.1% respondents aged between 30-69 years, reported public sector as a source for medicines, while 33.7% reported obtaining medicines from either a chemist/private/NGO dispensary in last 2 weeks *(Table 4.4.3.2).* The age-wise distribution showed that, 44.4% and 37.2% of older adults (50-69 years) were currently on medication for any one day and daily respectively. *(Annexure table 4.4.3.2a and b)*

Table 4.4.3.2 also presents the percentage of adults who consulted Ayurveda, Unani, Siddha and Homeopathy (AYUSH) systems of medicine and were currently on medication. Both these variables were estimated among those who had a history of raised blood cholesterol.

Overall proportion of 11.2% consulted (7.3% urban and 20.9% rural; 12.7% men and 9.8% women) and 4.8% currently received treatment from AYUSH practitioners (4.1% urban and 6.7% rural, 6.7% men and 3.1% women). The age wise distribution showed that, 15.9% adults from 30-49 years age group consulted AYUSH practitioners and 2.5% were on treatment from them, while among the older age group of 50-69 years 7.2% consulted and 6.8% were on treatment. *(Annexure table 4.4.3.2b)*

4.4.4 CARDIOVASCULAR CONDITIONS

This section presents results on history of CVDs including stroke and their treatment status in the past 2 weeks by area of residence and gender.

Table 4.4.4.1 Adults aged 30–69 years with known cardiovascular conditions and the source of diagnosis by area of residence and gender (Percentage)

30 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Known CVD* condition	4.3	2.4	3.4	3.2	4.0	3.6	3.6	3.5	3.5
Govt. health facility as a source of diagnosis	1.2	0.6	0.9	0.8	1.1	1.0	1.0	0.9	1.0

*Cardiovascular conditions diagnosed in a hospital include, chest pain (heart related) or a heart attack (angina) or a stroke (cerebrovascular accident or incident)

Nearly equal proportion of men and women (3.6% men and 3.5% women) reported a history of heart attack or chest pain from heart disease and 1.0% of them reported to be diagnosed at a government health facility *(Table 4.4.4.1).* Higher prevalence of diagnosed cardiovascular diseases was observed with progression of age (2.5% in 30-49 years and 5.8% in 50-69 years), with predominance in men (7.0%) over women (4.5%) among the older age group (50-69 years). *(Annexure table 4.4.4.1a and b)*

Table 4.4.4.2 Adults aged 30–69 years who were on medication to prevent or treat known cardiovascular conditions among those with CVDs by area of residence and gender (Percentage)

30 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Aspirin*	38.2	19.2	31.9	12.2	8.0	9.9	23.5	10.7	17.4
Aspirin (daily)**	33.9	19.2	29.0	6.2	5.7	5.9	18.2	8.9	13.8
Statins*	28.9	21.3	26.3	15.9	6.4	10.7	21.5	10.0	16.0

* atleast once in last 2 weeks; ** daily in last 2 weeks

It was observed that among those with cardiovascular diseases, 13.8% were on aspirin regularly (18.2% men and 8.9% women). *(Table 4.4.4.2)*

4.4.5 CANCER SCREENING

This section presents information on the reported status of oral cancer screening among men and women, breast and cervical cancer screening among women aged between 30-69 years ever in life by area of residence and gender. The results are presented below in *tables 4.4.5.1 to 4.4.5.3*.

KEY FINDINGS

- **1.7%** (men and women) had ever undergone a screening test for **oral cancer.**
- **1.6%** and **2.2%** of women (30–69 years) had ever undergone clinical breast examination and screening for **breast** and **cervical cancer,** respectively.

Oral cancer screening

Table 4.4.5.1 Adults aged 30–69 years who had ever undergone oral cancer screening by area of residence, gender and age categories (Percentage)

Oral cancer screening	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 49 years	1.1	1.7	1.4	2.4	0.4	1.4	1.9	0.9	1.4
50 - 69 years	4.4	2.5	3.5	2.1	1.1	1.6	2.9	1.6	2.2
30 - 69 years	2.1	2.0	2.0	2.3	0.6	1.5	2.2	1.1	1.7

Of all the adults (aged 30-69 years), only 1.7% had ever undergone a screening test for oral cancer, (2.0% urban and 1.5% rural) and (2.2% men and 1.1% women). It was also observed that, 3.5% adults from urban areas of the older age group (50-69 years) reported to have ever undergone screening for oral cancer. *(Table 4.4.5.1)*

Breast cancer screening

Table 4.4.5.2 Women aged 30–69 years who had ever undergone clinical breast cancer screening* by area of residence and age categories (Percentage)

Breast cancer screening	Urban	Rural	Total
30 - 49 years	2.5	0.9	1.5
50 - 69 years	3.0	1.4	2.0
30 - 69 years	2.7	1.1	1.6
*Any clinical breast examination done by a doctor			

All the female participants aged between 30–69 years were asked whether they had ever undergone any clinical breast examination by a doctor for screening for breast cancer. It was observed that only 1.6%

reported that they have undergone clinical breast examination, 2.7% urban, 1.1% rural, and 2.0% aged 50-69 years (3.0% urban and 1.4% rural). *(Table 4.4.5.2)*

Cervical cancer screening

Table 4.4.5.3 Women aged 30–69 years who had ever undergone cervical cancer screening* by area of residence and age categories (Percentage)

Cervical cancer screening	Urban	Rural	Total
30 - 49 years	4.5	1.1	2.3
50 - 69 years	3.1	1.5	2.1
30 - 69 years	4.0	1.3	2.2
*Any screening tests done by Visual Inspection with Acetic Acid (VIA), pap smear or Human Papilloma Virus (HPV) test			

2.2% of women aged 30–69 years reported that they had undergone screening for cervical cancer by visual inspection with acetic acid, pap smear or Human Papilloma Virus test. The proportion of women reported being screened was three times lower in the rural areas than in the urban areas (4.0% urban and 1.3% rural). *(Table 4.4.5.3)*

4.4.6 DRUG THERAPY AND COUNSELLING FOR CVD RISK

Details on drug therapy and counselling services (including glycaemic control) to prevent heart attacks and stroke among adults aged between 40-69 years with a ten-year CVD risk of ≥30% or those with existing CVD have been presented below.

Drug therapy has been defined as those on medication for raised blood glucose/diabetes, raised total cholesterol, or raised blood pressure, or taking aspirin or statins to prevent or treat heart disease.

Counselling has been defined as those who received advice from a healthcare professional to quit/not to start the use of tobacco, to reduce salt in diet, to eat at least five servings of fruit and/or vegetables per day, to reduce fat in diet, to start or increase physical activity and to maintain a healthy body weight or to lose weight.

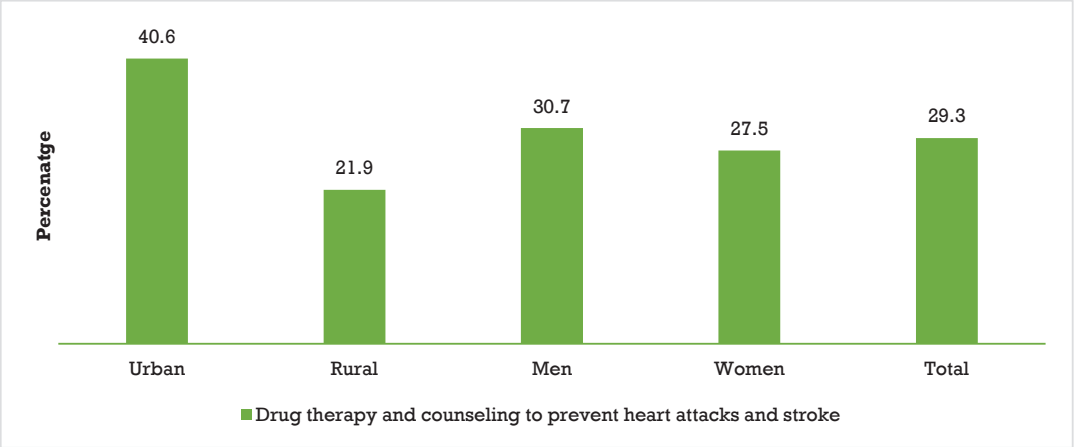


Figure 4.4.6.1 Adults aged 40–69 years with 10-year CVD risk of ≥30% or with existing CVD received drug therapy and counselling to prevent heart attacks and stroke as defined by WHO, by area of residence and gender (Percentage)

Among those with ten-year CVD risk of ≥30% or with existing CVD, 29.3% received drug therapy and counselling to prevent heart attacks and stroke, and a higher percentage were from the urban areas (40.6%) and were men (30.7%). *(Figure 4.4.6.1)*

The age group (40-49, 50-59 and 60-69 years) variations showed that 23.3%, 21.3% and 36.8% respectively received drug therapy or counselling for prevention of heart attacks and stroke. *(Annexure table 4.4.6.1a)*

SECTION 4.5:

HEALTH SYSTEM RESPONSE INDICATORS

4.5 HEALTH SYSTEM RESPONSE INDICATORS

As per the survey methodology framework, a total of 537 public primary care facilities, 415 community health centres (CHCs) and 335 districts hospitals (DHs) serving the selected PSUs were surveyed in the public health care system. Additionally, 512 private primary care facilities were also surveyed in the same PSUs. A health facility mapping was used to select the health facilities serving that or near the cluster being surveyed. One primary level, one CHC and one district hospital government facility and one private primary level equivalent health facility were covered for each cluster.

Information on implementation of National Program for Prevention and Control of Cancer, Diabetes and Cardiovascular Disease and Stroke (NPCDCS), availability of human resources; technologies and medicines; and services being provided at these facilities were collected. The data pertaining to the coverage of different services (e.g. screening and treatment for specific NCDs) were also obtained in the survey. The results of the survey for primary and secondary health facilities are presented below.

4.5.1 PUBLIC PRIMARY HEALTH CARE FACILITIES

This section presents results on the information obtained from all the public primary care facilities surveyed.

KEY FINDINGS

- **Higher** number of patients with **Diabetes mellitus and Hypertension** attended **public primary care facilities** in a month than those with CVDs (including Stroke) and Cancer.
- **2.3%** and **1.1%** of public primary care facilities in urban and rural areas respectively had all the essential technologies and medicines as per **WHO guidelines.**

Table 4.5.1.1 Overall facilities and infrastructure available in public primary care facilities for all conditions (Percentage)

Availability of facilities and infrastructure	Urban (n = 257)	Rural (n = 280)
Types of services provided		
Outpatient services	100.0	100.0
Inpatient services	35.0	67.5
Emergency services	34.2	46.4
Telephone, electricity and ambulance services		
Landline or a mobile telephone number functional on the day of assessment	58.4	57.9
Electricity backup functional on the day of assessment	56.8	74.3
Available ambulance services/patient transport services	63.8	77.1

Among the public primary care facilities surveyed, 35.0% provided inpatient services in urban areas and 67.5% in rural areas. 58.4% of urban and 57.9% of rural primary care facilities had functional landline or a mobile telephone number, while 63.8% urban and 77.1% rural facilities provided ambulance services. *(Table 4.5.1.1)*

Table 4.5.1.2 Services available for NCDs in public primary care facilities (Percentage)

Availability of services for NCDs	Urban (n = 257)	Rural (n = 280)
Availability of written standard treatment guidelines under NPCDCS	49.0	26.1
Services for management of NCDs		
All are referred/not present	12.8	15.7
Fixed days/day in a week	10.5	6.4
Seen daily/no dedicated day	76.7	77.9
Availability of laboratory tests for diagnosis/management of NCDs	68.1	70.4

49.0% of urban and 26.1% of rural public primary care facilities reported availability of written standard treatment guidelines under NPCDCS, while 76.7% of urban and 77.9% of rural facilities had no dedicated day, rather attended to patients with NCDs daily. Laboratory tests for diagnosis/management of NCDs like (diabetes, CVDs, cancer) were available in 68.1% urban and 70.4% rural public primary care. *(Table 4.5.1.2)*

Table 4.5.1.3 Average number of patients with major NCDs attending public primary care facilities in the month prior to the survey

NCD category	Urban (n = 257)	Rural (n = 280)
Diabetes mellitus	107	62
Hypertension	134	101
Cardiovascular diseases with Stroke	9	7
Chronic Obstructive Pulmonary Disease (COPD)	60	35
Cancer	9	6

It was observed that the average number of patients attending the public primary care facilities (urban and rural) with cancer and CVDs were less compared to the other major NCDs. *(Table 4.5.1.3)*

Table 4.5.1.4 Services available for management of specific NCDs in public primary care facilities (Percentage)

Service availability for management of NCDs	Urban (n = 257)		Rural (n = 280)	
	Inpatient services	Outpatient services	Inpatient services	Outpatient services
Diabetes mellitus	24.8	93.0	34.4	93.6
Hypertension	24.8	94.6	39.6	98.2
Cardiovascular diseases including Stroke	6.4	53.3	9.9	44.6
COPD	16.8	72.4	25.0	68.2
Cancer	0.8	26.1	2.4	20.0

The outpatient services available at public primary care facilities (urban and rural) for hypertension were (94.6% and 98.2%), diabetes (93.0% and 93.6%), COPD (72.4% and 68.2%), cardiovascular diseases including stroke (53.3% and 44.6%) and cancer (26.1% and 20.0%), respectively. The availability of inpatient services for NCDs was much lower among both the urban and rural surveyed public primary care facilities. The proportion was lowest for cardiovascular problems including stroke (urban 6.4% and rural 9.9%) and cancer (urban 0.8% and rural 2.4%) than other NCDs. *(Table 4.5.1.4)*

Table 4.5.1.5 Available human resources (medical/paramedical/other staff) in public primary care facilities (Percentage)

Available staff	Urban (n = 257)		Rural (n = 280)	
	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS/NHM (NCD related) program	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS / NHM (NCD related) program
General duty medical officer	84.8	32.7	85.4	28.2
AYUSH* medical officer	23.0	2.3	35.0	7.9
Nurses	73.5	22.6	67.5	24.3
Female health assistant	34.2	8.6	41.1	9.6
Male health assistant/PHN	14.8	2.3	29.6	5.7
Auxiliary nurses	70.0	15.2	76.4	17.9
Male health worker (MPW)	14.8	1.9	33.2	5.4
Male nurse assistant	5.1	0.0	8.6	0.4
Pharmacist	82.9	14.8	81.1	14.3
Lab technician	73.5	13.6	68.2	15.0
Counsellor	6.6	1.2	10.4	3.9
Physiotherapist	2.3	0.0	0.7	0.0
Care coordinator	2.3	1.2	3.9	0.7
Data entry operator	23.7	1.9	33.2	7.5

*The systems of medicine included for survey under AYUSH are, Ayurveda; Unani; Siddha and Homeopathy

Overall, 84.8% and 85.4% of public primary care facilities had general duty medical officers and 32.7% and 28.2% urban and rural facilities had trained medical officers. Urban and rural facilities - nurses (73.5% and 67.5%), auxiliary nurses (70.0% and 76.4%), pharmacist (82.9% and 81.1%) and lab technician (73.5% and 68.2%), counsellor (6.6% and 10.4%) and data entry operator (23.7% and 33.2%) respectively reported availability. The percentage of facilities trained for NCDs under NPCDCS/NHM in urban and rural areas - nurses (22.6% and 24.3%), auxiliary nurses (15.2% and 17.9%), pharmacist (14.8% and 14.3%) and lab technician (13.6% and 15.0%), counsellor (1.2% and 3.9%) and data entry operator (1.9% and 7.5%). *(Table 4.5.1.5)*

Table 4.5.1.6 Availability[1] of essential technologies and medicines for NCDs in public primary care facilities (Percentage)

As per WHO guidelines	Technologies		Medicines		Both technologies and medicines	
	Urban (n = 257)	Rural (n = 280)	Urban (n = 257)	Rural (n = 280)	Urban (n = 257)	Rural (n = 280)
Diabetes mellitus[2,6]	47.5	52.9	21.0	20.4	10.9	14.3
Hypertension and Cardiovascular diseases [3,7]	67.7	60.0	37.4	24.6	32.7	19.3
Chronic respiratory diseases[4,8]	99.2	99.3	15.6	13.9	15.6	13.9
All[5,9]	38.1	38.2	4.3	2.1	2.3	1.1

1.	Availability of an item is defined as being available within the facility.
2.	Any technology related to diabetes are at least one of each "glucometer, glucostrips, urine strips".
3.	Any technology related to hypertension & CVDs are at least one of each "blood pressure measuring instrument, weighing scale, stadiometer, stethoscope".
4.	At least one "stethoscope", should be available at the facility for chronic respiratory diseases.
5.	All technologies to be available are at least one "blood pressure measuring instrument, weighing scale, stadiometer, stethoscope, glucometer, glucostrips and urine strips".
6.	Available medicines for Diabetes are "metformin and insulin".
7.	Available medicines for hypertension and CVDs are "aspirin, at least one of each Statin, ACE inhibitor, diuretic, long acting calcium channel blocker".
8.	Available medicines for chronic respiratory diseases are at least one of each of "bronchodilator and a steroid inhalant".
9.	All the medicines to be available are at least one of each "aspirin, a statin, an ACE inhibitor, diuretic, a long acting calcium channel blocker, metformin, insulin, a bronchodilator and a steroid inhalant".

Among the public primary care facilities, essential technologies (as per WHO) for diabetes mellitus are available at 47.5% urban and 52.9% rural, for hypertension and cardiovascular problems at 67.7% urban and 60.0% rural and for chronic respiratory diseases at 99.2% urban and 99.3% rural facilities. Also, essential medicines for diabetes mellitus at 21.0% urban and 20.4% rural facilities, for hypertension and cardiovascular problems at 37.4% urban and 24.6% rural and for chronic respiratory diseases at 15.6% urban and 13.9% rural facilities. In rural areas, only 1.1% public primary care facilities had all the essential medicines and technologies available as per WHO guidelines. *(Table 4.5.1.6)*

IEC materials related to NCDs either displayed/available in waiting room/outpatient department in public primary care facilities

60.9%, 5.2%, 33.3% and 20.7% of public primary care facilities had posters, videos, pamphlets and booklets related to NCDs displayed/available in the waiting room/outpatient department, respectively. *(Annexure table 4.5.1a)*

4.5.2 PUBLIC SECONDARY HEALTH CARE FACILITIES

The public secondary health facilities which includes Community Health Centres (CHCs) and the District hospitals (DHs) were surveyed. As of February 2019, of all the surveyed health facilities, the NPCDCS implementing CHCs were 281, and DHs were 290, while NPCDCS non-implemented CHCs were 105 and DHs were 44. Twenty-nine CHCs and one DH reported status of NPCDCS as unknown, these have been excluded from the analysis. Accordingly, the results from these surveyed facilities have been presented in *tables 4.5.2.1 to 4.5.2.7* below.

KEY FINDINGS

- **Higher** number of **Hypertension and Diabetes mellitus** patients visited NPCDCS implemented DHs in a month than those with other NCDs.
- Among the NPCDCS implemented health facilities, **68.7% of CHCs** and **65.9% of DHs** had written standard treatment guidelines under NPCDCS.
- **1.7%** of NPCDCS implemented DHs had all the essential medicines and technologies as defined by NPCDCS guidelines.

Table 4.5.2.1 Overall facilities and infrastructure available in CHCs and district hospitals for all conditions (Percentage)

Availability of facilities and infrastructure	CHCs		DHs	
	NPCDCS Implemented (n= 281)	NPCDCS Non-implemented (n= 105)	NPCDCS Implemented (n= 290)	NPCDCS Non-implemented (n= 44)
Types of services provided				
Outpatient services	100.0	100.0	100.0	100.0
Inpatient services	91.8	92.4	96.9	95.5
Emergency services	84.7	77.1	94.5	90.9
Intensive Care Unit or Cardiac Care Unit	11.0	9.5	62.8	65.9
Telephone, electricity and ambulance services				
Landline or a mobile telephone number functional on the day of assessment	71.2	65.7	75.2	72.7
Electricity backup functional on the day of assessment	95.0	90.5	99.3	95.5
Ambulance services	96.1	88.6	100.0	100.0

Among the secondary health care facilities, where NPCDCS was implemented, 91.8% CHCs and 96.9% district hospitals provided inpatient services, while 71.2% (CHCs) and 75.2% (DHs) had a functional landline or a mobile telephone number. *(Table 4.5.2.1)*

Table 4.5.2.2 Services available for NCDs in CHCs and district hospitals (Percentage)

Availability of services for NCDs	CHCs		DHs	
	NPCDCS Implemented (n= 281)	NPCDCS Non-implemented (n= 105)	NPCDCS Implemented (n= 290)	NPCDCS Non-implemented (n= 44)
Availability of written standard treatment guidelines under NPCDCS	68.7	-	65.9	-
Management of patients with NCDs				
All are referred/not managed	3.9	14.3	0.7	6.8
Fixed days/day in a week	11.7	1.9	7.9	4.5
Seen daily/no dedicated day	84.3	83.8	91.4	88.6
Availability of facilities for management of NCDs				
NCD clinic	49.5	1.9	60.3	61.4
NCD counselling services	37.7	23.8	64.1	47.7
Physiotherapy	26.7	10.5	75.9	72.7
Laboratory testing for major NCDs	95.7	89.5	99.7	100.0
Day care facilities for management of cancer patients (available for chemotherapy)	2.1	1.0	18.3	34.1

Among surveyed NPCDCS implemented secondary health facilities, 68.7%, 49.5% and 37.7% CHCs and 65.9%, 60.3% and 64.1% district hospitals had written standard treatment guidelines under NPCDCS, NCD clinics and NCD counselling services, respectively. Overall proportion of 84.3% and 91.4% NPCDCS implementing CHCs and DHs had no dedicated day/saw patients with NCDs daily. The day care facilities for management of cancer patients (available for chemotherapy) were reported only in 2.1% and 18.3% of NPCDCS implemented CHCs and DHs correspondingly. *(Table 4.5.2.2)*

Table 4.5.2.3 Average number of patients attending public secondary health centres in the month prior to the survey

NCD category	CHCs		DHs	
	NPCDCS Implemented (n= 281)	NPCDCS Non-implemented (n= 105)	NPCDCS Implemented (n= 290)	NPCDCS Non-implemented (n= 44)
Diabetes mellitus	199	265	508	432
Hypertension	272	271	586	518
Cardiovascular diseases	42	36	147	134
Stroke	9	6	40	33
COPD	143	118	288	95
Cancer	22	1	20	37

In the month before the survey it was observed that average number of patients attending NPCDCS implemented CHCs and DHs with cancer were only 22 and 20, respectively. *(Table 4.5.2.3)*

Table 4.5.2.4 Service availability for management of NCDs in public secondary health centres (Percentage)

Available services for management of NCDs	CHCs		DHs	
	NPCDCS Implemented (n= 281)	NPCDCS Non-implemented (n= 105)	NPCDCS Implemented (n= 290)	NPCDCS Non-implemented (n= 44)
Inpatient services*				
Diabetes mellitus	75.1	72.4	95.9	88.6
Hypertension	78.6	73.3	95.2	95.5
Cardiovascular diseases including Stroke	45.2	46.7	86.9	86.4
COPD	66.9	64.8	87.6	84.1
Cancer	17.6	11.4	45.2	54.5
Outpatient services**				
Diabetes mellitus	99.6	97.1	99.3	97.7
Hypertension	99.6	99.0	99.7	97.7
Cardiovascular diseases including Stroke	82.2	69.5	96.2	95.5
COPD	85.4	82.9	94.8	93.2
Cancer	49.5	32.4	66.9	79.5

*among those facilities providing inpatient services; ** among those facilities providing outpatient services

More than two-thirds and four-fifth of the NPCDCS implemented CHCs and DHs provided inpatient services for diabetes, hypertension and COPD, respectively. While nearly all NPCDCS implemented CHCs and DHs provided outpatient services for diabetes and hypertension. Whereas, inpatient and outpatient services for cancer and CVDs including stroke were comparatively low in NPCDCS implemented CHCs. *(Table 4.5.2.4)*

Table 4.5.2.5 Available human resources (medical staff) in public secondary health centres (Percentage)

Medical staff	CHCs			DHs		
	NPCDCS implemented (n= 281)		NPCDCS Non-implemented (n= 105)	NPCDCS implemented (n= 290)		NPCDCS Non-implemented (n= 44)
	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS / NHM (NCD related)/State	Proportion of health facilities reporting availability of human resources	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS / NHM (NCD related)/State	Proportion of health facilities reporting availability of human resources
Endocrinologist	0.7	0.4	-	1.7	-	4.5
Cardiologist	2.5	0.7	2.9	16.9	3.8	15.9
Medical oncologist	-	-	-	7.2	2.8	18.2
Cytopathologist	2.8	0.0	3.8	15.2	2.8	9.1
Medicine specialist	23.8	4.6	28.6	77.6	15.2	93.2
Surgeon	24.9	3.2	32.4	87.6	10.3	93.2
Obstetrician and Gynaecologist	44.8	6.8	46.7	80.0	13.1	93.2
Ophthalmologist	22.1	2.5	20.0	81.4	9.0	81.8
Other specialists (Anaesthesia, ENT, Paediatrics etc.)	45.2	5.3	51.4	94.5	12.1	100.0
General duty medical officer (MBBS)	94.3	22.4	86.7	93.1	15.5	95.5
AYUSH medical officer	59.4	7.5	51.4	54.5	6.6	47.7
Dentist	59.4	7.1	61.0	90.7	11.7	90.9

Overall, NPCDCS implemented 23.8% CHCs and 77.6% district hospitals reported availability of medicine specialist, while 94.3% and 93.1% CHCs and DHs reported having general duty medical officer (MBBS). 22.4% and 15.5% CHCs and DHs had trained NPCDCS/NHM general duty medical officers. Only 2.5% and 16.9% of NPCDCS implemented CHCs and DHs had a cardiologist. *(Table 4.5.2.5)*

Table 4.5.2.6 Available human resources (paramedical/other staff) in public secondary health centres (Percentage)*

Paramedical / other staff	CHCs			DHs		
	NPCDCS Implemented (n= 281)		NPCDCS Non-implemented (n= 105)	NPCDCS Implemented (n= 290)		NPCDCS Non-implemented (n= 44)
	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS / NHM (NCD related) / State	Proportion of health facilities reporting availability of human resources	Proportion of health facilities reporting availability of human resources	Proportion trained under NPCDCS / NHM (NCD related) / State	Proportion of health facilities reporting availability of human resources
Staff nurse	97.5	23.8	99.0	97.2	18.6	95.5
Lady health visitor/ Female health assistant/PHN	47.7	8.2	46.7	32.8	4.5	54.5
Male health assistant	20.3	4.3	25.7	11.4	1.7	18.2
Auxiliary nurse midwife (ANM)	75.8	12.5	78.1	59.3	8.3	75.0
Male health worker (MPW)	24.6	2.1	27.6	14.1	1.7	13.6
Male nurse assistant	21.7	0.7	24.8	33.1	1.0	34.1
Pharmacist	94.0	11.0	97.1	99.0	9.3	100.0
Lab technician	96.8	10.7	90.5	99.0	13.4	97.7
Counsellor	59.1	10.0	54.3	82.4	13.8	72.7
Physiotherapist	24.6	3.2	11.4	75.2	10.7	79.5
Cytopathology technician	1.8	0.0	1.0	7.9	0.7	9.1
Care coordinator	7.1	2.5	1.0	11.4	1.0	9.1
Data entry operator	61.6	7.1	70.5	77.6	10.3	84.1

*Denominator includes not applicable and don't know responses

More than three-fourth of the NPCDCS implemented CHCs reported availability of nurses, auxiliary nurse midwife, pharmacist and lab technician. Whereas, less than one-third reported availability of male health assistant, MPW, male nurse assistant, physiotherapist, cytopathology technician, care coordinator. It was also observed that 59.1% and 82.4% of NPCDCS implemented CHCs and DHs respectively, reported availability of counsellor, while 99.0% and 75.2% of DHs had pharmacists and physiotherapists, respectively. *(Table 4.5.2.6)*

The percentage of NPCDCS implemented CHCs and district hospitals had trained nurses (23.8% and 18.6%), ANMs (12.5% and 8.3%), pharmacist (11.0% and 9.3%) and lab technician (10.7% and 13.4%), counsellor (10.0% and 13.8%) and data entry operator (7.1% and 10.3%) under NPCDCS/NHM. *(Table 4.5.2.6)*

Table 4.5.2.7 Availability[1] of essential technologies and medicines for NCDs as per NPCDCS guidelines in public secondary health centres (Percentage)

Essential technologies and medicines for NCDs	CHCs		DHs	
	NPCDCS Implemented (n= 281)	NPCDCS Non-implemented (n= 105)	NPCDCS Implemented (n= 290)	NPCDCS Non-implemented (n= 44)
Technologies				
Diabetes[2]	21.7	15.2	50.3	52.3
Hypertension and Cardiovascular diseases[3]	1.1	2.9	20.3	11.4
Chronic respiratory diseases[4]	75.4	65.7	94.5	84.1
Cancer[5]	NA*	NA*	9.7	13.6
All[6]	0.0	0.0	3.1	0.0
Medicines				
Diabetes[7]	55.2	44.8	74.5	75.0
Hypertension and Cardiovascular diseases[8]	39.9	21.9	59.0	63.6
Chronic respiratory diseases[9]	19.2	16.2	36.6	29.5
Cancer[10]	NA*	NA*	96.6	97.7
All[11]	10.0	6.7	25.5	22.7
Both technologies and medicines				
Diabetes[2,7]	17.1	10.5	42.1	43.2
Hypertension and Cardiovascular diseases[3,8]	1.1	1.0	16.6	9.1
Chronic respiratory diseases[4,9]	17.4	14.3	35.2	29.5
Cancer[5,10]	NA*	NA*	9.7	13.6
All[6,11]	0.0	0.0	1.7	0.0

1	Availability of an item is defined as being available within the facility.
2	Availability of any technology related to diabetes refers to availability of at least one "glucometer, biochemical analyser, glucostrips, urine strips reagents/kits for glucose test, reagents/kits for lipid profile, centrifuge and lancets".
3	Availability of any technology related to hypertension/CVDs refers to availability of at least one "blood pressure measuring instrument, weighing scale, stadiometer/wall markings for height, measuring tape, stethoscope, cardiac monitor, defibrillator, ECG machine, 12-Channel stress ECG tread mill and ECG roll".
4	Availability of any technology related to chronic respiratory diseases refers to availability of at least one "nebuliser and pulse oximeter".
5	Availability of any technology related to cancer refers to availability of at least one "torch/examination light, vaginal speculum, x-ray machine, ultrasound machine, CT Scan machine, haemoglobinometer, microscope, dental chair, dental mirror, 5% acetic acid and cotton tipped swabs".
6	All technologies related to major NCDs are at least one "glucometer, biochemical analyser, glucostrips, urine strips reagents/kits for glucose test, reagents/kits for lipid profile, centrifuge, lancets, blood pressure measuring instrument, weighing scale, stadiometer/wall markings for height, measuring tape, stethoscope, cardiac monitor, defibrillator, ECG machine, 12-Channel stress ECG tread mill, ECG roll, nebuliser and pulse oximeter, torch/examination light, vaginal speculum, x-ray machine, ultrasound machine, CT Scan machine, haemoglobinometer, microscope, dental chair, dental mirror, 5% acetic acid and cotton tipped swabs".
7	Availability of medicines related to diabetes includes at least one "hypoglycaemic agent and insulin".
8	Availability of medicines related to hypertension/CVDs are at least one "anti-platelet agent, statin/cholesterol lowering drugs, ACE inhibitor, diuretic, nitrates, long acting calcium channel blocker, beta blocker, drugs for shock and heart failure".
9	Availability of medicines related to chronic respiratory diseases includes at least one "bronchodilator, a steroid inhalant".
10	Availability of medicines related to cancer at least one of each "sedative/tranquilizer, local anaesthetic".
11	All the medicines to be available for major NCDs are at least one of each "hypoglycaemic agent, insulin, anti-platelet agent, statin/cholesterol lowering drugs, ACE inhibitor, diuretic, nitrates, long acting calcium channel blocker, beta blocker, drugs for shock and heart failure, bronchodilator, a steroid inhalant, sedative/tranquilizer, local anaesthetic".
NA* – Not applicable, since NPCDCS guidelines do not prescribe technology and medicines for cancer in CHCs.	

Among the NPCDCS implemented CHCs and DHs, essential technologies were available at 21.7% CHCs and 50.3% DHs for diabetes mellitus, 1.1% CHCs and 20.3% DHs for hypertension and cardiovascular problems and 75.4% CHCs and 94.5% DHs for chronic respiratory diseases. Whereas, essential medicines were available for diabetes mellitus at 55.2% CHCs and 74.5% DHs, hypertension and

cardiovascular problems at 39.9% CHCs and 59.0% DHs and chronic respiratory diseases at 19.2% CHCs and 36.6% DHs. Only 1.7% of NPCDCS implementing district hospitals reported availability of all essential medicines and technologies as per NPCDCS guidelines. *(Table 4.5.2.7)*

IEC materials related to NCDs displayed/available in waiting room/ outpatient department in CHCs and District hospitals

Among the NPCDCS implemented secondary health facilities, 86.8%, 13.2%, 54.4% and 40.2% of CHCs and 83.1%, 19.3%, 61.7% and 48.3% of DHs had posters, videos, pamphlets and booklets related to NCDs displayed/available in waiting room/outpatient department respectively. *(Annexure table 4.5.1a)*

4.5.3 PRIVATE PRIMARY HEALTH CARE FACILITIES

A total of 512 private primary health facilities were surveyed, of which 277 were in the urban and 235 in rural areas. The results from these surveyed facilities are presented in *tables 4.5.3.1 to 4.5.3.3* below.

Table 4.5.3.1 Overall facilities and infrastructure available in private primary health care facilities (Percentage)

Facilities and infrastructure	Urban (n = 277)	Rural (n = 235)
Types of services provided		
Outpatient services	98.6	99.1
Inpatient services	69.7	68.1
Emergency services	64.6	55.3
Intensive Care Unit	41.2	34.5
Availability of any standard treatment guidelines followed for management of NCDs	60.3	50.2
Availability of counselling facilities for risk behaviour		
Tobacco cessation	22.4	20.0
Dietary modification	29.2	20.0
Physical activity	27.4	19.1
Alcohol cessation	21.7	17.0
Screening packages for NCDs as an outpatient service routinely		
Diabetes mellitus	78.7	71.1
Cardiovascular diseases	51.6	38.3
Hypercholesterolemia	51.6	36.2
Oral cancer	23.1	19.1
Cervical cancer	24.2	19.6
Breast cancer	24.9	19.1

Among the private primary health care facilities surveyed, 69.7% provided inpatient services in urban and 68.1% in rural areas. 50.2% and 60.3% of rural and urban facilities respectively, had availability of written standard treatment guidelines for management of NCDs. 78.7% of urban and 71.1% of rural facilities had screening packages for diabetes mellitus, less than one-fourth (urban and rural) facilities had screening packages for oral, cervical and breast cancer as an outpatient service. *(Table 4.5.3.1)*

Table 4.5.3.2 Service availability for management of NCDs in private primary health care facilities (Percentage)

Availability of services for management of NCDs	Urban (n = 277)		Rural (n = 235)	
	Inpatient services*	Outpatient services**	Inpatient services*	Outpatient services**
Diabetes mellitus	86.0	97.1	76.3	90.2
Hypertension	87.6	97.8	75.0	95.3
Cardiovascular problems	59.1	66.8	46.9	57.9
Stroke	58.5	57.8	45.6	49.4
COPD	77.2	80.5	70.6	69.8
Cancer	34.2	37.9	22.5	27.7

*among those facilities providing inpatient services; ** among those facilities providing outpatient services

The outpatient services available at private health care facilities (urban and rural) for hypertension (97.8% and 95.3%), diabetes (97.1% and 90.2%) and COPD (80.5% and 69.8%), respectively. The inpatient services available at (urban and rural) facilities for cardiovascular problems were (59.1% and 46.9%) and COPD (77.2% and 70.6%), respectively. *(Table 4.5.3.2)*

Table 4.5.3.3 Availability[1] of essential technologies and medicines for NCDs in private primary health care facilities (Percentage)

Essential technologies and medicines for NCDs	Technologies		Medicines		Both	
	Urban (n = 277)	Rural (n = 235)	Urban (n = 277)	Rural (n = 235)	Urban (n = 277)	Rural (n = 235)
As per WHO guidelines						
Diabetes mellitus[2,6]	87.4	79.6	62.1	57.0	59.6	51.9
Hypertension and Cardiovascular problems[3,7]	14.8	12.3	46.2	40.4	10.1	7.7
COPD[4,8]	90.3	87.2	59.9	52.8	57.0	51.5
All[5,9]	14.8	11.5	42.6	33.2	9.0	6.8

1	Availability of an item is defined as being available within the facility.
2	At least one of each technology related to Diabetes are glucometer and glucostrips.
3	At least one of each technology related to Hypertension and CVDs are BP apparatus, weighing scale, height scale/stadiometer, measuring tape, stethoscope, cholesterol meter, ECG machine and urine strips.
4	At least one of each technology related to COPD are nebulizer and stethoscope.
5	All technologies related to major NCDs are at least one of each weighing scale, height scale/stadiometer, measuring tape, stethoscope, BP apparatus, nebulizer, glucometer, cholesterol meter, ECG machine, glucostrips and urine strips.
6	Available medicines for Diabetes are at least one oral hypoglycaemic agents and Insulin.
7	Available medicines for Hypertension and CVDs are at least one aspirin, beta-blockers, long-acting calcium channel blockers, ACE inhibitors, statins and thiazide diuretics.
8	Available medicines for COPD are at least one bronchodilator and a steroid inhalant.
9	All the medicines to be available are at least of each aspirin, beta-blockers, long-acting calcium channel blockers, ACE inhibitors, statins and thiazide diuretics, oral hypoglycaemic agents, insulin, a bronchodilator and a steroid inhalant.

The proportion of private health care facilities with essential technologies as per WHO for diabetes mellitus (urban 87.4% and rural 79.6%), hypertension and cardiovascular problems (urban 14.8% and rural 12.3%) and COPD (urban 90.3% and rural 87.2%).

The essential medicines for diabetes mellitus were available at 62.1% (urban) and 57.0% (rural), hypertension and cardiovascular problems 46.2% (urban) and 40.4% (rural) and COPD 59.9% (urban) and 52.8% (rural) facilities. In rural areas, 6.8% private health care facilities had all the essential medicines and technologies available as per WHO guidelines. *(Table 4.5.3.3)*

SECTION 4.6:

YOGA PRACTICES AMONG ADULTS (18–69 YEARS)

4.6 YOGA PRACTICES AMONG ADULTS (18–69 YEARS)

This section presents the response to questions asked on yoga practices to survey respondents. The details on yoga practices like asana, pranayam and meditation were recorded along with the number of days practiced in a week and the hours or minutes spent in these yoga practices.

KEY FINDINGS

- **3.5%** adult men and women (18-69 years) were practicing yoga.
- **38.1** minutes were spent in a day practicing yoga (either asana, pranayam or meditation).

Yoga practices among adults

Figure 4.6.1 Adults who practiced yoga by area of residence and gender (Percentage)

Overall, 3.5% of respondents (men and women) reported practicing yoga, 6.3% urban and 2.1% rural; 4.7% men and 2.3% women *(Figure 4.6.1)*. A proportion of 4.3% of older adults (45-69 years) reported practicing yoga. *(Annexure table 4.6.1a)*

Forms of yoga practiced

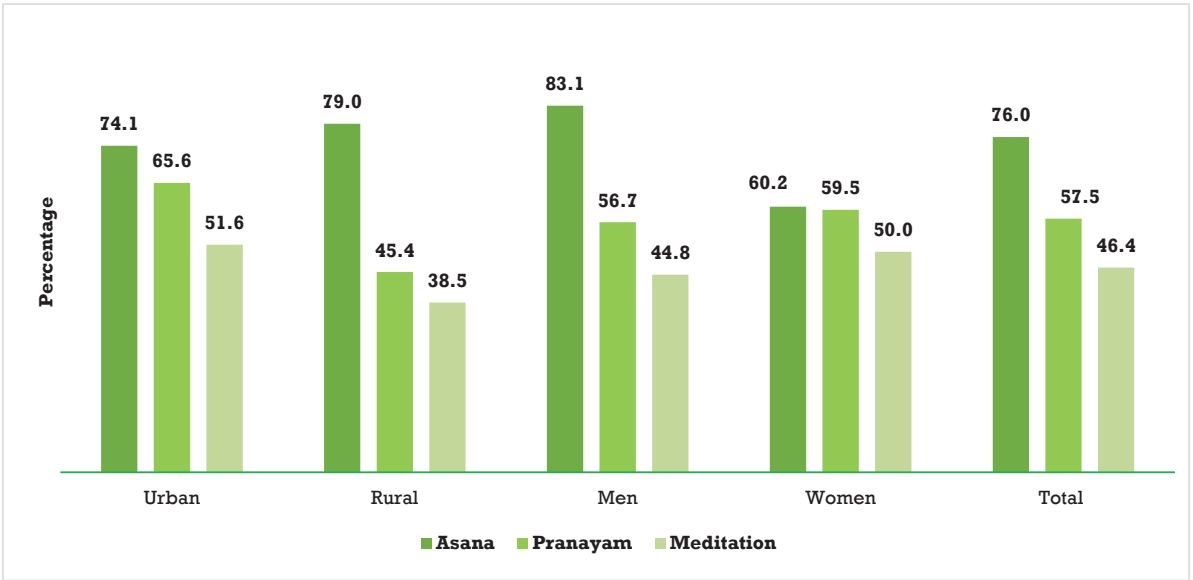


Figure 4.6.2 Adults who practiced asana, pranayam and meditation among those who practiced yoga, by area of residence and gender (Percentage)

Among those who practiced yoga, majority reported practicing asana (76.0%) followed by pranayam (57.5%) and meditation (46.4%)*(Figure 4.6.2).* Yoga asanas were practiced in a higher proportion in rural areas (79.0%), among men (83.1%) and adults in the age group of 45-69 years (81.9%). *(Annexure tables 4.6.2a and b)*

Time spent in yoga practices

Table 4.6.1 Time (minutes) spent in practicing asana, pranayam and meditation in a day among those who practiced yoga by area of residence and gender (Mean)

Form of yoga practice	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Asana	19.2	28.9	22.4	31.2	19.2	29.7	24.9	26.9	25.4
Pranayam	15.4	17.3	16.1	20.7	11.1	18.6	17.3	16.0	16.9
Meditation	15.2	27.0	19.3	18.8	23.1	20.1	16.4	25.8	19.5
Practicing any one of the above	33.4	43.3	37.1	43.2	26.6	39.7	37.9	38.6	38.1

Table 4.6.1 shows that, an average of 38.1 minutes was spent in practicing yoga in a day, this was similar between strata of area of residence and gender. Adults in the age group of 45-69 years spent more minutes practicing yoga (43.2 minutes) than 18-44 years age group (35.1 minutes). It was observed that more time was spent practicing asanas (25.4 minutes) when compared to other yoga practices. Overall time spent practicing meditation (19.5 minutes) was similar across area of residence and age groups, while among the gender, women dedicated 25.8 minutes for meditation while men spent 16.4 minutes. The mean minutes spent in practicing pranayam was 16.9 minutes, with more minutes spent by adults in the rural areas (18.6 minutes), by men (17.3 minutes) and those in the 45-69 years age group (17.4 minutes). *(Annexure table 4.6.3b)*


RECOMMENDATIONS
Salt

CHAPTER 5:

RECOMMENDATIONS

RECOMMENDATIONS

The NNMS survey was implemented successfully as a comprehensive survey covering aspects related to NCDs, risk factors in adults as well as adolescents and health systems response. It has collected very relevant data required for assessing the progress being made at the national level towards achieving the targets laid down in the National NCD Monitoring Framework and NCD Action Plan. The following recommendations are based on the need for NCD prevention and control in the country.

1. **Regularisation of such surveys:** It is important that such surveys as NNMS be carried out at regular intervals to fulfil the requirements of the monitoring of the NCD action plan. The funding and mandate must be earmarked so that timely planning, completion and reporting of the information can be achieved. Simultaneously all states and UTs must also carry out similar surveys on core agreed indicators so as to strengthen their NCD policies and programs. These efforts would also result in strengthening national and sub-national capacities for NCD monitoring.

2. **Setting up of a national NCD surveillance department/unit:** This unit must be established in the Ministry of Health or a designated institution which works closely with the MoHFW and has enough expertise and experience to carry out the functions of NCD surveillance. Primarily, this department/unit would periodically gather, analyse and report timely data for action and closely liaison with the stakeholders for interventions and actions.

3. **Linkages with multi-sectoral actions:** For an effective use of this data, several actions need to be taken by non-health sectors (government and private). Sharing of the results and monitoring suitable actions will be crucial. The National Multisectoral NCD Action Plan and the National SDGs plan can be optimally used for these linkages.

4. **Developing a prioritised national NCD research agenda:** An appropriate research agenda needs to be put in place for at least 10 years so as to guide research and funding priorities and stakeholder engagements to fill the knowledge and operational gaps as relevant to the policies and program requirements.

5. **Strengthen advocacy and dissemination:** Many of the actions for tackling NCDs require an empowered community to participate. Such actions can begin with extensive advocacy and dissemination of information to various sections and regions of the society. An appropriate strategy in this regard would be useful.

CHAPTER 6:

ANNEXURES

A. **Annexure 01 - KISH table selection of adults (18-69 years)**

B. **Annexure 02 - Mapping and Listing - Definitions**

C. **Annexure 03 - Sample weights**

D. **Annexure 04 - Survey result annexures**

CHAPTER 6: ANNEXURES

A. Annexure 01 - KISH table selection of adults (18-69 years)

NOTE: From each selected household, one adult from the age group 18-69 years was selected using KISH method (using a program developed on handheld tablets). The description of KISH methodology of selection of an individual at the household level is provided below with a stepwise selection procedure.

Selection of adult (aged 18-69 years) from the selected household

Process: The table below lists the key stages in using the KISH method for individual sampling at the household level.

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>1</td><td>Using information from household, the list of all usual members of the household were taken as described below. Example:
<table>
<tr><th>Household member (Line No.)</th><th>Gender</th><th>Age</th></tr>
<tr><td>01.</td><td>F</td><td>62</td></tr>
<tr><td>02.</td><td>M</td><td>47</td></tr>
<tr><td>03.</td><td>F</td><td>45</td></tr>
<tr><td>04.</td><td>M</td><td>23</td></tr>
<tr><td>05.</td><td>F</td><td>17</td></tr>
<tr><td>06.</td><td>M</td><td>28</td></tr>
</table></td></tr>
<tr><td>2</td><td>In line 05, a female aged 17 years (i.e. adolescent between 15-17 years age) was selected in the sample directly. However, one individual from the remaining six members (i.e. between the age of 18-69 years) was selected by using KISH selection table.</td></tr>
</table>

Direction to fill out adult members

Adult members within the selected household between the age of 18–69 years were listed in chronological order. At first all males in the household were numbered in order of decreasing age (oldest to youngest), followed by listing of female members in order of decreasing age (oldest to youngest).

Example:

Gender	Age	Adult number
M	47	1
M	28	2
M	23	**3**
F	62	4
F	45	5

Use of KISH selection table

One of the following eight tables were used for the selection of individuals between the age group of 18-69 years.

Selection table A	
If no. of adults is:	Select adult no.
1	1
2	1
3	1
4	1
5	1
6 or more	1

Selection table B1	
If no. of adults is:	Select adult no.
1	1
2	1
3	1
4	1
5	2
6 or more	2

Selection table B2	
If no. of adults is:	Select adult no.
1	1
2	1
3	1
4	2
5	2
6 or more	2

Selection table C	
If no. of adults is:	Select adult no.
1	1
2	1
3	2
4	2
5	3
6 or more	3

Selection table D	
If no. of adults is:	Select adult no.
1	1
2	2
3	2
4	3
5	4
6 or more	4

Selection table E1	
If no. of adults is:	Select adult no.
1	1
2	2
3	3
4	3
5	3
6 or more	5

Selection table E2	
If no. of adults is:	Select adult no.
1	1
2	2
3	3
4	4
5	5
6 or more	5

Selection table F	
If no. of adults is:	Select adult no.
1	1
2	2
3	3
4	4
5	5
6 or more	6

If the selected table number was C and there were 5 adults in the household between age group of 18-69 years, then the adult numbered 3 was selected as the respondent.

KISH table and household list

Directions: The household number assigned to the selected 20 households was matched with the table below and corresponding KISH summary of eight tables was identified.

Household	KISH selection table	Household	KISH selection table
1	A	11	F
2	A	12	F
3	B1	13	A
4	B2	14	A
5	C	15	B1
6	C	16	B2
7	D	17	C
8	D	18	C
9	E1	19	D
10	E2	20	D

B. Annexure 02 - Mapping and Listing - Definitions

Table 2 Mapping and Listing - Definitions

Location map	The location map was a reference picture of a PSU. It was prepared for the entire village(s) for rural areas and CEB for urban areas.
Layout sketch map	It is a detailed map of the census block or village showing all the streets and built structures within the street.
Structure	A structure was defined as a free standing building having one or more rooms.
Dwelling	A dwelling unit was a room or group of rooms occupied by one or more households (for example: a single house, an apartment, a group of rooms in a house), which had an independent entrance from the street, corridor or other common or public area.
Household	Constituted a person or group of persons who commonly live together and would take meals from a common kitchen unless the exigencies of work prevented any of them from doing so.
Head of the household	The head of the household was the person usually responsible for the maintenance of the household and was acknowledged as a decision maker/as such by all members of the household.

C. Annexure 03 – Sample weights

First, appropriate sampling weights for households were constructed for each state data set separately for Urban and Rural areas. The element weight consisted of factors reflecting ward selection probabilities, Census Enumeration Block (CEB) selection probabilities within wards, household selection probabilities within CEB and household non-response adjustments.

In urban areas, from the list of wards, 300 wards were selected with PPS and from each ward 20 household were selected using circular systematic sampling.

For urban areas, the weight HWT_{ijk} for the household k in CEB j of ward i, can be expressed as follows

$HWT_{ijk} = W_{1i} * W_{2j|i} * W_{3k|i,j}$ i=1,2,.....,300 , j=1, k=1,2,.....,20

where $W_{1i} = \frac{1}{\pi_i}$: the reciprocal of the inclusion probability π_i of ward i

where $\pi_i = \frac{a \times \text{Population of ward i}}{\text{Total urban population}}$ and a (=300) was the total number of wards to be selected from the urban areas.

$W_{2j/i} = \frac{1}{\pi_{j|i}}$: the reciprocal of the conditional probability of selection of CEB j in ward i

where $\pi_{j|i} = \frac{\text{Population of selected CEB j within ward i}}{\text{Population of selected ward i}}$

$W_{3k|i,j} = \frac{1}{\pi_{k|i,j} \times \hat{\theta}_{k|i,j}}$: the reciprocal of the product of conditional inclusion probability $\pi_{k|i,j}$ of household k in the j[th] selected CEB of the i[th] ward and estimated conditional response probability $\hat{\theta}_{k|i,j}$ of household k from within the j[th] selected CEB of ward i.

where $\pi_{k|i,j} = \frac{\text{Number of households sampled from selected CEB j of ward i}}{\text{Number of households in selected CEB j of ward i}}$

$$HWT_{ijk} = \frac{\text{Size of urban population}}{20 \times \text{Population of selected CEB from ward i}} \times \frac{\text{Number of households in selected CEB of ward i}}{\text{Number of households sampled from selected CEB of ward i with HH result code completed}}$$

In rural areas, from the lists of villages, 300 villages (or cluster of villages) were selected with probability proportional to size and from each village 20 households were selected using systematic sampling.

Proceeding as above it can be shown that the weight for the k^{th} selected household of the i^{th} selected village, HWT_{ik},

$$HWT_{ik} = \frac{\text{Size of rural population}}{20 \times \text{Population of } i^{th} \text{ selected village}} \times$$

$$\frac{\text{Number of households in } i^{th} \text{ selected village}}{\text{Number of households selected from } i^{th} \text{ village with HH result code complete}}$$

INDIVIDUAL WEIGHTS

From each selected household one member aged 18-69 were selected using the KISH method. Post stratification weights for individuals were constructed using the state age distributions for both gender of the urban areas which are available on the population level. At first, the target population aged 18-69 were divided into two groups, based on categories of age (18-44 and 45-69) and gender (men and women).

In the subsequent lines the symbol "***l***" was used to denote the age group and "**m**" for gender.

Age group (*l*)	Gender (m)
$l = 1$ if age group (18-44)	m = 1 for men
$l = 2$ if age group (45-69)	m = 2 for women

For urban areas,

Define:

$$\delta_{ijknlm} = \begin{cases} 1 & \text{if } n^{th} \text{ selected respondent of the } k^{th} \text{ household of the } j^{th} \text{ CEB of the } i^{th} \\ & \text{ward belongs to age groups "} l \text{" and gender "m"} \\ 0 & \text{otherwise} \end{cases}$$

$\widehat{N}_{lm}$ = estimated number of persons of age group "l" and gender "m" if one person from the list of persons aged 18-69 was selected from household (l=1,2 and m=1,2)

$\widehat{N}_{lm}$ is obtained as

$$\widehat{N}_{lm} = \frac{1}{\hat{\theta}_{lm}} \sum_{overall\ possible\ values\ of\ i,j,k,n} HWT_{ijk} \times \delta_{ijknlm}$$

Where $\hat{\theta}_{lm}$ is the estimated group response rate.

Calibrated individual weight for urban areas

$$IWT_{ijklm} = \frac{N_{lm}}{\hat{N}_{lm}} \text{ x } HWT_{ijk}$$

Denoted by

N_{lm} = number of persons who belonged to gender "m" and age group "l" in the urban areas. (l = 1,2 and gender m =1,2)

Y_{ijkn} = the observed value of the study variable for the respondent "n" belonging to household "k", CEB j and ward i.

Estimate of the population total of gender group "m" and age group "l" is

$$\hat{Y}_{l,m} = \sum_{overall\ possible\ values\ of\ i,j,k,n} \delta_{ijknlm} \times IWT_{ijklm}$$

$$\hat{N}_{l.} = \hat{N}_{l1} + \hat{N}_{l2} \quad , \quad \hat{Y}_{l.} = \hat{Y}_{l1} + \hat{Y}_{l2} \ , \qquad l = 1, 2$$

$$\hat{N}_{.m} = \hat{N}_{1m} + \hat{N}_{2m} \ , \quad \hat{Y}_{.m} = \hat{Y}_{1m} + \hat{Y}_{2m} \ , \quad \text{m=1,2}$$

$$\hat{N} = \sum_{l=1}^{2} \sum_{m=1}^{2} \hat{N}_{l,m} \quad , \quad \hat{Y} = \sum_{l=1}^{2} \sum_{m=1}^{2} \hat{Y}_{l,m}$$

Estimate of the mean of the study variable for gender group m and age group l, $\hat{Y}_{lm}$ for and overall are

$\frac{\hat{Y}_{lm}}{\hat{N}_{lm}}$ $\frac{\hat{Y}_{m.}}{\hat{N}_{m.}}$ $\frac{\hat{Y}_{.l}}{\hat{N}_{.l}}$ $\frac{\hat{Y}}{\hat{N}}$ respectively

For rural areas,

Define:

$$\delta_{iknlm} = \begin{cases} 1 & \text{if n}^{th} \text{ selected respondent of the k}^{th} \text{ household of the i}^{th} \text{ village} \\ & \text{belongs to age group "}l\text{" and of gender "m".} \\ 0 & \text{otherwise} \end{cases}$$

N_{lm} = estimated number of persons of age group "l" and gender "m" if one person from the list of persons aged 18-69 was selected from household (l=1,2 and m=1,2)

$\hat{N}_{lm}$ is obtained as $\hat{N}_{lm} = \frac{1}{\hat{\Theta}_{lm}} \Sigma_{overall\ possible\ values\ of\ i,j,k,n} HWT_{ik} \times \delta_{ijknlm}$

Where $\hat{\theta}_{lm}$ is the estimated group response rates.

Calibrated individual weight for rural areas

$$IWT_{iklm} = \frac{N_{lm}}{\widehat{N}_{lm}} \times HWT_{ik}$$

Denoted by

N_{lm} = number of person of gender m belonging to age group "l" in the rural areas of the population

(l = 1,2 and gender m =1,2)

Y_{ikn} = the observed value of the study variable for the respondent "n" belonging to household "k" of village i.

Estimate of the population total of gender group m and age group "l"is

$$\widehat{Y}_{lm} = \sum_{overall\ possible\ values\ of\ i,j,k,n} \delta_{ijknlm} \times y_{ikn} \times IWT_{ijklm}$$

Estimate of the mean of the study variable for age-gender group "l'' and "m", gender group "m", age group "l'' and overall mean can be obtained.

Individual sample weights for adolescents aged 15-17 years followed the similar procedure as described above.

D. Annexure 04 – Survey result annexures

4.1 CHARACTERISTICS OF HOUSEHOLD AND RESPONDENTS

Table 4.1.2.1a Household characteristics by area of residence (Percentage)

	Urban	Rural	Total
	(95% CI)		
Type of house			
Pucca	**65.7**	**35.2**	**45.1**
	(60.6-70.4)	(31.4-39.2)	(41.9-48.3)
Semi-pucca	**27.5**	**36.9**	**33.9**
	(23.2-32.4)	(33.8-40.2)	(31.4-36.5)
Kachha	**6.8**	**27.9**	**21.0**
	(5.1-8.9)	(23.8-32.2)	(18.1-24.2)
Type of toilet			
Own flush toilet	**40.6**	**23.4**	**29.0**
	(35.3-46.2)	(19.6-27.7)	(25.8-32.4)
Shared flush toilet	**5.9**	**2.8**	**3.8**
	(4.7-7.4)	(2.1-3.8)	(3.2-4.6)
Own pit toilet	**40.3**	**31.7**	**34.5**
	(36.0-44.9)	(27.4-36.4)	(31.2-38.0)
Shared pit toilet	**6.2**	**3.6**	**4.4**
	(4.5-8.4)	(2.8-4.6)	(3.6-5.4)
Open defecation[1](Includes no facility)	**6.7**	**38.2**	**28.0**
	(4.7-9.6)	(33.3-43.4)	(24.4-32.0)
Don't know	**0.3**	**0.3**	**0.3**
	(0.1-0.6)	(0.1-0.5)	(0.1-0.4)
Main source of drinking water			
Piped supply, hand pump, well at dwelling/packaged water	**56.2**	**45.5**	**49.0**
	(49.6-62.6)	(41.4-49.6)	(45.5-52.5)
Public - tap/well/hand pump/tanker	**43.3**	**52.9**	**49.8**
	(36.9-49.9)	(48.7-57.0)	(46.3-53.3)
Others	**0.4**	**1.5**	**1.1**
	(0.2-0.8)	(0.7-3.2)	(0.6-2.2)
Don't know	**0.1**	**0.1**	**0.1**
	(0.008-0.4)	(0.03-0.3)	(0.03-0.2)

[1]disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste

Table 4.1.2.2a Fuel used for cooking among households by area of residence (Percentage)

	Urban	Rural	Total
	(95% CI)		
Types of fuel used for cooking			
Electricity	**11.6**	**6.4**	**8.1**
	(9.0-14.8)	(5.0-8.0)	(6.8-9.6)
LPG/Natural gas	**91.0**	**53.2**	**65.5**
	(88.4-93.1)	(48.7-57.6)	(61.9-68.9)
Biogas	**0.7**	**0.4**	**0.5**
	(0.3-1.4)	(0.2-0.6)	(0.3-0.7)
Kerosene	**6.6**	**8.9**	**8.2**
	(4.9-9.0)	(7.1-11.2)	(6.8-9.8)
Coal/lignite	**1.8**	**1.4**	**1.6**
	(1.1-3.0)	(1.0-2.1)	(1.2-2.1)
Charcoal	**1.4**	**0.9**	**1.0**
	(0.7-2.7)	(0.6-1.3)	(0.7-1.5)
Wood	**31.8**	**84.6**	**67.4**
	(26.5-37.7)	(81.4-87.2)	(64.1-70.5)
Straw/shrubs/grass	**3.8**	**17.6**	**13.1**
	(2.4-5.9)	(14.3-21.5)	(10.7-15.9)
Agricultural crop waste	**2.2**	**13.4**	**9.8**
	(1.3-3.8)	(10.9-16.4)	(8.0-11.9)
Dung cakes	**8.0**	**41.9**	**30.9**
	(5.5-11.3)	(36.4-47.6)	(26.9-35.2)
Others	**0.002**	**0.0**	**0.001**
	(0.0002-0.01)	(0.0-0.0)	(0.0001-0.004)
Solid fuels*	**34.5**	**86.5**	**69.6**
	(29.0 – 40.3)	(83.5 – 89.0)	(66.4 – 70.4)
Clean energy sources**	**91.4**	**55.6**	**67.2**
	(88.8 – 93.6)	(51.3 – 59.8)	(63.8 – 70.4)
Main fuel type used for cooking			
Electricity	**0.3**	**0.1**	**0.2**
	(0.1-0.5)	(0.1-0.3)	(0.1-0.3)
LPG/Natural gas	**83.5**	**30.7**	**47.9**
	(80.1-86.4)	(26.8-34.9)	(44.3-51.5)
Biogas	**0.1**	**0.1**	**0.1**
	(0.03-0.4)	(0.02-0.2)	(0.04-0.2)
Kerosene	**0.5**	**0.2**	**0.3**
	(0.3-0.9)	(0.1-0.4)	(0.2-0.4)
Coal/lignite	**0.8**	**0.5**	**0.6**
	(0.4-1.6)	(0.3-0.8)	(0.4-0.9)
Charcoal	**0.2**	**0.1**	**0.1**
	(0.1-0.8)	(0.02-0.2)	(0.05-0.3)
Wood	**13.0**	**58.6**	**43.7**
	(10.4-16.2)	(54.3-62.7)	(40.4-47.2)
Straw/shrubs/grass	**0.1**	**1.8**	**1.2**
	(0.03-0.4)	(1.0-3.1)	(0.7-2.1)
Agricultural crop waste	**0.0**	**0.5**	**0.4**
	(0.0-0.0)	(0.3-1.1)	(0.2-0.7)
Dung cakes	**1.4**	**7.3**	**5.4**
	(0.6-3.2)	(5.1-10.4)	(3.8-7.6)
Others	-	-	-
Don't know	**0.1**	**0.1**	**0.1**
	(0.01-0.4)	(0.03-1.0)	(0.03-0.6)

*solid fuels include wood, coal/lignite, charcoal, straw/shrubs/grass, agricultural crop waste and dung cakes
**clean energy sources include electricity, LPG/natural gas and biogas

Table 4.1.2.3a Oil used for cooking among households by area of residence (Percentage)

	Urban	Rural	Total
	(95% CI)		
Type of Oil used for cooking			
Mustard oil	**36.1**	**63.0**	**54.3**
	(28.3-44.6)	(56.5-69.2)	(48.9-59.6)
Soya bean oil	**31.5**	**29.1**	**29.9**
	(25.3-38.4)	(24.7-34.0)	(26.3-33.8)
Pure ghee	**35.3**	**25.5**	**28.7**
	(30.0-40.9)	(21.7-29.7)	(25.6-32.0)
Sunflower oil	**31.6**	**17.9**	**22.4**
	(26.0-37.8)	(14.2-22.3)	(19.1-26.0)
Palm oil	**15.8**	**14.0**	**14.6**
	(12.1-20.5)	(10.9-17.7)	(12.1-17.4)
Groundnut oil	**19.1**	**11.7**	**14.1**
	(14.6-24.4)	(9.4-14.5)	(11.8-16.7)
Butter	**11.4**	**7.7**	**8.9**
	(8.8-14.7)	(6.0-9.8)	(7.4-10.6)
Vanaspati	**6.7**	**7.3**	**7.1**
	(4.9-9.0)	(5.7-9.2)	(5.8-8.5)
Sesame oil	**7.3**	**2.7**	**4.2**
	(4.4-11.9)	(1.7-4.1)	(2.9-5.9)
Coconut oil	**9.4**	**1.5**	**4.1**
	(6.1-14.3)	(1.1-2.1)	(2.9-5.7)
Other	**1.8**	**3.7**	**3.0**
	(0.8-3.8)	(2.0-6.7)	(1.8-5.1)
Rice bran oil	**2.1**	**0.6**	**1.1**
	(1.4-3.2)	(0.3-1.1)	(0.7-1.6)

Table 4.1.2.4a Type of ration card among households by area of residence (Percentage)

	Urban	Rural	Total
	(95% CI)		
Type of ration card holder			
Antyodaya	**2.4**	**8.1**	**6.2**
	(1.6-3.6)	(5.9-11.0)	(4.6-8.3)
Below Poverty Line	**45.0**	**52.7**	**50.2**
	(38.4-51.7)	(48.5-56.8)	(46.7-53.7)
Above Poverty Line	**34.2**	**23.5**	**27.0**
	(28.8-40.1)	(20.1-27.2)	(24.0-30.1)
No ration card	**16.8**	**14.1**	**15.0**
	(13.7-20.3)	(11.8-16.7)	(13.1-17.0)
Don't know	**1.6**	**1.6**	**1.6**
	(1.1-2.6)	(1.2-2.5)	(1.3-2.3)

4.1 CHARACTERISTICS OF HOUSEHOLD AND RESPONDENTS

Individual characteristics – adults (18-69 years)

Table 4.1.3.1a Background characteristics of adults by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Age group (in years)									
18 - 44	**69.0**	**67.4**	**68.2**	**70.8**	**70.0**	**70.4**	**70.2**	**69.1**	**69.7**
	(64.9-72.8)	(64.3-70.3)	(65.1-71.2)	(68.3-73.3)	(67.5-72.3)	(68.3-72.4)	(68.0-72.3)	(67.2-71.0)	(67.9-71.4)
45 - 69	**31.0**	**32.6**	**31.8**	**29.2**	**30.0**	**29.6**	**29.8**	**30.9**	**30.3**
	(27.2-35.1)	(29.7-35.7)	(28.8-34.9)	(26.7-31.7)	(27.7-32.5)	(27.6-31.7)	(27.7-32.0)	(29.0-32.8)	(28.6-32.1)
Educational Status									
No education	**7.3**	**23.3**	**14.8**	**22.0**	**50.3**	**35.8**	**16.9**	**41.6**	**28.8**
	(5.6-9.3)	(19.3-28.0)	(12.6-17.4)	(19.4-24.8)	(47.1-53.6)	(33.3-38.4)	(15.0-19.1)	(38.8-44.4)	(26.7-30.9)
Attended formal education	**92.6**	**76.5**	**85.1**	**77.8**	**49.2**	**63.9**	**82.9**	**58.1**	**71.0**
	(90.5-94.3)	(71.9-80.5)	(82.5-87.3)	(74.9-80.5)	(46.0-52.4)	(61.3-66.4)	(80.7-84.9)	(55.2-60.9)	(68.8-73.1)
Home schooled	**0.1**	**0.2**	**0.1**	**0.2**	**0.5**	**0.3**	**0.2**	**0.3**	**0.2**
	(0.03-0.4)	(0.1-0.4)	(0.1-0.3)	(0.1-0.7)	(0.2-0.8)	(0.2-0.6)	(0.1-0.5)	(0.2-0.6)	(0.1-0.4)
Highest Level of Education									
Less than Class 6	**12.2**	**18.1**	**14.7**	**26.8**	**32.1**	**28.9**	**21.0**	**26.2**	**23.1**
	(10.0-14.8)	(14.6-22.4)	(12.6-17.1)	(23.4-30.4)	(27.9-36.5)	(25.7-32.0)	(18.8-23.7)	(23.2-29.3)	(21.0-25.4)
Class 6 to 10	**37.7**	**43.3**	**40.0**	**46.9**	**47.6**	**47.2**	**43.4**	**45.8**	**44.3**
	(33.5-42.1)	(39.2-47.5)	(36.8-43.4)	(43.5-50.3)	(44.2-51.2)	(44.5-49.9)	(40.7-46.1)	(43.1-48.5)	(42.2-46.4)
Class 11 to 12	**19.7**	**14.7**	**17.6**	**13.6**	**12.1**	**13.0**	**16.0**	**13.2**	**14.9**
	(17.0-22.8)	(11.8-18.1)	(15.4-20.0)	(11.9-15.5)	(9.9-14.7)	(11.6-14.7)	(14.4-17.7)	(11.4-15.2)	(13.6-16.3)
Graduation or diploma completed	**21.2**	**15.3**	**18.7**	**10.8**	**5.9**	**8.9**	**14.8**	**9.9**	**12.9**
	(18.2-24.4)	(12.4-18.7)	(16.4-21.3)	(8.8-13.1)	(4.6-7.6)	(7.5-10.6)	(13.0-16.7)	(8.4-11.7)	(11.5-14.3)
Post graduate degree	**9.0**	**8.5**	**8.8**	**1.8**	**2.1**	**1.9**	**4.6**	**4.8**	**4.7**
	(7.0-11.4)	(6.5-10.9)	(7.1-10.8)	(1.3-2.7)	(1.3-3.4)	(1.4-2.6)	(3.7-5.7)	(3.8-6.1)	(3.9-5.6)
No response	**0.2**	**0.1**	**0.2**	**0.1**	**0.2**	**0.1**	**0.2**	**0.1**	**0.1**
	(0.04-1.0)	(0.01-0.7)	(0.04-0.6)	(0.03-0.5)	(0.04-0.6)	(0.1-0.4)	(0.1-0.4)	(0.04-0.4)	(0.1-0.3)
Occupation									
Professional	**14.1**	**4.8**	**9.9**	**4.6**	**1.3**	**2.9**	**7.9**	**2.2**	**5.4**

	(11.0-18.0)	(3.5-6.5)	(7.9-12.1)	(3.6-5.8)	(0.8-2.0)	(2.4-3.7)	(6.5-9.4)	(1.9-3.2)	(4.5-6.2)
Medium or large Business	**5.7**	**0.2**	**3.1**	**1.3**	**0.1**	**0.7**	**2.8**	**0.1**	**1.5**
	(4.0-8.0)	(0.1-0.5)	(2.2-4.4)	(0.8-2.3)	(0.0-0.5)	(0.4-1.3)	(2.1-3.8)	(0.1-0.3)	(1.1-2.1)
Middle/senior executive/officer in organization	**4.0**	**1.0**	**2.6**	**0.9**	**0.2**	**0.5**	**1.9**	**0.5**	**1.2**
	(2.6-5.9)	(0.6-1.9)	(1.8-3.7)	(0.5-1.5)	(0.1-0.5)	(0.3-0.9)	(1.4-2.7)	(0.3-0.8)	(0.9-1.7)
Agricultural land owner	**2.0**	**0.2**	**1.1**	**13.5**	**2.2**	**8.0**	**9.6**	**1.6**	**5.7**
	(1.0-3.9)	(0.1-0.5)	(0.6-2.2)	(11.0-16.6)	(1.3-3.8)	(6.5-9.9)	(7.8-11.7)	(0.9-2.7)	(4.6-7.0)
Sales and Marketing executives/clerk	**4.8**	**0.8**	**2.9**	**0.9**	**0.1**	**0.6**	**2.3**	**0.4**	**1.4**
	(3.3-6.9)	(0.4-1.7)	(2.1-4.1)	(0.6-1.6)	(0.1-0.3)	(0.3-0.9)	(1.7-3.1)	(0.2-0.6)	(1.0-1.8)
Self-employed and small business	**18.8**	**3.1**	**11.5**	**8.8**	**1.4**	**5.2**	**12.2**	**2.0**	**7.3**
	(15.4-22.8)	(2.2-4.5)	(9.6-13.7)	(7.3-10.5)	(0.9-2.2)	(4.4-6.1)	(10.6-14.1)	(1.5-2.6)	(6.4-8.3)
Skilled manual labourer	**16.3**	**5.2**	**11.1**	**11.7**	**3.1**	**7.5**	**13.3**	**3.8**	**8.7**
	(13.3-19.9)	(2.9-9.1)	(9.3-13.2)	(9.7-14.0)	(2.1-4.5)	(6.3-8.9)	(11.6-15.2))	(2.7-5.3)	(7.7-9.8)
Unskilled manual/agricultural labourer	**16.2**	**9.6**	**13.1**	**43.3**	**19.2**	**31.5**	**34.0**	**16.1**	**25.4**
	(13.0-20.1)	(6.7-13.6)	(10.7-16.0)	(39.6-47.0)	(16.2-22.6)	(28.8-34.4)	(31.1-37.0)	(13.8-18.6)	(23.3-27.6)
Student	**6.9**	**4.5**	**5.7**	**5.7**	**2.3**	**4.1**	**6.1**	**3.0**	**4.6**
	(5.3-8.9)	(3.2-6.2)	(4.6-7.1)	(4.6-7.0)	(1.7-3.2)	(3.4-4.8)	(5.2-7.2)	(2.4-3.8)	(4.0-5.3)
Homemaker	**1.0**	**66.0**	**31.4**	**0.5**	**67.3**	**33.1**	**0.7**	**66.9**	**32.5**
	(0.4-2.5)	(60.5-71.1)	(28.6-34.3)	(0.3-1.0)	(63.1-71.3)	(30.5-35.7)	(0.4-1.2)	(63.5-70.1)	(30.6-34.5)
Retired	**3.8**	**0.6**	**2.3**	**1.6**	**0.1**	**0.9**	**2.4**	**0.3**	**1.3**
	(3.0-5.0)	(0.3-1.1)	(1.8-3.0)	(1.0-2.4)	(0.03-0.4)	(0.6-1.3)	(1.9-3.0)	(0.1-0.5)	(1.1-1.7)
Unemployed (able to work)	**4.2**	**2.8**	**3.5**	**5.0**	**1.6**	**3.4**	**4.7**	**2.0**	**3.4**
	(2.9-5.9)	(1.7-4.7)	(2.7-4.6)	(3.9-6.5)	(1.0-2.6)	(2.7-4.2)	(3.8-5.8)	(1.4-2.8)	(2.9-4.1)
Unemployed (unable to work)	**2.1**	**1.2**	**1.7**	**2.0**	**1.0**	**1.5**	**2.0**	**1.0**	**1.5**
	(1.2-3.8)	(0.5-2.4)	(1.0-2.6)	(1.5-2.6)	(0.6-1.6)	(1.2-1.9)	(1.5-2.6)	(0.7-1.6)	(1.2-1.9)
No response	**0.1**	**0.03**	**0.1**	**0.2**	**0.1**	**0.1**	**0.1**	**0.05**	**0.1**
	(0.01-0.7)	(0.01-0.1)	(0.01-0.3)	(0.06-0.5)	(0.02-0.2)	(0.1-0.3)	(0.1-0.4)	(0.02-0.2)	(0.05-0.2)
Marital Status									
Never married	**20.8**	**8.7**	**15.1**	**19.0**	**5.9**	**12.6**	**19.6**	**6.9**	**13.5**
	(17.9-23.8)	(6.7-11.1)	(13.1-17.2)	(16.9-21.4)	(4.9-7.2)	(11.4-14.0)	(17.9-21.5)	(5.8-8.0)	(12.4-14.6)
Living in /cohabiting/Currently married (Including non-cohabiting)	**76.9**	**77.9**	**77.4**	**78.9**	**81.9**	**80.4**	**78.3**	**80.6**	**79.4**
	(73.5-80.1)	(75.0-80.5)	(75.1-79.5)	(76.6-81.1)	(79.9-83.7)	(78.9-81.8)	(76.3-80.0)	(79.0-82.1)	(78.1-80.6)
Not living together/ Separated/Divorced	**0.6**	**1.1**	**0.9**	**0.4**	**1.3**	**0.8**	**0.4**	**1.2**	**0.8**
	(0.3-1.5)	(0.6-2.1)	(0.5-1.4)	(0.2-0.7)	(0.8-2.1)	(0.5-1.2)	(0.2-0.8)	(0.8-1.8)	(0.6-1.1)
Widowed	**1.7**	**12.2**	**6.6**	**1.7**	**10.9**	**6.2**	**1.7**	**11.3**	**6.3**
	(1.0-2.9)	(10.1-14.7)	(5.6-7.9)	(1.2-2.4)	(9.5-12.3)	(5.4-7.1)	(1.3-2.3)	(10.1-12.6)	(5.7-7.0)
Don't know	**0.0**	**0.1**	**0.05**	**0.0**	**0.0**	**0.0**	**0.0**	**0.04**	**0.02**
	(0.0-0.0)	(0.03-0.4)	(0.01-0.2)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.01-0.1)	(0.005-0.1)

Individual characteristics – adolescents (15-17 years)

Table 4.1.3.2a Background characteristics of adolescents by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Educational Status									
Attended formal education	**98.2**	**96.3**	**97.3**	**94.3**	**91.0**	**92.7**	**95.6**	**92.6**	**94.2**
	(95.0-99.4)	(91.4-98.5)	(94.7-98.7)	(90.9-96.5)	(87.5-93.6)	(90.3-94.6)	(93.2-97.2)	(89.9-94.7)	(92.4-95.6)
Highest Level of Education									
Primary	**0.8**	**1.0**	**1.0**	**2.4**	**5.6**	**4.0**	**1.9**	**4.2**	**3.0**
	(0.2-2.7)	(0.3-3.3)	(0.4-2.1)	(1.1-5.1)	(3.6-8.7)	(2.7-5.8)	(0.9-3.7)	(2.8-6.3)	(2.0-4.3)
Middle school	**9.6**	**11.2**	**10.3**	**13.4**	**22.0**	**17.5**	**12.1**	**18.6**	**15.2**
	(5.9-15.4)	(7.0-17.5)	(7.1-14.8)	(9.7-18.2)	(17.1-27.9)	(14.2-21.5)	(9.3-15.7)	(14.8-23.1)	(12.6-18.2)
High school and higher secondary school	**88.4**	**84.7**	**86.7**	**82.0**	**69.0**	**75.8**	**84.2**	**73.9**	**79.3**
	(82.6-92.4)	(78.3-89.5)	(82.2-90.3)	(76.5-86.4)	(62.9-74.5)	(71.3-79.7)	(80.1-87.5)	(69.2-78.2)	(76.0-82.3)
Doing Graduation	**1.2**	**3.1**	**2.0**	**1.7**	**3.4**	**2.5**	**1.5**	**3.3**	**2.3**
	(0.4-3.4)	(1.3-6.9)	(1.0-3.9)	(0.7-4.2)	(1.5-7.2)	(1.4-4.5)	(0.7-3.2)	(1.8-5.9)	(1.5-3.7)
No response	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.2**	**0.3**	**0.0**	**0.2**
	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.1-3.3)	(0.0-0.0)	(0.03-1.7)	(0.04-2.2)	(0.0-0.0)	(0.02-1.2)

4.2 NCD RISK FACTORS – ADULTS (18-69 YEARS)

4.2.1 Tobacco use

Table 4.2.1.1a Tobacco use (any form) by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Never user	55.8	90.8	72.1	36.9	83.7	59.7	43.4	86.0	63.9
	(50.6-60.8)	(87.1-93.5)	(68.0-75.9)	(33.9-40.1)	(80.9-86.2)	(57.1-62.3)	(40.5-46.3)	(83.8-88.0)	(61.6-66.1)
Current user	39.4	8.8	25.1	57.3	15.1	36.8	51.2	13.0	32.8
	(34.5-44.5)	(6.1-12.5)	(21.5-29.2)	(54.0-60.5)	(12.7-17.8)	(34.3-39.2)	(48.3-54.1)	(11.1-15.2)	(30.8-35.0)
Past user	4.8	0.4	2.8	5.8	1.2	3.5	5.4	1.0	3.3
	(3.6-6.3)	(0.2-0.8)	(2.1-3.6)	(4.7-7.0)	(0.8-1.7)	(2.9-4.3)	(4.6-6.4)	(0.7-1.3)	(2.8-3.8)

Table 4.2.1.1b Tobacco use (any form) by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Never user	54.7	92.8	72.3	40.0	87.2	62.8	44.9	89.0	65.9
	(49.0-60.3)	(89.3-95.2)	(68.0-76.2)	(36.2-43.9)	(83.7-90.0)	(59.9-65.7)	(41.7-48.2)	(86.4-91.1)	(63.5-68.3)
Current user	41.6	6.9	25.6	55.4	11.7	34.3	50.8	10.2	31.5
	(35.9-47.6)	(4.5-10.4)	(21.6-30.0)	(51.6-59.2)	(9.0-15.1)	(31.7-37.0)	(47.6-54.0)	(8.1-12.7)	(29.2-33.8)
Past user	3.7	0.3	2.1	4.6	1.1	2.9	4.3	0.8	2.6
	(2.4-5.6)	(0.1-0.8)	(1.4-3.2)	(3.5-6.0)	(0.7-1.8)	(2.2-3.7)	(3.4-5.3)	(0.5-1.3)	(2.1-3.3)
45 - 69 years									
Never user	58.2	86.7	71.9	29.5	75.7	52.3	39.8	79.4	59.2
	(51.0-65.1)	(80.6-91.0)	(66.3-76.8)	(25.6-33.7)	(70.8-79.9)	(48.5-56.1)	(35.5-44.2)	(75.7-82.7)	(55.8-62.5)
Current user	34.5	12.7	24.0	61.8	22.8	42.6	52.0	19.4	36.1
	(28.6-40.8)	(8.4-18.8)	(19.7-29.0)	(57.5-66.0)	(18.7-27.6)	(38.9-46.3)	(48.0-56.1)	(16.1-23.1)	(32.9-39.3)
Past user	7.3	0.6	4.1	8.7	1.5	5.1	8.2	1.2	4.7
	(5.2-10.2)	(0.3-1.1)	(3.0-5.6)	(6.4-11.6)	(0.9-2.5)	(3.9-6.7)	(6.5-10.3)	(0.8-1.8)	(3.8-5.9)

Table 4.2.1.2a Smoked tobacco use by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Never user	**73.6**	**98.7**	**85.3**	**66.3**	**98.1**	**81.8**	**68.8**	**98.3**	**83.0**
	(68.8-77.8)	(97.0-99.4)	(82.3-87.9)	(63.4-69.1)	(97.2-98.8)	(80.0-83.5)	(66.3-71.2)	(97.6-98.8)	(81.4-84.4)
Current user	**20.7**	**1.2**	**11.6**	**24.3**	**1.4**	**13.1**	**23.0**	**1.3**	**12.6**
	(16.7-25.5)	(0.5-3.0)	(9.2-14.6)	(21.6-27.2)	(0.9-2.1)	(11.6-14.8)	(20.8-25.5)	(0.9-2.0)	(11.3-14.1)
Past user	**5.7**	**0.1**	**3.1**	**9.4**	**0.5**	**5.1**	**8.2**	**0.4**	**4.4**
	(4.6-7.1)	(0.1-0.4)	(2.5-3.9)	(7.8-11.3)	(0.2-0.9)	(4.2-6.1)	(7.0-9.5)	(0.2-0.7)	(3.8-5.2)

Table 4.2.1.2b Smoked tobacco use by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Never user	**74.8**	**99.1**	**86.0**	**71.2**	**99.1**	**84.7**	**72.4**	**99.1**	**85.2**
	(69.1-79.7)	(97.8-99.6)	(82.6-88.9)	(67.6-74.6)	(98.3-99.6)	(82.6-86.6)	(69.4-75.3)	(98.5-99.5)	(83.4-86.8)
Current user	**21.1**	**0.8**	**11.7**	**21.4**	**0.5**	**11.3**	**21.3**	**0.6**	**11.4**
	(16.2-27.1)	(0.3-2.1)	(8.9-15.3)	(18.2-25.0)	(0.2-1.3)	(9.6-13.3)	(18.5-24.4)	(0.3-1.2)	(9.9-13.2)
Past user	**4.1**	**0.1**	**2.3**	**7.4**	**0.4**	**4.0**	**6.3**	**0.3**	**3.4**
	(2.9-5.8)	(0.03-0.7)	(1.6-3.2)	(5.7-9.4)	(0.1-0.9)	(3.1-5.1)	(5.1-7.7)	(0.1-0.6)	(2.8-4.2)
45 - 69 years									
Never user	**71.0**	**97.7**	**83.8**	**54.3**	**95.8**	**74.9**	**60.3**	**96.5**	**78.0**
	(64.5-76.6)	(94.6-99.1)	(79.8-87.1)	(49.4-59.2)	(93.7-97.3)	(71.6-77.8)	(56.2-64.2)	(94.9-97.6)	(75.5-80.3)
Current user	**19.8**	**2.1**	**11.3**	**31.2**	**3.5**	**17.4**	**27.1**	**3.0**	**15.3**
	(15.4-25.1)	(0.8-5.4)	(8.6-14.7)	(27.1-35.5)	(2.2-5.3)	(15.0-20.2)	(24.0-30.5)	(2.0-4.4)	(13.4-17.4)
Past user	**9.2**	**0.2**	**4.9**	**14.5**	**0.7**	**7.7**	**12.6**	**0.5**	**6.7**
	(6.7-12.6)	(0.1-0.5)	(3.6-6.6)	(11.5-18.2)	(0.3-1.6)	(6.1-9.7)	(10.4-15.3)	(0.3-1.1)	(5.5-8.2)

Table 4.2.1.3a Smokeless tobacco use by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Never user	**72.0**	**91.8**	**81.2**	**54.4**	**85.1**	**69.4**	**60.5**	**87.3**	**73.4**
	(67.2-76.3)	(88.5-94.2)	(77.7-84.3)	(50.6-58.2)	(82.3-87.6)	(66.6-72.1)	(57.3-63.5)	(85.1-89.2)	(71.1-75.5)
Current user	**26.0**	**7.9**	**17.6**	**42.0**	**14.0**	**28.3**	**36.5**	**12.0**	**24.7**
	(21.8-30.6)	(5.6-11.2)	(14.6-20.9)	(38.4-45.7)	(11.6-16.7)	(25.8-31.0)	(33.6-39.5)	(10.2-14.1)	(22.7-26.9)
Past user	**2.0**	**0.3**	**1.2**	**3.6**	**0.9**	**2.3**	**3.0**	**0.7**	**1.9**
	(1.2-3.4)	(0.2-0.6)	(0.8-2.0)	(2.8-4.5)	(0.6-1.4)	(1.8-2.8)	(2.4-3.8)	(0.5-1.1)	(1.6-2.4)

Table 4.2.1.3b Smokeless tobacco use by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Never user	**68.7**	**93.6**	**80.2**	**52.9**	**87.8**	**69.8**	**58.2**	**89.6**	**73.2**
	(63.6-73.4)	(90.4-95.8)	(76.7-83.3)	(48.7-57.1)	(84.3-90.6)	(66.7-72.7)	(54.9-61.5)	(87.1-91.7)	(70.9-75.4)
Current user	**29.0**	**6.2**	**18.5**	**43.4**	**11.3**	**27.9**	**38.6**	**9.7**	**24.8**
	(24.5-34.0)	(4.1-9.4)	(15.5-21.9)	(39.5-47.4)	(8.6-14.7)	(25.2-30.7)	(35.5-41.7)	(7.7-12.2)	(22.7-27.0)
Past user	**2.3**	**0.2**	**1.3**	**3.7**	**0.9**	**2.3**	**3.2**	**0.7**	**2.0**
	(1.2-4.1)	(0.1-0.6)	(0.7-2.3)	(2.8-5.0)	(0.5-1.5)	(1.8-3.0)	(2.5-4.2)	(0.4-1.1)	(1.6-2.5)
45 - 69 years									
Never user	**79.3**	**88.0**	**83.4**	**58.2**	**78.9**	**68.5**	**65.8**	**82.0**	**73.7**
	(73.2-84.3)	(82.2-92.0)	(78.7-87.3)	(53.4-62.9)	(74.2-83.0)	(64.4-72.2)	(61.6-69.7)	(78.4-85.2)	(70.4-76.8)
Current user	**19.1**	**11.5**	**15.5**	**38.6**	**20.0**	**29.4**	**31.6**	**17.1**	**24.5**
	(14.4-25.0)	(7.5-17.3)	(11.8-20.1)	(33.9-43.4)	(16.0-24.7)	(25.6-33.4)	(27.8-35.7)	(14.0-20.7)	(21.5-27.7)
Past user	**1.6**	**0.5**	**1.1**	**3.2**	**1.1**	**2.1**	**2.6**	**0.9**	**1.8**
	(0.8-3.1)	(0.2-1.0)	(0.6-1.9)	(2.1-4.8)	(0.6-1.9)	(1.5-3.1)	(1.8-3.7)	(0.5-1.4)	(1.3-2.4)

Table 4.2.1.4a Tobacco use among adults by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Only smoked tobacco	**13.5**	**0.9**	**7.6**	**15.3**	**1.1**	**8.4**	**14.7**	**1.0**	**8.1**
	(10.9-16.5)	(0.4-2.0)	(6.1-9.3)	(13.1-17.8)	(0.7-1.8)	(7.2-9.8)	(13.0-16.6)	(0.7-1.6)	(7.2-9.2)
Only smokeless tobacco	**18.7**	**7.6**	**13.5**	**33.1**	**13.7**	**23.6**	**28.1**	**11.7**	**20.2**
	(15.2-22.8)	(5.5-10.5)	(11.2-16.2)	(29.8-36.5)	(11.4-16.4)	(21.3-26.1)	(25.5-30.9)	(9.9-13.7)	(18.4-22.2)
Both smoked & smokeless tobacco	**7.3**	**0.3**	**4.0**	**8.9**	**0.2**	**4.7**	**8.4**	**0.3**	**4.5**
	(5.1-10.2)	(0.1-1.6)	(2.8-5.8)	(7.2-11.0)	(0.1-0.7)	(3.8-5.8)	(7.0-10.0)	(0.1-0.7)	(3.7-5.4)

Table 4.2.1.4b Tobacco use among adults by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 – 44 Years	(95% CI)								
Only smoked tobacco	**12.6**	**0.7**	**7.1**	**12.1**	**0.4**	**6.4**	**12.2**	**0.5**	**6.6**
	(9.5-16.6)	(0.2-2.1)	(5.3-9.5)	(9.7-14.9)	(0.1-1.2)	(5.1-8.0)	(10.3-14.5)	(0.2-1.1)	(5.6-7.9)
Only smokeless tobacco	**20.5**	**6.1**	**13.9**	**34.0**	**11.2**	**23.0**	**29.5**	**9.6**	**20.0**
	(16.5-25.3)	(4.0-9.3)	(11.4-16.8)	(30.3-37.9)	(8.6-14.6)	(20.4-25.8)	(26.6-32.6)	(7.6-12.1)	(18.0-22.1)
Both smoked & smokeless tobacco	**8.5**	**0.1**	**4.6**	**9.4**	**0.1**	**4.9**	**9.1**	**0.1**	**4.8**
	(6.0-12.0)	(0.01-0.4)	(3.2-6.5)	(7.3-12.0)	(0.01-0.7)	(3.8-6.2)	(7.4-11.1)	(0.02-0.4)	(3.9-5.9)
45 - 69 Years									
Only smoked tobacco	**15.3**	**1.2**	**8.6**	**23.3**	**2.8**	**13.2**	**20.4**	**2.3**	**11.6**
	(11.7-19.8)	(0.4-3.4)	(6.5-11.2)	(19.5-27.6)	(1.8-4.4)	(11.0-15.7)	(17.6-23.6)	(1.5-3.4)	(10.0-13.4)
Only smokeless tobacco	**14.7**	**10.7**	**12.8**	**30.7**	**19.4**	**25.1**	**25.0**	**16.4**	**20.8**
	(10.8-19.7)	(7.5-15.0)	(9.9-16.3)	(26.5-35.2)	(15.4-24.1)	(21.6-28.9)	(21.6-28.7)	(13.5-19.8)	(18.1-23.7)
Both smoked & smokeless tobacco	**4.5**	**0.9**	**2.7**	**7.9**	**0.6**	**4.3**	**6.7**	**0.7**	**3.7**
	(2.8-7.1)	(0.1-5.4)	(1.5-4.9)	(5.9-10.4)	(0.2-1.6)	(3.2-5.7)	(5.2-8.5)	(0.3-1.8)	(2.9-4.9)

Table 4.2.1.5a Current daily tobacco use by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Smoked tobacco	**15.4**	**1.0**	**8.7**	**18.6**	**1.3**	**10.1**	**17.5**	**1.2**	**9.7**
	(11.9-19.8)	(0.4-2.8)	(6.5-11.5)	(16.2-21.3)	(0.8-2.0)	(8.8-11.7)	(15.5-19.7)	(0.8-1.8)	(8.5-11.0)
Smokeless tobacco	**21.0**	**6.9**	**14.4**	**35.7**	**12.3**	**24.3**	**30.6**	**10.5**	**21.0**
	(17.3-25.1)	(4.6-10.1)	(11.6-17.6)	(32.4-39.2)	(10.1-14.9)	(22.1-26.7)	(28.0-33.4)	(8.8-12.5)	(19.1-22.9)
Both smoked & smokeless tobacco	**4.6**	**0.3**	**2.6**	**5.1**	**0.2**	**2.7**	**4.9**	**0.2**	**2.7**
	(2.8-7.6)	(0.04-1.8)	(1.5-4.6)	(4.0-6.4)	(0.1-0.7)	(2.1-3.4)	(3.9-6.2)	(0.1-0.7)	(2.1-3.4)
Either (smoked or smokeless) tobacco	**31.8**	**7.6**	**20.5**	**49.2**	**13.3**	**31.7**	**43.2**	**11.4**	**28.0**
	(27.4-36.5)	(5.1-11.3)	(17.0-24.4)	(45.9-52.5)	(11.1-15.9)	(29.5-34.0)	(40.4-46.1)	(9.7-13.5)	(26.0-30.0)

Table 4.2.1.5b Current daily tobacco use by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 – 44 years	(95% CI)								
Smoked tobacco	**14.3**	**0.6**	**8.0**	**15.3**	**0.4**	**8.1**	**15.0**	**0.5**	**8.0**
	(10.2-19.8)	(0.2-1.9)	(5.6-11.4)	(12.5-18.6)	(0.1-1.2)	(6.6-9.9)	(12.6-17.7)	(0.2-1.0)	(6.7-9.6)
Smokeless tobacco User	**23.5**	**5.1**	**15.0**	**36.5**	**10.1**	**23.7**	**32.1**	**8.5**	**20.9**
	(19.5-28.0)	(3.2-8.1)	(12.3-18.2)	(32.8-40.4)	(7.5-13.4)	(21.3-26.3)	(29.2-35.1)	(6.6-10.9)	(18.9-22.9)
Both smoked & smokeless tobacco	**5.0**	**0.0**	**2.7**	**4.9**	**0.1**	**2.6**	**4.9**	**0.1**	**2.6**
	(2.8-8.7)	(0.0-0.0)	(1.5-4.7)	(3.7-6.6)	(0.01-0.7)	(1.9-3.4)	(3.8-6.5)	(0.01-0.5)	(2.0-3.4)
Either (smoked or smokeless)	**32.8**	**5.7**	**20.3**	**46.9**	**10.4**	**29.2**	**42.1**	**8.9**	**26.3**
	(27.6-38.6)	(3.5-9.1)	(16.6-24.6)	(43.0-50.8)	(7.8-13.7)	(26.7-31.8)	(38.9-45.4)	(7.0-11.3)	(24.2-28.5)
45 – 69 years									
Smoked tobacco	**17.9**	**1.9**	**10.2**	**26.6**	**3.2**	**15.1**	**23.5**	**2.8**	**13.4**
	(13.6-23.1)	(0.7-5.3)	(7.7-13.5)	(22.7-31.0)	(2.0-5.1)	(12.8-17.7)	(20.5-26.8)	(1.8-4.2)	(11.6-15.4)
Smokeless tobacco User	**15.3**	**10.5**	**13.0**	**33.8**	**17.3**	**25.7**	**27.2**	**15.0**	**21.2**
	(11.4-20.3)	(6.6-16.3)	(9.6-17.3)	(29.5-38.5)	(13.6-21.9)	(22.3-29.4)	(23.7-31.0)	(12.1-18.5)	(18.5-24.2)
Both smoked & smokeless tobacco	**3.8**	**0.8**	**2.4**	**5.5**	**0.6**	**3.1**	**4.9**	**0.7**	**2.8**
	(2.2-6.4)	(0.1-5.5)	(1.2-4.5)	(3.9-7.7)	(0.2-1.5)	(2.1-4.3)	(3.7-6.5)	(0.2-1.8)	(2.1-3.9)
Either (smoked or smokeless)	**29.4**	**11.5**	**20.8**	**55.0**	**20.0**	**37.7**	**45.8**	**17.1**	**31.8**
	(24.3-35.1)	(7.3-17.6)	(16.8-25.5)	(50.7-59.2)	(16.1-24.6)	(34.2-41.3)	(42.1-49.7)	(14.0-20.6)	(28.9-34.8)

Table 4.2.1.6a Daily tobacco use* (any form) by type of product, area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Smoked tobacco	(95% CI)								
Bidi	**42.9**	**36.5**	**42.5**	**66.3**	**56.3**	**65.8**	**59.0**	**50.5**	**58.6**
	(33.9-52.3)	(9.9-74.9)	(33.0-52.7)	(61.0-71.2)	(33.9-76.3)	(60.4-70.7)	(53.7-64.2)	(31.0-69.7)	(53.0-64.0)
Manufactured cigarettes	**36.3**	**41.3**	**36.6**	**12.2**	**7.6**	**12.0**	**19.6**	**17.4**	**19.5**
	(27.0-46.8)	(7.8-85.3)	(25.9-48.8)	(8.6-17.1)	(2.6-20.0)	(8.5-16.7)	(15.2-25.0)	(4.8-46.8)	(14.7-25.5)
Hand-rolled cigarettes	**0.3**	**0.4**	**0.3**	**2.1**	**24.5**	**3.3**	**1.5**	**17.5**	**2.3**
	(0.1-1.0)	(0.04-3.3)	(0.1-0.9)	(1.1-4.0)	(8.0-54.7)	(1.7-6.3)	(0.8-2.8)	(5.5-43.7)	(1.2-4.5)
Others**	**8.3**	**6.9**	**8.3**	**8.9**	**7.0**	**8.8**	**8.7**	**7.0**	**8.7**
	(3.7-17.7)	(1.1-32.9)	(3.9-16.7)	(6.2-12.7)	(2.2-20.4)	(6.2-12.4)	(6.2-12.2)	(2.6-17.3)	(6.2-11.9)
Smokeless tobacco									
Chewing tobacco	**67.4**	**55.5**	**64.9**	**73.2**	**58.6**	**69.7**	**71.8**	**57.9**	**68.6**
	(60.8-73.4)	(42.7-67.6)	(58.7-70.6)	(68.4-77.5)	(50.6-66.1)	(65.3-73.7)	(67.8-75.4)	(51.1-64.4)	(64.9-72.0)
Paan with tobacco	**23.4**	**31.4**	**25.1**	**27.2**	**34.5**	**28.9**	**26.2**	**33.8**	**28.0**
	(17.6-30.4)	(22.6-41.7)	(19.8-31.2)	(22.4-32.5)	(26.5-43.4)	(24.2-34.1)	(22.3-30.6)	(27.2-41.1)	(24.2-32.2)
Tobacco snuff by mouth	**4.9**	**10.3**	**6.0**	**4.1**	**11.1**	**5.8**	**4.3**	**10.9**	**5.9**
	(2.5-9.4)	(5.1-19.7)	(3.8-9.4)	(2.7-6.2)	(7.6-15.9)	(4.3-7.8)	(3.0-6.1)	(7.8-15.0)	(4.6-7.5)
Tobacco snuff by nose	**0.1**	**6.2**	**1.4**	**0.1**	**0.8**	**0.3**	**0.1**	**2.0**	**0.6**
	(0.02-0.6)	(2.3-15.7)	(0.6-3.3)	(0.05-0.4)	(0.3-2.4)	(0.1-0.7)	(0.1-0.3)	(1.0-4.1)	(0.3-1.0)

*among current tobacco users; **others include pipes, cigars, cheroots, hookah/shisha and other local smoked tobacco products

Table 4.2.1.6b Daily tobacco use* (any form) by type of product, area of residence, gender and age categories (Percentage)

18 - 44 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Smoked Tobacco product used	(95% CI)								
Bidi	**36.7**	**36.0**	**36.7**	**59.1**	**44.0**	**58.8**	**51.6**	**40.7**	**51.3**
	(27.5-47.0)	(10.2-73.4)	(27.3-47.3)	(51.9-65.9)	(11.1-83.1)	(51.6-65.5)	(45.1-58.1)	(16.2-70.9)	(44.7-57.9)
Manufactured cigarettes	**36.5**	**40.5**	**36.6**	**16.0**	**0.0**	**15.7**	**22.9**	**16.7**	**22.7**
	(24.8-50.0)	(6.6-86.7)	(24.2-51.2)	(10.8-23.2)	(0.0-0.0)	(10.6-22.7)	(17.0-30.0)	(2.4-62.1)	(16.6-30.2)
Hand-rolled cigarettes	**0.3**	**0.0**	**0.2**	**1.7**	**35.8**	**2.5**	**1.2**	**21.0**	**1.7**
	(0.04-1.4)	(0.0-0.0)	(0.04-1.4)	(0.6-4.6)	(5.8-83.4)	(1.0-6.1)	(0.5-3.1)	(3.2-68.3)	(0.7-4.1)
Others**	**7.1**	**0.0**	**6.8**	**9.1**	**0.0**	**8.9**	**8.4**	**0.0**	**8.2**
	(2.9-16.1)	(0.0-0.0)	(2.9-15.4)	(5.3-15.0)	(0.0-0.0)	(5.2-14.7)	(5.3-13.0)	(0.0-0.0)	(5.2-12.6)
Smokeless Tobacco product used									
Chewing tobacco	**68.3**	**61.0**	**67.2**	**72.0**	**61.2**	**69.9**	**71.1**	**61.1**	**69.2**
	(60.4-75.3)	(42.9-76.5)	(59.8-73.9)	(66.2-77.1)	(49.8-71.5)	(64.5-74.7)	(66.3-75.4)	(51.4-70.1)	(64.8-73.3)
Paan with tobacco	**22.6**	**31.2**	**24.0**	**27.8**	**28.3**	**27.9**	**26.5**	**28.8**	**26.9**
	(16.2-30.7)	(20.5-44.2)	(17.9-31.2)	(22.5-33.8)	(18.7-40.3)	(23.1-33.2)	(22.1-31.4)	(20.7-38.6)	(23.0-31.3)
Tobacco snuff by mouth	**4.8**	**5.9**	**5.0**	**3.8**	**11.2**	**5.3**	**4.1**	**10.2**	**5.2**
	(2.0-11.1)	(2.3-14.5)	(2.5-9.9)	(2.4-6.1)	(6.7-18.2)	(3.8-7.4)	(2.7-6.2)	(6.4-15.8)	(3.8-7.1)
Tobacco snuff by nose	**0.0**	**2.1**	**0.3**	**0.1**	**1.0**	**0.3**	**0.1**	**1.2**	**0.3**
	(0.0-0.0)	(0.4-11.4)	(0.1-1.9)	(0.03-0.5)	(0.3-4.0)	(0.1-0.8)	(0.0-0.4)	(0.4-3.6)	(0.1-0.7)
45 - 69 years									
Smoked Tobacco product used									
Bidi	**57.4**	**36.9**	**55.6**	**78.3**	**60.4**	**76.6**	**72.8**	**54.8**	**71.1**
	(46.4-67.7)	(7.1-81.8)	(42.9-67.5)	(71.5-83.8)	(38.8-78.7)	(69.7-82.2)	(66.7-78.2)	(35.0-73.2)	(64.7-76.8)
Manufactured cigarettes	**35.8**	**41.9**	**36.4**	**5.8**	**10.1**	**6.2**	**13.6**	**17.8**	**14.0**
	(26.9-45.9)	(7.6-86.3)	(26.5-47.5)	(3.5-9.4)	(3.6-25.5)	(3.9-9.7)	(9.9-18.5)	(6.0-42.4)	(10.1-19.2)
Hand-rolled cigarettes	**0.3**	**0.7**	**0.3**	**2.8**	**20.7**	**4.5**	**2.1**	**15.9**	**3.4**
	(0.0-1.5)	(0.1-5.7)	(0.1-1.3)	(1.2-6.4)	(6.7-48.8)	(1.9-10.3)	(0.9-4.8)	(5.0-40.3)	(1.5-7.7)
Others**	**11.4**	**12.2**	**11.4**	**8.7**	**9.4**	**8.7**	**9.4**	**10.1**	**9.4**
	(4.4-26.4)	(1.9-49.4)	(4.9-24.3)	(5.6-13.2)	(3.0-25.6)	(5.9-12.7)	(6.1-14.0)	(3.9-23.5)	(6.5-13.5)
Smokeless Tobacco product used									
Chewing tobacco	**64.3**	**49.4**	**59.0**	**76.5**	**55.1**	**69.3**	**73.9**	**53.8**	**67.0**
	(54.1-73.3)	(35.2-63.7)	(49.8-67.6)	(70.5-81.6)	(45.0-64.8)	(63.4-74.6)	(68.7-78.5)	(45.4-62.0)	(62.1-71.6)

Paan with tobacco	**26.0**	**31.6**	**28.0**	**25.5**	**42.7**	**31.3**	**25.6**	**40.1**	**30.5**
	(17.6-36.5)	(18.8-48.0)	(21.5-35.6)	(20.2-31.5)	(31.1-55.1)	(24.7-38.6)	(21.0-30.8)	(30.5-50.5)	(25.2-36.5)
Tobacco snuff by mouth	**5.2**	**15.0**	**8.7**	**5.0**	**10.9**	**7.0**	**5.0**	**11.9**	**7.4**
	(2.9-9.0)	(6.4-31.4)	(4.9-14.9)	(2.5-9.9)	(6.6-17.5)	(4.6-10.4)	(2.9-8.7)	(7.7-17.8)	(5.3-10.2)
Tobacco snuff by nose	**0.5**	**10.7**	**4.1**	**0.2**	**0.6**	**0.3**	**0.3**	**3.0**	**1.2**
	(0.1-2.8)	(3.5-28.5)	(1.5-11.0)	(0.04-0.8)	(0.2-2.4)	(0.1-0.9)	(0.1-0.8)	(1.1-7.4)	(0.5-2.7)

*among current tobacco users; **others include pipes, cigars, cheroots, hookah/shisha and other local smoked tobacco products

Table 4.2.1.7a Number of tobacco products of different types used daily* by area of residence and gender (Mean)

18 - 69 years	Urban			Rural			Total		
	Men	**Women**	**Combined**	**Men**	**Women**	**Combined**	**Men**	**Women**	**Combined**
Smoked tobacco	**(95% CI)**								
Bidi	**12.6**	**2.5**	**12.1**	**12.1**	**10.2**	**12.0**	**12.2**	**8.6**	**12.0**
	(10.3-14.8)	(1.8-3.3)	(10.0-14.3)	(11.1-13.1)	(6.1-14.3)	(11.0-13.0)	(11.3-13.1)	(5.2-12.0)	(11.1-12.9)
Manufactured cigarettes	**6.1**	**6.9**	**6.1**	**4.8**	**11.2**	**5.0**	**5.5**	**8.2**	**5.6**
	(3.5-8.6)	(6.7-7.1)	(3.6-8.6)	(3.3-6.3)	(8.2-14.1)	(3.5-6.5)	(3.8-7.2)	(6.1-10.3)	(4.0-7.3)
Hand-rolled cigarettes	**1.8**	**1.0**	**1.7**	**3.8**	**5.2**	**4.4**	**3.7**	**5.2**	**4.3**
	(1.2-2.4)	(1.0-1.0)	(1.1-2.3)	(2.0-5.7)	(2.3-8.2)	(2.5-6.3)	(1.9-5.5)	(2.3-8.1)	(2.4-6.1)
Others**	**6.1**	**2.2**	**5.9**	**4.3**	**1.4**	**4.2**	**4.8**	**1.6**	**4.7**
	(4.2-7.9)	(1.8-2.7)	(4.0-7.8)	(2.6-6.0)	(0.9-1.8)	(2.5-5.9)	(3.4-6.2)	(1.2-2.1)	(3.3-6.1)
Smokeless tobacco									
Chewing tobacco	**6.5**	**5.5**	**6.3**	**6.2**	**4.6**	**5.9**	**6.3**	**4.8**	**6.0**
	(5.6-7.4)	(4.5-6.4)	(5.5-7.1)	(5.7-6.6)	(4.0-5.2)	(5.5-6.2)	(5.8-6.7)	(4.2-5.3)	(5.6-6.3)
Paan with tobacco	**5.5**	**5.7**	**5.6**	**4.0**	**4.4**	**4.1**	**4.4**	**4.6**	**4.4**
	(3.9-7.1)	(4.2-7.2)	(4.3-6.8)	(3.5-4.6)	(3.5-5.2)	(3.6-4.7)	(3.8-4.9)	(3.9-5.4)	(3.9-5.0)
Tobacco snuff by mouth	**5.9**	**3.3**	**5.0**	**8.0**	**3.4**	**5.9**	**7.4**	**3.4**	**5.7**
	(2.5-9.4)	(2.2-4.4)	(2.7-7.2)	(3.7-12.2)	(2.7-4.1)	(3.4-8.4)	(4.1-10.7)	(2.8-4.0)	(3.7-7.6)
Tobacco snuff by nose	**5.1**	**3.9**	**3.9**	**5.4**	**4.2**	**4.6**	**5.3**	**4.0**	**4.2**
	(4.8-5.4)	(0.3-7.4)	(0.6-7.3)	(4.8-5.9)	(2.9-5.5)	(3.7-5.5)	(4.9-5.8)	(1.5-6.4)	(2.1-6.3)

*among current tobacco users **others include pipes, cigars, cheroots, hookah/shisha and other local smoked tobacco products

Table 4.2.1.7b Number of tobacco products of different types used daily* by area of residence, gender and age categories (Mean)

18 - 44 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Smoked tobacco	(95% CI)								
Bidi	**12.0**	**2.6**	**11.7**	**12.0**	**6.6**	**11.9**	**12.0**	**5.2**	**11.9**
	(9.0-14.9)	(1.9-3.4)	(8.8-14.5)	(10.4-13.6)	(0.0-15.6)	(10.3-13.5)	(10.6-13.4)	(0.0-10.8)	(10.5-13.2)
Manufactured cigarettes	**6.6**	**5.0**	**6.5**	**4.5**	**0.0**	**4.5**	**5.6**	**5.0**	**5.6**
	(3.6-9.6)	(5.0-5.0)	(3.7-9.4)	(3.0-6.0)	(0.0-0.0)	(3.0-6.0)	(3.6-7.6)	(5.0-5.0)	(3.7-7.5)
Hand-rolled cigarettes	**2.0**	**0.0**	**2.0**	**2.6**	**4.0**	**3.0**	**2.5**	**4.0**	**3.0**
	(2.0-2.0)	(0.0-0.0)	(2.0-2.0)	(2.0-3.1)	(4.0-4.0)	(2.2-3.8)	(2.0-3.1)	(4.0-4.0)	(2.2-3.7)
Others**	**6.6**	**0.0**	**6.6**	**4.7**	**0.0**	**4.7**	**5.2**	**0.0**	**5.2**
	(2.9-10.2)	(0.0-0.0)	(2.9-10.2)	(2.1-7.2)	(0.0-0.0)	(2.1-7.2)	(3.0-7.4)	(0.0-0.0)	(3.0-7.4)
Smokeless tobacco									
Chewing tobacco	**6.5**	**5.2**	**6.3**	**6.0**	**4.3**	**5.7**	**6.1**	**4.5**	**5.8**
	(5.3-7.7)	(4.3-6.2)	(5.2-7.4)	(5.5-6.5)	(3.7-5.0)	(5.2-6.2)	(5.6-6.6)	(4.0-5.1)	(5.4-6.3)
Paan with tobacco	**6.0**	**6.1**	**6.0**	**3.8**	**3.8**	**3.8**	**4.3**	**4.3**	**4.3**
	(4.0-8.1)	(3.5-8.6)	(4.3-7.7)	(3.2-4.5)	(3.3-4.4)	(3.3-4.4)	(3.6-5.0)	(3.5-5.2)	(3.7-4.9)
Tobacco snuff by mouth	**6.2**	**3.8**	**5.8**	**6.0**	**3.3**	**4.9**	**6.1**	**3.4**	**5.1**
	(1.6-10.8)	(2.2-5.5)	(2.1-9.5)	(4.3-7.8)	(2.4-4.2)	(3.7-6.1)	(4.2-7.9)	(2.6-4.2)	(3.9-6.3)
Tobacco snuff by nose	**0.0**	**3.1**	**3.1**	**5.4**	**4.7**	**4.9**	**5.4**	**4.1**	**4.4**
	(0.0-0.0)	(2.9-3.3)	(2.9-3.3)	(4.6-6.1)	(3.9-5.4)	(4.4-5.5)	(4.6-6.1)	(3.0-5.2)	(3.5-5.3)
45 - 69 years									
Smoked tobacco									
Bidi	**13.5**	**2.4**	**12.8**	**12.2**	**11.1**	**12.1**	**12.5**	**9.7**	**12.2**
	(10.4-16.5)	(1.5-3.3)	(9.8-15.9)	(10.8-13.6)	(7.2-15.0)	(10.8-13.4)	(11.2-13.7)	(5.9-13.5)	(11.0-13.5)
Manufactured cigarettes	**4.8**	**8.3**	**5.1**	**6.1**	**11.2**	**6.9**	**5.2**	**9.5**	**5.7**
	(3.4-6.2)	(7.8-8.8)	(3.4-6.8)	(2.2-10.0)	(8.2-14.1)	(3.4-10.4)	(3.6-6.8)	(7.7-11.4)	(4.1-7.3)
Hand-rolled cigarettes	**1.2**	**1.0**	**1.2**	**5.2**	**6.0**	**5.5**	**5.0**	**5.9**	**5.4**
	(0.5-1.9)	(1.0-1.0)	(0.7-1.7)	(2.0-8.3)	(2.8-9.2)	(2.8-8.2)	(2.0-8.1)	(2.7-9.1)	(2.7-8.1)
Others**	**5.3**	**2.2**	**5.0**	**3.6**	**1.4**	**3.4**	**4.2**	**1.6**	**3.9**
	(2.3-8.3)	(1.8-2.7)	(2.3-7.8)	(2.4-4.8)	(0.9-1.8)	(2.3-4.5)	(3.0-5.4)	(1.2-2.1)	(2.8-5.0)

Smokeless tobacco									
Chewing tobacco	**6.5**	**5.8**	**6.3**	**6.7**	**4.9**	**6.2**	**6.7**	**5.1**	**6.2**
	(5.3-7.6)	(4.1-7.4)	(5.3-7.2)	(6.0-7.4)	(3.9-5.9)	(5.6-6.8)	(6.1-7.2)	(4.2-6.0)	(5.7-6.7)
Paan with tobacco	**4.1**	**5.3**	**4.6**	**4.7**	**4.9**	**4.8**	**4.5**	**4.9**	**4.7**
	(3.4-4.8)	(4.2-6.4)	(3.9-5.3)	(3.8-5.5)	(3.3-6.4)	(3.9-5.6)	(3.9-5.2)	(3.6-6.3)	(4.0-5.4)
Tobacco snuff by mouth	**5.0**	**3.0**	**3.8**	**12.0**	**3.5**	**7.5**	**10.5**	**3.4**	**6.6**
	(3.7-6.4)	(1.8-4.3)	(2.6-5.0)	(0.9-23.1)	(2.5-4.5)	(1.4-13.7)	(1.5-19.5)	(2.5-4.2)	(1.9-11.2)
Tobacco snuff by nose	**5.1**	**4.0**	**4.1**	**5.4**	**3.1**	**4.0**	**5.3**	**3.9**	**4.1**
	(4.8-5.4)	(-0.3-8.4)	(0.0-8.2)	(4.6-6.1)	(0.8-5.5)	(1.9-6.0)	(4.8-5.7)	(0.2-7.5)	(0.9-7.3)

*among daily tobacco users; **others include pipes, cigars, cheroots, hookah/shisha and other local smoked tobacco products

Table 4.2.1.8a Exposure to second hand tobacco smoke in past 30 days by area of residence and gender (Percentage)

18 – 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
At home	**27.9**	**23.4**	**25.8**	**40.4**	**29.7**	**35.2**	**36.1**	**27.7**	**32.1**
	(22.8-33.6)	(19.3-28.1)	(21.9-30.2)	(37.0-43.9)	(26.4-33.3)	(32.5-38.0)	(33.2-39.1)	(25.0-30.5)	(29.7-34.5)
At work place	**37.3**	**12.9**	**25.9**	**35.1**	**12.3**	**24.0**	**35.9**	**12.5**	**24.6**
	(31.8-43.1)	(9.2-17.6)	(21.8-30.3)	(31.8-38.6)	(9.9-15.2)	(21.4-26.8)	(33.0-38.9)	(10.4-14.9)	(22.4-27.0)
During travel	**31.2**	**20.2**	**26.1**	**30.5**	**16.3**	**23.6**	**30.7**	**17.6**	**24.4**
	(26.9-35.8)	(16.2-25.0)	(22.2-30.3)	(27.1-34.1)	(13.5-19.5)	(20.9-26.5)	(28.1-33.6)	(15.2-20.2)	(22.2-26.8)
Any of the places	**57.2**	**37.5**	**48.0**	**59.4**	**37.5**	**48.7**	**58.6**	**37.5**	**48.5**
	(50.7-63.5)	(32.5-42.8)	(42.8-53.3)	(55.8-62.9)	(33.9-41.3)	(45.6-51.8)	(55.4-61.8)	(34.5-40.6)	(45.8-51.2)

Table 4.2.1.8b Exposure to second hand tobacco smoke in past 30 days by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	**Women**	**Combined**	**Men**	**Women**	**Combined**	**Men**	**Women**	**Combined**
18 – 44 years	**(95% CI)**								
At home	**31.3**	**24.2**	**28.0**	**40.2**	**30.6**	**35.6**	**37.2**	**28.6**	**33.1**
	(25.9-37.3)	(19.7-29.2)	(24.1-32.3)	(36.1-44.3)	(27.0-34.6)	(32.5-38.7)	(33.9-40.6)	(25.7-31.7)	(30.6-35.6)
At work place	**40.8**	**13.5**	**28.2**	**35.5**	**11.8**	**24.0**	**37.3**	**12.3**	**25.4**
	(34.5-47.4)	(9.8-18.2)	(23.8-33.0)	(31.8-39.4)	(9.1-15.0)	(21.1-27.2)	(34.0-40.7)	(10.1-14.9)	(22.9-28.0)
During travel	**34.1**	**21.3**	**28.2**	**31.6**	**16.6**	**24.3**	**32.4**	**18.1**	**25.6**
	(29.9-38.6)	(17.1-26.2)	(24.4-32.4)	(28.0-35.4)	(13.5-20.1)	(21.4-27.4)	(29.6-35.4)	(15.5-20.9)	(23.3-28.1)
Any of the places	**63.1**	**39.4**	**52.2**	**59.3**	**38.4**	**49.2**	**60.6**	**38.7**	**50.2**
	(56.8-69.0)	(34.1-45.1)	(47.2-57.1)	(54.9-63.5)	(34.4-42.6)	(45.7-52.7)	(57.0-64.0)	(35.5-42.1)	(47.3-53.0)
45 – 69 years									
At home	**20.4**	**21.9**	**21.1**	**41.0**	**27.6**	**34.4**	**33.6**	**25.7**	**29.7**
	(15.0-27.0)	(16.5-28.5)	(16.2-26.9)	(36.6-45.5)	(24.1-31.5)	(31.2-37.7)	(29.7-37.7)	(22.5-29.0)	(26.8-32.8)
At work place	**29.5**	**11.6**	**20.9**	**34.2**	**13.5**	**24.0**	**32.5**	**12.8**	**22.9**
	(24.5-35.0)	(7.2-18.2)	(17.1-25.3)	(29.7-39.0)	(10.7-17.0)	(21.0-27.2)	(29.0-36.2)	(10.3-15.9)	(20.5-25.5)
During travel	**24.8**	**18.0**	**21.5**	**27.9**	**15.6**	**21.8**	**26.8**	**16.4**	**21.7**
	(18.8-32.0)	(13.5-23.7)	(16.9-27.0)	(23.5-32.7)	(12.4-19.4)	(18.6-25.4)	(23.1-30.8)	(13.8-19.5)	(19.0-24.7)
Any of the places	**44.2**	**33.5**	**39.1**	**59.7**	**35.4**	**47.7**	**54.1**	**34.8**	**44.7**
	(36.6-52.0)	(27.1-40.7)	(32.8-45.8)	(55.2-64.0)	(31.3-39.8)	(44.2-51.2)	(49.8-58.4)	(31.2-38.5)	(41.3-48.1)

Table 4.2.1.9a Age (in years) of initiation and cessation of any form of tobacco use by area of residence and gender (Mean)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Age of Initiation	(95% CI)								
Any form of tobacco*	**20.8**	**25.4**	**21.5**	**20.3**	**23.5**	**20.9**	**20.4**	**23.9**	**21.1**
	(20.2-21.5)	(22.8-28.0)	(20.8-22.3)	(19.7-20.9)	(21.9-25.1)	(20.3-21.5)	(19.9-20.9)	(22.6-25.3)	(20.6-21.6)
Smoked tobacco	**20.2**	**23.8**	**20.4**	**20.1**	**27.1**	**20.5**	**20.1**	**26.3**	**20.4**
	(19.4-21.0)	(19.0-28.6)	(19.6-21.2)	(19.4-20.8)	(23.1-31.1)	(19.8-21.2)	(19.6-20.7)	(22.9-29.6)	(19.9-21.0)
Smokeless tobacco	**22.2**	**25.3**	**22.9**	**21.1**	**23.1**	**21.6**	**21.3**	**23.6**	**21.9**
	(21.1-23.3)	(22.7-27.9)	(21.7-24.0)	(20.2-21.9)	(21.5-24.7)	(20.7-22.4)	(20.6-22.1)	(22.2-25.0)	(21.2-22.5)
Age of Cessation									
Any form of tobacco**	**32.4**	**30.4**	**32.3**	**31.8**	**29.6**	**31.5**	**31.9**	**29.7**	**31.7**
	(29.8-35.0)	(23.6-37.1)	(29.7-34.9)	(30.3-33.2)	(24.9-34.3)	(30.1-33.0)	(30.6-33.2)	(25.5-33.9)	(30.5-33.0)
Smoked tobacco	**32.7**	**29.4**	**32.6**	**31.5**	**32.0**	**31.6**	**31.8**	**31.7**	**31.8**
	(29.5-35.9)	(21.1-37.7)	(29.5-35.8)	(29.9-33.2)	(23.0-41.0)	(30.0-33.2)	(30.4-33.3)	(23.7-39.6)	(30.4-33.3)
Smokeless tobacco	**29.3**	**31.1**	**29.4**	**31.4**	**28.4**	**30.8**	**30.9**	**28.6**	**30.5**
	(24.8-33.7)	(21.1-41.0)	(25.2-33.6)	(28.6-34.1)	(23.6-33.1)	(28.4-33.2)	(28.5-33.2)	(24.2-33.0)	(28.4-32.6)

* minimum age of smoked and smokeless tobacco use; **maximum age of smoked and smokeless tobacco use

Table 4.2.1.9b Age (in years) of initiation and cessation of any form of tobacco use by area of residence, gender and age categories (Mean)

18 - 44 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Age of Initiation	(95% CI)								
Any form of tobacco*	**20.4**	**23.5**	**20.7**	**19.1**	**20.9**	**19.4**	**19.4**	**21.4**	**19.8**
	(19.5-21.2)	(21.1-25.8)	(20.0-21.5)	(18.5-19.8)	(19.3-22.6)	(18.8-20.0)	(18.9-20.0)	(20.0-22.8)	(19.2-20.3)
Smoked tobacco	**19.2**	**28.8**	**19.5**	**18.6**	**24.2**	**18.7**	**18.8**	**25.7**	**19.0**
	(18.5-20.0)	(22.8-34.9)	(18.8-20.2)	(17.8-19.4)	(19.5-28.9)	(18.0-19.5)	(18.2-19.4)	(22.0-29.5)	(18.4-19.6)
Smokeless tobacco	**21.1**	**22.8**	**21.4**	**19.6**	**20.8**	**19.9**	**20.0**	**21.2**	**20.2**
	(20.1-22.2)	(20.3-25.3)	(20.4-22.3)	(18.9-20.4)	(19.1-22.5)	(19.1-20.6)	(19.3-20.6)	(19.7-22.6)	(19.6-20.8)
Age of Cessation									
Any form of tobacco**	**26.9**	**23.8**	**26.7**	**26.4**	**23.4**	**26.1**	**26.5**	**23.5**	**26.2**
	(23.9-29.8)	(20.6-26.9)	(23.9-29.5)	(25.1-27.7)	(19.7-27.2)	(24.8-27.4)	(25.3-27.7)	(20.0-26.9)	(25.1-27.4)
Smoked tobacco	**26.2**	**23.3**	**26.1**	**26.1**	**24.3**	**26.0**	**26.1**	**24.1**	**26.0**
	(23.1-29.3)	(22.6-24.1)	(23.1-29.2)	(24.6-27.5)	(16.6-32.0)	(24.5-27.4)	(24.8-27.4)	(17.6-30.7)	(24.7-27.3)
Smokeless tobacco	**26.5**	**24.1**	**26.4**	**26.6**	**23.1**	**26.0**	**26.6**	**23.1**	**26.1**
	(21.2-31.8)	(18.1-30.2)	(21.4-31.4)	(24.3-29.0)	(18.1-28.0)	(23.8-28.2)	(24.4-28.8)	(18.5-27.7)	(24.0-28.1)

45 - 69 years									
Age of Initiation									
Any form of tobacco*	**21.8**	**27.4**	**23.1**	**22.6**	**26.6**	**23.6**	**22.4**	**26.8**	**23.5**
	(20.8-22.8)	(23.3-31.4)	(21.8-24.3)	(21.7-23.6)	(24.2-28.9)	(22.7-24.5)	(21.7-23.2)	(24.7-28.8)	(22.7-24.2)
Smoked tobacco	**21.6**	**20.8**	**21.6**	**22.0**	**28.1**	**22.5**	**21.9**	**26.5**	**22.3**
	(20.4-22.9)	(14.0-27.5)	(20.3-22.8)	(20.9-23.1)	(23.2-32.9)	(21.5-23.6)	(21.0-22.8)	(22.1-30.8)	(21.5-23.1)
Smokeless tobacco	**25.8**	**27.9**	**26.5**	**24.8**	**26.2**	**25.3**	**25.0**	**26.6**	**25.5**
	(22.5-29.0)	(23.6-32.1)	(23.8-29.3)	(23.1-26.6)	(23.6-28.7)	(23.7-26.8)	(23.5-26.6)	(24.4-28.7)	(24.2-26.9)
Age of Cessation									
Any form of tobacco**	**39.6**	**38.3**	**39.5**	**39.4**	**40.7**	**39.5**	**39.4**	**40.3**	**39.5**
	(35.3-43.8)	(29.4-47.2)	(35.4-43.6)	(36.5-42.3)	(33.8-47.5)	(36.7-42.3)	(37.0-41.9)	(34.3-46.4)	(37.2-41.9)
Smoked tobacco	**39.1**	**38.9**	**39.1**	**38.3**	**40.9**	**38.4**	**38.5**	**40.7**	**38.6**
	(34.7-43.6)	(28.9-48.9)	(34.8-43.5)	(35.1-41.4)	(29.2-52.6)	(35.2-41.5)	(35.9-41.1)	(30.2-51.1)	(36.0-41.2)
Smokeless tobacco	**37.5**	**38.0**	**37.6**	**44.5**	**38.7**	**43.1**	**42.9**	**38.6**	**42.0**
	(30.9-44.0)	(25.3-50.7)	(31.7-43.4)	(40.8-48.2)	(30.9-46.6)	(39.1-47.0)	(39.4-46.5)	(31.6-45.6)	(38.5-45.5)

* minimum age of smoked and smokeless tobacco use; **maximum age of smoked and smokeless tobacco use

Table 4.2.1.10a Quit attempts / advices by doctor / health care worker on tobacco use by area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Quit attempts to tobacco use	(95% CI)								
Tried to stop smoking	**36.5**	**74.1**	**38.3**	**34.7**	**35.6**	**34.7**	**35.2**	**46.8**	**35.8**
	(30.4-43.2)	(41.3-92.1)	(32.7-44.2)	(29.3-40.4)	(20.3-54.4)	(29.3-40.5)	(31.0-39.7)	(29.4-65.1)	(31.7-40.2)
Advised to quit									
Tobacco use[1]	**20.3**	**18.0**	**19.9**	**17.2**	**14.5**	**16.6**	**18.1**	**15.3**	**17.5**
	(16.4-25.0)	(10.0-30.2)	(15.6-25.1)	(14.4-20.4)	(10.5-19.7)	(14.1-19.5)	(15.7-20.6)	(11.5-20.0)	(15.3-20.0)
Smoking[2]	**27.3**	**53.6**	**29.1**	**23.3**	**50.2**	**25.3**	**24.5**	**51.2**	**26.4**
	(21.1-34.5)	(26.4-78.7)	(22.2-37.3)	(19.5-27.7)	(38.2-62.1)	(21.5-29.5)	(21.2-28.1)	(39.3-62.9)	(23.0-30.2)
Smokeless tobacco use[3]	**11.9**	**6.4**	**10.8**	**11.1**	**7.9**	**10.3**	**11.3**	**7.6**	**10.4**
	(8.7-16.2)	(3.3-12.0)	(7.9-14.5)	(8.8-13.9)	(4.5-13.4)	(8.3-12.8)	(9.4-13.6)	(4.7-11.9)	(8.7-12.5)

[1]advised to quit tobacco among those who use tobacco of any form; [2]advised to quit tobacco among those who use Smoked tobacco; [3]advised to quit tobacco among those who use Smokeless tobacco

Table 4.2.1.10b Quit attempts/advices by doctor/health care worker on tobacco use by area of residence, gender and age categories (Percentage)

18 - 44 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Quit attempts to tobacco use	(95% CI)								
Tried to stop smoking	**35.9**	**54.6**	**36.5**	**32.8**	**36.7**	**32.8**	**33.8**	**44.1**	**34.1**
	(28.1-44.6)	(18.6-86.4)	(29.0-44.7)	(26.6-39.6)	(14.0-67.5)	(26.7-39.6)	(28.9-39.2)	(21.4-69.6)	(29.2-39.3)
Advised to quit									
Tobacco use[1]	**17.8**	**19.2**	**18.0**	**13.5**	**14.5**	**13.6**	**14.7**	**15.5**	**14.8**
	(13.3-23.4)	(10.1-33.4)	(13.2-24.0)	(10.6-16.9)	(9.4-21.7)	(11.0-16.8)	(12.2-17.6)	(10.9-21.7)	(12.5-17.6)
Smoking[2]	**25.3**	**60.0**	**27.2**	**19.2**	**61.9**	**21.7**	**21.2**	**61.3**	**23.5**
	(18.0-34.4)	(31.7-82.9)	(19.2-37.0)	(14.8-24.6)	(43.3-77.5)	(17.1-27.1)	(17.3-25.7)	(45.7-74.9)	(19.4-28.2)
Smokeless tobacco use[3]	**10.6**	**6.5**	**10.0**	**8.9**	**7.4**	**8.6**	**9.3**	**7.2**	**8.9**
	(7.0-15.7)	(2.4-16.8)	(6.7-14.6)	(6.6-11.9)	(3.3-15.6)	(6.5-11.3)	(7.3-11.8)	(3.6-13.7)	(7.1-11.2)
45 - 69 years									
Quit attempts to tobacco use									
Tried to stop smoking	**37.9**	**88.9**	**42.4**	**37.9**	**35.2**	**37.6**	**37.9**	**48.1**	**38.8**
	(28.6-48.2)	(59.1-97.8)	(34.2-51.0)	(30.3-46.1)	(17.7-57.7)	(30.0-45.8)	(31.7-44.5)	(29.1-67.6)	(32.7-45.3)
Advised to quit									
Tobacco use[1]	**26.6**	**16.6**	**24.2**	**24.9**	**14.4**	**22.2**	**25.4**	**14.9**	**22.7**
	(20.5-33.8)	(8.4-30.3)	(18.4-31.2)	(20.4-30.1)	(9.7-21.0)	(18.4-26.6)	(21.6-29.6)	(10.6-20.6)	(19.5-26.4)
Smoking[2]	**31.4**	**46.5**	**32.9**	**29.6**	**39.8**	**30.6**	**30.1**	**41.6**	**31.2**
	(23.6-40.3)	(18.4-77.0)	(24.5-42.6)	(24.0-36.0)	(26.1-55.2)	(25.4-36.3)	(25.4-35.3)	(28.5-56.0)	(26.7-36.1)
Smokeless tobacco use[3]	**16.5**	**6.2**	**12.9**	**17.1**	**8.6**	**14.3**	**17.0**	**8.0**	**14.0**
	(10.3-25.5)	(3.0-12.5)	(8.4-19.4)	(12.8-22.6)	(4.8-14.8)	(10.8-18.7)	(13.3-21.6)	(4.9-12.9)	(11.0-17.7)

[1]advised to quit tobacco among those who use tobacco of any form; [2] advised to quit tobacco among those who use Smoked tobacco; [3]advised to quit tobacco among those who use Smokeless tobacco

4.2.2 Alcohol Use

Table 4.2.2.1a Alcohol use by area of residence and gender (Percentage)

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Life time abstainers	**69.0**	**98.6**	**82.8**	**64.6**	**96.7**	**80.2**	**66.1**	**97.3**	**81.1**
	(65.3-72.5)	(97.6-99.2)	(80.7-84.8)	(60.6-68.4)	(94.4-98.0)	(77.5-82.7)	(63.2-68.9)	(95.8-98.3)	(79.2-82.9)
Ever Consumed	**31.0**	**1.4**	**17.2**	**35.4**	**3.3**	**19.8**	**33.9**	**2.7**	**18.9**
	(27.5-34.7)	(0.8-2.4)	(15.2-19.3)	(31.6-39.4)	(2.0-5.6)	(17.3-22.5)	(31.1-36.8)	(1.7-4.2)	(17.1-20.8)
Consumed in past 12 months	**25.6**	**1.2**	**14.2**	**29.7**	**3.0**	**16.7**	**28.3**	**2.4**	**15.9**
	(22.7-28.7)	(0.6-2.2)	(12.5-16.0)	(26.3-33.4)	(1.7-5.3)	(14.4-19.3)	(25.8-31.0)	(1.5-3.9)	(14.2-17.7)
Consumed in past 30 days	**20.3**	**0.5**	**11.0**	**23.8**	**2.4**	**13.3**	**22.6**	**1.8**	**12.6**
	(17.8-23.0)	(0.2-1.0)	(9.7-12.5)	(20.7-27.1)	(1.3-4.5)	(11.3-15.7)	(20.4-24.9)	(1.0-3.2)	(11.1-14.2)

Table 4.2.2.1b Alcohol use by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Life time abstainers	**68.8**	**98.4**	**82.5**	**65.2**	**97.2**	**80.7**	**66.4**	**97.6**	**81.3**
	(64.2-73.0)	(96.9-99.2)	(79.7-84.9)	(60.9-69.2)	(95.0-98.4)	(77.9-83.2)	(63.2-69.4)	(96.1-98.5)	(79.2-83.1)
Ever Consumed	**31.2**	**1.6**	**17.5**	**34.8**	**2.8**	**19.3**	**33.6**	**2.4**	**18.7**
	(27.0-35.8)	(0.8-3.1)	(15.1-20.3)	(30.8-39.1)	(1.6-5.0)	(16.8-22.1)	(30.6-36.8)	(1.5-3.9)	(16.9-20.8)
Consumed in past 12 months	**26.7**	**1.5**	**15.0**	**30.5**	**2.7**	**17.0**	**29.2**	**2.3**	**16.4**
	(22.8-31.0)	(0.7-3.0)	(12.8-17.6)	(26.8-34.4)	(1.5-4.9)	(14.7-19.6)	(26.4-32.1)	(1.4-3.8)	(14.6-18.3)
Consumed in past 30 days	**20.8**	**0.5**	**11.4**	**24.1**	**2.2**	**13.5**	**23.0**	**1.7**	**12.8**
	(17.6-24.4)	(0.2-1.2)	(9.7-13.4)	(20.8-27.7)	(1.1-4.3)	(11.4-15.9)	(20.5-25.7)	(0.9-3.1)	(11.3-14.5)
45 - 69 years									
Life time abstainers	**69.4**	**99.1**	**83.6**	**63.3**	**95.5**	**79.3**	**65.5**	**96.8**	**80.8**
	(63.8-74.5)	(98.2-99.6)	(80.5-86.3)	(57.7-68.6)	(91.9-97.6)	(75.2-82.8)	(61.3-69.4)	(94.4-98.2)	(78.0-83.3)
Ever Consumed	**30.6**	**0.9**	**16.4**	**36.7**	**4.5**	**20.7**	**34.5**	**3.2**	**19.2**
	(25.5-36.2)	(0.4-1.8)	(13.7-19.5)	(31.4-42.3)	(2.4-8.1)	(17.2-24.8)	(30.6-38.7)	(1.8-5.6)	(16.7-22.0)
Consumed in past 12 months	**23.2**	**0.6**	**12.3**	**28.0**	**3.8**	**16.0**	**26.2**	**2.7**	**14.7**
	(18.8-28.2)	(0.3-1.3)	(10.1-15.0)	(22.9-33.6)	(1.9-7.4)	(12.7-20.0)	(22.5-30.3)	(1.4-5.1)	(12.4-17.4)
Consumed in past 30 days	**19.1**	**0.5**	**10.2**	**22.9**	**2.8**	**13.0**	**21.6**	**2.0**	**12.0**
	(15.3-23.5)	(0.2-1.2)	(8.2-12.5)	(18.4-28.3)	(1.3-5.9)	(10.1-16.6)	(18.2-25.3)	(1.0-4.0)	(9.9-14.4)

Table 4.2.2.2a Patterns of alcohol use daily or almost daily in the past 12 months* by area of residence and gender (Percentage)

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Daily or almost daily	(95% CI)								
Unable to stop drinking once started	**6.6**	**0.2**	**6.4**	**4.8**	**6.2**	**4.9**	**5.3**	**5.2**	**5.3**
	(3.8-11.4)	(0.03-1.7)	(3.6-11.0)	(3.3-6.9)	(2.4-15.1)	(3.4-6.9)	(3.9-7.3)	(1.9-13.4)	(3.9-7.2)
Failed to do routine activities due to drinking	**2.9**	**0.0**	**2.8**	**1.4**	**3.3**	**1.5**	**1.9**	**2.8**	**1.9**
	(1.1-7.9)	(0.0-0.0)	(1.0-7.6)	(0.7-2.7)	(0.6-16.1)	(0.8-2.9)	(1.0-3.4)	(0.5-14.2)	(1.1-3.4)
Needed drink first in the morning	**1.1**	**0.0**	**1.1**	**1.8**	**3.3**	**1.9**	**1.6**	**2.8**	**1.7**
	(0.5-2.6)	(0.0-0.0)	(0.5-2.5)	(1.0-3.3)	(0.6-16.1)	(0.9-3.9)	(0.9-2.7)	(0.5-14.2)	(0.9-3.0)

*among those who consumed alcohol in the past 12 months

Table 4.2.2.2b Patterns of alcohol use daily or almost daily in the past 12 months* by area of residence, gender and age categories (Percentage)

Daily or almost daily	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 Years	(95% CI)								
Unable to stop drinking once started	**5.4**	**0.3**	**5.2**	**4.2**	**4.0**	**4.2**	**4.6**	**3.3**	**4.5**
	(2.4-11.6)	(0.03-2.1)	(2.3-11.2)	(2.5-7.0)	(0.6-22.0)	(2.6-6.8)	(3.0-7.1)	(0.5-18.1)	(3.0-6.8)
Failed to do routine activities due to drinking	**3.3**	**0.0**	**3.1**	**1.4**	**0.0**	**1.3**	**2.0**	**0.0**	**1.8**
	(1.0-10.6)	(0.0-0.0)	(0.9-10.2)	(0.6-3.3)	(0.0-0.0)	(0.5-3.0)	(0.9-4.2)	(0.0-0.0)	(0.9-3.9)
Needed drink first in the morning	**1.2**	**0.0**	**1.2**	**1.0**	**0.0**	**0.9**	**1.1**	**0.0**	**1.0**
	(0.4-3.4)	(0.0-0.0)	(0.4-3.2)	(0.4-2.6)	(0.0-0.0)	(0.3-2.4)	(0.5-2.2)	(0.0-0.0)	(0.5-2.0)
45 - 69 Years									
Unable to stop drinking once started	**9.7**	**0.0**	**9.4**	**6.3**	**9.8**	**6.7**	**7.3**	**9.0**	**7.5**
	(4.0-21.6)	(0.0-0.0)	(3.9-21.2)	(3.6-10.6)	(2.4-32.8)	(4.2-10.4)	(4.5-11.8)	(2.1-31.1)	(4.8-11.4)
Failed to do routine activities due to drinking	**2.1**	**0.0**	**2.1**	**1.3**	**8.8**	**2.2**	**1.6**	**8.1**	**2.2**
	(0.5-8.2)	(0.0-0.0)	(0.5-8.0)	(0.5-3.4)	(1.8-34.0)	(0.9-5.5)	(0.7-3.5)	(1.6-32.4)	(1.0-4.6)
Needed drink first in the morning	**0.9**	**0.0**	**0.9**	**3.9**	**8.8**	**4.5**	**2.9**	**8.1**	**3.4**
	(0.2-3.6)	(0.0-0.0)	(0.2-3.5)	(1.8-8.4)	(1.8-34.0)	(1.8-10.9)	(1.4-6.1)	(1.6-32.4)	(1.4-8.1)

*among those who consumed alcohol in the past 12 months

Table 4.2.2.3a Patterns of alcohol use weekly in the past 12 months* by area of residence and gender (Percentage)

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Weekly	(95% CI)								
Unable to stop drinking once started	**9.2**	**1.2**	**8.9**	**7.9**	**7.9**	**7.9**	**8.3**	**6.8**	**8.2**
	(5.5-15.0)	(0.2-7.9)	(5.3-14.5)	(5.6-11.1)	(3.1-18.8)	(5.7-10.7)	(6.2-11.0)	(2.7-16.2)	(6.2-10.7)
Failed to do routine activities due to drinking	**2.1**	**0.0**	**2.1**	**3.5**	**2.8**	**3.5**	**3.1**	**2.4**	**3.0**
	(0.7-6.0)	(0.0-0.0)	(0.7-5.8)	(2.1-5.8)	(0.5-14.7)	(2.0-5.8)	(2.0-4.9)	(0.4-12.3)	(1.9-4.8)
Needed drink first in the morning	**1.9**	**0.0**	**1.9**	**2.6**	**4.8**	**2.8**	**2.4**	**4.0**	**2.5**
	(0.6-5.9)	(0.0-0.0)	(0.6-5.7)	(1.4-4.8)	(1.4-15.5)	(1.6-4.9)	(1.4-4.1)	(1.1-13.4)	(1.5-4.2)

*among those who consumed alcohol in the past 12 months

Table 4.2.2.3b Patterns of alcohol use weekly in the past 12 months* by area of residence, gender and age categories (Percentage)

Weekly	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 Years	(95% CI)								
Unable to stop drinking once started	**10.5**	**0.0**	**10.0**	**8.4**	**12.2**	**8.7**	**9.0**	**9.7**	**9.1**
	(5.9-17.8)	(0.0-0.0)	(5.6-17.1)	(5.5-12.6)	(4.7-27.8)	(5.9-12.5)	(6.4-12.5)	(3.7-23.2)	(6.6-12.3)
Failed to do routine activities due to drinking	**2.3**	**0.0**	**2.2**	**3.9**	**3.8**	**3.9**	**3.4**	**3.0**	**3.4**
	(0.6-8.2)	(0.0-0.0)	(0.6-7.8)	(2.1-7.0)	(0.5-23.7)	(2.1-7.1)	(2.0-5.9)	(0.4-19.3)	(1.9-5.9)
Needed drink first in the morning	**2.0**	**0.0**	**1.9**	**3.0**	**7.7**	**3.3**	**2.7**	**6.1**	**2.9**
	(0.5-8.4)	(0.0-0.0)	(0.4-8.1)	(1.4-6.1)	(2.5-21.1)	(1.8-6.2)	(1.4-5.2)	(1.9-17.9)	(1.6-5.2)
45 - 69 Years									
Unable to stop drinking once started	**6.0**	**6.8**	**6.0**	**6.6**	**0.8**	**5.9**	**6.4**	**1.2**	**5.9**
	(2.4-14.2)	(1.0-34.2)	(2.4-14.0)	(3.7-11.5)	(0.1-5.8)	(3.2-10.4)	(3.9-10.2)	(0.3-5.5)	(3.6-9.5)
Failed to do routine activities due to drinking	**1.7**	**0.0**	**1.6**	**2.6**	**1.2**	**2.4**	**2.3**	**1.1**	**2.2**
	(0.3-9.4)	(0.0-0.0)	(0.3-9.2)	(1.2-5.4)	(0.1-8.9)	(1.2-5.0)	(1.1-4.6)	(0.1-8.1)	(1.1-4.3)
Needed drink first in the morning	**1.7**	**0.0**	**1.6**	**1.6**	**0.0**	**1.5**	**1.6**	**0.0**	**1.5**
	(0.4-7.3)	(0.0-0.0)	(0.4-7.2)	(0.7-4.0)	(0.0-0.0)	(0.6-3.5)	(0.8-3.6)	(0.0-0.0)	(0.7-3.3)

*among those who consumed alcohol in the past 12 months

Table 4.2.2.4a Number of standard drinks* consumed in one drinking occasion in the past 30 days by area of residence and gender (Mean)

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Among alcohol consumers in past 30 days	(95% CI)								
No. of standard drinks in one drinking occasion	**5.0**	**2.1**	**5.0**	**5.5**	**5.2**	**5.4**	**5.3**	**4.9**	**5.3**
	(4.6-5.5)	(0.8-3.4)	(4.5- 5.5)	(4.7-6.3)	(3.2-7.1)	(4.6-6.3)	(4.8-5.9)	(3.1- 6.8)	(4.7- 5.9)
Maximum number of standard drinks in one drinking occasion	**5.6**	**1.8**	**5.5**	**6.7**	**5.9**	**6.6**	**6.3**	**5.6**	**6.3**
	(5.0-6.1)	(0.9-2.7)	(4.9- 6.1)	(5.3-8.1)	(3.3-8.4)	(5.2- 8.1)	(5.3-7.3)	(3.2 -8.0)	(5.2-7.3)

*one standard drink equivalent to 10 grams of alcohol

Table 4.2.2.4b Number of standard drinks* consumed in one drinking occasion in the past 30 days by area of residence, gender and age categories (Mean)

Among alcohol consumers in past 30 days	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 Years	(95% CI)								
No. of standard drink in one drinking occasion	**5.0**	**1.8**	**4.9**	**5.4**	**4.4**	**5.3**	**5.3**	**4.2**	**5.2**
	(4.4-5.6)	(0.8-2.9)	(4.3-5.5)	(4.7-6.1)	(2.7-6.0)	(4.6-6.1)	(4.7-5.8)	(2.7-5.7)	(4.6-5.8)
Maximum number of standard drinks in one drinking occasion	**5.5**	**1.8**	**5.5**	**6.2**	**4.7**	**6.1**	**6.0**	**4.5**	**5.9**
	(4.8-6.2)	(0.8-2.9)	(4.8-6.1)	(5.4-7.0)	(3.6-5.9)	(5.3-6.8)	(5.4-6.6)	(3.4-5.6)	(5.3-6.5)
45 - 69 Years									
No. of standard drink in one drinking occasion	**5.2**	**2.6**	**5.1**	**5.6**	**6.7**	**5.8**	**5.5**	**6.4**	**5.6**
	(4.3-6.1)	(-0.1-5.2)	(4.3-6.0)	(4.2-7.1)	(2.8-10.5)	(4.2-7.3)	(4.4-6.5)	(2.8-10.0)	(4.4-6.7)
Maximum number of standard drinks in one drinking occasion	**5.7**	**1.8**	**5.6**	**7.9**	**8.1**	**7.9**	**7.2**	**7.7**	**7.2**
	(4.4-7.0)	(0.8-2.7)	(4.3-6.9)	(4.2-11.5)	(2.3-13.9)	(4.1-11.7)	(4.6-9.8)	(2.2-13.1)	(4.5-10.0)

*one standard drink equivalent to 10 grams of alcohol

Table 4.2.2.5a Maximum number of standard drinks* consumed in one drinking occasion by area of residence and gender (Percentage)**

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
<3 standard drinks	**18.3**	**74.6**	**19.4**	**16.4**	**19.4**	**16.6**	**16.9**	**23.8**	**17.4**
	(13.4-24.5)	(33.2-94.6)	(14.2-25.8)	(12.2-21.6)	(10.8-32.5)	(12.5-21.8)	(13.6-21.0)	(13.9-37.6)	(14.0-21.4)
3–5 standard drinks	**34.7**	**22.3**	**34.4**	**38.6**	**50.9**	**39.7**	**37.4**	**48.6**	**38.2**
	(27.6-42.4)	(4.0-66.5)	(27.5-42.1)	(32.5-45.1)	(33.7-67.8)	(33.7-45.9)	(32.6-42.6)	(32.6-64.9)	(33.4-43.2)
≥6 standard drinks	**47.0**	**3.1**	**46.2**	**45.0**	**29.7**	**43.7**	**45.7**	**27.6**	**44.4**
	(39.0-55.2)	(0.5-15.5)	(38.2-54.4)	(38.4-51.9)	(14.9-50.6)	(37.0-50.6)	(40.4-51.0)	(13.8-47.7)	(39.1-49.9)

*one standard drink equivalent to 10 grams of alcohol ** among alcohol consumers in past 30 days

Table 4.2.2.5b Maximum number of standard drinks* consumed in one drinking occasion by area of residence, gender and age categories (Percentage)**

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 Years	(95% CI)								
<3 standard drinks	**19.3**	**74.9**	**20.4**	**18.7**	**27.0**	**19.4**	**18.9**	**30.9**	**19.7**
	(13.3-27.2)	(28.0-95.8)	(14.3-28.2)	(13.5-25.4)	(15.2-43.1)	(14.2-25.9)	(14.7-24.0)	(18.3-47.2)	(15.4-24.7)
3 – 5 standard drinks	**32.9**	**20.8**	**32.7**	**36.4**	**38.5**	**36.5**	**35.3**	**37.1**	**35.4**
	(24.3-42.9)	(2.6-71.8)	(24.2-42.5)	(28.9-44.5)	(19.9-61.3)	(29.2-44.6)	(29.4-41.7)	(19.7-58.6)	(29.5-41.8)
≥6 standard drinks	**47.8**	**4.3**	**46.9**	**44.9**	**34.5**	**44.1**	**45.8**	**32.0**	**44.9**
	(37.0-58.7)	(0.7-23.1)	(36.4-57.8)	(37.3-52.8)	(17.4-56.9)	(36.4-52.1)	(39.5-52.2)	(16.1-53.5)	(38.6-51.4)
45 - 69 Years									
<3 standard drinks	**15.9**	**73.9**	**17.0**	**10.3**	**4.9**	**9.8**	**12.1**	**9.8**	**11.9**
	(7.3-31.4)	(31.8-94.5)	(8.3-31.8)	(6.4-16.2)	(1.0-20.7)	(6.0-15.5)	(7.9-18.2)	(3.1-26.7)	(7.8-17.8)
3 – 5 standard drinks	**38.7**	**25.8**	**38.5**	**44.4**	**74.6**	**47.5**	**42.6**	**71.1**	**44.8**
	(28.6-50.0)	(5.4-68.0)	(28.5-49.5)	(34.6-54.6)	(46.8-90.7)	(37.8-57.4)	(35.1-50.5)	(45.6-87.8)	(37.4-52.6)
≥6 standard drinks	**45.4**	**0.3**	**44.5**	**45.3**	**20.5**	**42.7**	**45.3**	**19.1**	**43.3**
	(34.2-57.0)	(0.04-2.7)	(33.5-56.0)	(34.2-56.9)	(6.3-49.9)	(32.2-54.0)	(36.8-54.1)	(5.9-47.1)	(35.0-51.8)

*one standard drink equivalent to 10 grams of alcohol; ** among alcohol consumers in past 30 days

Table 4.2.2.6a Adults who engaged in heavy episodic drinking* in last 30 days by area of residence and gender

18 - 69 Years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
≥6 standard drinks**	**10.6**	**0.01**	**5.7**	**11.1**	**0.8**	**6.1**	**10.9**	**0.5**	**5.9**
	(8.7-12.8)	(0.003-0.06)	(4.7-6.8)	(9.1-13.4)	(0.3-1.9)	(4.9-7.5)	(9.5-12.6)	(0.2-1.3)	(5.1-6.9)

***** heavy episodic drinking constitutes those who report drinking ≥6 standard drinks (Equivalent to 60 grams of alcohol) in a single drinking occasion**one standard drink equivalents to 10 grams of alcohol

Table 4.2.2.6b Adults who engaged in heavy episodic drinking* in last 30 days by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 Years	(95% CI)								
≥6 standard drinks**	**9.8**	**0.02**	**5.3**	**11.3**	**0.9**	**6.3**	**10.8**	**0.6**	**6.0**
	(7.4-12.8)	(0.003-0.1)	(4.0-6.9)	(9.2-13.9)	(0.4-2.0)	(5.1-7.7)	(9.2-12.7)	(0.3-1.4)	(5.0-7.0)
45 - 69 Years									
≥6 standard drinks**	**12.4**	**0.001**	**6.5**	**10.5**	**0.6**	**5.6**	**11.2**	**0.4**	**5.9**
	(9.3-16.4)	(0.0002-0.009)	(4.8-8.6)	(7.3-14.8)	(0.2-2.0)	(3.8-8.2)	(8.8-14.1)	(0.1-1.3)	(4.5-7.7)

***** heavy episodic drinking constitutes those who report drinking ≥6 standard drinks (Equivalent to 60 grams of alcohol) in a single drinking occasion; **one standard drink equivalents to 10 grams of alcohol

Table 4.2.2.7a Consumption of alcohol* from unauthorized sources in past 7 days by area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Unauthorized sources	**11.4**	**9.0**	**11.4**	**23.6**	**24.8**	**23.7**	**19.8**	**23.4**	**20.1**
	(7.2-17.7)	(2.4-28.7)	(7.2-17.5)	(18.5-29.4)	(10.8-47.4)	(18.8-29.3)	(15.9-24.3)	(10.6-44.2)	(16.2-24.5)
Smuggled	**3.9**	**9.6**	**4.0**	**2.9**	**0.0**	**2.6**	**3.0**	**0.3**	**2.8**
	(0.6-20.7)	(0.9-56.8)	(0.7-20.0)	(0.9-9.1)	(0.0-0.0)	(0.8-8.4)	(1.1-8.1)	(0.04-2.8)	(1.0-7.6)
Home-brewed	**34.3**	**31.7**	**34.3**	**46.7**	**92.4**	**50.9**	**44.5**	**90.3**	**48.1**
	(15.9-59.2)	(3.8-84.6)	(16.0-58.8)	(33.6-60.3)	(68.0-98.6)	(36.5-65.1)	(32.9-56.7)	(66.5-97.8)	(35.4-61.0)
Illegally brewed	**13.5**	**0.0**	**13.3**	**22.3**	**0.0**	**20.3**	**20.7**	**0.0**	**19.1**
	(3.9-37.5)	(0.0-0.0)	(3.8-37.0)	(13.4-34.8)	(0.0-0.0)	(11.8-32.7)	(12.9-31.7)	(0.0-0.0)	(11.6-29.9)
Other untaxed alcohol	**8.3**	**22.1**	**8.5**	**15.3**	**10.8**	**14.9**	**14.1**	**11.2**	**13.9**
	(1.4-36.2)	(2.0-79.7)	(1.6-35.3)	(8.3-26.7)	(1.3-52.9)	(7.8-26.5)	(7.9-23.8)	(1.5-50.8)	(7.6-23.9)

*alcohol not intended for drinking was found to be none

Table 4.2.2.7b Consumption of alcohol* from unauthorized sources in past 7 days by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Unauthorized sources	**11.0**	**13.7**	**11.1**	**21.3**	**23.6**	**21.5**	**18.2**	**22.7**	**18.4**
	(6.0-19.5)	(3.2-42.7)	(6.0-19.4)	(16.0-27.8)	(8.3-51.2)	(16.0-28.2)	(14.0-23.2)	(8.5-48.1)	(14.1-23.7)
Smuggled	**0.0**	**9.6**	**0.2**	**3.5**	**0.0**	**3.2**	**2.8**	**0.5**	**2.7**
	(0.0-0.0)	(0.9-56.8)	(0.03-1.8)	(0.8-13.2)	(0.0-0.0)	(0.8-12.2)	(0.7-10.9)	(0.1-4.8)	(0.7-10.1)
Home-brewed	**25.2**	**31.7**	**25.4**	**49.9**	**100.0**	**54.3**	**45.3**	**96.3**	**49.2**
	(7.4-58.6)	(3.8-84.6)	(7.8-57.8)	(33.5-66.3)	(0.0-100.0)	(37.1-70.5)	(30.8-60.6)	(72.9-99.6)	(33.9-64.7)
Illegally brewed	**4.0**	**0.0**	**3.9**	**21.6**	**0.0**	**19.7**	**18.3**	**0.0**	**17.0**
	(0.6-22.1)	(0.0-0.0)	(0.6-21.6)	(11.4-37.3)	(0.0-0.0)	(10.0-35.2)	(9.7-32.0)	(0.0-0.0)	(8.7-30.3)
Other untaxed alcohol	**0.9**	**22.1**	**1.4**	**16.5**	**17.6**	**16.6**	**13.6**	**17.8**	**13.9**
	(0.2-4.8)	(2.0-79.7)	(0.3-5.4)	(7.7-31.9)	(1.9-69.8)	(7.5-32.7)	(6.4-26.6)	(2.3-67.1)	(6.4-27.7)

45 - 69 years									
Unauthorized sources	**12.4**	**0.0**	**12.1**	**29.3**	**27.2**	**29.1**	**23.9**	**24.9**	**24.0**
	(6.4-22.5)	(0.0-0.0)	(6.3-21.9)	(19.1-42.1)	(12.0-50.7)	(20.4-39.6)	(16.3-33.7)	(11.3-46.2)	(17.2-32.5)
Smuggled	**12.4**	**0.0**	**12.4**	**1.7**	**0.0**	**1.5**	**3.4**	**0.0**	**3.2**
	(2.5-43.7)	(0.0-0.0)	(2.5-43.7)	(0.2-11.8)	(0.0-0.0)	(0.2-10.7)	(0.9-12.8)	(0.0-0.0)	(0.8-11.7)
Home-brewed	**54.1**	**0.0**	**54.1**	**40.7**	**80.3**	**44.7**	**42.9**	**80.3**	**46.1**
	(24.1-81.4)	(0.0-0.0)	(24.1-81.4)	(25.8-57.6)	(41.7-95.9)	(28.2-62.4)	(28.7-58.3)	(41.7-95.9)	(30.9-62.0)
Illegally brewed	**34.1**	**0.0**	**34.1**	**23.6**	**0.0**	**21.2**	**25.3**	**0.0**	**23.2**
	(9.2-72.6)	(0.0-0.0)	(9.2-72.6)	(11.1-43.2)	(0.0-0.0)	(9.6-40.7)	(13.5-42.4)	(0.0-0.0)	(11.9-40.2)
Other untaxed alcohol	**24.4**	**0.0**	**24.4**	**13.2**	**0.0**	**11.9**	**15.0**	**0.0**	**13.7**
	(4.1-70.6)	(0.0-0.0)	(4.1-70.6)	(4.7-31.8)	(0.0-0.0)	(4.3-28.7)	(6.1-32.6)	(0.0-0.0)	(5.6-29.9)

*alcohol not intended for drinking was found to be none

Table 4.2.2.8a Age (in years) of initiation of alcohol consumption by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**23.0**	**20.8**	**22.9**	**21.9**	**21.1**	**21.9**	**22.2**	**21.1**	**22.2**
	(22.3-23.7)	(15.9-25.7)	(22.1-23.6)	(21.2-22.6)	(18.2-24.0)	(21.1-22.6)	(21.7-22.8)	(18.5-23.6)	(21.6-22.7)

Table 4.2.2.8b Age (in years) of initiation of alcohol consumption by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 44 years	**22.3**	**19.2**	**22.2**	**20.8**	**17.7**	**20.6**	**21.3**	**18.0**	**21.1**
	(21.7-23.0)	(13.9-24.5)	(21.5-23.0)	(20.1-21.4)	(14.1-21.2)	(19.9-21.2)	(20.8-21.8)	(14.9-21.0)	(20.5-21.6)
45 - 69 years	**24.3**	**27.0**	**24.4**	**24.5**	**26.3**	**24.7**	**24.5**	**26.3**	**24.6**
	(22.7-26.0)	(22.0-32.0)	(22.8-26.0)	(23.2-25.8)	(21.8-30.8)	(23.4-26.1)	(23.4-25.5)	(22.2-30.5)	(23.6-25.7)

4.2.3 Diet

Table 4.2.3.1a Type of oil most often used for cooking in households by area of residence (Percentage)

Most often oil used for cooking	Urban	Rural	Total
	(95% CI)		
Mustard oil	**30.4**	**57.7**	**48.8**
	(23.3-38.6)	(51.1-64.0)	(43.5-54.1)
Coconut oil	**5.4**	**0.3**	**2.0**
	(3.0-9.5)	(0.1-0.6)	(1.2-3.3)
Groundnut oil	**12.4**	**7.1**	**8.8**
	(8.8-17.3)	(5.4-9.4)	(7.1-11.0)
Sunflower oil	**22.5**	**11.8**	**15.2**
	(17.6-28.2)	(8.4-16.2)	(12.3-18.7)
Soyabean oil	**18.8**	**13.5**	**15.2**
	(13.7-25.2)	(10.1-17.9)	(12.3-18.8)
Palm oil	**5.7**	**5.1**	**5.3**
	(3.8-8.5)	(3.4-7.4)	(3.9-7.0)
Vanaspati	**0.1**	**0.5**	**0.3**
	(0.02-0.2)	(0.1-1.7)	(0.1-1.1)
Pure Ghee	**0.2**	**0.3**	**0.3**
	(0.1-0.4)	(0.1-0.9)	(0.1-0.6)
Sesame oil	**2.0**	**0.5**	**1.0**
	(0.7-5.1)	(0.1-1.5)	(0.4-2.0)
Rice bran oil	**0.7**	**0.1**	**0.3**
	(0.4-1.2)	(0.02-0.4)	(0.2-0.5)
Other	**1.6**	**3.2**	**2.7**
	(0.7-3.6)	(1.6-6.2)	(1.5-4.7)
Can't decide/none in particular	**0.2**	**0.004**	**0.1**
	(0.04-0.7)	(0.007-0.2)	(0.03-0.2)

Table 4.2.3.2a Number of servings of fruits, vegetables and fruit and/or vegetable juices consumed per day by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Serving of fruits	**0.8**	**0.6**	**0.7**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.6**
	(0.7-0.8)	(0.6-0.7)	(0.6-0.8)	(0.5-0.6)	(0.4-0.5)	(0.5-0.6)	(0.6-0.7)	(0.5-0.6)	(0.6-0.6)
Serving of vegetables	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.3**	**1.4**	**1.2**	**1.3**
	(1.2-1.5)	(1.2-1.4)	(1.2-1.4)	(1.2-1.5)	(1.2-1.3)	(1.2-1.4)	(1.3-1.4)	(1.2-1.3)	(1.2-1.4)
Serving of fresh fruit and/or vegetable juice	**0.5**	**0.5**	**0.5**	**0.5**	**0.3**	**0.5**	**0.5**	**0.4**	**0.5**
	(0.4-0.6)	(0.4-0.5)	(0.4-0.6)	(0.5-0.6)	(0.3-0.4)	(0.4-0.5)	(0.5-0.6)	(0.4-0.5)	(0.5-0.5)

Table 4.2.3.2b Number of servings of fruits, vegetables and fruit and/or vegetable juices consumed per day by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Servings of fruits	**0.8**	**0.6**	**0.7**	**0.6**	**0.5**	**0.5**	**0.6**	**0.5**	**0.6**
	(0.7-0.9)	(0.6-0.7)	(0.6-0.8)	(0.5-0.6)	(0.4-0.5)	(0.5-0.6)	(0.6-0.7)	(0.5-0.6)	(0.6-0.6)
Servings of vegetables	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.3**	**1.4**	**1.3**	**1.3**
	(1.2-1.5)	(1.2-1.4)	(1.2-1.4)	(1.3-1.5)	(1.2-1.3)	(1.2-1.4)	(1.3-1.4)	(1.2-1.3)	(1.2-1.4)
Servings of fresh fruits and/or vegetable juice	**0.6**	**0.5**	**0.5**	**0.5**	**0.3**	**0.5**	**0.5**	**0.4**	**0.5**
	(0.4-0.7)	(0.4-0.6)	(0.4-0.6)	(0.5-0.6)	(0.2-0.4)	(0.4-0.5)	(0.5-0.6)	(0.3-0.5)	(0.5-0.6)
45 - 69 years									
Servings of fruits	**0.7**	**0.7**	**0.7**	**0.5**	**0.4**	**0.4**	**0.6**	**0.5**	**0.6**
	(0.6-0.8)	(0.6-0.8)	(0.6-0.8)	(0.4-0.5)	(0.4-0.5)	(0.4-0.5)	(0.5-0.6)	(0.5-0.6)	(0.5-0.6)
Servings of vegetables	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.3**	**1.3**	**1.2**	**1.3**
	(1.2-1.5)	(1.2-1.4)	(1.2-1.5)	(1.2-1.4)	(1.1-1.3)	(1.2-1.4)	(1.2-1.4)	(1.2-1.3)	(1.2-1.4)
Servings of fresh fruits and/or vegetable juice	**0.5**	**0.4**	**0.4**	**0.6**	**0.4**	**0.5**	**0.5**	**0.4**	**0.5**
	(0.4-0.6)	(0.3-0.4)	(0.4-0.5)	(0.4-0.7)	(0.2-0.6)	(0.4-0.6)	(0.4-0.6)	(0.3-0.5)	(0.4-0.5)

Table 4.2.3.3a Number of servings* of fruits and/or vegetables consumed per day by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**2.0**	**1.8**	**1.9**	**1.7**	**1.5**	**1.6**	**1.8**	**1.6**	**1.7**
	(1.9-2.2)	(1.7-1.9)	(1.8-2.1)	(1.6-1.8)	(1.4-1.6)	(1.5-1.7)	(1.7-1.9)	(1.5-1.7)	(1.6-1.8)

*among those who consumed fruits and/or vegetables

Table 4.2.3.3b Number of servings* of fruits and/or vegetables consumed per day by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 44 years	**2.0**	**1.8**	**1.9**	**1.8**	**1.5**	**1.6**	**1.9**	**1.6**	**1.7**
	(1.8-2.2)	(1.7-1.9)	(1.8-2.1)	(1.6-1.9)	(1.4-1.6)	(1.5-1.7)	(1.7-2.0)	(1.5-1.7)	(1.7-1.8)
45 - 69 years	**2.0**	**1.8**	**1.9**	**1.6**	**1.4**	**1.5**	**1.7**	**1.5**	**1.6**
	(1.8-2.2)	(1.6-1.9)	(1.7-2.1)	(1.4-1.7)	(1.3-1.5)	(1.4-1.6)	(1.6-1.9)	(1.4-1.6)	(1.6-1.7)

*among those who consumed fruits and/or vegetables

Table 4.2.3.4a Inadequate consumption of fruits and/or vegetables per day by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**97.5**	**98.0**	**97.7**	**98.2**	**99.2**	**98.7**	**98.0**	**98.8**	**98.4**
	(96.0-98.5)	(96.9-98.8)	(96.7-98.5)	(97.0-98.9)	(98.5-99.5)	(97.9-99.2)	(97.1-98.6)	(98.3-99.2)	(97.8-98.8)

Table 4.2.3.4b Inadequate consumption of fruits and/or vegetables per day by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 44 years	**97.5**	**97.8**	**97.7**	**98.1**	**99.2**	**98.6**	**97.9**	**98.8**	**98.3**
	(95.8-98.5)	(96.3-98.7)	(96.5-98.5)	(96.6-98.9)	(98.5-99.6)	(97.7-99.1)	(96.8-98.6)	(98.1-99.2)	(97.6-98.8)
45 - 69 years	**97.4**	**98.4**	**97.9**	**98.6**	**99.1**	**98.9**	**98.2**	**98.9**	**98.5**
	(95.3-98.6)	(97.3-99.1)	(96.6-98.7)	(97.5-99.3)	(97.9-99.6)	(97.9-99.4)	(97.2-98.8)	(98.1-99.3)	(97.9-99.0)

Table 4.2.3.5a Minimum servings of fruits and vegetables consumed per day by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
>1 servings of fruits	**23.2**	**18.4**	**21.0**	**8.4**	**6.2**	**7.4**	**13.5**	**10.2**	**11.9**
	(19.1-28.0)	(15.3-21.9)	(18.1-24.1)	(6.9-10.4)	(4.8-8.1)	(6.0-9.0)	(11.5-15.8)	(8.7-11.9)	(10.4-13.6)
>1 servings of vegetables	**64.1**	**66.5**	**65.2**	**58.1**	**56.7**	**57.4**	**60.2**	**59.9**	**60.0**
	(59.8-68.2)	(62.0-70.8)	(61.4-68.8)	(54.1-62.1)	(52.3-61.0)	(53.9-60.9)	(57.1-63.1)	(56.6-63.2)	(57.3-62.7)

Table 4.2.3.5b Minimum servings of fruits and vegetables consumed per day by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
>1 servings of fruits	**22.3**	**18.5**	**20.5**	**9.4**	**6.9**	**8.2**	**13.7**	**10.6**	**12.2**
	(18.2-27.0)	(15.2-22.4)	(17.8-23.6)	(7.5-11.6)	(5.2-9.0)	(6.7-10.0)	(11.8-16.0)	(8.9-12.5)	(10.7-13.9)
>1 servings of vegetables	**62.1**	**66.3**	**64.0**	**59.3**	**57.1**	**58.2**	**60.2**	**60.0**	**60.1**
	(56.9-67.0)	(61.6-70.8)	(59.8-68.1)	(54.8-63.6)	(52.1-61.9)	(54.4-62.0)	(56.8-63.6)	(56.3-63.7)	(57.2-63.0)
45 - 69 years									
>1 servings of fruits	**25.3**	**18.1**	**21.9**	**6.2**	**4.8**	**5.5**	**13.0**	**9.4**	**11.2**
	(19.4-32.3)	(14.2-22.8)	(18.0-26.3)	(4.1-9.1)	(3.3-6.9)	(4.0-7.5)	(10.0-16.7)	(7.6-11.5)	(9.2-13.6)
>1 servings of vegetables	**68.5**	**66.9**	**67.7**	**55.3**	**55.9**	**55.5**	**60.0**	**59.7**	**59.8**
	(63.2-73.3)	(60.3-72.9)	(63.4-71.8)	(50.3-60.1)	(50.8-60.8)	(51.3-59.7)	(56.2-63.6)	(55.6-63.6)	(56.6-63.0)

Table 4.2.3.6a Salt intake of population by area of residence and gender (g/day) (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**9.2**	**7.3**	**8.3**	**8.8**	**7.0**	**8.0**	**8.9**	**7.1**	**8.0**
	(8.7-9.6)	(7.0-7.6)	(8.0-8.7)	(8.5-9.1)	(6.8-7.2)	(7.8-8.2)	(8.7-9.2)	(6.9-7.2)	(7.8-8.2)

Table 4.2.3.6b Salt intake of population by area of residence, gender and age categories (g/day) (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 44 years	**9.0**	**7.3**	**8.3**	**8.5**	**7.0**	**7.9**	**8.7**	**7.1**	**8.0**
	(8.4-9.7)	(7.0-7.6)	(7.9-8.7)	(8.2-8.8)	(6.8-7.3)	(7.6-8.1)	(8.4-9.0)	(6.9-7.3)	(7.7-8.2)
45 - 69 years	**9.6**	**7.3**	**8.5**	**9.5**	**6.9**	**8.3**	**9.5**	**7.0**	**8.4**
	(9.2-10.0)	(6.9-7.6)	(8.1-8.8)	(9.2-9.7)	(6.7-7.1)	(8.1-8.5)	(9.3-9.7)	(6.8-7.2)	(8.2-8.5)

Table 4.2.3.7a Salt intake of population by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
<5 gms	**1.2**	**9.2**	**4.9**	**1.0**	**5.4**	**3.1**	**1.0**	**6.6**	**3.7**
	(0.2-5.6)	(4.1-19.4)	(2.2-10.3)	(0.4-2.6)	(3.2-8.9)	(2.0-4.7)	(0.5-2.4)	(4.1-10.4)	(2.4-5.5)
≥5 gms	**98.8**	**90.8**	**95.1**	**99.0**	**94.6**	**96.9**	**99.0**	**93.4**	**96.3**
	(94.4-99.8)	(80.6-95.9)	(89.7-97.8)	(97.4-99.6)	(91.1-96.8)	(95.3-98.0)	(97.6-99.5)	(89.6-95.9)	(94.5-97.6)

Table 4.2.3.7b Salt intake of population by area of residence, gender and age categories (Percentage)

Salt intake	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
<5 gms	**1.6**	**9.4**	**5.1**	**1.0**	**6.6**	**3.6**	**1.2**	**7.5**	**4.1**
	(0.3-7.8)	(4.3-19.5)	(2.4-10.5)	(0.3-3.3)	(3.8-11.3)	(2.3-5.7)	(0.4-3.2)	(4.7-11.7)	(2.7-6.2)
≥5 gms	**98.4**	**90.6**	**94.9**	**99.0**	**93.4**	**96.4**	**98.8**	**92.5**	**95.9**
	(92.2-99.7)	(80.5-95.7)	(89.5-97.6)	(96.7-99.7)	(88.7-96.2)	(94.3-97.7)	(96.8-99.6)	(88.3-95.3)	(93.8-97.3)
45 - 69 years									
<5 gms	**0.1**	**8.6**	**4.4**	**1.0**	**2.5**	**1.8**	**0.7**	**4.6**	**2.7**
	(0.0-0.9)	(3.1-21.7)	(1.5-12.4)	(0.3-3.5)	(1.0-6.3)	(0.8-3.6)	(0.2-2.3)	(2.1-9.6)	(1.3-5.3)
≥5 gms	**99.9**	**91.4**	**95.6**	**99.0**	**97.5**	**98.2**	**99.3**	**95.4**	**97.3**
	(99.1-100.0)	(78.3-96.9)	(87.6-98.5)	(96.5-99.7)	(93.7-99.0)	(96.4-99.2)	(97.7-99.8)	(90.4-97.9)	(94.7-98.7)

Perception and practices regarding salt intake

Table 4.2.3.8a Adults who believe that extra salt intake affects health by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Believe extra salt intake affects health	**34.6**	**35.6**	**35.1**	**30.8**	**27.4**	**29.1**	**32.1**	**30.1**	**31.1**
	(29.1-40.6)	(30.6-40.9)	(30.5-40.0)	(26.6-35.3)	(23.6-31.5)	(25.4-33.1)	(28.7-35.6)	(27.0-33.3)	(28.2-34.2)

Table 4.2.3.8b Adults who believe that extra salt intake affects health by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Believe extra salt intake affects health	(95% CI)								
18 - 44 years	**33.9**	**36.0**	**34.9**	**30.8**	**27.7**	**29.3**	**31.9**	**30.4**	**31.2**
	(28.1-40.3)	(30.7-41.6)	(30.0-40.1)	(26.3-35.8)	(23.6-32.3)	(25.4-33.6)	(28.2-35.8)	(27.0-33.9)	(28.1-34.4)
45 - 69 years	**36.2**	**34.8**	**35.5**	**30.5**	**26.5**	**28.5**	**32.6**	**29.4**	**31.0**
	(28.5-44.8)	(28.7-41.5)	(30.0-41.5)	(25.6-35.9)	(22.2-31.3)	(24.5-33.0)	(28.4-37.0)	(25.8-33.3)	(27.7-34.5)

Table 4.2.3.9a Adults who believe lowering salt in diet is important by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Very or somewhat important to lower salt in diet	**77.4**	**65.0**	**71.6**	**65.7**	**55.2**	**60.6**	**69.7**	**58.4**	**64.3**
	(73.3-81.0)	(59.9-69.9)	(67.7-75.2)	(61.9-69.3)	(50.9-59.4)	(57.0-64.1)	(66.9-72.4)	(55.1-61.7)	(61.6-66.9)

Table 4.2.3.9b Adults who believe lowering salt in diet is important by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Very or somewhat important to lower salt in diet	(95% CI)								
18 - 44 years	**77.0**	**67.6**	**72.6**	**67.9**	**56.4**	**62.3**	**70.9**	**59.9**	**65.7**
	(72.0-81.3)	(62.0-72.7)	(68.4-76.5)	(63.9-71.6)	(51.5-61.2)	(58.5-66.0)	(67.9-73.9)	(56.1-63.6)	(62.8-68.5)
45 - 69 years	**78.2**	**59.8**	**69.4**	**60.5**	**52.4**	**56.5**	**66.8**	**55.0**	**61.0**
	(73.0-82.7)	(51.8-67.3)	(64.8-73.6)	(55.4-65.4)	(47.8-57.0)	(52.5-60.4)	(62.9-70.5)	(50.9-58.9)	(58.0-64.0)

Table 4.2.3.10a Perception about consumption of salt/high salt containing food items by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Far too much/Too much	**10.7**	**8.9**	**9.9**	**14.5**	**14.3**	**14.4**	**13.2**	**12.5**	**12.9**
	(8.4-13.5)	(6.9-11.4)	(8.1-12.0)	(12.4-17.0)	(12.0-16.8)	(12.6-16.4)	(11.6-15.1)	(10.8-14.4)	(11.5-14.4)
Just the right amount	**68.9**	**68.5**	**68.7**	**54.9**	**56.4**	**55.6**	**59.7**	**60.3**	**60.0**
	(64.7-72.8)	(64.4-72.3)	(65.3-71.9)	(51.6-58.2)	(52.8-59.9)	(52.7-58.5)	(57.0-62.4)	(57.5-63.1)	(57.7-62.3)
Too little/Far too little	**17.8**	**17.3**	**17.5**	**23.8**	**20.5**	**22.2**	**21.7**	**19.5**	**20.6**
	(15.0-21.0)	(14.7-20.1)	(15.2-20.1)	(21.1-26.6)	(18.0-23.3)	(20.1-24.5)	(19.7-23.9)	(17.5-21.5)	(19.0-22.4)
Don't know	**2.6**	**5.3**	**3.9**	**6.8**	**8.8**	**7.8**	**5.4**	**7.7**	**6.5**
	(1.7-4.2)	(3.1-8.8)	(2.6-5.8)	(5.1-9.0)	(6.7-11.5)	(6.1-9.9)	(4.2-6.9)	(6.0-9.7)	(5.2-8.0)

Table 4.2.3.10b Perception about consumption of salt/high salt containing food items by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Far too much/Too much	**11.4**	**9.3**	**10.5**	**14.8**	**15.4**	**15.1**	**13.7**	**13.5**	**13.6**
	(8.6-15.1)	(7.2-12.0)	(8.4-13.0)	(12.1-18.0)	(12.9-18.2)	(13.0-17.4)	(11.6-16.1)	(11.6-15.6)	(12.0-15.3)
Just the right amount	**69.9**	**68.8**	**69.4**	**56.2**	**57.8**	**57.0**	**60.8**	**61.3**	**61.0**
	(64.9-74.4)	(64.2-73.0)	(65.8-72.8)	(52.4-59.8)	(53.8-61.7)	(53.9-60.0)	(57.7-63.8)	(58.2-64.3)	(58.6-63.4)
Too little/Far too little	**16.3**	**16.9**	**16.6**	**23.1**	**18.9**	**21.1**	**20.8**	**18.3**	**19.6**
	(13.1-20.1)	(14.1-20.1)	(14.0-19.5)	(20.1-26.3)	(16.3-21.9)	(18.8-23.5)	(18.5-23.3)	(16.2-20.5)	(17.8-21.5)
Don't know	**2.4**	**5.0**	**3.5**	**5.9**	**7.9**	**6.8**	**4.7**	**6.9**	**5.8**
	(1.4-4.0)	(3.0-8.3)	(2.4-5.4)	(4.2-8.3)	(5.8-10.7)	(5.2-9.1)	(3.5-6.4)	(5.3-9.1)	(4.6-7.4)
45 - 69 years									
Far too much/Too much	**9.1**	**8.1**	**8.6**	**13.7**	**11.7**	**12.7**	**12.1**	**10.5**	**11.3**
	(6.8-12.1)	(5.8-11.3)	(6.7-11.1)	(10.9-17.2)	(9.0-15.0)	(10.5-15.3)	(10.0-14.5)	(8.5-12.9)	(9.6-13.2)
Just the right amount	**66.6**	**67.9**	**67.2**	**51.9**	**53.1**	**52.5**	**57.1**	**58.2**	**57.6**
	(61.7-71.1)	(62.3-73.0)	(63.1-71.1)	(47.6-56.1)	(48.2-57.9)	(48.6-56.3)	(53.7-60.5)	(54.4-61.8)	(54.6-60.6)
Too little/Far too little	**21.1**	**18.1**	**19.7**	**25.4**	**24.3**	**24.8**	**23.9**	**22.2**	**23.0**
	(17.3-25.5)	(14.0-23.1)	(16.7-23.1)	(21.7-29.5)	(20.4-28.6)	(21.7-28.2)	(21.1-26.9)	(19.2-25.5)	(20.7-25.5)
Don't know	**3.2**	**5.9**	**4.5**	**9.0**	**10.9**	**10.0**	**6.9**	**9.1**	**8.1**
	(1.9-5.5)	(3.0-11.3)	(2.7-7.4)	(6.7-12.0)	(8.1-14.7)	(7.9-12.5)	(5.3-9.0)	(7.0-12.1)	(6.5-10.0)

Table 4.2.3.11a Adults who added extra salt to food by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Never	**53.2**	**58.8**	**55.8**	**40.0**	**42.4**	**41.2**	**44.6**	**47.8**	**46.1**
	(46.4-59.9)	(53.9-63.5)	(50.5-61.0)	(36.0-44.2)	(38.2-46.8)	(37.6-44.9)	(40.9-48.3)	(44.3-51.2)	(43.0-49.2)
Always/Often	**13.6**	**12.6**	**13.1**	**17.9**	**14.2**	**16.1**	**16.4**	**13.7**	**15.1**
	(10.6-17.2)	(9.8-15.9)	(10.5-16.2)	(15.4-20.7)	(11.8-17.0)	(14.0-18.4)	(14.4-18.6)	(11.8-15.8)	(13.4-16.9)
Sometimes	**24.8**	**19.7**	**22.4**	**33.7**	**36.4**	**35.0**	**30.6**	**31.0**	**30.8**
	(20.5-29.5)	(16.4-23.6)	(18.8-26.5)	(30.5-37.0)	(32.9-40.0)	(32.3-37.8)	(28.0-33.4)	(28.2-33.9)	(28.5-33.2)
Rarely	**7.4**	**6.7**	**7.0**	**8.0**	**6.3**	**7.2**	**7.8**	**6.4**	**7.1**
	(5.5-9.7)	(4.6-9.6)	(5.3-9.3)	(5.7-11.2)	(4.8-8.3)	(5.4-9.5)	(6.1-9.9)	(5.2-8.0)	(5.8-8.8)
Don't Know	**1.0**	**2.2**	**1.7**	**0.4**	**0.7**	**0.5**	**0.6**	**1.1**	**0.9**
	(0.4-3.0)	(1.1-4.8)	(0.8-3.5)	(0.2-0.9)	(0.3-1.3)	(0.3-1.0)	(0.3-1.3)	(0.7-2.0)	(0.5-1.5)

Table 4.2.3.11b Adults who added extra salt to food by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Never	51.2	57.4	54.0	39.4	41.4	40.4	43.4	46.5	44.9
	(44.1-58.3)	(51.9-62.7)	(48.2-59.8)	(34.7-44.4)	(36.7-46.3)	(36.5-44.4)	(39.4-47.5)	(42.7-50.3)	(41.5-48.3)
Always/Often	14.3	14.2	14.3	18.4	15.2	16.9	17.0	14.9	16.0
	(10.9-18.7)	(10.8-18.6)	(11.1-18.2)	(15.2-22.1)	(12.4-18.5)	(14.5-19.6)	(14.6-19.8)	(12.6-17.5)	(14.1-18.2)
Sometimes	27.1	21.0	24.3	33.3	36.7	34.9	31.2	31.7	31.5
	(22.5-32.3)	(17.4-25.2)	(20.4-28.7)	(29.8-36.9)	(32.9-40.7)	(32.1-37.9)	(28.4-34.2)	(28.8-34.9)	(29.1-33.9)
Rarely	6.6	6.1	6.4	8.8	6.2	7.6	8.1	6.2	7.2
	(4.6-9.4)	(4.2-8.8)	(4.7-8.7)	(5.8-13.2)	(4.6-8.3)	(5.4-10.4)	(5.9-11.0)	(4.9-7.8)	(5.6-9.2)
Don't know	0.8	1.3	1.0	0.03	0.5	0.2	0.3	0.7	0.4
	(0.2-2.5)	(0.4-3.7)	(0.4-2.5)	(0.004-0.2)	(0.2-1.0)	(0.1-0.5)	(0.1-0.9)	(0.4-1.4)	(0.2-0.9)
45 - 69 years									
Never	57.7	61.7	59.6	41.4	44.8	43.1	47.2	50.6	48.9
	(48.5-66.4)	(56.0-67.1)	(53.6-65.3)	(37.0-45.9)	(39.9-49.8)	(39.2-47.0)	(42.6-51.9)	(46.7-54.6)	(45.3-52.5)
Always/Often	11.9	9.1	10.6	16.6	11.8	14.2	14.9	10.9	12.9
	(8.8-16.0)	(6.3-12.9)	(8.3-13.4)	(13.6-20.0)	(9.1-15.2)	(12.1-16.7)	(12.6-17.6)	(8.8-13.4)	(11.3-14.8)
Sometimes	19.5	17.1	18.4	34.6	35.6	35.1	29.2	29.2	29.2
	(14.9-25.3)	(12.7-22.5)	(14.6-22.8)	(30.2-39.3)	(31.1-40.4)	(31.7-38.7)	(25.6-33.2)	(25.7-33.1)	(26.3-32.3)
Rarely	9.0	7.8	8.4	6.0	6.6	6.3	7.1	7.1	7.1
	(5.8-13.5)	(4.9-12.4)	(5.8-12.0)	(4.4-8.3)	(4.6-9.4)	(4.7-8.5)	(5.4-9.1)	(5.3-9.3)	(5.6-8.9)
Don't know	1.9	4.3	3.0	1.4	1.2	1.3	1.6	2.2	1.9
	(0.8-4.7)	(2.0-9.0)	(1.4-6.4)	(0.7-2.8)	(0.5-2.3)	(0.7-2.3)	(0.9-2.8)	(1.2-4.0)	(1.1-3.2)

Table 4.2.3.12a Adults who practiced salt control measures regularly by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Limit consumption of high salt containing food	**34.8**	**28.9**	**32.1**	**26.9**	**20.0**	**23.6**	**29.6**	**22.9**	**26.4**
	(29.2-41.0)	(24.6-33.7)	(27.6-36.9)	(22.6-31.7)	(16.5-24.1)	(20.0-27.6)	(26.1-33.4)	(20.1-26.1)	(23.5-29.5)
Look for salt/sodium content on food labels	**17.7**	**13.7**	**15.8**	**6.9**	**7.4**	**7.1**	**10.6**	**9.5**	**10.0**
	(12.8-24.0)	(10.4-17.8)	(12.1-20.3)	(5.2-9.1)	(5.1-10.6)	(5.3-9.5)	(8.4-13.3)	(7.5-11.9)	(8.2-12.2)
Buy low salt/sodium alternatives	**15.9**	**10.4**	**13.3**	**5.0**	**4.2**	**4.6**	**8.8**	**6.2**	**7.5**
	(11.3-22.1)	(7.3-14.5)	(9.8-17.9)	(3.7-6.9)	(3.1-5.6)	(3.5-6.1)	(6.8-11.3)	(4.9-7.8)	(6.0-9.4)
Use spices other than salt when cooking for taste	**18.8**	**13.6**	**16.4**	**12.6**	**8.8**	**10.7**	**14.7**	**10.3**	**12.6**
	(13.9-25.0)	(10.4-17.6)	(12.7-20.8)	(9.9-15.9)	(6.7-11.4)	(8.5-13.4)	(12.2-17.7)	(8.5-12.5)	(10.6-14.9)
Avoid eating food prepared outside home	**31.9**	**25.6**	**29.0**	**29.6**	**24.9**	**27.3**	**30.4**	**25.1**	**27.9**
	(26.5-37.9)	(21.1-30.7)	(24.5-33.9)	(25.3-34.3)	(20.6-29.8)	(23.4-31.6)	(27.0-34.1)	(21.8-28.8)	(24.8-31.1)
Not adding salt on table or in flour	**2.8**	**4.7**	**3.7**	**3.6**	**4.6**	**4.1**	**3.3**	**4.6**	**3.9**
	(1.7-4.6)	(3.0-7.1)	(2.5-5.3)	(2.1-6.1)	(2.4-8.7)	(2.3-7.0)	(2.2-5.0)	(2.9-7.3)	(2.6-5.8)
Practicing any measure to control salt intake	**50.9**	**44.4**	**47.9**	**47.0**	**41.0**	**44.1**	**48.3**	**42.1**	**45.4**
	(45.0-56.8)	(39.0-49.9)	(42.8-52.9)	(42.2-51.9)	(35.7-46.6)	(39.6-48.7)	(44.6-52.1)	(38.2-46.2)	(42.0-48.8)

Table 4.2.3.12b Adults who practiced salt control measures regularly by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Limit consumption of high salt containing food	**32.7**	**29.7**	**31.3**	**26.3**	**19.9**	**23.2**	**28.5**	**23.0**	**25.9**
	(27.2-38.8)	(24.6-35.2)	(26.7-36.3)	(21.7-31.5)	(16.2-24.2)	(19.6-27.3)	(24.8-32.4)	(19.9-26.5)	(23.0-29.0)
Look for salt/sodium content on food labels	**16.2**	**13.3**	**14.9**	**6.6**	**7.0**	**6.8**	**9.8**	**9.0**	**9.4**
	(12.1-21.2)	(10.0-17.6)	(11.7-18.6)	(4.9-8.8)	(4.7-10.4)	(5.1-9.1)	(8.0-12.1)	(7.0-11.6)	(7.8-11.4)
Buy low salt/sodium alternatives	**14.3**	**9.6**	**12.1**	**5.2**	**4.2**	**4.7**	**8.3**	**6.0**	**7.2**
	(10.5-19.3)	(6.6-13.8)	(9.1-15.9)	(3.8-7.1)	(3.1-5.8)	(3.6-6.2)	(6.6-10.4)	(4.6-7.6)	(5.8-8.7)
Use spices other than salt when cooking for taste	**18.3**	**13.8**	**16.2**	**13.8**	**9.4**	**11.7**	**15.3**	**10.8**	**13.2**
	(13.7-24.0)	(10.2-18.4)	(12.8-20.4)	(10.6-17.8)	(7.0-12.5)	(9.1-14.9)	(12.6-18.5)	(8.7-13.3)	(11.0-15.7)
Avoid eating food prepared outside home	**29.5**	**25.9**	**27.8**	**29.6**	**24.9**	**27.3**	**29.6**	**25.2**	**27.5**
	(24.0-35.7)	(20.8-31.6)	(23.3-32.9)	(24.9-34.9)	(20.3-30.2)	(23.1-32.0)	(25.9-33.6)	(21.6-29.2)	(24.3-31.0)
Not adding salt on table or in flour	**3.2**	**5.4**	**4.2**	**4.0**	**4.0**	**4.0**	**3.8**	**4.5**	**4.1**
	(1.9-5.4)	(3.4-8.5)	(2.9-6.2)	(2.2-7.2)	(1.9-8.4)	(2.2-7.4)	(2.4-5.9)	(2.7-7.3)	(2.7-6.2)
Practicing any measure to control salt intake	**49.1**	**46.6**	**48.0**	**47.4**	**41.0**	**44.3**	**48.0**	**42.8**	**45.5**
	(42.5-55.8)	(40.6-52.7)	(42.5-53.5)	(42.2-52.8)	(35.3-47.1)	(39.6-49.2)	(43.9-52.2)	(38.4-47.3)	(41.9-49.2)
45 - 69 years									
Limit consumption of high salt containing food	**39.6**	**27.3**	**33.7**	**28.3**	**20.3**	**24.4**	**32.3**	**22.7**	**27.6**
	(30.8-49.1)	(22.3-33.0)	(28.1-39.9)	(23.1-34.1)	(15.8-25.7)	(20.0-29.3)	(27.5-37.6)	(19.2-26.7)	(24.0-31.6)
Look for salt/sodium content on food labels	**21.0**	**14.5**	**17.9**	**7.5**	**8.3**	**7.9**	**12.4**	**10.4**	**11.4**
	(11.8-34.7)	(10.2-20.0)	(11.8-26.1)	(4.7-11.8)	(5.7-11.8)	(5.4-11.4)	(8.1-18.4)	(8.0-13.3)	(8.5-15.2)
Buy low salt/sodium alternatives	**19.5**	**11.9**	**15.9**	**4.7**	**4.0**	**4.4**	**10.0**	**6.7**	**8.4**
	(10.8-32.8)	(7.9-17.5)	(10.1-24.0)	(2.9-7.5)	(2.6-6.1)	(2.9-6.5)	(6.2-15.7)	(4.9-9.1)	(5.9-11.9)
Use spices other than salt when cooking for taste	**19.9**	**13.2**	**16.7**	**9.6**	**7.4**	**8.5**	**13.3**	**9.4**	**11.4**
	(11.2-32.9)	(9.3-18.4)	(11.1-24.2)	(7.2-12.7)	(5.1-10.6)	(6.5-11.0)	(9.3-18.5)	(7.2-12.1)	(8.8-14.6)
Avoid eating food prepared outside home	**37.3**	**24.9**	**31.4**	**29.6**	**25.0**	**27.3**	**32.3**	**25.0**	**28.7**
	(28.7-46.9)	(19.5-31.3)	(25.5-37.9)	(24.5-35.2)	(20.4-30.2)	(23.1-31.9)	(27.6-37.5)	(21.4-28.9)	(25.2-32.5)

Not adding salt on table or in flour	**2.0**	**3.2**	**2.5**	**2.4**	**5.8**	**4.1**	**2.3**	**4.9**	**3.6**
	(1.1-3.4)	(1.9-5.3)	(1.6-3.9)	(1.3-4.4)	(3.0-11.1)	(2.3-7.1)	(1.4-3.5)	(2.9-8.3)	(2.3-5.5)
Practicing any measure to control salt intake	**54.7**	**39.9**	**47.6**	**46.0**	**41.1**	**43.6**	**49.1**	**40.7**	**45.0**
	(46.5-62.7)	(33.3-46.9)	(41.7-53.6)	(39.9-52.1)	(35.5-46.9)	(38.4-48.8)	(44.1-54.2)	(36.3-45.2)	(41.0-49.0)

Table 4.2.3.13a Consumption of high salt containing foods among adults by area of residence and gender (Percentage)

18 - 69 years	**Urban**			**Rural**			**Total**		
	Men	**Women**	**Combined**	**Men**	**Women**	**Combined**	**Men**	**Women**	**Combined**
	(95% CI)								
Namkeen, papad, packaged chips, soya or mustard sauce etc.									
Daily	**3.9**	**4.1**	**4.0**	**2.5**	**2.7**	**2.6**	**3.0**	**3.2**	**3.1**
	(2.6-5.9)	(3.0-5.5)	(3.0-5.3)	(1.7-3.5)	(1.9-3.9)	(2.0-3.4)	(2.3-3.9)	(2.5-4.0)	(2.5-3.8)
At least once in a week*	**39.6**	**39.9**	**39.7**	**25.9**	**23.9**	**24.9**	**30.6**	**29.1**	**29.9**
	(35.6-43.9)	(35.6-44.3)	(35.9-43.7)	(22.7-29.4)	(20.8-27.3)	(22.2-27.8)	(28.0-33.4)	(26.5-31.9)	(27.6-32.3)
At least once in a month**	**33.2**	**31.6**	**32.5**	**38.6**	**37.3**	**38.0**	**36.8**	**35.5**	**36.1**
	(29.4-37.3)	(27.9-35.5)	(29.3-35.8)	(34.8-42.6)	(33.6-41.2)	(34.6-41.5)	(33.9-39.7)	(32.6-38.4)	(33.6-38.7)
Others***	**23.3**	**24.4**	**23.8**	**33.0**	**36.1**	**34.5**	**29.6**	**32.2**	**30.9**
	(19.5-27.3)	(21.5-27.8)	(20.8-27.1)	(29.0-37.4)	(32.3-40.0)	(31.0-38.2)	(26.6-32.9)	(29.5-35.2)	(28.3-33.6)
Preserved canned salty products including pickle									
Daily	**3.2**	**3.2**	**3.2**	**2.7**	**2.9**	**2.8**	**2.9**	**3.0**	**3.0**
	(2.2-4.7)	(2.0-5.1)	(2.3-4.6)	(1.8-4.0)	(2.1-4.1)	(2.1-3.7)	(2.2-3.8)	(2.3-4.0)	(2.4-3.7)
At least once in a week*	**20.6**	**22.1**	**21.3**	**16.6**	**13.6**	**15.1**	**18.0**	**16.4**	**17.2**
	(17.1-24.6)	(18.1-26.7)	(17.9-25.2)	(13.7-19.9)	(11.3-16.2)	(12.9-17.6)	(15.7-20.4)	(14.3-18.6)	(15.3-19.2)
At least once in a month**	**24.8**	**24.4**	**24.6**	**26.2**	**22.0**	**24.2**	**25.7**	**22.8**	**24.3**
	(20.7-29.5)	(20.8-28.5)	(21.1-28.5)	(22.8-30.0)	(18.8-25.6)	(21.2-27.4)	(23.0-28.7)	(20.3-25.5)	(22.0-26.8)
Others***	**51.3**	**50.3**	**50.9**	**54.5**	**61.5**	**57.9**	**53.4**	**57.8**	**55.5**
	(46.1-56.5)	(45.4-55.1)	(46.3-55.3)	(50.3-58.6)	(57.2-65.6)	(54.1-61.6)	(50.1-56.6)	(54.5-61.1)	(52.6-58.4)
Homemade high salt containing food like chutney, panna, pickle									
Daily	**6.2**	**6.0**	**6.1**	**5.3**	**6.0**	**5.7**	**5.6**	**6.0**	**5.8**
	(4.1-9.2)	(4.6-7.9)	(4.6-8.1)	(4.0-7.1)	(4.7-7.8)	(4.5-7.0)	(4.4-7.1)	(5.0-7.3)	(4.9-6.9)
At least once in a week*	**45.9**	**49.3**	**47.5**	**40.4**	**43.4**	**41.9**	**42.3**	**45.3**	**43.8**

	(41.4-50.5)	(44.1-54.5)	(43.4-51.7)	(36.0-45.0)	(39.4-47.4)	(38.0-45.8)	(39.0-45.7)	(42.1-48.5)	(40.8-46.7)
At least once in a month**	**27.9**	**26.8**	**27.4**	**32.1**	**29.9**	**31.0**	**30.7**	**28.9**	**29.8**
	(24.7-31.3)	(23.3-30.6)	(24.7-30.2)	(28.4-36.1)	(26.3-33.7)	(27.7-34.6)	(27.9-33.5)	(26.2-31.7)	(27.4-32.3)
Others***	**20.0**	**17.9**	**19.0**	**22.1**	**20.8**	**21.4**	**21.4**	**19.8**	**20.6**
	(16.3-24.3)	(14.5-21.8)	(15.9-22.6)	(18.7-26.0)	(17.4-24.6)	(18.2-25.1)	(18.7-24.3)	(17.2-22.7)	(18.2-23.3)
Other dairy products having salt (like processed or packaged cheese, butter etc.)									
Daily	**0.9**	**1.2**	**1.1**	**0.9**	**0.7**	**0.8**	**0.9**	**0.9**	**0.9**
	(0.5-1.7)	(0.7-2.2)	(0.7-1.7)	(0.5-1.5)	(0.3-1.4)	(0.5-1.3)	(0.6-1.3)	(0.5-1.4)	(0.6-1.3)
At least once in a week*	**11.6**	**9.4**	**10.6**	**7.3**	**6.7**	**7.0**	**8.8**	**7.6**	**8.2**
	(8.5-15.6)	(7.3-12.2)	(8.3-13.5)	(5.3-10.1)	(4.9-9.1)	(5.5-9.0)	(7.0-11.0)	(6.2-9.4)	(6.9-9.8)
At least once in a month**	**22.6**	**20.7**	**21.7**	**16.3**	**17.9**	**17.1**	**18.5**	**18.8**	**18.6**
	(18.1-27.9)	(16.9-24.9)	(18.0-26.0)	(13.5-19.6)	(14.4-22.1)	(14.2-20.4)	(16.0-21.3)	(16.1-21.9)	(16.3-21.2)
Others***	**64.9**	**68.7**	**66.6**	**75.5**	**74.7**	**75.1**	**71.8**	**72.7**	**72.3**
	(58.0-71.0)	(63.2-73.6)	(60.9-71.9)	(71.3-79.3)	(70.4-78.4)	(71.4-78.4)	(68.3-75.1)	(69.4-75.7)	(69.2-75.1)

*includes 1-6 days in a week; **includes 1-3 days/< once in a month; ***includes responses such as never and don't know

Table 4.2.3.13b Consumption of high salt containing foods among adults by area of residence, gender and age categories (Percentage)

18 - 44 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Namkeen, papad, packaged chips, soya or mustard sauce etc.									
Daily	**4.7**	**5.0**	**4.8**	**2.9**	**2.9**	**2.9**	**3.5**	**3.6**	**3.6**
	(3.2-6.9)	(3.6-6.8)	(3.8-6.2)	(2.0-4.2)	(2.0-4.4)	(2.2-3.9)	(2.7-4.6)	(2.7-4.6)	(2.9-4.3)
At least once in a week*	**41.1**	**43.3**	**42.1**	**28.8**	**27.3**	**28.1**	**32.9**	**32.4**	**32.7**
	(36.5-45.7)	(38.7-48.0)	(38.1-46.2)	(25.3-32.5)	(23.6-31.3)	(25.0-31.3)	(30.1-35.8)	(29.3-35.6)	(30.2-35.2)
At least once in a month**	**31.8**	**30.6**	**31.2**	**37.1**	**36.4**	**36.7**	**35.3**	**34.5**	**34.9**
	(27.2-36.9)	(26.0-35.5)	(27.5-35.2)	(33.0-41.4)	(32.3-40.6)	(33.3-40.3)	(32.1-38.6)	(31.3-37.8)	(32.3-37.7)
Others***	**22.4**	**21.1**	**21.9**	**31.2**	**33.4**	**32.3**	**28.3**	**29.5**	**28.8**
	(18.3-27.2)	(18.0-24.7)	(18.7-25.4)	(26.8-36.0)	(29.4-37.7)	(28.6-36.2)	(25.0-31.8)	(26.5-32.7)	(26.1-31.7)
Preserved canned salty products including pickle									
Daily	**4.0**	**3.0**	**3.5**	**2.8**	**3.4**	**3.1**	**3.2**	**3.3**	**3.2**
	(2.5-6.2)	(1.8-5.0)	(2.4-5.2)	(1.9-4.2)	(2.4-4.8)	(2.4-4.1)	(2.4-4.3)	(2.4-4.4)	(2.6-4.1)

At least once in a week*	**21.7**	**24.5**	**23.0**	**17.1**	**14.4**	**15.8**	**18.7**	**17.6**	**18.1**
	(17.6-26.4)	(19.8-29.9)	(19.1-27.4)	(14.1-20.6)	(11.8-17.4)	(13.5-18.4)	(16.2-21.4)	(15.2-20.2)	(16.1-20.4)
At least once in a month**	**24.0**	**25.4**	**24.6**	**26.6**	**20.8**	**23.8**	**25.7**	**22.2**	**24.1**
	(19.3-29.4)	(21.2-30.0)	(20.9-28.8)	(22.9-30.7)	(17.7-24.3)	(20.9-27.0)	(22.8-29.0)	(19.7-25.0)	(21.7-26.6)
Others***	**50.3**	**47.1**	**48.9**	**53.5**	**61.4**	**57.3**	**52.4**	**56.9**	**54.6**
	(44.9-55.9)	(41.9-52.5)	(44.3-53.5)	(48.9-57.9)	(57.0-65.7)	(53.4-61.1)	(48.9-55.9)	(53.4-60.4)	(51.5-57.5)
Homemade high salt containing food like chutney, panna, pickle									
Daily	**6.3**	**6.0**	**6.1**	**6.0**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**
	(3.8-10.3)	(4.4-8.1)	(4.4-8.5)	(4.4-8.1)	(4.7-8.0)	(4.8-7.6)	(4.6-7.9)	(4.9-7.5)	(5.0-7.3)
At least once in a week*	**45.9**	**52.2**	**48.8**	**42.1**	**46.0**	**44.0**	**43.4**	**48.0**	**45.6**
	(40.6-51.3)	(46.6-57.7)	(44.1-53.5)	(37.3-47.0)	(41.9-50.2)	(40.0-48.0)	(39.7-47.1)	(44.6-51.4)	(42.5-48.7)
At least once in a month**	**27.1**	**26.6**	**26.9**	**30.7**	**28.7**	**29.7**	**29.5**	**28.1**	**28.8**
	(23.1-31.5)	(22.6-31.1)	(23.6-30.5)	(26.6-35.2)	(25.1-32.6)	(26.4-33.3)	(26.4-32.8)	(25.3-31.0)	(26.3-31.5)
Others***	**20.7**	**15.2**	**18.2**	**21.2**	**19.2**	**20.2**	**21.0**	**17.8**	**19.5**
	(16.5-25.7)	(11.9-19.1)	(14.8-22.1)	(17.7-25.3)	(15.6-23.3)	(17.0-23.9)	(18.2-24.1)	(15.2-20.9)	(17.1-22.3)
Other dairy products having salt (like processed or packaged cheese, butter etc.)									
Daily	**1.3**	**1.3**	**1.3**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**	**0.9**
	(0.7-2.4)	(0.6-2.8)	(0.8-2.0)	(0.5-1.5)	(0.3-1.6)	(0.4-1.3)	(0.6-1.5)	(0.5-1.5)	(0.6-1.3)
At least once in a week*	13.0	10.5	11.9	7.5	7.8	7.6	9.4	8.6	9.0
	(9.7-17.1)	(7.9-13.8)	(9.5-14.8)	(5.2-10.7)	(5.7-10.6)	(5.9-9.8)	(7.4-11.8)	(6.9-10.7)	(7.6-10.7)
At least once in a month**	**24.4**	**22.9**	**23.7**	**17.8**	**19.1**	**18.4**	**20.0**	**20.3**	**20.2**
	(19.2-30.5)	(18.8-27.7)	(19.6-28.4)	(14.3-22.1)	(15.4-23.4)	(15.3-22.1)	(17.0-23.5)	(17.4-23.6)	(17.6-23.0)
Others***	**61.3**	**65.3**	**63.1**	**73.9**	**72.4**	**73.2**	**69.6**	**70.2**	**69.9**
	(54.2-67.9)	(59.5-70.7)	(57.4-68.5)	(68.8-78.4)	(67.9-76.6)	(69.2-76.8)	(65.5-73.4)	(66.6-73.5)	(66.6-73.0)
45 - 69 years									
Namkeen, papad, packaged chips, soya or mustard sauce etc.									
Daily	**2.2**	**2.3**	**2.3**	**1.4**	**2.2**	**1.8**	**1.7**	**2.3**	**2.0**
	(1.0-5.0)	(1.2-4.5)	(1.1-4.5)	(0.7-2.6)	(1.4-3.7)	(1.2-2.8)	(1.0-2.8)	(1.5-3.4)	(1.3-2.9)
At least once in a week*	**36.5**	**32.8**	**34.7**	**18.9**	**16.0**	**17.4**	**25.2**	**21.8**	**23.5**
	(30.8-42.6)	(26.9-39.2)	(29.7-40.0)	(14.9-23.7)	(12.8-19.8)	(14.5-20.8)	(21.5-29.3)	(18.6-25.3)	(20.6-26.7)
At least once in a month**	**36.4**	**33.7**	**35.1**	**42.3**	**39.6**	**41.0**	**40.2**	**37.6**	**38.9**

	(31.4-41.7)	(29.3-38.3)	(31.6-38.8)	(37.3-47.5)	(34.6-44.9)	(36.5-45.6)	(36.4-44.1)	(33.9-41.5)	(35.7-42.2)
Others***	**24.9**	**31.2**	**27.9**	**37.4**	**42.2**	**39.8**	**32.9**	**38.3**	**35.6**
	(19.9-30.5)	(26.4-36.5)	(24.1-32.0)	(32.6-42.6)	(36.8-47.6)	(35.4-44.3)	(29.2-36.9)	(34.5-42.4)	(32.4-39.0)
Preserved canned salty products including pickle									
Daily	**1.6**	**3.7**	**2.6**	**2.4**	**1.9**	**2.1**	**2.1**	**2.5**	**2.3**
	(0.7-3.8)	(2.1-6.3)	(1.6-4.3)	(1.2-4.8)	(1.0-3.3)	(1.3-3.4)	(1.2-3.7)	(1.7-3.7)	(1.6-3.3)
At least once in a week*	**18.3**	**17.2**	**17.8**	**15.2**	**11.7**	**13.5**	**16.3**	**13.6**	**15.0**
	(13.9-23.8)	(13.3-22.0)	(14.2-22.1)	(11.6-19.7)	(8.9-15.3)	(10.8-16.6)	(13.4-19.7)	(11.2-16.4)	(12.8-17.5)
At least once in a month**	**26.7**	**22.5**	**24.7**	**25.2**	**24.8**	**25.0**	**25.8**	**24.0**	**24.9**
	(21.7-32.4)	(18.1-27.5)	(20.6-29.3)	(20.9-30.1)	(19.9-30.5)	(20.9-29.6)	(22.4-29.4)	(20.4-28.1)	(21.8-28.3)
Others***	**53.4**	**56.6**	**54.9**	**57.2**	**61.6**	**59.4**	**55.8**	**59.9**	**57.8**
	(45.5-60.9)	(50.4-62.6)	(48.9-60.8)	(52.0-62.2)	(55.7-67.2)	(54.7-63.9)	(51.5-60.0)	(55.5-64.1)	(54.1-61.4)
Homemade high salt containing food like chutney, panna, pickle									
Daily	**6.0**	**6.2**	**6.1**	**3.7**	**5.8**	**4.8**	**4.5**	**5.9**	**5.2**
	(3.3-10.5)	(4.1-9.3)	(4.3-8.5)	(2.5-5.5)	(4.0-8.3)	(3.5-6.4)	(3.2-6.4)	(4.5-7.8)	(4.1-6.6)
At least once in a week*	**46.0**	**43.3**	**44.7**	**36.5**	**37.2**	**36.8**	**39.9**	**39.3**	**39.6**
	(40.4-51.8)	(35.9-51.1)	(39.7-49.9)	(31.5-41.8)	(31.7-43.0)	(32.1-41.8)	(36.0-43.9)	(34.8-44.0)	(36.0-43.4)
At least once in a month**	**29.5**	**27.1**	**28.3**	**35.5**	**32.6**	**34.1**	**33.4**	**30.7**	**32.1**
	(25.4-34.0)	(22.9-31.7)	(25.5-31.4)	(30.8-40.5)	(27.1-38.6)	(29.5-38.9)	(30.0-36.9)	(26.7-34.9)	(28.9-35.4)
Others***	**18.5**	**23.4**	**20.9**	**24.3**	**24.4**	**24.3**	**22.2**	**24.1**	**23.1**
	(13.5-24.8)	(18.1-29.6)	(16.5-26.0)	(19.9-29.2)	(20.1-29.4)	(20.4-28.7)	(18.7-26.1)	(20.6-27.9)	(20.1-26.5)
Other dairy products having salt (like processed or packaged cheese, butter etc.)									
Daily	**0.1**	**1.2**	**0.6**	**1.0**	**0.8**	**0.9**	**0.7**	**0.9**	**0.8**
	(0.1-0.4)	(0.5-2.7)	(0.3-1.4)	(0.4-2.8)	(0.3-2.0)	(0.4-1.8)	(0.3-1.8)	(0.5-1.7)	(0.5-1.4)
At least once in a week*	**8.5**	**7.2**	**7.9**	**6.8**	**4.4**	**5.6**	**7.5**	**5.3**	**6.4**
	(5.2-13.8)	(4.8-10.6)	(5.3-11.7)	(4.6-10.1)	(2.9-6.5)	(4.1-7.7)	(5.5-10.1)	(4.0-7.1)	(5.0-8.2)
At least once in a month**	**18.6**	**16.0**	**17.4**	**12.6**	**15.2**	**13.9**	**14.7**	**15.5**	**15.1**
	(13.9-24.5)	(12.1-20.9)	(13.6-21.9)	(10.0-15.8)	(11.3-20.2)	(11.2-17.1)	(12.3-17.5)	(12.5-19.1)	(12.9-17.6)
Others***	**72.8**	**75.6**	**74.1**	**79.6**	**79.6**	**79.6**	**77.1**	**78.3**	**77.7**
	(64.6-79.5)	(69.3-81.0)	(67.6-79.7)	(75.0-83.4)	(74.6-83.9)	(75.9-82.9)	(73.2-80.6)	(74.4-81.7)	(74.4-80.6)

*includes 1-6 days in a week; **includes 1-3 days/< once in a month; ***includes responses such as never and don't know

Table 4.2.3.14a Adults who consumed food cooked at home/outside home in a week by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Consuming food cooked at home	**66.6**	**89.4**	**77.3**	**75.1**	**92.1**	**83.4**	**72.2**	**91.2**	**81.3**
	(63.1-70.0)	(86.8-91.6)	(74.9-79.5)	(72.0-78.1)	(89.9-93.8)	(81.0-85.5)	(69.8-74.5)	(89.5-92.6)	(79.6-82.9)
Consuming food cooked outside home	**33.4**	**10.6**	**22.7**	**24.9**	**7.9**	**16.6**	**27.8**	**8.8**	**18.7**
	(30.0-36.9)	(8.4-13.2)	(20.5-25.1)	(21.9-28.0)	(6.2-10.1)	(14.5-19.0)	(25.5-30.2)	(7.4-10.5)	(17.1-20.4)

Table 4.2.3.14b Adults who consumed food cooked at home/outside home in a week by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Consuming food cooked at home	**60.1**	**87.6**	**72.8**	**71.9**	**91.4**	**81.3**	**67.9**	**90.2**	**78.5**
	(55.6-64.4)	(84.3-90.2)	(69.8-75.5)	(68.1-75.5)	(88.8-93.4)	(78.6-83.9)	(65.0-70.8)	(88.2-91.8)	(76.5-80.5)
Consuming food cooked outside home	**39.9**	**12.4**	**27.2**	**28.1**	**8.6**	**18.7**	**32.1**	**9.8**	**21.5**
	(35.6-44.4)	(9.8-15.7)	(24.5-30.2)	(24.5-31.9)	(6.6-11.2)	(16.1-21.4)	(29.2-35.0)	(8.2-11.8)	(19.5-23.5)
45 - 69 years									
Consuming food cooked at home	**81.1**	**93.2**	**87.0**	**82.9**	**93.7**	**88.2**	**82.2**	**93.6**	**87.8**
	(76.8-84.8)	(90.2-95.4)	(84.0-89.5)	(77.9-86.9)	(91.0-95.6)	(85.3-90.7)	(78.8-85.2)	(91.6-95.1)	(85.6-89.6)
Consuming food cooked outside home	**18.9**	**6.8**	**13.0**	**17.1**	**6.3**	**11.8**	**17.8**	**6.4**	**12.2**
	(15.2-23.2)	(4.6-9.8)	(10.5-16.0)	(13.1-22.4)	(4.4-9.0)	(9.3-14.7)	(14.8-21.2)	(4.9-8.4)	(10.4-14.4)

Table 4.2.3.15a Number of meals consumed outside home in a week by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**3.2**	**2.1**	**2.9**	**3.1**	**2.5**	**3.0**	**3.2**	**2.3**	**3.0**
	(2.8-3.5)	(1.7-2.4)	(2.6-3.2)	(2.8-3.6)	(1.9-3.0)	(2.7-3.4)	(2.9-3.4)	(2.0-2.7)	(2.7-3.2)

Table 4.2.3.15b Number of meals consumed outside home in a week by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 44 years	**3.0**	**2.0**	**2.9**	**3.2**	**2.4**	**3.0**	**3.2**	**2.2**	**3.0**
	(2.7-3.5)	(1.6-2.4)	(2.6-3.2)	(2.8-3.6)	(1.9-2.9)	(2.7-3.4)	(2.9-3.5)	(1.9-2.6)	(2.7-3.2)
45 - 69 years	**3.5**	**2.2**	**3.2**	**2.9**	**2.9**	**2.9**	**3.1**	**2.6**	**3.0**
	(2.8-4.1)	(1.3-3.1)	(2.6-3.7)	(2.3-3.5)	(1.6-4.1)	(2.3-3.5)	(2.7-3.6)	(1.8-3.4)	(2.6-3.4)

4.2.4 Physical activity

Table 4.2.4.1a Physical activity levels by area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Sufficient physical activity	**55.8**	**39.8**	**48.3**	**76.0**	**51.4**	**63.9**	**69.1**	**47.6**	**58.7**
	(51.1-60.4)	(36.3-43.4)	(45.2-51.4)	(73.1-78.6)	(48.3-54.5)	(61.7-66.1)	(66.3-71.7)	(45.3-50.0)	(56.7-60.6)
Insufficient physical activity*	**44.2**	**60.2**	**51.7**	**24.0**	**48.6**	**36.1**	**30.9**	**52.4**	**41.3**
	(39.6-48.9)	(56.6-63.7)	(48.6-54.8)	(21.4-26.9)	(45.5-51.7)	(33.9-38.3)	(28.3-33.7)	(50.0-54.7)	(39.4-43.3)

*insufficient physical activity less than 150 minutes of moderate-intensity physical activity per week OR <75 minutes of vigorous-intensity physical activity per week OR an equivalent combination of moderate and vigorous-intensity physical activity accumulating <600 MET-minutes per week

Table 4.2.4.1b Physical activity levels by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Sufficient physical activity	**56.6** (50.9-62.0)	**40.6** (36.3-44.9)	**49.1** (45.4-52.8)	**77.7** (74.3-80.8)	**52.6** (48.9-56.3)	**65.5** (62.9-68)	**70.6** (67.3-73.7)	**48.8** (45.9-51.6)	**60.1** (57.9-62.3)
Insufficient physical activity*	**43.4** (38.0-49.1)	**59.4** (55.1-63.7)	**50.9** (47.2-54.6)	**22.3** (19.2-25.7)	**47.4** (43.7-51.1)	**34.5** (32-37.1)	**29.4** (26.3-32.7)	**51.2** (48.4-54.1)	**39.9** (37.7-42.1)
45 - 69 years									
Sufficient physical activity	**54.2** (48.6-59.7)	**38.3** (32.8-44.1)	**46.5** (42.3-50.9)	**71.7** (67.9-75.2)	**48.8** (44.3-53.2)	**60.3** (57.5-63.1)	**65.4** (62.0-68.7)	**45.1** (41.7-48.7)	**55.5** (53.0-58.0)
Insufficient physical activity*	**45.8** (40.3-51.4)	**61.7** (55.9-67.2)	**53.5** (49.1-57.7)	**28.3** (24.8-32.1)	**51.2** (46.8-55.7)	**39.7** (36.9-42.5)	**34.6** (31.3-38.0)	**54.9** (51.3-58.3)	**44.5** (42.0-47.0)

*insufficient physical activity less than 150 minutes of moderate-intensity physical activity per week OR < 75 minutes of vigorous-intensity physical activity per week OR an equivalent combination of moderate and vigorous-intensity physical activity accumulating at least 600 MET-minutes per week

Table 4.2.4.2a Time (minutes) spent in physical activity per day by area of residence and gender (Mean)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
Vigorous activity	**9.4** (7.1-11.7)	**1.1** (0.7-1.6)	**5.5** (4.2-6.8)	**17.5** (15.3-19.7)	**4.0** (3.2-4.9)	**10.9** (9.6-12.2)	**14.7** (13.0-16.4)	**3.1** (2.5-3.7)	**9.1** (8.1-10.1)
Moderate activity	**71.1** (60.8-81.4)	**40.6** (34.0-47.3)	**56.7** (49.2-64.2)	**121.3** (111.3-131.3)	**57.8** (50.3-65.4)	**90.2** (83.2-97.2)	**104.1** (95.9-112.3)	**52.2** (46.7-57.7)	**79.0** (73.4-84.6)
Leisure time activity	**28.2** (22.4-34.0)	**5.5** (3.2-7.7)	**17.5** (13.9-21.0)	**20.4** (16.3-24.6)	**2.4** (0.9-3.9)	**11.6** (9.4-13.8)	**23.1** (19.7-26.4)	**3.4** (2.2-4.7)	**13.6** (11.7-15.4)
Work related activity at home/work place	**37.0** (29.0-45.0)	**30.0** (24.4-35.6)	**33.7** (27.6-39.9)	**83.3** (75.2-91.4)	**46.3** (39.9-52.7)	**65.1** (59.2-71.0)	**67.4** (60.8-74.0)	**41.0** (36.3-45.6)	**54.6** (50.0-59.2)
Travel related activity	**15.3** (12.7-17.9)	**6.3** (4.8-7.7)	**11.0** (9.4-12.7)	**35.1** (30.7-39.6)	**13.2** (10.8-15.6)	**24.4** (21.7-27.1)	**28.3** (25.0-31.6)	**10.9** (9.2-12.6)	**19.9** (17.9-21.9)
Total minutes (Mean) spent in physical activity per day	**80.5** (69.2-91.8)	**41.7** (34.9-48.6)	**62.2** (54.2-70.2)	**138.9** (128.1-149.6)	**61.9** (53.7-70.0)	**101.1** (93.5-108.7)	**118.8** (109.9-127.7)	**55.3** (49.4-61.2)	**88.1** (82.0-94.1)

Table 4.2.4.2b Time (minutes) spent in physical activity per day by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Vigorous activity	**11.2**	**0.9**	**6.4**	**20.4**	**4.1**	**12.4**	**17.3**	**3.1**	**10.5**
	(7.9-14.4)	(0.5-1.4)	(4.6-8.2)	(17.5-23.2)	(3.1-5.1)	(10.8-14.1)	(15.0-19.5)	(2.4-3.8)	(9.2-11.8)
Moderate activity	**70.1**	**39.5**	**55.8**	**126.4**	**57.9**	**93.0**	**107.4**	**52.1**	**80.8**
	(58.7-81.5)	(32.6-46.4)	(48.4-63.2)	(115.3-137.4)	(49.3-66.6)	(85.1-100.8)	(98.2-116.6)	(45.8-58.3)	(74.7-87.0)
Leisure time activity	**31.1**	**5.1**	**19.0**	**24.7**	**2.4**	**13.8**	**26.9**	**3.3**	**15.5**
	(23.9-38.3)	(2.7-7.5)	(14.8-23.1)	(19.2-30.2)	(0.3-4.5)	(10.8-16.8)	(22.5-31.2)	(1.6-4.9)	(13.1-17.9)
Work related activity at home/work place	**35.8**	**29.5**	**32.9**	**86.3**	**46.7**	**67.0**	**69.3**	**41.2**	**55.8**
	(27.3-44.3)	(24.2-34.8)	(27.0-38.8)	(77.0-95.7)	(39.7-53.7)	(60.4-73.6)	(61.7-76.9)	(36.2-46.3)	(50.7-60.9)
Travel related activity	**14.4**	**5.8**	**10.4**	**35.7**	**13.0**	**24.6**	**28.5**	**10.7**	**19.9**
	(11.2-17.6)	(4.4-7.1)	(8.6-12.2)	(30.8-40.6)	(10.2-15.7)	(21.6-27.5)	(24.8-32.2)	(8.8-12.6)	(17.8-22.1)
Total minutes (mean) spent in physical activity per day	**81.2**	**40.4**	**62.2**	**146.8**	**62.1**	**105.4**	**124.7**	**55.2**	**91.3**
	(68.0-94.5)	(33.4-47.4)	(54.0-70.5)	(135.0-158.6)	(52.8-71.3)	(96.9-113.9)	(114.6-134.8)	(48.5-61.9)	(84.6-98.0)
45 - 69 years									
Vigorous activity	**5.5**	**1.5**	**3.6**	**10.7**	**3.8**	**7.2**	**8.8**	**3.0**	**5.9**
	(3.8-7.2)	(0.7-2.3)	(2.5-4.7)	(9.1-12.2)	(2.6-4.9)	(6.2-8.3)	(7.6-10.0)	(2.2-3.8)	(5.2-6.7)
Moderate activity	**73.2**	**43.0**	**58.7**	**109.2**	**57.6**	**83.6**	**96.3**	**52.5**	**74.8**
	(58.7-87.8)	(32.5-53.5)	(47.7-69.7)	(95.5-122.9)	(47.6-67.6)	(74.7-92.5)	(85.6-107.0)	(45.0-60.1)	(67.7-82.0)
Leisure time activity	**21.7**	**6.2**	**14.3**	**10.1**	**2.4**	**6.3**	**14.3**	**3.7**	**9.1**
	(14.4-29.0)	(2.8-9.7)	(9.7-18.9)	(5.8-14.4)	(0.6-4.2)	(3.9-8.6)	(10.5-18.1)	(2.1-5.4)	(6.9-11.3)
Work related activity at home/work place	**39.7**	**31.0**	**35.5**	**75.9**	**45.3**	**60.7**	**63.0**	**40.3**	**51.8**
	(29.9-49.5)	(21.1-40.8)	(26.7-44.3)	(66.6-85.3)	(36.8-53.7)	(54.1-67.4)	(55.5-70.4)	(33.8-46.8)	(46.4-57.3)
Travel related activity	**17.3**	**7.3**	**12.5**	**33.8**	**13.7**	**23.8**	**27.9**	**11.5**	**19.8**
	(12.9-21.7)	(4.3-10.2)	(9.8-15.1)	(28.4-39.3)	(10.5-16.8)	(20.5-27.2)	(23.9-31.9)	(9.2-13.8)	(17.4-22.3)
Total minutes (mean) spent in physical activity per day	**78.8**	**44.5**	**62.2**	**119.8**	**61.4**	**90.8**	**105.1**	**55.5**	**80.8**
	(64.3-93.2)	(33.4-55.5)	(51.0-73.5)	(105.5-134.1)	(50.6-72.1)	(81.4-100.2)	(94.1-116.2)	(47.5-63.5)	(73.3-88.2)

Table 4.2.4.3a Voluntary physical activity* during recreational time by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**22.7**	**5.9**	**14.8**	**14.3**	**2.1**	**8.3**	**17.2**	**3.4**	**10.5**
	(19.3-26.5)	(4.3-8.1)	(12.6-17.3)	(12.1-16.8)	(1.5-3.0)	(7.1-9.8)	(15.3-19.2)	(2.7-4.2)	(9.4-11.7)
18 - 44 years	**24.3**	**5.8**	**15.7**	**17.1**	**2.3**	**9.8**	**19.5**	**3.4**	**11.8**
	(20.3-28.9)	(4.0-8.2)	(13.3-18.4)	(14.3-20.3)	(1.5-3.4)	(8.3-11.7)	(17.2-22.1)	(2.6-4.4)	(10.4-13.2)
45 - 69 years	**19.1**	**6.2**	**12.9**	**7.5**	**1.8**	**4.7**	**11.7**	**3.3**	**7.6**
	(14.3-25.0)	(4.2-9.2)	(9.8-16.8)	(5.2-10.8)	(1.0-3.3)	(3.4-6.4)	(9.2-14.6)	(2.4-4.6)	(6.1-9.4)

*doing voluntary physical activity like sports, fitness etc. during recreational time

Table 4.2.4.4a Time (minutes) spent being sedentary per day by area of residence, gender and age categories (Mean)

Sedentary	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**314.8**	**335.2**	**324.4**	**277.9**	**325.2**	**301.1**	**290.5**	**328.5**	**308.9**
	(292.6-337.0)	(315.6-354.7)	(304.8-343.9)	(260.5-295.2)	(306.8-343.6)	(285.3-316.9)	(276.9-304.2)	(314.5-342.4)	(296.6-321.2)
18 - 44 years	**309.3**	**324.7**	**316.5**	**269.8**	**315.4**	**292.0**	**283.1**	**318.3**	**300.1**
	(285.6-333.0)	(302.4-347.1)	(295.2-337.8)	(250.9-288.7)	(294.6-336.2)	(274.9-309.2)	(268.3-298.0)	(302.5-334.2)	(286.6-313.5)
45 - 69 years	**326.7**	**356.6**	**341.1**	**297.3**	**348.3**	**322.6**	**307.8**	**351.2**	**329.1**
	(300.7-352.7)	(328.8-384.5)	(318.6-363.7)	(275.8-318.7)	(329.4-367.2)	(305.4-339.7)	(291.2-324.4)	(335.5-366.8)	(315.6-342.6)

*sedentary behaviours like sitting, reclining and watching television, working on a computer, playing games in mobile/tablet, talking with friends or doing other sitting activities like knitting, embroidery etc., including the time spent sitting in office and excluding time spent sleeping in a typical day

4.2.5 Physical measurements

Table 4.2.5.1a Measurements of height, weight, BMI and waist circumference by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Height (cm)	**165.3**	**152.3**	**159.3**	**163.6**	**151.3**	**157.7**	**164.2**	**151.6**	**158.2**
	(164.7-165.9)	(151.8-152.8)	(158.8-159.7)	(163.1-164.2)	(150.8-151.7)	(157.2-158.2)	(163.8-164.6)	(151.2-152.0)	(157.8-158.6)
Weight (Kg)	**65.8**	**57.4**	**61.9**	**57.2**	**50.2**	**53.8**	**60.1**	**52.6**	**56.5**
	(64.7-66.9)	(56.3-58.6)	(61.1-62.7)	(56.4-58.0)	(49.2-51.2)	(53.1-54.6)	(59.4-60.9)	(51.7-53.4)	(55.8-57.2)
BMI* (Kg/m^2)	**24.0**	**24.7**	**24.3**	**21.4**	**21.9**	**21.6**	**22.3**	**22.8**	**22.5**
	(23.7-24.3)	(24.3-25.2)	(24.1-24.6)	(21.1-21.7)	(21.6-22.2)	(21.4-21.9)	(22.0-22.5)	(22.5-23.1)	(22.3-22.8)
Waist circumference (cm)	**86.6**	**82.3**	**84.6**	**78.8**	**75.3**	**77.1**	**81.4**	**77.6**	**79.6**
	(85.6-87.6)	(81.2-83.5)	(83.8-85.5)	(78.0-79.5)	(74.2-76.4)	(76.3-77.9)	(80.7-82.2)	(76.7-78.4)	(78.9-80.3)

*BMI- Body Mass Index = Weight (Kg)/Height (m^2)

Table 4.2.5.1b Measurements of height, weight, BMI and waist circumference by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Height (cm)	**166.1**	**153.0**	**160.1**	**164.1**	**151.8**	**158.2**	**164.8**	**152.1**	**158.8**
	(165.4-166.8)	(152.4-153.5)	(159.6-160.7)	(163.5-164.7)	(151.1-152.4)	(157.6-158.8)	(164.3-165.3)	(151.7-152.6)	(158.4-159.3)
Weight (Kg)	**65.8**	**56.7**	**61.7**	**57.5**	**49.9**	**53.9**	**60.2**	**52.0**	**56.4**
	(64.5-67.0)	(55.5-58.0)	(60.7-62.6)	(56.6-58.4)	(48.9-50.9)	(53.0-54.7)	(59.4-61.1)	(51.2-52.9)	(55.7-57.1)
BMI* (Kg/m^2)	**23.8**	**24.2**	**24.0**	**21.4**	**21.6**	**21.5**	**22.2**	**22.4**	**22.3**
	(23.4-24.2)	(23.7-24.7)	(23.7-24.3)	(21.0-21.8)	(21.3-22.0)	(21.2-21.8)	(21.9-22.5)	(22.1-22.7)	(22.1-22.6)
Waist circumference (cm)	**85.2**	**80.4**	**83.0**	**77.8**	**73.8**	**75.9**	**80.3**	**75.9**	**78.2**
	(84.2-86.2)	(79.1-81.7)	(82.2-83.9)	(76.9-78.7)	(72.6-74.9)	(75.0-76.7)	(79.5-81.1)	(75.0-76.8)	(77.5-78.9)
45 - 69 years									
Height (cm)	**163.6**	**151.0**	**157.5**	**162.4**	**150.1**	**156.3**	**162.9**	**150.4**	**156.7**
	(162.9-164.4)	(150.3-151.7)	(156.9-158.1)	(161.7-163.1)	(149.6-150.7)	(155.7-156.9)	(162.3-163.4)	(150.0-150.9)	(156.3-157.2)
Weight (Kg)	**65.8**	**58.8**	**62.4**	**56.6**	**51.0**	**53.8**	**59.9**	**53.7**	**56.8**
	(64.1-67.4)	(57.4-60.2)	(61.2-63.6)	(55.6-57.6)	(49.7-52.2)	(52.9-54.8)	(58.8-60.9)	(52.7-54.6)	(56.0-57.7)
BMI* (Kg/m^2)	**24.5**	**25.8**	**25.1**	**21.4**	**22.5**	**22.0**	**22.5**	**23.7**	**23.1**
	(23.9-25.0)	(25.2-26.3)	(24.7-25.5)	(21.1-21.7)	(22.1-23.0)	(21.6-22.3)	(22.2-22.8)	(23.3-24.0)	(22.8-23.4)
Waist circumference (cm)	**89.7**	**86.1**	**88.0**	**81.1**	**78.7**	**79.9**	**84.1**	**81.3**	**82.7**
	(88.2-91.2)	(84.8-87.4)	(86.9-89.1)	(80.0-82.1)	(77.3-80.2)	(78.8-81.0)	(83.1-85.2)	(80.2-82.4)	(81.8-83.6)

*BMI- Body Mass Index = Weight (Kg)/Height (m^2)

Table 4.2.5.2a BMI* categories (WHO cut off) by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Underweight (BMI<18.5)	**11.8**	**10.3**	**11.1**	**23.0**	**23.5**	**23.3**	**19.2**	**19.2**	**19.2**
	(9.7-14.4)	(8.4-12.5)	(9.8-12.6)	(20.6-25.6)	(21.0-26.3)	(21.2-25.5)	(17.4-21.2)	(17.4-21.3)	(17.7-20.9)
Normal weight (BMI 18.5-24.9)	**48.0**	**44.6**	**46.4**	**62.4**	**54.8**	**58.7**	**57.5**	**51.5**	**54.7**
	(44.7-51.3)	(40.7-48.6)	(43.9-49.0)	(59.6-65.2)	(52.4-57.2)	(56.7-60.7)	(55.2-59.8)	(49.4-53.6)	(53.0-56.3)
Overweight (BMI 25.0-29.9)	**31.6**	**31.0**	**31.3**	**12.5**	**16.2**	**14.3**	**19.0**	**21.0**	**19.9**
	(28.1-35.4)	(27.7-34.5)	(28.9-33.9)	(10.4-14.8)	(14.2-18.4)	(12.6-16.0)	(16.9-21.3)	(19.1-23.0)	(18.3-21.6)
Obesity (BMI ≥30.0)	**8.6**	**14.1**	**11.2**	**2.1**	**5.5**	**3.7**	**4.3**	**8.3**	**6.2**
	(6.8-10.8)	(11.6-17.1)	(9.6-13.0)	(1.6-2.8)	(4.2-7.0)	(3.1-4.6)	(3.6-5.2)	(7.1-9.7)	(5.5-7.0)

*in Kg/m^2

Table 4.2.5.2b BMI categories (WHO cut off) by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Underweight (BMI<18.5)	**13.2**	**12.6**	**12.9**	**22.1**	**24.8**	**23.4**	**19.1**	**21.0**	**20.0**
	(10.6-16.5)	(10.0-15.8)	(11.2-14.9)	(19.4-25.1)	(21.9-28.1)	(21.1-25.9)	(17.0-21.5)	(18.7-23.4)	(18.3-21.8)
Normal weight (BMI 18.5-24.9)	**48.7**	**46.1**	**47.5**	**63.9**	**56.3**	**60.3**	**58.8**	**53.1**	**56.1**
	(44.3-53.1)	(41.9-50.4)	(44.6-50.5)	(60.6-67.1)	(53.2-59.2)	(57.8-62.6)	(56.1-61.5)	(50.5-55.6)	(54.1-58.1)
Overweight (BMI 25.0-29.9)	**30.3**	**29.2**	**29.8**	**11.9**	**13.9**	**12.8**	**18.0**	**18.7**	**18.4**
	(25.8-35.1)	(25.6-33.1)	(26.9-32.9)	(9.6-14.6)	(11.8-16.2)	(11.1-14.9)	(15.6-20.7)	(16.8-20.9)	(16.6-20.3)
Obesity (BMI ≥30.0)	**7.8**	**12.1**	**9.7**	**2.1**	**5.0**	**3.5**	**4.0**	**7.2**	**5.5**
	(5.7-10.5)	(9.5-15.1)	(8.1-11.7)	(1.5-3.0)	(3.8-6.7)	(2.8-4.4)	(3.1-5.1)	(6.0-8.7)	(4.7-6.4)
45 - 69 years									
Underweight (BMI<18.5)	**8.7**	**5.7**	**7.2**	**25.2**	**20.7**	**23.0**	**19.4**	**15.5**	**17.5**
	(6.4-11.8)	(3.7-8.6)	(5.7-9.2)	(21.3-29.5)	(17.5-24.3)	(20.1-26.1)	(16.6-22.5)	(13.2-18.2)	(15.4-19.8)
Normal weight (BMI 18.5-24.9)	**46.3**	**41.6**	**44.1**	**58.8**	**51.5**	**55.2**	**54.4**	**48.1**	**51.3**
	(41.4-51.3)	(35.8-47.7)	(40.4-47.7)	(54.0-63.5)	(48.1-54.9)	(52.3-58.0)	(50.7-58.0)	(45.1-51.1)	(49.0-53.6)
Overweight (BMI 25.0-29.9)	**34.6**	**34.4**	**34.5**	**13.7**	**21.3**	**17.5**	**21.1**	**25.8**	**23.4**
	(29.8-39.8)	(29.1-40.2)	(30.7-38.6)	(11.0-17.1)	(18.1-25.0)	(15.5-19.7)	(18.3-24.3)	(22.9-29.1)	(21.3-25.7)
Obesity (BMI ≥30.0)	**10.4**	**18.2**	**14.2**	**2.2**	**6.5**	**4.4**	**5.1**	**10.6**	**7.8**
	(7.7-13.8)	(14.2-23.1)	(11.6-17.1)	(1.4-3.5)	(4.6-9.2)	(3.3-5.8)	(3.9-6.7)	(8.6-12.8)	(6.6-9.2)

*in Kg/m^2

Table 4.2.5.3a BMI* categories (Asian cut off) by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Underweight (BMI<18.5)	**11.8**	**10.3**	**11.1**	**23.0**	**23.6**	**23.3**	**19.2**	**19.2**	**19.2**
	(9.7-14.4)	(8.4-12.5)	(9.8-12.6)	(20.6-25.6)	(21.0-26.3)	(21.2-25.5)	(17.4-21.2)	(17.4-21.3)	(17.7-20.9)
Normal weight (BMI 18.5-22.9)	**29.8**	**29.2**	**29.5**	**47.5**	**42.6**	**45.2**	**41.5**	**38.3**	**39.9**
	(26.7-33.1)	(25.9-32.7)	(27.2-31.9)	(44.5-50.5)	(40.1-45.2)	(43.0-47.4)	(39.0-44.0)	(36.2-40.4)	(38.2-41.8)
Overweight (BMI 23.0-24.9)	**18.2**	**15.4**	**16.9**	**14.9**	**12.1**	**13.5**	**16.0**	**13.2**	**14.8**
	(16.1-20.5)	(13.2-17.9)	(15.4-18.5)	(12.9-17.1)	(10.7-13.8)	(12.3-15.0)	(14.5-17.7)	(12.0-14.6)	(13.7-15.8)
Obesity (BMI ≥25.0)	**40.2**	**45.1**	**42.5**	**14.6**	**21.7**	**18.0**	**23.3**	**29.3**	**26.1**
	(36.7-43.8)	(41.0-49.3)	(39.8-45.2)	(12.4-17.0)	(19.2-24.3)	(16.1-20.1)	(21.0-25.7)	(27.0-31.7)	(24.2-28.1)

*in Kg/m^2

Table 4.2.5.3b BMI* categories (Asian cut off) by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Underweight (BMI<18.5)	**13.2**	**12.6**	**12.9**	**22.1**	**24.8**	**23.4**	**19.1**	**21.0**	**20.0**
	(10.6-16.5)	(10.0-15.8)	(11.2-14.9)	(19.4-25.1)	(21.9-28.1)	(21.1-25.9)	(17.0-21.5)	(18.7-23.4)	(18.3-21.8)
Normal weight (BMI 18.5-22.9)	**29.7**	**30.5**	**30.1**	**49.6**	**44.0**	**46.9**	**42.9**	**39.7**	**41.4**
	(25.8-33.9)	(27.0-34.3)	(27.3-33.0)	(45.9-53.2)	(41.1-47.0)	(44.4-49.5)	(39.9-46.0)	(37.3-42.2)	(39.3-43.6)
Overweight (BMI 23.0-24.9)	**19.1**	**15.6**	**17.5**	**14.3**	**12.3**	**13.4**	**16.0**	**13.3**	**14.7**
	(15.8-22.7)	(12.8-18.9)	(15.4-19.7)	(12.0-17.1)	(10.5-14.3)	(11.7-15.2)	(13.9-18.1)	(11.8-15.0)	(13.4-16.1)
Obesity (BMI ≥25.0)	**38.0**	**41.3**	**39.5**	**14.0**	**18.9**	**16.3**	**22.0**	**26.0**	**23.9**
	(33.8-42.5)	(37.0-45.7)	(36.6-42.6)	(11.5-16.9)	(16.2-21.8)	(14.2-18.7)	(19.5-24.8)	(23.5-28.6)	(21.8-26.1)
45 - 69 years									
Underweight (BMI<18.5)	**8.7**	**5.7**	**7.2**	**25.2**	**20.7**	**23.0**	**19.4**	**15.5**	**17.5**
	(6.4-11.8)	(3.7-8.6)	(5.7-9.2)	(21.3-29.5)	(17.5-24.3)	(20.1-26.1)	(16.6-22.5)	(13.2-18.2)	(15.4-19.8)
Normal weight (BMI 18.5-22.9)	**30.0**	**26.5**	**28.3**	**42.6**	**39.5**	**41.1**	**38.1**	**35.0**	**36.6**
	(25.5-34.9)	(21.2-32.6)	(24.9-32.0)	(38.3-46.9)	(35.9-43.2)	(38.0-44.2)	(34.9-41.4)	(32.0-38.2)	(34.3-39.0)
Overweight (BMI 23.0-24.9)	**16.3**	**15.1**	**15.8**	**16.2**	**12.0**	**14.0**	**16.3**	**13.1**	**14.7**
	(12.3-21.5)	(11.8-19.2)	(12.8-19.2)	(12.9-20.2)	(9.9-14.4)	(12.2-16.2)	(13.6-19.3)	(11.3-15.1)	(13.1-16.5)
Obesity (BMI ≥25.0)	**45.0**	**52.7**	**48.7**	**16.0**	**27.8**	**21.9**	**26.2**	**36.4**	**31.2**
	(39.4-50.7)	(46.9-58.4)	(44.3-53.1)	(13.1-19.4)	(24.4-31.6)	(19.5-24.4)	(22.9-29.9)	(33.2-39.7)	(28.7-33.9)

*in Kg/m^2

Table 4.2.5.4a Adults categorized as overweight (including obesity) and obese by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Overweight (BMI ≥25.0 Kg/m²)	**40.2**	**45.1**	**42.5**	**14.6**	**21.7**	**18.0**	**23.3**	**29.3**	**26.1**
	(36.7-43.8)	(41.0-49.3)	(39.8-45.2)	(12.4-17.0)	(19.2-24.3)	(16.1-20.1)	(21.0-25.7)	(27.0-31.7)	(24.2-28.1)
Obesity (BMI ≥30.0 Kg/m²)	**8.6**	**14.1**	**11.2**	**2.1**	**5.5**	**3.7**	**4.3**	**8.3**	**6.2**
	(6.8-10.8)	(11.6-17.1)	(9.6-13.0)	(1.6-2.8)	(4.2-7.0)	(3.1-4.6)	(3.6-5.2)	(7.1-9.7)	(5.5-7.0)

Table 4.2.5.4b Adults categorized as overweight (including obesity) and obese by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Overweight (BMI ≥25.0 Kg/m²)	**38.0**	**41.3**	**39.5**	**14.0**	**18.9**	**16.3**	**22.0**	**26.0**	**23.9**
	(33.8-42.5)	(37.0-45.7)	(36.6-42.6)	(11.5-16.9)	(16.2-21.8)	(14.2-18.7)	(19.5-24.8)	(23.5-28.6)	(21.8-26.1)
Obesity (BMI ≥30.0 Kg/m²)	**7.8**	**12.1**	**9.7**	**2.1**	**5.0**	**3.5**	**4.0**	**7.2**	**5.5**
	(5.7-10.5)	(9.5-15.1)	(8.1-11.7)	(1.5-3.0)	(3.8-6.7)	(2.8-4.4)	(3.1-5.1)	(6.0-8.7)	(4.7-6.4)
45 - 69 years									
Overweight (BMI ≥25.0 Kg/m²)	**45.0**	**52.7**	**48.7**	**16.0**	**27.8**	**21.9**	**26.3**	**36.4**	**31.2**
	(39.4-50.7)	(46.9-58.4)	(44.3-53.1)	(13.1-19.4)	(24.4-31.6)	(19.5-24.4)	(22.9-29.9)	(33.2-39.7)	(28.7-33.9)
Obesity (BMI ≥30.0 Kg/m²)	**10.4**	**18.2**	**14.2**	**2.2**	**6.5**	**4.4**	**5.1**	**10.6**	**7.8**
	(7.7-13.8)	(14.2-23.1)	(11.6-17.1)	(1.4-3.5)	(4.6-9.2)	(3.3-5.8)	(3.9-6.7)	(8.6-12.8)	(6.6-9.2)

Table 4.2.5.5a Adults with central obesity* by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**39.5**	**58.1**	**48.2**	**16.6**	**32.4**	**24.2**	**24.4**	**40.7**	**32.2**
	(36.2-43.0)	(53.4-62.8)	(44.9-51.5)	(14.3-19.3)	(29.0-35.9)	(21.7-26.9)	(22.1-26.9)	(37.8-43.7)	(29.9-34.5)
18 - 44 years	**35.7**	**51.0**	**42.7**	**14.0**	**28.0**	**20.7**	**21.2**	**35.3**	**27.8**
	(31.6-40.0)	(45.8-56.2)	(39.1-46.3)	(11.4-17.0)	(24.5-31.9)	(18.1-23.5)	(18.7-24.0)	(32.3-38.4)	(25.6-30.2)
45 - 69 years	**48.1**	**72.1**	**59.7**	**23.0**	**42.1**	**32.4**	**31.8**	**52.4**	**41.9**
	(43.1-53.1)	(66.2-77.4)	(55.7-63.6)	(19.6-26.8)	(37.4-47.0)	(29.1-36.0)	(28.7-35.2)	(48.3-56.4)	(38.9-45.0)

*Waist Circumference (WC) ≥80cm in women and ≥90cm in men

Table 4.2.5.6a Blood pressure measurements by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Systolic BP (mmHg)	**129.4**	**123.6**	**126.7**	**124.4**	**121.0**	**122.7**	**126.1**	**121.8**	**124.1**
	(128.1-130.7)	(122.1-125.1)	(125.6-127.8)	(123.4-125.4)	(120.0-122.0)	(121.9-123.5)	(125.3-127.0)	(121.0-122.7)	(123.4-124.7)
Diastolic BP (mmHg)	**84.3**	**80.8**	**82.7**	**80.4**	**79.7**	**80.1**	**81.8**	**80.1**	**80.9**
	(83.5-85.1)	(80.0-81.6)	(82.1-83.3)	(79.7-81.1)	(79.1-80.3)	(79.5-80.6)	(81.2-82.3)	(79.6-80.5)	(80.5-81.4)

Table 4.2.5.6b Blood pressure measurements by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Systolic BP (mmHg)	**126.1**	**116.6**	**121.7**	**121.9**	**115.9**	**119.0**	**123.3**	**116.1**	**119.9**
	(124.5-127.7)	(115.2-118.0)	(120.6-122.8)	(121.0-122.7)	(114.9-116.9)	(118.2-119.7)	(122.4-124.1)	(115.3-116.9)	(119.2-120.5)
Diastolic BP (mmHg)	**83.7**	**79.4**	**81.7**	**79.8**	**78.6**	**79.2**	**81.1**	**78.8**	**80.0**
	(82.6-84.9)	(78.5-80.3)	(81.0-82.4)	(79.0-80.5)	(77.9-79.2)	(78.6-79.8)	(80.4-81.8)	(78.3-79.4)	(79.5-80.5)
45 - 69 years									
Systolic BP (mmHg)	**136.7**	**138.0**	**137.3**	**130.6**	**132.8**	**131.7**	**132.8**	**134.6**	**133.6**
	(133.7-139.6)	(135.6-140.3)	(135.3-139.3)	(128.6-132.6)	(131.0-134.5)	(130.3-133.1)	(131.0-134.5)	(133.1-136.0)	(132.4-134.8)
Diastolic BP (mmHg)	**85.6**	**83.8**	**84.7**	**82.0**	**82.4**	**82.2**	**83.3**	**82.9**	**83.1**
	(84.3-86.8)	(82.6-84.9)	(83.7-85.7)	(81.1-83.0)	(81.5-83.2)	(81.5-82.9)	(82.5-84.1)	(82.2-83.5)	(82.5-83.7)

Table 4.2.5.7a Adults with raised blood pressure (known and newly detected) by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Known	**8.6**	**12.4**	**10.4**	**5.8**	**7.6**	**6.7**	**6.8**	**9.2**	**7.9**
	(7.1-10.5)	(10.3-14.8)	(9.0-12.0)	(4.8-7.0)	(6.4-9.1)	(5.8-7.7)	(5.9-7.8)	(8.1-10.4)	(7.2-8.8)
Newly detected	**28.7**	**17.8**	**23.6**	**20.2**	**17.7**	**19.0**	**23.1**	**17.8**	**20.6**
	(25.7-32.0)	(15.7-20.1)	(21.5-25.8)	(17.9-22.7)	(16.0-19.6)	(17.4-20.7)	(21.3-25.1)	(16.4-19.2)	(19.2-21.9)

Table 4.2.5.7b Adults with raised blood pressure (known and newly detected) by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Known	**5.6**	**6.1**	**5.8**	**3.1**	**3.8**	**3.4**	**3.9**	**4.5**	**4.2**
	(4.1-7.6)	(4.3-8.6)	(4.6-7.4)	(2.1-4.5)	(2.8-5.1)	(2.7-4.3)	(3.1-5.0)	(3.6-5.7)	(3.6-5.0)
Newly detected	**26.0**	**10.9**	**19.0**	**16.8**	**12.5**	**14.7**	**19.9**	**12.0**	**16.1**
	(22.8-29.5)	(9.0-13.1)	(16.9-21.2)	(14.6-19.4)	(10.8-14.4)	(13.1-16.4)	(18.0-22.0)	(10.6-13.4)	(14.8-17.5)
45 - 69 years									
Known	**15.2**	**25.4**	**20.1**	**12.3**	**16.6**	**14.4**	**13.3**	**19.6**	**16.4**
	(12.0-19.1)	(21.4-29.8)	(17.0-23.5)	(9.9-15.2)	(14.0-19.6)	(12.5-16.6)	(11.4-15.6)	(17.4-22.1)	(14.8-18.2)
Newly detected	**34.7**	**32.1**	**33.4**	**28.4**	**30.0**	**29.2**	**30.6**	**30.7**	**30.7**
	(28.1-41.8)	(27.7-36.7)	(28.8-38.4)	(24.5-32.6)	(26.7-33.5)	(26.5-32.0)	(27.1-34.4)	(28.0-33.5)	(28.2-33.2)

Table 4.2.5.8a Adults with raised blood pressure including those on medication by area of residence, gender and age categories (Percentage)

Raised Blood Pressure* (including those on medication)	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**37.4**	**30.2**	**34.0**	**26.0**	**25.4**	**25.7**	**29.9**	**27.0**	**28.5**
	(34.5-40.3)	(27.5-33.0)	(32.0-36.1)	(23.5-28.8)	(23.2-27.6)	(23.8-27.8)	(27.9-32.0)	(25.2-28.8)	(27.0-30.1)
18 - 44 years	**31.7**	**17.0**	**24.8**	**19.9**	**16.2**	**18.1**	**23.9**	**16.5**	**20.3**
	(28.4-35.1)	(14.5-19.7)	(22.9-26.9)	(17.4-22.7)	(14.2-18.6)	(16.3-20.1)	(21.8-26.1)	(14.8-18.3)	(18.9-21.8)
45 - 69 years	**49.9**	**57.4**	**53.5**	**40.7**	**46.6**	**43.6**	**44.0**	**50.3**	**47.1**
	(43.7-56.1)	(53.2-61.6)	(49.3-57.7)	(36.5-45.0)	(42.9-50.3)	(40.5-46.8)	(40.4-47.6)	(47.5-53.2)	(44.5-49.7)

*Raised blood pressure - Systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg or on medication for raised BP among persons aged 18-69 years

Table 4.2.5.9a Blood pressure categories* among those measured by area of residence and gender (Percentage)

		Urban			Rural			Total		
		Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years		(95% CI)								
Normal		**22.4**	**36.5**	**29.0**	**33.6**	**42.4**	**37.9**	**29.8**	**40.5**	**34.9**
		(19.6-25.3)	(33.1-40.0)	(26.5-31.5)	(30.9-36.5)	(39.6-45.4)	(35.7-40.2)	(27.6-32.0)	(38.2-42.8)	(33.1-36.8)
Pre-hypertension		**43.1**	**38.6**	**41.0**	**43.6**	**35.8**	**39.8**	**43.4**	**36.7**	**40.2**
		(40.0-46.2)	(35.7-41.6)	(38.9-43.1)	(41.2-46.0)	(33.5-38.2)	(38.1-41.6)	(41.5-45.3)	(34.9-38.6)	(38.8-41.6)
Hypertension	Stage 1	**21.5**	**16.5**	**19.2**	**16.7**	**15.2**	**16.0**	**18.4**	**15.6**	**17.0**
		(19.1-24.1)	(14.4-18.9)	(17.6-20.8)	(14.9-18.8)	(13.6-17.0)	(14.6-17.5)	(16.9-20.0)	(14.3-17.1)	(15.9-18.2)
	Stage 2	**13.0**	**8.4**	**10.8**	**6.1**	**6.6**	**6.3**	**8.4**	**7.2**	**7.9**
		(10.8-15.7)	(7.0-10.1)	(9.6-12.3)	(5.0-7.3)	(5.7-7.5)	(5.5-7.1)	(7.3-9.7)	(6.4-8.0)	(7.1-8.6)

*classification of hypertension (as recommended by JNC-7) is based on Systolic Blood Pressure (SBP) and Diastolic Blood Pressure (DBP) values: Normal (SBP<120; DBP<80) (mmHg), Pre-hypertension (SBP: 120-139; DBP: 80-89); Hypertension Stage 1 (SBP: 140-159; DBP: 90-99) (mmHg); Hypertension Stage 2 (SBP: ≥160; DBP: ≥100) (mmHg) among those measured

Table 4.2.5.9b Blood pressure categories* among those measured by area of residence, gender and age categories (Percentage)

		Urban			Rural			Total		
		Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years		(95% CI)								
Normal		**24.6**	**45.9**	**34.5**	**35.9**	**49.8**	**42.6**	**32.1**	**48.6**	**40.0**
		(21.2-28.4)	(41.4-50.3)	(31.4-37.6)	(32.5-39.4)	(46.3-53.4)	(39.9-45.5)	(29.4-34.9)	(45.7-51.4)	(37.8-42.2)
Pre-hypertension		**46.0**	**40.0**	**43.2**	**46.6**	**36.4**	**41.6**	**46.4**	**37.5**	**42.1**
		(41.9-50.2)	(35.8-44.3)	(40.1-46.4)	(43.6-49.6)	(33.4-39.5)	(39.4-43.9)	(43.9-48.8)	(35.1-40.0)	(40.3-44.0)
Hypertension	Stage 1	**19.6**	**10.7**	**15.5**	**13.9**	**10.9**	**12.4**	**15.8**	**10.8**	**13.4**
		(17.0-22.4)	(8.7-13.1)	(13.8-17.3)	(12.0-16.0)	(9.3-12.8)	(11.1-13.9)	(14.2-17.5)	(9.5-12.3)	(12.3-14.6)
	Stage 2	**9.8**	**3.4**	**6.8**	**3.6**	**2.9**	**3.4**	**5.7**	**3.1**	**4.5**
		(7.1-13.4)	(2.4-4.9)	(5.3-8.7)	(2.7-5.0)	(2.1-3.9)	(2.6-4.1)	(4.5-7.2)	(2.4-3.9)	(3.7-5.3)
45 - 69 years										
Normal		**17.4**	**17.1**	**17.3**	**28.2**	**25.3**	**26.8**	**24.3**	**22.5**	**23.4**
		(13.0-23.0)	(13.9-20.9)	(14.4-20.6)	(24.9-31.7)	(21.9-29.0)	(24.3-29.4)	(21.5-27.4)	(19.9-25.3)	(21.4-25.6)
Pre-hypertension		**36.8**	**35.7**	**36.3**	**36.4**	**34.5**	**35.5**	**36.6**	**34.9**	**35.7**
		(32.0-41.8)	(31.2-40.6)	(32.5-40.2)	(32.7-40.3)	(31.0-38.1)	(32.9-38.2)	(33.6-39.6)	(32.1-37.8)	(33.6-38.0)
Hypertension	Stage 1	**25.6**	**28.5**	**27.0**	**23.7**	**25.2**	**24.4**	**24.4**	**26.3**	**25.3**
		(20.8-31.1)	(23.8-33.8)	(23.3-31.0)	(20.0-27.8)	(22.3-28.3)	(21.9-27.1)	(21.4-27.6)	(23.8-29.0)	(23.2-27.6)
	Stage 2	**20.2**	**18.7**	**19.4**	**11.7**	**15.0**	**13.3**	**14.7**	**16.3**	**15.6**
		(16.1-25.2)	(14.8-23.1)	(16.9-22.3)	(9.3-14.7)	(12.8-17.6)	(11.7-15.2)	(12.5-17.4)	(14.3-18.5)	(14.0-17.1)

*classification of hypertension (as recommended by JNC-7) is based on Systolic Blood Pressure (SBP) and Diastolic Blood Pressure (DBP) values: Normal (SBP<120; DBP<80) (mmHg), Pre-hypertension (SBP: 120-139; DBP: 80-89); Hypertension Stage 1 (SBP: 140-159; DBP: 90-99) (mmHg); Hypertension Stage 2 (SBP: ≥160; DBP: ≥100) (mmHg) among those measured

4.2.6 Biochemical measurements

Table 4.2.6.1a Fasting blood glucose levels (mg/dl) by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**100.4**	**102.9**	**101.6**	**92.4**	**96.5**	**94.4**	**95.1**	**98.5**	**96.7**
	(97.5-103.4)	(99.2-106.6)	(98.7-104.5)	(90.8-94.0)	(94.8-98.1)	(93.0-95.9)	(93.6-96.6)	(96.9-100.1)	(95.3-98.1)
18 - 44 years	**94.1**	**97.3**	**95.6**	**89.6**	**93.6**	**91.5**	**91.0**	**94.7**	**92.8**
	(91.3-96.8)	(94.3-100.3)	(93.0-98.1)	(88.0-91.1)	(92.0-95.1)	(90.2-92.8)	(89.6-92.4)	(93.3-96.1)	(91.6-94.0)
45 - 69 years	**114.4**	**113.8**	**114.1**	**99.3**	**103.2**	**101.2**	**104.4**	**106.8**	**105.6**
	(109.4-119.4)	(107.2-120.4)	(109.7-118.5)	(96.2-102.3)	(100.3-106.2)	(98.8-103.6)	(101.6-107.3)	(103.9-109.7)	(103.4-107.8)

Table 4.2.6.2a Adults with raised fasting blood glucose (known and newly detected) by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
Known	**8.9**	**7.5**	**8.2**	**2.1**	**2.7**	**2.4**	**4.3**	**4.2**	**4.3**
	(6.9-11.3)	(5.9-9.5)	(6.9-9.7)	(1.5-2.9)	(2.0-3.5)	(1.9-3.0)	(3.5-5.4)	(3.5-5.0)	(3.7-5.0)
Newly detected	**5.2**	**7.2**	**6.1**	**3.6**	**5.4**	**4.5**	**4.2**	**6.0**	**5.0**
	(3.8-7.0)	(5.6-9.3)	(4.9-7.7)	(2.8-4.8)	(4.0-7.4)	(3.5-5.7)	(3.4-5.1)	(4.8-7.4)	(4.2-6.0)

Table 4.2.6.2b Adults with raised fasting blood glucose (known and newly detected) by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Known	**3.9**	**2.1**	**3.1**	**0.4**	**0.7**	**0.6**	**1.6**	**1.1**	**1.4**
	(2.4-6.4)	(1.2-3.8)	(2.1-4.5)	(0.2-1.0)	(0.3-1.3)	(0.3-0.9)	(1.0-2.5)	(0.7-1.7)	(1.0-1.8)
Newly detected	**3.6**	**5.8**	**4.6**	**2.5**	**3.6**	**3.0**	**2.8**	**4.3**	**3.5**
	(2.3-5.4)	(3.9-8.3)	(3.4-6.1)	(1.6-3.8)	(2.6-5.1)	(2.3-4.0)	(2.1-3.8)	(3.3-5.5)	(2.9-4.3)
45 - 69 years									
Known	**19.7**	**17.8**	**18.8**	**6.0**	**7.3**	**6.6**	**10.7**	**10.8**	**10.8**
	(15.7-24.5)	(13.7-22.9)	(16.0-21.9)	(4.3-8.3)	(5.4-9.6)	(5.2-8.4)	(8.7-13.1)	(8.9-13.1)	(9.3-12.4)
Newly detected	**8.8**	**10.1**	**9.4**	**6.4**	**9.6**	**8.0**	**7.2**	**9.7**	**8.5**
	(5.6-13.5)	(7.6-13.1)	(7.0-12.4)	(4.6-8.9)	(6.7-13.6)	(6.0-10.5)	(5.5-9.4)	(7.6-12.5)	(6.9-10.3)

Table 4.2.6.3a Adults with raised fasting blood glucose including those on medication by area of residence, gender and age categories (Percentage)

Raised fasting blood glucose* including those on medication	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**14.0**	**14.7**	**14.4**	**5.7**	**8.1**	**6.9**	**8.5**	**10.2**	**9.3**
	(11.8-16.6)	(12.2-17.6)	(12.5-16.4)	(4.7-7.0)	(6.5-10.0)	(5.7-8.3)	(7.4-9.7)	(8.8-11.8)	(8.3-10.5)
18 - 44 years	**7.5**	**7.9**	**7.7**	**2.9**	**4.3**	**3.6**	**4.4**	**5.4**	**4.9**
	(5.5-10.1)	(5.8-10.6)	(6.1-9.6)	(2.0-4.3)	(3.2-5.9)	(2.8-4.6)	(3.4-5.6)	(4.3-6.7)	(4.1-5.8)
45 - 69 years	**28.5**	**27.9**	**28.2**	**12.4**	**16.8**	**14.6**	**17.9**	**20.6**	**19.2**
	(23.7-33.7)	(22.4-34.1)	(24.4-32.3)	(10.0-15.3)	(13.3-21.0)	(12.1-17.5)	(15.5-20.7)	(17.6-23.9)	(17.1-21.5)

* Raised fasting blood glucose - ≥126 mg/dl including those on medication for diabetes

Table 4.2.6.4a Fasting blood glucose categories among those measured by area of residence and gender (Percentage)

Fasting blood glucose	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 69 years	(95% CI)								
<100 mg/dl	**62.6**	**54.2**	**58.7**	**74.7**	**67.3**	**71.1**	**70.7**	**63.2**	**67.1**
	(57.5-67.4)	(47.5-60.8)	(53.5-63.6)	(71.7-77.6)	(63.7-70.7)	(68.0-74.0)	(68.0-73.3)	(59.9-66.4)	(64.4-69.7)
100-125 mg/dl	**27.2**	**33.8**	**30.3**	**20.4**	**26.0**	**23.1**	**22.6**	**28.4**	**25.4**
	(23.1-31.8)	(28.7-39.3)	(26.3-34.6)	(17.8-23.2)	(23.2-29.0)	(20.6-25.8)	(20.4-25.1)	(25.9-31.2)	(23.3-27.7)
≥126 mg/dl	**10.2**	**12.0**	**11.0**	**4.9**	**6.7**	**5.8**	**6.7**	**8.4**	**7.5**
	(8.2-12.6)	(9.6-14.8)	(9.2-13.1)	(3.9-6.2)	(5.2-8.7)	(4.7-7.1)	(5.7-7.8)	(7.0-9.9)	(6.5-8.6)

Table 4.2.6.4b Fasting blood glucose categories among those measured by area of residence, gender and age categories (Percentage)

Fasting blood glucose	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
<100 mg/dl	**71.3**	**60.0**	**66.2**	**79.0**	**72.1**	**75.6**	**76.6**	**68.4**	**72.7**
	(66.1-76.1)	(53.4-66.3)	(61.2-70.8)	(75.7-82.1)	(68.0-75.9)	(72.4-78.7)	(73.7-79.2)	(64.9-71.8)	(69.9-75.3)
100-125 mg/dl	**23.4**	**33.2**	**27.9**	**18.3**	**24.0**	**21.1**	**19.9**	**26.8**	**23.2**
	(18.9-28.5)	(27.6-39.3)	(23.8-32.4)	(15.4-21.5)	(20.6-27.8)	(18.3-24.1)	(17.4-22.7)	(23.8-30.0)	(20.9-25.7)
≥126 mg/dl	**5.3**	**6.8**	**5.9**	**2.7**	**3.9**	**3.3**	**3.5**	**4.8**	**4.1**
	(3.7-7.5)	(4.8-9.4)	(4.7-7.6)	(1.8-4.0)	(2.8-5.4)	(2.5-4.2)	(2.7-4.6)	(3.8-6.0)	(3.4-4.9)
45 - 69 years									
<100 mg/dl	**43.2**	**42.9**	**43.1**	**64.4**	**56.2**	**60.4**	**57.2**	**51.7**	**54.5**
	(36.7-50.0)	(34.5-51.7)	(36.5-49.9)	(59.4-69.2)	(51.3-60.9)	(56.1-64.5)	(53.1-61.2)	(47.4-56.0)	(50.9-58.0)

100-125 mg/dl	**35.7**	**35.0**	**35.3**	**25.3**	**30.6**	**27.9**	**28.8**	**32.1**	**30.4**
	(29.6-42.3)	(29.4-41.0)	(30.3-40.7)	(21.3-29.7)	(26.9-34.6)	(24.6-31.4)	(25.4-32.5)	(28.9-35.4)	(27.7-33.3)
≥126 mg/dl	**21.1**	**22.1**	**21.6**	**10.3**	**13.2**	**11.7**	**14.0**	**16.2**	**15.1**
	(16.4-26.7)	(17.1-28.1)	(17.8-26.0)	(8.0-13.1)	(9.9-17.4)	(9.4-14.5)	(11.6-16.7)	(13.4-19.6)	(13.0-17.4)

Table 4.2.6.5a Spot urinary Sodium, Potassium and Creatinine excretion levels by area of residence and gender (Mean)

	Urban			Rural			Total		
	Men	**Women**	**Combined**	**Men**	**Women**	**Combined**	**Men**	**Women**	**Combined**
18 - 69 years	**(95% CI)**								
Sodium (mmol/L)	**109.1**	**102.1**	**105.8**	**111.5**	**109.9**	**110.8**	**110.7**	**107.4**	**109.1**
	(95.9-122.3)	(84.9-119.3)	(91.4-120.3)	(102.6-120.4)	(99.7-120.2)	(102.5-119.0)	(103.3-118.0)	(98.6-116.2)	(101.9-116.4)
Potassium (mmol/L)	**26.4**	**24.9**	**25.7**	**26.1**	**27.3**	**26.7**	**26.2**	**26.5**	**26.4**
	(23.5-29.4)	(21.0-28.9)	(22.7-28.8)	(22.8-29.4)	(24.9-29.7)	(24.3-29.0)	(23.8-28.6)	(24.4-28.6)	(24.5-28.2)
Creatinine (mmol/L)	**90.6**	**59.1**	**76.0**	**86.0**	**64.4**	**75.7**	**87.6**	**62.7**	**75.8**
	(79.4-101.9)	(52.0-66.2)	(66.8-85.1)	(78.6-93.4)	(58.7-70.1)	(70.5-80.9)	(81.5-93.7)	(58.1-67.3)	(71.2-80.4)

Table 4.2.6.5b Spot urinary Sodium, Potassium and Creatinine excretion levels by area of residence, gender and age categories (Mean)

	Urban			Rural			Total		
	Men	**Women**	**Combined**	**Men**	**Women**	**Combined**	**Men**	**Women**	**Combined**
18 - 44 years	**(95% CI)**								
Sodium (mmol/L)	**108.6**	**108.0**	**108.3**	**108.9**	**112.9**	**110.8**	**108.8**	**111.3**	**110.0**
	(90.3-127.0)	(91.6-124.4)	(91.5-125.2)	(98.9-118.8)	(100.3-125.5)	(101.4-120.1)	(99.8-117.8)	(101.4-121.3)	(101.6-118.3)
Potassium (mmol/L)	**26.6**	**25.5**	**26.1**	**25.6**	**27.8**	**26.7**	**25.9**	**27.1**	**26.5**
	(22.9-30.2)	(20.8-30.2)	(22.5-29.7)	(22.5-28.7)	(24.8-30.8)	(24.4-28.9)	(23.6-28.3)	(24.5-29.7)	(24.5-28.4)
Creatinine (mmol/L)	**96.6**	**64.2**	**82.0**	**92.0**	**68.1**	**80.8**	**93.5**	**66.9**	**81.2**
	(82.7-110.4)	(56.8-71.5)	(72.4-91.5)	(82.8-101.1)	(62.4-73.8)	(75.1-86.6)	(86.0-101.1)	(62.3-71.4)	(76.3-86.1)
45 - 69 years									
Sodium (mmol/L)	**110.3**	**89.6**	**100.0**	**118.4**	**103.0**	**110.7**	**115.7**	**98.5**	**107.1**
	(95.3-125.3)	(70.1-109.2)	(86.5-113.4)	(106.4-130.4)	(93.1-113.0)	(101.6-119.9)	(106.3-125.0)	(89.0-108.0)	(99.5-114.7)
Potassium (mmol/L)	**26.1**	**23.7**	**24.9**	**27.3**	**26.1**	**26.7**	**26.9**	**25.3**	**26.1**
	(22.1-30.2)	(19.5-27.9)	(21.8-28.1)	(21.6-32.9)	(22.5-29.7)	(22.9-30.4)	(22.9-30.9)	(22.5-28.1)	(23.4-28.8)
Creatinine (mmol/L)	**75.1**	**48.3**	**61.7**	**70.1**	**55.7**	**62.9**	**71.8**	**53.2**	**62.5**
	(62.6-87.7)	(39.0-57.5)	(50.9-72.4)	(63.5-76.8)	(48.1-63.3)	(56.8-69.1)	(65.7-78.0)	(47.0-59.3)	(57.0-68.0)

Composite risk assessment

Clustering of risk factors

Table 4.2.7.1a Clustering of at least ≥3 risk factors* among adults (18-69 years) by area of residence, gender and age categories (Percentage)

Clustering of risk factors	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**54.5**	**50.9**	**52.8**	**34.9**	**33.5**	**34.2**	**41.4**	**39.0**	**40.2**
	(51.1-57.8)	(47.6-54.2)	(50.5-55.1)	(32.3-37.6)	(31.1-35.9)	(32.3-36.2)	(39.1-43.7)	(36.8-41.1)	(38.5-42.0)
18 - 44 years	**50.3**	**40.0**	**45.6**	**29.1**	**24.1**	**26.7**	**36.0**	**29.0**	**32.7**
	(46.2-54.5)	(36.2-43.9)	(42.9-48.4)	(26.0-32.5)	(21.4-27.0)	(24.6-29.0)	(33.2-38.9)	(26.6-31.5)	(30.7-34.7)
45 - 69 years	**63.6**	**71.3**	**67.4**	**48.6**	**54.2**	**51.3**	**53.7**	**60.0**	**56.8**
	(57.9-68.9)	(66.9-75.3)	(63.6-70.9)	(44.6-52.6)	(50.2-58.1)	(48.5-54.2)	(50.3-57.2)	(56.9-63.0)	(54.4-59.2)

*clustering of risk factors - Presence of ≥3 risk factors, include daily tobacco use, inadequate fruits and/or vegetable intake, insufficient physical activity, overweight (≥25.0 Kg/m²), raised blood pressure and raised fasting blood glucose including those on medication

Ten-year CVD risk

Table 4.2.7.2a Adults (40–69 years) with 10-year CVD risk (as per WHO guidelines) by area of residence and gender (Percentage)*

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
40-69 years	(95% CI)								
<10%	**76.1**	**69.7**	**73.1**	**78.5**	**72.7**	**75.7**	**77.6**	**71.5**	**74.7**
	(70.5-80.9)	(63.9-74.8)	(69.6-76.3)	(74.3-82.2)	(68.8-76.2)	(72.9-78.4)	(74.2-80.6)	(68.4-74.5)	(72.5-76.8)
10 - < 20%	**8.6**	**12.2**	**10.3**	**11.0**	**13.8**	**12.3**	**10.1**	**13.2**	**11.5**
	(6.3-11.7)	(9.7-15.3)	(8.5-12.4)	(8.6-14.1)	(11.3-16.7)	(10.5-14.4)	(8.3-12.3)	(11.3-15.3)	(10.2-13.0)
20%- <30%	**7.7**	**9.9**	**8.7**	**5.2**	**8.2**	**6.6**	**6.2**	**8.9**	**7.4**
	(5.5-10.7)	(7.2-13.5)	(7.1-10.7)	(3.6-7.5)	(6.2-10.8)	(5.3-8.2)	(4.8-7.9)	(7.2-10.9)	(6.4-8.7)
30 - <40%	**3.3**	**1.2**	**2.3**	**2.5**	**2.1**	**2.3**	**2.8**	**1.8**	**2.3**
	(1.9-5.9)	(0.5-2.8)	(1.4-3.8)	(1.5-4.1)	(1.1-4.1)	(1.6-3.4)	(1.9-4.1)	(1.0-3.1)	(1.7-3.1)
≥40%	**4.2**	**7.1**	**5.6**	**2.8**	**3.2**	**3.0**	**3.4**	**4.7**	**4.0**
	(2.6-6.9)	(4.5-11.0)	(4.1-7.5)	(1.6-4.7)	(1.9-5.4)	(2.1-4.3)	(2.3-4.8)	(3.3-6.5)	(3.1-5.1)

*excluding those with existing CVD

Table 4.2.7.2b Adults (40-69 years) with10-year CVD risk (as per WHO guidelines) by area of residence, gender and age categories (Percentage)*

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
40-49 years	(95% CI)								
<10%	**97.8**	**95.2**	**96.6**	**98.0**	**98.0**	**98.0**	**97.9**	**96.9**	**97.5**
	(94.5-99.1)	(90.6-97.6)	(94.3-98.0)	(93.0-99.4)	(95.3-99.2)	(95.6-99.1)	(95.2-99.1)	(94.8-98.2)	(96.0-98.4)
10 - <20%	**0.4**	**1.6**	**0.9**	**0.2**	**1.1**	**0.6**	**0.3**	**1.3**	**0.7**
	(0.1-1.8)	(0.4-6.6)	(0.3-2.9)	(0.1-0.9)	(0.3-4.2)	(0.2-1.8)	(0.1-0.8)	(0.5-3.4)	(0.3-1.6)
20% - <30%	**1.0**	**2.5**	**1.6**	**1.4**	**0.8**	**1.1**	**1.2**	**1.4**	**1.3**
	(0.1-5.9)	(1.0-6.0)	(0.7-3.7)	(0.2-8.0)	(0.2-2.4)	(0.3-4.0)	(0.3-4.7)	(0.7-2.9)	(0.6-2.9)
30 - <40%	**0.9**	**0.0**	**0.5**	**0.4**	**0.0**	**0.2**	**0.6**	**0.0**	**0.4**
	(0.3-2.6)	(0.0-0.0)	(0.2-1.5)	(0.1-1.8)	(0.0-0.0)	(0.1-1.0)	(0.3-1.5)	(0.0-0.0)	(0.1-0.8)
≥40%	**0.0**	**0.7**	**0.3**	**0.0**	**0.1**	**0.1**	**0.0**	**0.4**	**0.2**
	(0.0-0.0)	(0.2-2.1)	(0.1-0.9)	(0.0-0.0)	(0.02-1.0)	(0.01-0.5)	(0.0-0.0)	(0.1-0.9)	(0.1-0.4)
50-59 years									
< 10%	**87.4**	**81.0**	**84.5**	**93.0**	**76.6**	**85.1**	**90.9**	**78.2**	**84.9**
	(80.1-92.3)	(73.1-87.0)	(78.8-88.8)	(88.4-95.9)	(69.0-82.8)	(81.1-88.4)	(87.1-93.6)	(72.7-82.9)	(81.7-87.6)
10 - <20%	**5.8**	**6.2**	**6.0**	**1.7**	**11.9**	**6.6**	**3.3**	**9.8**	**6.4**
	(2.5-13.0)	(3.1-11.9)	(3.4-10.3)	(0.5-6.0)	(7.6-18.1)	(4.3-9.9)	(1.6-6.5)	(6.7-14.1)	(4.6-8.8)
20% - <30%	**2.8**	**6.9**	**4.7**	**0.7**	**4.6**	**2.6**	**1.5**	**5.5**	**3.4**
	(1.2-6.5)	(3.6-12.9)	(2.8-7.7)	(0.1-3.9)	(2.4-8.7)	(1.4-4.7)	(0.7-3.3)	(3.5-8.5)	(2.3-5.0)
30 - <40%	**1.8**	**4.1**	**2.9**	**2.2**	**6.9**	**4.4**	**2.0**	**5.9**	**3.8**
	(0.3-8.8)	(1.8-9.2)	(1.3-6.1)	(0.9-5.0)	(3.4-13.4)	(2.6-7.4)	(0.9-4.4)	(3.3-10.1)	(2.5-5.9)
≥40%	**2.1**	**1.8**	**2.0**	**2.4**	**0.0**	**1.2**	**2.3**	**0.7**	**1.5**
	(0.8-5.5)	(0.6-5.0)	(1.0-4.0)	(0.9-6.2)	(0.0-0.0)	(0.5-3.2)	(1.1-4.7)	(0.2-1.8)	(0.8-2.7)
60-69 years									
<10%	**18.2**	**25.4**	**22.1**	**25.4**	**36.0**	**31.0**	**22.7**	**32.0**	**27.6**
	(11.7-27.2)	(17.7-35.1)	(16.5-28.9)	(18.7-33.5)	(29.2-43.4)	(26.0-36.4)	(17.8-28.6)	(26.6-37.8)	(23.7-31.9)
10 - <20%	**28.7**	**31.8**	**30.4**	**42.0**	**32.0**	**36.8**	**37.1**	**31.9**	**34.3**
	(22.1-36.3)	(24.4-40.3)	(25.5-35.7)	(33.5-51.1)	(26.0-38.6)	(31.2-42.7)	(30.9-43.7)	(27.2-37.1)	(30.4-38.5)
20% - <30%	**27.6**	**22.4**	**24.8**	**17.5**	**21.6**	**19.6**	**21.2**	**21.9**	**21.6**
	(20.6-35.8)	(15.8-30.7)	(20.1-30.2)	(12.6-23.8)	(16.1-28.4)	(15.9-24.0)	(17.0-26.2)	(17.5-27.0)	(18.6-24.9)
30 - <40%	**10.2**	**0.0**	**4.7**	**6.7**	**0.0**	**3.2**	**8.0**	**0.0**	**3.8**
	(5.0-19.6)	(0.0-0.0)	(2.3-9.3)	(3.5-12.3)	(0.0-0.0)	(1.7-5.9)	(5.0-12.5)	(0.0-0.0)	(2.4-5.9)
≥40%	**15.4**	**20.4**	**18.1**	**8.4**	**10.4**	**9.5**	**11.0**	**14.2**	**12.7**
	(9.7-23.4)	(13.0-30.5)	(13.1-24.4)	(4.5-15.2)	(6.2-17.0)	(6.4-13.8)	(7.4-16.0)	(10.1-19.7)	(9.8-16.2)

*excluding those with existing CVD

Table 4.2.7.3a Adults (40–69 years) with 10-year CVD risk of ≥30%* or with existing CVD by area of residence, gender and age categories (Percentage)

≥ 30% CVD risk, or with existing CVD	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
40-49 years	6.9	2.2	4.9	6.4	8.5	7.4	6.6	6.2	6.4
	(3.8-12.2)	(1.0-4.8)	(2.9-8.0)	(3.9-10.4)	(4.5-15.6)	(4.9-10.9)	(4.5-9.6)	(3.5-10.7)	(4.6-8.8)
50-59 years	12.1	11.4	11.8	10.8	15.9	13.3	11.3	14.3	12.7
	(7.7-18.5)	(7.0-18.1)	(8.2-16.7)	(7.2-15.9)	(10.7-23.0)	(10.0-17.5)	(8.4-15.1)	(10.4-19.3)	(10.2-15.8)
60-69 years	34.0	23.6	28.5	23.7	15.4	19.4	27.6	18.5	22.8
	(26.2-42.7)	(16.0-33.3)	(23.0-34.7)	(17.0-32.0)	(10.4-22.1)	(15.1-24.4)	(22.3-33.5)	(14.1-24.0)	(19.4-26.7)
40-69 years	15.0	11.5	13.4	12.1	12.8	12.4	13.2	12.3	12.8
	(11.9-18.8)	(8.3-15.7)	(11.1-16.0)	(9.6-15.1)	(9.9-16.6)	(10.4-14.8)	(11.2-15.5)	(10.0-15.1)	(11.2-14.5)

*a 10-year Cardiovascular diseases (CVDs) risk of ≥30% has been defined according to the age (40-69 years), gender, systolic blood pressure, current smoked tobacco use and diabetes (previously diagnosed/fasting plasma glucose concentration ≥126 mg/dl) as for South-East Asia Region

4.3 NCD RISK FACTORS – ADOLESCENTS (15–17 YEARS)

4.3.1 - Tobacco use

Table 4.3.1.1a Tobacco use of any form among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Tobacco use	(95% CI)								
Never user	89.9	99.7	94.4	87.2	97.8	92.3	88.1	98.3	93.0
	(84.0-93.8)	(97.9-100.0)	(91.2-96.4)	(82.3-90.9)	(93.9-99.2)	(89.4-94.5)	(84.4-91.0)	(95.7-99.4)	(90.9-94.6)
Ever user/experimented	10.1	0.3	5.6	12.8	2.2	7.7	11.9	1.7	7.0
	(6.2-16.0)	(0.04-2.1)	(3.6-8.8)	(9.1-17.7)	(0.8-6.1)	(5.5-10.6)	(9.0-15.6)	(0.6-4.3)	(5.4-9.1)

Table 4.3.1.2a Smoked tobacco use among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Smoked tobacco use	(95% CI)								
Never user	**93.4**	**100.0**	**96.4**	**93.7**	**99.4**	**96.5**	**93.6**	**99.5**	**96.5**
	(87.4-96.7)	(0.0-100.0)	(93.1-98.2)	(89.8-96.2)	(97.8-99.8)	(94.3-97.8)	(90.6-95.7)	(98.5-99.9)	(94.8-97.6)
Ever user/experimented	**6.6**	**0.0**	**3.6**	**6.3**	**0.6**	**3.5**	**6.4**	**0.5**	**3.5**
	(3.3-12.6)	(0.0-0.0)	(1.8-6.9)	(3.8-10.2)	(0.2-2.2)	(2.2-5.7)	(4.3-9.4)	(0.1-1.5)	(2.4-5.2)

Table 4.3.1.3a Smokeless tobacco use among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Smokeless tobacco use	(95% CI)								
Never user	**94.1**	**99.7**	**96.7**	**90.6**	**98.1**	**94.3**	**91.8**	**98.6**	**95.0**
	(89.0-96.9)	(97.9-100.0)	(94.0-98.1)	(86.1-93.8)	(94.1-99.4)	(91.6-96.2)	(88.4-94.2)	(95.8-99.5)	(93.1-96.4)
Ever user/experimented	**5.9**	**0.3**	**3.3**	**9.4**	**1.9**	**5.7**	**8.2**	**1.4**	**5.0**
	(3.1-11.0)	(0.04-2.1)	(1.9-6.0)	(6.2-13.9)	(0.6-5.9)	(3.8-8.4)	(5.8-11.6)	(0.5-4.2)	(3.6-6.9)

Table 4.3.1.4a Current daily tobacco use among adolescents by area of residence and gender (Percentage)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Tobacco use	(95% CI)								
Current daily tobacco use (either)	**3.5**	**0.0**	**1.9**	**6.5**	**0.6**	**3.6**	**5.5**	**0.4**	**3.1**
	(1.4-8.3)	(0.0-0.0)	(0.8-4.5)	(3.9-10.7)	(0.2-1.8)	(2.3-5.8)	(3.5-8.6)	(0.1-1.3)	(2.0-4.7)
Only smoked tobacco	**0.03**	**0.0**	**0.01**	**0.4**	**0.0**	**0.2**	**0.3**	**0.0**	**0.2**
	(0.004-0.2)	(0.0-0.0)	(0.002-0.1)	(0.1-2.4)	(0.0-0.0)	(0.03-1.3)	(0.1-1.6)	(0.0-0.0)	(0.03-0.8)
Only smokeless tobacco	**3.2**	**0.0**	**1.8**	**6.0**	**0.3**	**3.2**	**5.1**	**0.2**	**2.8**
	(1.2-8.2)	(0.0-0.0)	(0.7-4.4)	(3.5-10.2)	(0.1-1.3)	(1.9-5.4)	(3.2-8.1)	(0.1-0.9)	(1.7-4.3)
Both smoked and smokeless tobacco	**0.2**	**0.0**	**0.1**	**0.1**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**
	(0.03-1.3)	(0.0-0.0)	(0.02-0.7)	(0.02-0.9)	(0.04-1.7)	(0.04-0.8)	(0.04-0.6)	(0.03-1.2)	(0.05-0.5)

Table 4.3.1.5a Tobacco products used in past 30 days among adolescents by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Smoked tobacco[1]	(95% CI)								
Bidi	**13.5**	**0.0**	**13.5**	**35.1**	**100.0**	**40.9**	**26.3**	**100.0**	**30.4**
	(2.6-47.7)	(0.0-0.0)	(2.6-47.7)	(13.7-64.8)	(100.0-100.0)	(17.3-69.5)	(10.4-52.3)	(100.0-100.0)	(12.2-57.8)
Manufactured cigarettes	**94.5**	**0.0**	**94.5**	**84.6**	**100.0**	**86.0**	**88.6**	**100.0**	**89.2**
	(62.9-99.4)	(0.0-0.0)	(62.9-99.4)	(39.3-97.9)	(100.0-100.0)	(41.2-98.2)	(56.9-97.9)	(100.0-100.0)	(58.2-98.0)
Hand-rolled cigarettes	**5.6**	**0.0**	**5.6**	**0.0**	**0.0**	**0.0**	**2.3**	**0.0**	**2.1**
	(0.6-37.3)	(0.0-0.0)	(0.6-37.3)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.3-15.6)	(0.0-0.0)	(0.3-14.9)
Others*	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)
Smokeless tobacco[2]									
Chewing tobacco	**18.8**	**0.0**	**18.8**	**47.7**	**0.0**	**44.6**	**41.9**	**0.0**	**39.7**
	(4.5-53.5)	(0.0-0.0)	(4.5-53.5)	(27.8-68.3)	(0.0-0.0)	(25.5-65.6)	(24.6-61.5)	(0.0-0.0)	(23.0-59.3)
Paan with zarda, betel with tobacco, quid	**37.1**	**0.0**	**37.1**	**29.4**	**100.0**	**33.9**	**31.0**	**100.0**	**34.5**
	(7.9-80.4)	(0.0-0.0)	(7.9-80.4)	(14.5-50.5)	(100.0-100.0)	(17.5-55.5)	(16.3-50.9)	(100.0-100.0)	(18.9-54.4)
Ghutka	**100.0**	**0.0**	**100.0**	**74.6**	**80.2**	**74.9**	**79.7**	**80.2**	**79.7**
	(0.0-100.0)	(0.0-0.0)	(0.0-100.0)	(56.3-87.0)	(26.6-97.8)	(57.4-86.9)	(64.4-89.4)	(26.6-97.8)	(65.0-89.2)
Khaini	**1.1**	**0.0**	**1.1**	**20.9**	**0.0**	**19.5**	**16.9**	**0.0**	**16.0**
	(0.2-5.8)	(0.0-0.0)	(0.2-5.8)	(9.4-40.1)	(0.0-0.0)	(9.2-36.9)	(7.9-32.6)	(0.0-0.0)	(7.7-30.5)
Others**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)

*others include pipes, hookah/shisha and ** others include tuibu, tobacco snuff by mouth, by nose

[1]among those who used smoked tobacco in past 30 days
[2]among those who used smokeless tobacco in past 30 days

Table 4.3.1.6a Adolescents who thought that inhaling smoke from other people's tobacco smoking can cause harm by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Thought that inhaling smoke from other people's tobacco smoking can cause harm	**87.8**	**85.8**	**86.9**	**86.1**	**82.7**	**84.4**	**86.6**	**83.6**	**85.2**
	(81.8-92.0)	(78.6-90.8)	(82.3-90.4)	(79.7-90.7)	(77.1-87.2)	(80.1-88.0)	(82.1-90.2)	(79.3-87.2)	(82.0-88.0)

Table 4.3.1.7a Age (in years) of initiation* of tobacco use among adolescents by area of residence and gender (Mean)

15 - 17 Years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Tobacco	**15.0**	**17.0**	**15.1**	**13.9**	**14.1**	**13.9**	**14.2**	**14.4**	**14.2**
	(14.3-15.8)	(17.0-17.0)	(14.3-15.9)	(13.0-14.8)	(12.9-15.2)	(13.1-14.7)	(13.5-14.9)	(13.2-15.5)	(13.5-14.9)
Smoked tobacco	**15.1**	**0.0**	**15.1**	**14.7**	**14.7**	**14.7**	**14.8**	**14.7**	**14.8**
	(14.0-16.2)	(0.0-0.0)	(14.0-16.2)	(14.2-15.1)	(14.0-15.5)	(14.3-15.1)	(14.3-15.3)	(14.0-15.5)	(14.3-15.3)
Smokeless tobacco	**14.9**	**17.0**	**15.0**	**13.7**	**13.5**	**13.7**	**14.0**	**14.0**	**14.0**
	(14.2-15.6)	(17.0-17.0)	(14.3-15.7)	(12.6-14.8)	(12.2-14.8)	(12.7-14.7)	(13.0-14.9)	(12.5-15.5)	(13.1-14.8)

*among ever tried/experimented tobacco users

Table 4.3.1.8a Adolescents who attempted* to quit tobacco use by area of residence and gender

15 -17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Tobacco	**68.8**	**0.0**	**68.8**	**37.8**	**0.0**	**35.7**	**45.0**	**0.0**	**43.1**
	(34.8-90.1)	(0.0-0.0)	(34.8-90.1)	(18.3-62.3)	(0.0-0.0)	(17.1-60.0)	(26.6-64.8)	(0.0-0.0)	(25.2-63.0)
Smoked tobacco	**88.7**	**0.0**	**88.7**	**9.9**	**0.0**	**9.0**	**41.9**	**0.0**	**39.6**
	(56.6-97.9)	(0.0-0.0)	(56.6-97.9)	(1.7-40.9)	(0.0-0.0)	(1.5-39.1)	(15.6-73.7)	(0.0-0.0)	(14.0-72.5)
Smokeless tobacco	**59.8**	**0.0**	**59.8**	**41.9**	**0.0**	**39.2**	**45.5**	**0.0**	**43.1**
	(23.4-87.9)	(0.0-0.0)	(23.4-87.9)	(20.3-67.1)	(0.0-0.0)	(18.7-64.4)	(25.8-66.7)	(0.0-0.0)	(24.2-64.3)

*among ever tried/experimented tobacco users

4.3.2 Alcohol use

Table 4.3.2.1a Alcohol use among adolescents by area of residence and gender (Percentage)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Ever consumed	**4.2**	**2.1**	**3.2**	**5.9**	**1.1**	**3.6**	**5.4**	**1.4**	**3.5**
	(2.0-8.6)	(0.7-5.9)	(1.5-6.6)	(3.3-10.6)	(0.4-3.5)	(2.1-6.1)	(3.3-8.6)	(0.6-3.1)	(2.2-5.4)
Consumed in last 12 months	**1.4**	**0.6**	**1.1**	**2.0**	**0.7**	**1.4**	**1.8**	**0.7**	**1.3**
	(0.4-4.6)	(0.2-1.8)	(0.4-2.6)	(1.0-4.1)	(0.2-3.0)	(0.7-2.8)	(1.0-3.4)	(0.2-2.0)	(0.7-2.3)
Consumed in last 30 days	**1.4**	**0.3**	**0.9**	**0.5**	**0.3**	**0.4**	**0.8**	**0.3**	**0.5**
	(0.4-4.6)	(0.1-1.3)	(0.3-2.5)	(0.1-2.1)	(0.04-1.7)	(0.1-1.2)	(0.3-2.0)	(0.1-1.0)	(0.2-1.2)

Table 4.3.2.2a Alcohol use among adolescents* by type, area of residence and gender (Percentage)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Beer, lager or stout	**44.0**	**31.0**	**40.5**	**42.5**	**0.0**	**31.7**	**42.9**	**8.3**	**34.0**
	(6.9-89.3)	(3.8-83.5)	(9.1-82.3)	(13.2-78.2)	(0.0-0.0)	(9.4-67.5)	(16.5-74.1)	(0.8-51.5)	(13.4-63.1)
Wine/champagne	**0.0**	**15.6**	**4.1**	**0.0**	**0.0**	**0.0**	**0.0**	**4.2**	**1.1**
	(0.0-0.0)	(1.4-70.4)	(0.4-33.4)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.4-33.4)	(0.1-8.8)
Spirits, such as brandy/whisky/rum	**2.1**	**0.0**	**1.5**	**8.2**	**0.0**	**6.1**	**6.6**	**0.0**	**4.9**
	(0.2-22.1)	(0.0-0.0)	(0.1-15.1)	(1.0-43.3)	(0.0-0.0)	(0.7-36.9)	(1.0-34.2)	(0.0-0.0)	(0.7-27.9)
Desi/some other type	**53.9**	**21.7**	**45.3**	**49.3**	**100.0**	**62.2**	**50.5**	**78.9**	**57.8**
	(8.3-93.8)	(2.1-78.4)	(8.7-87.8)	(18.6-80.6)	(100.0-100.0)	(28.8-87.0)	(22.3-78.4)	(38.1-95.8)	(30.2-81.3)
Ready to drink mixers	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)
Others	**0.0**	**31.7**	**8.6**	**0.0**	**0.0**	**0.0**	**0.0**	**8.6**	**2.2**
	(0.0-0.0)	(3.4-85.9)	(0.8-52.1)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.8-52.1)	(0.3-16.7)

*among those who consumed alcohol in past 12 months

Table 4.3.2.3a Maximum number of standard drinks* consumed in one drinking occasion by area of residence and gender (Percentage)**

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Standard drinks in one drinking occasion	(95% CI)								
<5 standard drinks	**1.3**	**0.3**	**0.8**	**0.3**	**0.3**	**0.3**	**0.6**	**0.3**	**0.4**
	(0.3-4.7)	(0.1-1.3)	(0.3-2.5)	(0.1-1.2)	(0.03-1.7)	(0.1-0.9)	(0.2-1.7)	(0.1-1.0)	(0.2-1.0)
≥5 standard drinks	**0.2**	**0.0**	**0.1**	**0.2**	**0.0**	**0.1**	**0.2**	**0.0**	**0.1**
	(0.03-1.0)	(0.0-0.0)	(0.02-0.6)	(0.02-1.2)	(0.0-0.0)	(0.01-0.6)	(0.04-0.7)	(0.0-0.0)	(0.02-0.4)

*one standard drink equivalents to 10 grams of alcohol; **among alcohol consumers in past 30 days

Table 4.3.2.4a Adolescents engaged in binge drinking* in past 30 days by area of residence and gender (Percentage)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Binge drinking*	0.3	0.0	0.2	0.2	0.0	0.1	0.2	0.0	0.1
	(0.1-1.1)	(0.0-0.0)	(0.04-0.6)	(0.02-1.2)	(0.0-0.0)	(0.01-0.6)	(0.1-0.7)	(0.0-0.0)	(0.03-0.4)

*binge drinking is ≥5 standard drinks – boys and ≥4 standard drinks - girls in one drinking occasion

Table 4.3.2.5a Age (in years) of initiation of alcohol use among adolescents by area of residence and gender (Mean)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Age of initiation	14.0	14.5	14.1	13.4	11.4	13.1	13.5	12.8	13.4
	(12.1-15.8)	(13.1-16.0)	(12.8-15.4)	(12.3-14.5)	(7.3-15.5)	(12.0-14.2)	(12.6-14.5)	(10.2-15.4)	(12.5-14.3)

Table 4.3.2.6a Source from where alcohol was consumed in past 30 days by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Store/shop/street vendor	25.0	0.0	21.3	63.6	0.0	41.8	40.2	0.0	30.7
	(3.1-77.5)	(0.0-0.0)	(2.9-70.8)	(34.7-85.2)	(0.0-0.0)	(14.2-75.7)	(13.9-73.6)	(0.0-0.0)	(10.9-61.6)
Friends	8.0	0.0	6.9	36.4	0.0	23.9	19.2	0.0	14.6
	(0.8-47.8)	(0.0-0.0)	(0.8-41.3)	(14.8-65.3)	(0.0-0.0)	(5.5-62.8)	(4.9-52.3)	(0.0-0.0)	(3.6-44.0)
Family	64.9	100.0	70.0	0.0	100.0	34.3	39.4	100.0	53.7
	(17.5-94.1)	(100.0-100.0)	(25.3-94.2)	(0.0-0.0)	(100.0-100.0)	(4.1-86.4)	(8.1-82.7)	(100.0-100.0)	(19.5-84.8)
Gave money to someone else to buy	2.1	0.0	1.8	0.0	0.0	0.0	1.2	0.0	1.0
	(0.2-17.7)	(0.0-0.0)	(0.2-14.5)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.1-10.2)	(0.0-0.0)	(0.1-7.5)

*none reported stealing/getting it without permission or some other way

4.3.3 Diet

Table 4.3.3.1a Adolescents who skipped breakfast in the past 30 days by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Never skipped breakfast	**56.3**	**45.2**	**51.3**	**53.1**	**50.7**	**51.9**	**54.2**	**49.1**	**51.7**
	(47.5-64.8)	(37.3-53.5)	(44.9-57.7)	(46.5-59.6)	(44.2-57.1)	(47.1-56.7)	(48.8-59.4)	(43.9-54.2)	(47.8-55.6)
Skipped breakfast on any one day	**43.7**	**54.8**	**48.7**	**46.9**	**49.3**	**48.1**	**45.8**	**50.9**	**48.3**
	(35.2-52.5)	(46.5-62.7)	(42.3-55.1)	(40.4-53.5)	(42.9-55.8)	(43.3-52.9)	(40.6-51.2)	(45.8-56.1)	(44.4-52.2)
Number of days breakfast was skipped									
1 – 5 days	**23.9**	**26.4**	**25.0**	**26.2**	**26.7**	**26.5**	**25.5**	**26.6**	**26.0**
	(17.9-31.2)	(20.5-33.2)	(20.5-30.2)	(20.0-33.6)	(21.1-33.1)	(22.0-31.4)	(20.7-30.9)	(22.2-31.4)	(22.6-29.7)
6 – 10 days	**10.0**	**10.4**	**10.2**	**8.0**	**7.9**	**7.9**	**8.7**	**8.6**	**8.7**
	(6.1-15.9)	(6.4-16.5)	(6.9-14.8)	(5.1-12.4)	(5.3-11.6)	(5.8-10.7)	(6.2-12.0)	(6.3-11.7)	(6.8-11.0)
11 – 15 days	**2.9**	**4.5**	**3.6**	**3.2**	**4.5**	**3.8**	**3.1**	**4.5**	**3.8**
	(1.3-6.5)	(2.5-8.2)	(2.1-6.1)	(1.8-5.8)	(2.4-8.3)	(2.5-5.8)	(1.9-5.0)	(2.8-7.2)	(2.7-5.3)
>15 days	**6.9**	**13.4**	**9.8**	**9.4**	**10.3**	**9.8**	**8.6**	**11.2**	**9.8**
	(3.0-15.1)	(8.8-19.8)	(6.0-15.8)	(5.8-15.1)	(7.0-14.9)	(7.0-13.7)	(5.6-12.9)	(8.4-14.8)	(7.4-12.9)
All 30 days	**4.4**	**4.9**	**4.6**	**3.5**	**3.8**	**3.7**	**3.8**	**4.1**	**4.0**
	(1.2-14.5)	(2.3-9.9)	(1.8-11.4)	(1.7-7.2)	(2.1-6.8)	(2.2-6.0)	(1.9-7.3)	(2.6-6.5)	(2.5-6.3)

Table 4.3.3.2a Number of days breakfast was skipped in past 30 days by area of residence and gender (Mean)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Skipped breakfast in past 30 days	(95% CI)								
Mean number of days breakfast was skipped	**8.6**	**10.4**	**9.5**	**9.6**	**9.8**	**9.7**	**9.3**	**10.0**	**9.6**
	(5.4-11.7)	(8.3-12.5)	(7.2-11.8)	(7.4-11.8)	(8.0-11.5)	(8.1-11.2)	(7.5-11.0)	(8.6-11.3)	(8.3-10.9)

Table 4.3.3.3a Frequency of consumption of food items by area of residence and gender (Percentage)

Consumption of food items	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Achar/ pappad	(95% CI)								
At least once in a week*	**44.4** (36.4-52.6)	**57.5** (50.0-64.7)	**50.3** (44.0-56.7)	**36.1** (30.2-42.4)	**41.3** (35.3-47.5)	**38.6** (34.0-43.3)	**38.8** (34.0-43.8)	**46.1** (41.2-51.2)	**42.3** (38.5-46.2)
At least once a month**	**41.8** (34.0-50.1)	**32.1** (26.1-38.8)	**37.4** (31.7-43.4)	**41.5** (34.6-48.7)	**36.4** (30.4-42.8)	**39.0** (33.9-44.3)	**41.6** (36.3-47.1)	**35.1** (30.5-40.0)	**38.5** (34.5-42.6)
Others***	**13.8** (9.0-20.8)	**10.4** (6.0-17.5)	**12.3** (8.6-17.3)	**22.4** (17.5-28.3)	**22.3** (16.8-29.1)	**22.4** (18.6-26.8)	**19.6** (15.8-24.2)	**18.8** (14.5-24.0)	**19.2** (16.2-22.6)
Fried items like: Chole bature/ pakora/ samosa/ kachori/bhajji/bonda/ vada/pazhampori									
At least once in a week*	**59.3** (50.2-67.8)	**45.3** (36.5-54.5)	**52.9** (46.1-59.6)	**53.3** (46.7-59.8)	**41.6** (35.6-47.9)	**47.6** (42.6-52.6)	**55.3** (49.9-60.5)	**42.7** (37.7-47.9)	**49.3** (45.2-53.3)
At least once a month**	**35.5** (27.2-44.9)	**40.7** (32.7-49.3)	**37.9** (31.5-44.7)	**35.5** (29.4-42.0)	**44.1** (38.5-49.9)	**39.7** (35.3-44.3)	**35.5** (30.5-40.8)	**43.1** (38.4-47.9)	**39.1** (35.5-42.9)
Others***	**5.2** (2.8-9.3)	**14.0** (7.6-28.0)	**9.2** (5.8-16.1)	**11.2** (7.4-17.7)	**14.3** (9.8-23.8)	**12.7** (9.4-18.4)	**9.2** (6.5-13.8)	**14.2** (10.2-21.2)	**11.6** (8.9-15.8)
Chips/namkeen									
At least once in a week*	**55.6** (46.0-64.7)	**61.5** (53.7-68.9)	**58.3** (52.4-63.9)	**47.2** (40.0-54.5)	**51.3** (45.2-57.3)	**49.2** (44.1-54.3)	**49.9** (44.1-55.7)	**54.4** (49.5-59.1)	**52.1** (48.1-56.0)
At least once a month**	**28.7** (21.6-36.9)	**27.0** (21.5-33.3)	**27.9** (23.1-33.3)	**32.4** (27.2-38.2)	**31.2** (25.9-37.1)	**31.8** (27.6-36.4)	**31.2** (26.9-35.9)	**29.9** (25.8-34.4)	**30.6** (27.3-34.1)
Others***	**15.7** (10.8-22.4)	**11.5** (6.5-19.5)	**13.8** (10.2-18.4)	**20.4** (15.6-27.0)	**17.5** (13.2-22.7)	**19.0** (15.5-23.4)	**18.9** (15.2-23.8)	**15.7** (12.2-19.9)	**17.3** (14.7-20.7)
Pizza/burger									
At least once in a week*	**12.5** (7.3-20.7)	**7.2** (3.3-15.1)	**10.1** (6.0-16.5)	**4.7** (2.9-7.5)	**4.8** (2.6-8.5)	**4.7** (3.3-6.8)	**7.3** (5.0-10.4)	**5.5** (3.4-8.7)	**6.4** (4.7-8.8)
At least once a month**	**27.3** (20.3-35.7)	**21.7** (15.7-29.1)	**24.7** (19.8-30.5)	**17.3** (12.9-22.7)	**7.8** (5.2-11.5)	**12.7** (9.8-16.3)	**20.6** (16.7-25.1)	**12.0** (9.2-15.5)	**16.5** (13.8-19.5)
Others***	**60.2** (50.9-69.0)	**71.1** (59.7-82.5)	**65.2** (57.0-73.4)	**78.0** (70.9-85.6)	**87.4** (79.1-96.7)	**82.6** (76.8-88.8)	**72.1** (66.4-78.4)	**82.5** (75.4-90.2)	**77.1** (72.2-82.4)
Instant noodles									
At least once in a week*	**27.8** (21.0-35.9)	**36.6** (26.5-48.1)	**31.8** (24.9-39.7)	**10.4** (7.1-14.9)	**15.9** (11.5-21.6)	**13.1** (10.1-16.7)	**16.1** (12.6-20.3)	**22.1** (17.4-27.7)	**19.0** (15.7-22.7)
At least once a month**	**38.7** (31.1-46.9)	**23.9** (18.1-30.7)	**31.9** (26.8-37.5)	**30.2** (24.1-37.1)	**28.4** (22.8-34.8)	**29.3** (24.7-34.4)	**33.0** (28.0-38.3)	**27.1** (22.7-32.0)	**30.1** (26.6-34.0)
Others ***	**33.5** (26.7-41.0)	**39.5** (29.9-50.2)	**36.3** (29.9-43.2)	**59.4** (50.7-70.3)	**55.7** (46.5-66.7)	**57.6** (50.9-65.2)	**50.9** (44.2-59.3)	**50.8** (43.5-59.6)	**50.9** (45.6-56.9)
Cake/pastry/patties									
At least once in a week*	**24.8** (15.7-37.1)	**14.9** (8.9-23.9)	**20.3** (14.3-28.1)	**12.8** (8.9-17.9)	**5.7** (3.4-9.6)	**9.3** (6.6-13.1)	**16.7** (12.5-22.1)	**8.5** (5.8-12.3)	**12.8** (9.9-16.4)
At least once a month**	**46.9** (37.5-56.4)	**47.4** (39.9-55.1)	**47.1** (40.4-53.9)	**35.8** (29.8-42.2)	**33.6** (27.3-40.4)	**34.7** (30.2-39.4)	**39.4** (34.3-44.8)	**37.7** (32.7-43.0)	**38.6** (34.9-42.5)

Others ***	**28.3** (20.5-37.6)	**37.7** (29.3-46.9)	**32.6** (26.9-38.8)	**51.4** (44.4-58.5)	**60.7** (53.8-67.2)	**56.0** (50.6-61.2)	**43.9** (38.1-49.8)	**53.8** (48.1-59.3)	**48.6** (44.2-53.0)
Cold drinks/other aerated drinks									
At least once in a week *	**29.0** (22.7-36.2)	**16.2** (9.9-25.6)	**23.2** (18.3-28.9)	**22.3** (17.2-28.4)	**9.3** (6.3-13.5)	**15.9** (12.6-19.9)	**24.5** (20.4-29.1)	**11.4** (8.3-15.4)	**18.2** (15.4-21.5)
At least once a month**	**51.2** (43.5-58.9)	**43.9** (35.9-52.4)	**47.9** (41.9-53.9)	**49.6** (43.3-56.0)	**40.5** (34.2-47.1)	**45.2** (40.1-50.4)	**50.2** (45.2-55.1)	**41.5** (36.5-46.8)	**46.0** (42.1-50.1)
Others ***	**19.8** (14.1-27.1)	**39.9** (30.5-50.0)	**28.9** (23.0-35.7)	**28.1** (22.4-35.4)	**50.2** (41.5-61.8)	**38.9** (32.9-46.5)	**25.3** (21.0-30.8)	**47.1** (40.1-56.2)	**35.8** (31.1-41.5)
Fresh fruits/fruit Juices									
At least once in a week*	**54.3** (46.2-62.1)	**42.6** (34.3-51.4)	**49.0** (42.4-55.5)	**28.9** (22.0-36.9)	**25.0** (19.6-31.4)	**27.0** (22.3-32.3)	**37.2** (31.8-43.0)	**30.3** (25.6-35.5)	**33.9** (30.0-38.1)
At least once a month**	**28.1** (21.2-36.3)	**29.7** (22.5-38.1)	**28.9** (23.2-35.2)	**39.6** (33.0-46.7)	**33.3** (27.7-39.4)	**36.5** (32.0-41.4)	**35.9** (30.8-41.3)	**32.2** (27.7-37.1)	**34.1** (30.5-37.9)
Others***	**17.6** (13.1-23.3)	**27.7** (20.4-36.2)	**22.1** (17.9-27.1)	**31.5** (25.0-39.5)	**41.7** (35.2-49.7)	**36.5** (31.5-42.2)	**26.9** (22.3-32.6)	**37.5** (32.2-43.8)	**32.0** (28.2-36.3)
High energy/high protein drinks or drinks rich in caffeine									
At least once in a week*	**10.4** (6.3-16.6)	**13.1** (7.1-22.7)	**11.6** (7.4-17.7)	**4.8** (1.7-12.6)	**3.6** (1.6-7.8)	**4.2** (2.1-8.2)	**6.6** (3.8-11.3)	**6.4** (3.9-10.4)	**6.5** (4.4-9.6)
At least once a month**	**17.3** (10.7-26.8)	**11.7** (6.7-19.6)	**14.7** (9.2-22.9)	**9.8** (6.6-14.2)	**6.1** (3.9-9.4)	**8.0** (5.9-10.8)	**12.2** (9.0-16.4)	**7.8** (5.4-11.0)	**10.1** (7.7-13.2)
Others ***	**72.3** (61.9-82.0)	**75.2** (64.0-87.1)	**73.7** (64.6-82.3)	**85.4** (78.3-92.2)	**90.3** (81.5-100.0)	**87.8** (81.8-94.2)	**81.2** (75.3-86.7)	**85.8** (78.5-93.9)	**83.4** (78.2-88.8)
Ice cream/milk shakes									
At least once in a week*	**26.7** (20.6-33.8)	**34.7** (26.1-44.4)	**30.3** (24.7-36.6)	**17.6** (12.6-24.2)	**15.5** (11.5-20.5)	**16.6** (13.0-20.9)	**20.6** (16.5-25.5)	**21.2** (17.1-26.1)	**20.9** (17.7-24.6)
At least once a month**	**46.6** (39.0-54.5)	**38.8** (31.5-46.7)	**43.1** (37.4-48.9)	**49.7** (42.6-56.9)	**46.2** (39.8-52.7)	**48.0** (42.6-53.4)	**48.7** (43.3-54.2)	**44.0** (38.9-49.2)	**46.5** (42.3-50.6)
Others***	**26.7** (19.8-34.8)	**26.5** (18.9-35.8)	**26.6** (21.2-32.9)	**32.7** (26.5-39.4)	**38.3** (32.2-44.8)	**35.4** (30.6-40.6)	**30.7** (25.9-35.9)	**34.8** (29.8-40.1)	**32.6** (28.8-36.7)
Chocolates/toffees									
At least once in a week*	**60.0** (52.6-67.1)	**68.5** (61.0-75.1)	**63.9** (58.8-68.7)	**45.4** (38.8-52.2)	**56.3** (50.3-62.0)	**50.7** (46.2-55.2)	**50.2** (45.1-55.4)	**59.9** (55.2-64.6)	**54.9** (51.3-58.4)
At least once a month**	**24.0** (18.4-30.6)	**18.0** (13.5-23.6)	**21.2** (17.0-26.2)	**31.9** (25.7-38.8)	**24.9** (19.8-30.8)	**28.5** (24.0-33.3)	**29.3** (24.7-34.4)	**22.8** (18.9-27.2)	**26.2** (22.8-29.8)
Others ***	**16.0** (11.0-22.6)	**13.5** (8.6-20.7)	**14.9** (11.3-19.2)	**22.7** (17.4-29.1)	**18.8** (14.5-24.1)	**20.8** (17.4-24.8)	**20.5** (16.5-25.2)	**17.3** (13.7-21.4)	**18.9** (16.3-22.0)
Salad/fruit/fruit chaat									
At least once in a week*	**35.9** (29.8-42.6)	**38.5** (31.5-46.1)	**37.1** (32.1-42.4)	**23.8** (17.8-31.1)	**23.3** (18.5-28.8)	**23.6** (19.3-28.5)	**27.8** (23.2-32.9)	**27.9** (23.8-32.4)	**27.8** (24.5-31.5)
At least once a month**	**33.6** (26.8-41.2)	**20.8** (14.8-28.3)	**27.8** (22.3-33.9)	**35.2** (28.7-42.3)	**27.4** (21.7-34.0)	**31.4** (26.7-36.6)	**34.7** (29.7-40.0)	**25.4** (20.9-30.5)	**30.3** (26.5-34.3)
Others ***	**30.5** (23.0-39.1)	**40.7** (32.6-49.3)	**35.1** (28.7-42.2)	**41.0** (34.6-47.7)	**49.3** (42.8-55.8)	**45.0** (40.4-49.8)	**37.5** (32.6-42.8)	**46.7** (41.5-52.0)	**41.9** (38.2-45.8)

Canned fruit juice									
At least once in a week*	**9.9**	**14.4**	**11.9**	**7.0**	**5.0**	**6.0**	**7.9**	**7.8**	**7.9**
	(5.8-16.4)	(7.9-24.8)	(8.0-17.4)	(4.1-11.5)	(3.1-8.0)	(4.0-8.9)	(5.5-11.4)	(5.2-11.6)	(5.9-10.4)
At least once a month**	**26.0**	**19.2**	**22.9**	**21.1**	**17.4**	**19.3**	**22.7**	**17.9**	**20.4**
	(18.7-34.9)	(13.2-27.1)	(17.0-30.1)	(16.4-26.8)	(12.6-23.4)	(15.5-23.8)	(18.6-27.5)	(14.0-22.6)	(17.1-24.2)
Others ***	**64.1**	**66.4**	**65.2**	**71.9**	**77.6**	**74.7**	**69.4**	**74.3**	**71.7**
	(54.8-72.5)	(54.5-76.5)	(57.2-72.3)	(64.9-78.0)	(71.5-82.8)	(69.5-79.3)	(63.8-74.4)	(68.7-79.2)	(67.4-75.7)
Sweets									
At least once in a week *	**39.0**	**32.3**	**36.0**	**33.6**	**27.0**	**30.4**	**35.4**	**28.6**	**32.1**
	(28.9-50.1)	(25.0-40.6)	(29.2-43.4)	(27.3-40.5)	(21.2-33.7)	(25.6-35.6)	(29.9-41.2)	(23.9-33.9)	(28.2-36.4)
At least once a month**	**48.4**	**50.1**	**49.2**	**56.7**	**53.5**	**55.1**	**54.0**	**52.5**	**53.3**
	(37.9-59.0)	(40.2-60.0)	(40.5-57.9)	(49.9-63.3)	(47.1-59.7)	(50.0-60.2)	(48.2-59.6)	(47.1-57.8)	(48.7-57.7)
Others ***	**12.6**	**17.6**	**14.8**	**9.7**	**19.5**	**14.5**	**10.6**	**18.9**	**14.6**
	(7.4-20.7)	(11.5-25.8)	(10.3-20.9)	(6.7-13.9)	(15.2-24.8)	(11.6-18.0)	(7.8-14.3)	(15.3-23.3)	(12.1-17.6)
French fries									
At least once in a week*	**13.0**	**8.8**	**11.0**	**3.2**	**3.8**	**3.5**	**6.4**	**5.3**	**5.9**
	(7.8-20.8)	(4.4-16.7)	(6.8-17.4)	(1.6-6.4)	(2.0-6.8)	(2.2-5.4)	(4.1-9.8)	(3.3-8.3)	(4.1-8.3)
At least once a month**	**17.0**	**17.5**	**17.3**	**9.4**	**4.5**	**7.0**	**11.9**	**8.4**	**10.2**
	(12.1-23.5)	(11.2-26.3)	(12.6-23.2)	(6.0-14.5)	(2.3-8.5)	(4.8-10.1)	(8.9-15.8)	(5.7-12.2)	(8.0-13.1)
Others ***	**70.0**	**73.7**	**71.7**	**87.4**	**91.7**	**89.5**	**81.7**	**86.3**	**83.9**
	(62.2-76.8)	(61.2-83.3)	(63.3-78.8)	(81.8-91.4)	(87.4-94.7)	(86.0-92.2)	(76.9-85.6)	(81.2-90.2)	(80.1-87.1)

* includes daily, ** includes less than once a month, ***others include never/don't know/no response

4.3.4 Physical activity

Table 4.3.4.1a Physical activity levels among adolescents by area of residence and gender (Percentage)

15 – 17 years	**Urban**			**Rural**			**Total**		
	Boys	**Girls**	**Combined**	**Boys**	**Girls**	**Combined**	**Boys**	**Girls**	**Combined**
	(95% CI)								
Insufficient physical activity	**35.8**	**40.6**	**38.0**	**14.5**	**24.4**	**19.3**	**21.5**	**29.3**	**25.2**
	(27.6-44.9)	(32.2-49.6)	(31.9-44.4)	(10.7-19.2)	(19.8-29.8)	(16.2-22.9)	(17.3-26.3)	(25.1-33.9)	(22.2-28.5)
Sufficient physical activity	**64.2**	**59.4**	**62.0**	**85.5**	**75.6**	**80.7**	**78.5**	**70.7**	**74.8**
	(55.1-72.4)	(50.4-67.8)	(55.6-68.1)	(80.8-89.3)	(70.2-80.2)	(77.1-83.8)	(73.7-82.7)	(66.1-74.9)	(71.5-77.8)

Table 4.3.4.2a Time (minutes) spent in physical activity per day at school by area of residence and gender (Mean)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95%CI)								
Mean minutes	21.5	13.9	18.0	19.4	11.0	15.3	20.1	11.8	16.1
	(17.0-26.0)	(10.1-17.7)	(14.7-21.4)	(15.5-23.2)	(8.3-13.6)	(12.8-17.7)	(17.1-23.0)	(9.7-14.0)	(14.1-18.1)

Table 4.3.4.3a Time (minutes) spent in physical activity per day by area of residence and gender (Mean)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Vigorous activity	15.8	5.5	11.1	39.7	26.1	33.1	31.9	19.9	26.2
	(9.2-22.3)	(0.8-10.3)	(6.8-15.4)	(30.3-49.2)	(18.8-33.4)	(26.6-39.6)	(24.8-38.9)	(14.4-25.4)	(21.3-31.0)
Moderate activity	53.3	66.5	59.3	74.9	99.9	87.1	67.8	89.9	78.3
	(43.2-63.4)	(55.9-77.1)	(51.3-67.4)	(67.2-82.6)	(89.1-110.7)	(80.3-93.9)	(61.4-74.1)	(81.4-98.3)	(72.8-83.8)
Leisure time activity	20.3	7.1	14.3	15.6	5.3	10.6	17.2	5.9	11.8
	(12.7-27.8)	(3.3-10.9)	(9.4-19.2)	(13.2-18.0)	(3.0-7.6)	(8.8-12.3)	(14.2-20.1)	(3.9-7.8)	(9.8-13.7)
Total minutes (mean) spent in physical activity	69.1	72.1	70.4	114.6	126.0	120.2	99.7	109.8	104.5
	(55.7-82.4)	(59.0-85.1)	(60.2-80.7)	(101.5-127.8)	(111.3-140.7)	(109.7-130.6)	(89.1-110.2)	(98.3-121.3)	(96.1-112.9)

Table 4.3.4.4a Time (minutes) spent being sedentary* in a day by area of residence and gender (Mean)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Mean minutes being Sedentary in a day	335.1	392.8	361.4	329.1	333.4	331.2	331.1	351.2	340.7
	(281.3-389.0)	(333.4-452.2)	(314.9-407.9)	(288.2-370.0)	(295.0-371.7)	(297.2-365.2)	(298.5-363.7)	(318.8-383.7)	(313.2-368.2)

*sitting, reclining and watching television, working on a computer, playing games in mobile/tablet, talking with friends, or doing other sitting activities like knitting, embroidery etc., including time spent sitting in school/college and excluding time spent sleeping

4.3.5 Adolescents - Physical measurements

Table 4.3.5.1a Measurements of height, weight and BMI by area of residence and gender (Mean)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Height (cm)	**164.4**	**153.0**	**159.2**	**162.1**	**152.1**	**157.2**	**162.9**	**152.4**	**157.9**
	(163.1-165.8)	(152.0-154.0)	(158.0-160.4)	(160.9-163.4)	(151.3-152.9)	(156.2-158.2)	(162.0-163.8)	(151.7-153.0)	(157.1-158.6)
Weight (Kg)	**52.2**	**46.2**	**49.5**	**47.4**	**43.6**	**45.5**	**49.0**	**44.4**	**46.8**
	(50.3-54.1)	(44.7-47.7)	(48.2-50.7)	(46.4-48.4)	(42.7-44.5)	(44.8-46.3)	(48.0-49.9)	(43.6-45.2)	(46.1-47.5)
BMI* (Kg/m^2)	**19.3**	**19.7**	**19.5**	**18.0**	**18.8**	**18.4**	**18.5**	**19.1**	**18.8**
	(18.7-19.9)	(19.1-20.3)	(19.0-19.9)	(17.7-18.4)	(18.5-19.2)	(18.2-18.7)	(18.1-18.8)	(18.8-19.4)	(18.5-19.0)

*BMI (Body Mass Index) = Weight (Kg)/Height (m^2)

Table 4.3.5.2a Adolescents categorized as overweight (including obesity) and obese by area of residence and gender (Percentage)

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
Overweight (including obesity)*	**12.0**	**11.9**	**11.9**	**3.5**	**3.6**	**3.6**	**6.4**	**6.1**	**6.2**
	(8.0-17.6)	(7.7-17.9)	(9.0-15.7)	(2.0-6.2)	(2.0-6.3)	(2.4-5.3)	(4.5-8.9)	(4.3-8.7)	(4.9-7.9)
Obesity**	**5.0**	**1.7**	**3.5**	**1.4**	**0.4**	**0.9**	**2.6**	**0.8**	**1.8**
	(2.4-10.5)	(0.6-5.2)	(1.9-6.5)	(0.5-3.8)	(0.1-3.0)	(0.4-2.3)	(1.4-4.7)	(0.3-2.3)	(1.0-2.9)

*overweight: >+1SD (equivalent to BMI 25.0 Kg/m^2); obesity: >+2SD (equivalent to BMI 30.0 Kg/m^2) Source: https://www.who.int/growthref/who2007_bmi_for_age/en/

4.3.6 School/College information

Table 4.3.6.1a Reported presence of school/college canteen by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
School/college canteen related information	(95% CI)								
Presence of canteen	**36.8**	**31.8**	**34.7**	**18.1**	**25.5**	**21.4**	**24.7**	**27.7**	**26.0**
	(28.2-46.3)	(23.0-42.2)	(27.8-42.2)	(12.4-25.6)	(18.4-34.3)	(16.4-27.4)	(19.7-30.5)	(22.0-34.3)	(21.9-30.6)

Table 4.3.6.2a Reported availability of food items in school/college canteen by area of residence and gender (Percentage)

15 – 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Food items	(95% CI)								
Chips/Namkeen	**74.3**	**78.9**	**76.1**	**61.0**	**84.0**	**73.2**	**68.0**	**82.0**	**74.5**
	(60.0-84.7)	(65.1-88.3)	(65.0-84.5)	(41.9-77.2)	(69.6-92.4)	(59.9-83.3)	(56.1-77.9)	(72.3-88.8)	(66.0-81.5)
Samosa/Kachori	**68.0**	**66.1**	**67.3**	**36.7**	**67.5**	**52.9**	**53.2**	**67.0**	**59.6**
	(52.8-80.2)	(50.7-78.8)	(55.6-77.1)	(22.3-53.8)	(50.0-81.2)	(39.9-65.6)	(41.6-64.5)	(55.0-77.1)	(50.5-68.1)
Instant noodles	**32.9**	**21.4**	**28.3**	**12.7**	**44.1**	**29.3**	**23.4**	**35.1**	**28.9**
	(20.7-48.0)	(8.6-44.0)	(17.5-42.4)	(6.0-25.0)	(29.2-60.2)	(20.5-40.0)	(15.8-33.1)	(24.5-47.5)	(21.6-37.3)
Fruit/Fruit chaat/Salad	**10.6**	**28.4**	**17.6**	**9.5**	**17.5**	**13.7**	**10.0**	**21.8**	**15.5**
	(4.5-22.9)	(12.3-52.9)	(7.9-34.7)	(4.1-20.3)	(9.2-30.8)	(8.2-22.0)	(5.5-17.6)	(12.7-34.9)	(9.6-24.2)
Aerated drinks	**44.7**	**28.5**	**38.3**	**40.4**	**47.0**	**43.9**	**42.7**	**39.7**	**41.3**
	(31.4-58.9)	(18.1-41.9)	(27.9-49.9)	(26.7-55.8)	(30.1-64.7)	(32.5-56.0)	(32.9-53.1)	(27.8-52.9)	(33.2-49.8)
Bakery items (cakes/pastries/patties)	**52.8**	**52.7**	**52.8**	**43.1**	**38.6**	**40.7**	**48.2**	**44.2**	**46.3**
	(37.9-67.3)	(35.6-69.2)	(40.1-65.2)	(26.9-60.9)	(24.5-54.8)	(28.7-54.0)	(36.9-59.7)	(32.5-56.6)	(37.3-55.6)
High fat, salt and sugar (HFSS) foods	**95.4**	**91.9**	**94.0**	**75.6**	**89.7**	**83.0**	**86.1**	**90.6**	**88.2**
	(85.7-98.6)	(83.2-96.3)	(88.3-97.0)	(54.2-89.0)	(77.9-95.6)	(69.8-91.2)	(74.1-93.0)	(88.3-94.9)	(80.8-93.0)

Table 4.3.6.3a Noticed school teacher/staff smoking tobacco within premises and its sale around 100 metres by area of residence and gender (Percentage)*

15 - 17 years	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Tobacco Related	(95% CI)								
Noticed teacher/staff smoke in school/college premises in last 12 months	**15.9**	**16.7**	**16.2**	**22.9**	**12.1**	**18.1**	**20.4**	**13.7**	**17.5**
	(10.6-23.2)	(10.2-26.1)	(11.5-22.5)	(17.5-29.2)	(8.1-17.7)	(14.4-22.5)	(16.3-25.3)	(10.0-18.4)	(14.4-20.9)
Any shop within 100 metres of school/college selling tobacco	**52.6**	**42.3**	**48.2**	**46.3**	**38.5**	**42.9**	**48.5**	**39.8**	**44.7**
	(44.5-60.7)	(32.9-52.3)	(41.1-55.4)	(38.6-54.1)	(31.1-46.4)	(37.3-48.6)	(42.8-54.4)	(33.9-46.0)	(40.3-49.2)

*among school/college going adolescents in the past 12 months

Table 4.3.6.4a Health promotion and education related information* by area of residence and gender (Percentage)

Health promotion and education	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
Noticed any poster/wall painting/ signboard/ display on the following topics	(95% CI)								
Harmful effects of tobacco	**43.9**	**38.0**	**41.4**	**42.0**	**38.7**	**40.5**	**42.7**	**38.4**	**40.8**
	(35.1-53.1)	(28.8-48.2)	(34.3-48.8)	(34.3-50.1)	(31.5-46.4)	(34.8-46.5)	(36.7-48.9)	(32.7-44.6)	(36.3-45.5)
No smoking sign	**49.7**	**40.5**	**45.7**	**44.6**	**41.3**	**43.1**	**46.4**	**41.0**	**44.0**
	(41.2-58.2)	(31.3-50.4)	(38.9-52.7)	(36.8-52.6)	(33.8-49.3)	(37.3-49.2)	(40.5-52.4)	(35.1-47.3)	(39.5-48.7)
Harmful effects of alcohol	**40.6**	**28.2**	**35.3**	**27.0**	**25.5**	**26.3**	**31.8**	**26.4**	**29.4**
	(31.9-50.0)	(20.6-37.3)	(28.7-42.5)	(20.1-35.1)	(19.6-32.3)	(21.3-32.0)	(26.1-38.1)	(21.7-31.8)	(25.3-33.9)
Promotion material on healthy diet	**48.6**	**37.1**	**43.6**	**28.9**	**35.1**	**31.6**	**35.9**	**35.8**	**35.8**
	(40.7-56.6)	(27.9-47.3)	(37.0-50.5)	(22.1-36.8)	(28.1-42.9)	(26.3-37.5)	(30.4-41.8)	(30.1-41.9)	(31.6-40.4)
Promotion material on physical activity	**43.1**	**37.8**	**40.8**	**28.1**	**33.4**	**30.4**	**33.4**	**34.9**	**34.1**
	(34.9-51.7)	(29.4-46.9)	(34.3-47.7)	(20.9-36.7)	(26.1-41.6)	(24.8-36.7)	(27.8-39.6)	(29.2-41.1)	(29.7-38.8)
Being taught in school/college about									
Ill effects of tobacco	**69.6**	**63.5**	**67.0**	**66.0**	**67.1**	**66.5**	**67.3**	**65.9**	**66.7**
	(59.6-78.0)	(53.3-72.6)	(59.3-73.8)	(58.6-72.8)	(59.0-74.3)	(61.3-71.4)	(61.3-72.7)	(59.6-71.6)	(62.4-70.7)
Ill effects of alcohol	**67.6**	**61.5**	**65.0**	**66.9**	**66.1**	**66.6**	**67.2**	**64.6**	**66.0**
	(58.5-75.5)	(50.8-71.3)	(57.6-71.7)	(60.0-73.2)	(58.6-72.9)	(61.8-71.1)	(61.7-72.2)	(58.4-70.3)	(62.0-69.8)
Benefits of healthy diet	**70.9**	**66.6**	**69.0**	**66.0**	**64.3**	**65.2**	**67.7**	**65.1**	**66.6**
	(61.9-78.5)	(57.2-74.9)	(62.2-75.1)	(58.7-72.6)	(56.1-71.7)	(59.9-70.2)	(62.1-72.9)	(58.9-70.8)	(62.4-70.5)
Benefits of physical activity	**68.0**	**56.9**	**63.2**	**60.5**	**70.3**	**64.8**	**63.1**	**65.6**	**64.2**
	(61.1-74.1)	(47.6-65.7)	(57.1-68.9)	(53.1-67.4)	(63.5-76.2)	(59.7-69.6)	(57.8-68.2)	(60.2-70.7)	(60.3-68.0)

*among school/college going adolescents in the past 12 months

Table 4.3.6.5a Adolescents engaged in physical activity in school/college in last 12 months by area of residence and gender (Percentage)

Doing physical activity in school/college	Urban			Rural			Total		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
	(95% CI)								
15 – 17 years	73.7	60.4	68.0	66.5	57.0	62.3	69.1	58.2	64.3
	(63.8-81.7)	(50.0-69.9)	(60.1-75.0)	(59.2-73.1)	(49.6-64.1)	(56.4-67.8)	(63.3-74.3)	(52.1-63.9)	(59.6-68.7)

4.4 HEALTH SEEKING BEHAVIOURS AND MANAGEMENT INDICATORS (30–69 YEARS)

4.4.1 Raised blood glucose

Table 4.4.1.1a Practices reported for blood glucose measurement by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 69 years	(95% CI)								
Measured ever in life	41.7	43.0	42.3	16.1	18.7	17.4	25.4	27.1	26.3
	(35.4-48.2)	(37.7-48.4)	(37.9-46.8)	(13.6-18.8)	(16.0-21.8)	(15.2-19.8)	(22.3-28.8)	(24.4-30.1)	(23.9-28.7)
Measured in last 12 months	35.2	33.7	34.5	13.0	14.7	13.9	21.2	21.2	21.2
	(29.2-41.8)	(29.1-38.5)	(30.6-38.5)	(10.9-15.6)	(12.2-17.6)	(11.9-16.1)	(18.2-24.4)	(18.8-23.9)	(19.1-23.4)

Table 4.4.1.1b Practices reported for blood glucose measurement by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 49 years	(95% CI)								
Measured ever in life	32.7	38.3	35.3	11.7	14.0	12.8	19.5	22.5	20.9
	(27.4-38.5)	(33.3-43.7)	(31.2-39.8)	(9.6-14.3)	(11.6-16.8)	(11.1-14.9)	(16.9-22.3)	(19.8-25.3)	(18.8-23.1)
Measured in last 12 months	26.6	29.3	27.9	9.3	10.2	9.7	15.7	16.8	16.2
	(21.8-32.0)	(24.9-34.2)	(24.3-31.7)	(7.4-11.6)	(8.1-12.7)	(8.2-11.5)	(13.4-18.3)	(14.6-19.4)	(14.5-18.1)
50 - 69 years									
Measured ever in life	62.4	52.8	57.7	25.9	28.6	27.3	39.1	36.9	38.0
	(52.1-71.6)	(44.6-60.9)	(51.2-64.1)	(21.6-30.7)	(23.8-33.9)	(23.5-31.5)	(33.7-44.8)	(32.7-41.4)	(34.3-41.9)
Measured in last 12 months	55.2	42.9	49.3	21.5	24.1	22.8	33.7	30.6	32.1
	(44.9-65.1)	(34.9-51.4)	(43.0-55.5)	(17.4-26.4)	(19.6-29.3)	(19.1-27.1)	(28.4-39.5)	(26.5-34.9)	(28.6-35.9)

Table 4.4.1.2a Awareness, treatment and control of blood glucose among those with raised blood glucose by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 69 years	(95% CI)								
Awareness of raised blood glucose	63.3	52.5	58.2	39.6	33.8	36.3	52.8	42.6	47.6
	(52.8-72.6)	(44.2-60.6)	(51.1-64.9)	(29.4-50.7)	(24.6-44.4)	(28.7-44.8)	(44.9-60.6)	(35.7-49.8)	(41.9-53.3)
On treatment[1]	54.5	43.1	49.1	31.0	24.3	27.2	44.2	33.1	38.5
	(43.7-65.0)	(36.0-50.5)	(42.0-56.2)	(21.9-41.8)	(17.1-33.2)	(21.7-33.6)	(36.3-52.4)	(27.4-39.5)	(33.5-43.8)
Oral medication	53.6	42.5	48.3	29.5	23.2	26.0	43.0	32.3	37.5
	(42.8-64.2)	(35.4-49.8)	(41.3-55.5)	(20.6-40.3)	(16.4-31.9)	(20.6-32.2)	(35.1-51.3)	(26.7-38.5)	(32.5-42.8)
Insulin	7.7	6.9	7.3	3.8	5.7	4.9	6.0	6.3	6.1
	(3.8-15.0)	(4.2-11.2)	(4.5-11.7)	(1.7-8.1)	(2.5-12.5)	(2.7-8.7)	(3.5-10.2)	(3.9-9.9)	(4.2-8.9)
Control (Fasting blood glucose level <126 mg/dl)	21.9	15.7	18.9	11.2	15.3	13.5	17.1	15.5	16.3
	(15.0-30.8)	(10.3-23.3)	(14.2-24.8)	(6.0-20.1)	(9.7-23.2)	(9.0-19.8)	(12.4-23.2)	(11.4-20.7)	(12.8-20.4)

[1]on treatment for any one day in the last 2 weeks

Table 4.4.1.2b Awareness, treatment and control of blood glucose among those with raised blood glucose by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 49 years	(95% CI)								
Awareness of raised blood glucose	53.4	35.9	45.0	25.4	16.5	20.4	41.3	25.9	33.2
	(38.4-67.7)	(23.6-50.4)	(35.0-55.3)	(14.5-40.7)	(9.2-27.8)	(13.3-29.8)	(30.3-53.3)	(18.2-35.3)	(26.4-40.9)
On treatment[1]	42.3	22.0	32.5	16.0	12.4	13.9	31.0	17.0	23.7
	(27.3-58.9)	(14.2-32.4)	(23.3-43.4)	(9.0-26.8)	(6.7-21.7)	(9.0-20.9)	(20.8-43.4)	(11.9-23.8)	(17.8-30.8)
Oral medication	42.2	21.3	32.1	15.9	11.2	13.2	30.9	16.1	23.1
	(27.2-58.9)	(13.8-31.4)	(22.9-43.0)	(8.9-26.6)	(6.0-20.2)	(8.5-20.0)	(20.7-43.4)	(11.1-22.6)	(17.3-30.2)
Insulin	9.6	3.5	6.6	1.2	2.5	1.9	6.0	3.0	4.4
	(2.8-27.6)	(1.3-8.7)	(2.6-15.8)	(0.3-5.6)	(0.6-9.7)	(0.7-5.6)	(2.0-16.9)	(1.3-6.5)	(2.0-9.2)
Control (Fasting blood glucose level <126 mg/dl)	16.5	11.7	14.1	6.7	6.1	6.3	12.1	8.8	10.3
	(8.3-30.2)	(4.6-26.5)	(8.4-22.5)	(2.6-16.0)	(2.7-13.2)	(3.1-12.5)	(6.8-20.6)	(4.5-16.3)	(6.7-15.5)

50 – 69 years									
Awareness of raised blood glucose	**70.8**	**65.9**	**68.5**	**49.7**	**46.9**	**48.2**	**61.4**	**55.7**	**58.5**
	(57.7-81.2)	(56.6-74.0)	(60.4-75.6)	(36.8-62.7)	(34.5-59.8)	(38.5-58.0)	(51.9-70.1)	(47.1-64.1)	(51.8-64.9)
On treatment[1]	**63.9**	**60.1**	**62.1**	**41.8**	**33.3**	**37.1**	**54.0**	**45.8**	**49.8**
	(50.6-75.3)	(49.6-69.7)	(53.9-69.7)	(29.0-55.8)	(22.8-45.7)	(29.6-45.2)	(44.3-63.4)	(37.0-54.7)	(43.6-56.0)
Oral medication	**62.3**	**59.6**	**61.0**	**39.3**	**32.3**	**35.4**	**52.1**	**45.0**	**48.5**
	(49.0-74.0)	(49.1-69.2)	(52.8-68.7)	(26.7-53.5)	(22.1-44.6)	(28.2-43.4)	(42.4-61.6)	(36.4-53.9)	(42.3-54.7)
Insulin	**6.4**	**9.7**	**7.9**	**5.6**	**8.2**	**7.0**	**6.0**	**8.9**	**7.5**
	(3.2-12.4)	(5.5-16.4)	(5.1-12.1)	(2.4-12.9)	(3.3-18.6)	(3.7-13.2)	(3.5-10.2)	(5.2-14.6)	(5.1-10.9)
Control (Fasting blood glucose level <126 mg/dl)	**25.7**	**19.1**	**22.6**	**14.4**	**22.4**	**18.9**	**20.7**	**20.9**	**20.8**
	(15.8-38.9)	(12.6-27.8)	(16.0-31.0)	(6.7-28.5)	(13.9-33.9)	(12.1-28.2)	(13.9-29.7)	(15.2-28.0)	(15.8-26.8)

[1]on treatment any one day in the last 2 weeks

Table 4.4.1.3a Source of current consultation and treatment among those with known raised blood glucose by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 69 years	(95% CI)								
Currently consulting allopathic practitioner in public sector	**14.3**	**25.7**	**19.2**	**17.8**	**26.8**	**22.5**	**15.5**	**26.2**	**20.4**
	(7.4-25.9)	(16.9-37.1)	(13.2-27.1)	(9.3-31.5)	(15.5-42.2)	(15.2-32.1)	(9.7-23.8)	(18.8-35.1)	(15.6-26.3)
Currently on treatment with public sector as source of medicines in last 2 weeks	**17.4**	**25.7**	**20.9**	**15.8**	**16.8**	**16.3**	**16.9**	**22.0**	**19.2**
	(8.8-31.5)	(15.7-39.1)	(14.0-30.0)	(7.7-29.7)	(9.2-28.7)	(10.4-24.8)	(10.0-26.9)	(14.9-31.2)	(14.1-25.6)
Currently on treatment with Chemist/Private/NGO dispensary as source of medicines in last 2 weeks	**68.3**	**55.6**	**62.9**	**66.0**	**58.9**	**62.3**	**67.5**	**57.0**	**62.7**
	(56.2-78.3)	(43.0-67.6)	(54.6-70.5)	(51.1-78.3)	(43.7-72.5)	(53.4-70.4)	(58.2-75.6)	(47.3-66.2)	(56.5-68.4)
Currently consulting AYUSH[1] practitioner in public sector	**14.3**	**12.9**	**13.7**	**26.9**	**25.1**	**26.0**	**18.4**	**18.0**	**18.2**
	(8.2-23.5)	(7.9-20.3)	(8.9-20.4)	(14.6-44.3)	(14.8-39.2)	(16.7-38.0)	(12.2-26.9)	(12.5-25.2)	(13.4-24.4)
Currently on medication from AYUSH practitioners	**10.7**	**11.3**	**11.0**	**18.0**	**20.4**	**19.3**	**13.1**	**15.1**	**14.1**
	(5.4-20.1)	(6.6-18.8)	(6.6-17.8)	(8.6-33.8)	(11.3-34.2)	(12.2-29.1)	(8.0-20.8)	(10.1-22.1)	(10.0-19.4)

[1]the systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

Table 4.4.1.3b Source of current consultation and treatment among those with known raised blood glucose by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 49 years	(95% CI)								
Currently consulting allopathic practitioner in public sector	**15.9**	**14.7**	**15.5**	**18.6**	**17.5**	**18.1**	**16.6**	**15.7**	**16.2**
	(4.6-42.8)	(6.1-31.7)	(6.6-32.2)	(7.3-40.1)	(5.1-45.9)	(8.4-34.9)	(6.7-35.6)	(7.7-29.3)	(8.7-28.2)
Currently on treatment with public sector as source of medicines in last 2 weeks	**27.9**	**15.4**	**23.1**	**13.8**	**20.5**	**16.9**	**24.2**	**17.1**	**21.3**
	(10.1-57.3)	(6.3-33.2)	(10.5-43.6)	(4.9-33.6)	(8.3-42.4)	(9.0-29.5)	(10.0-47.7)	(9.0-30.1)	(11.5-36.2)
Currently on treatment with Chemist/Private/NGO dispensary as source of medicines in last 2 weeks	**53.2**	**43.3**	**49.4**	**49.9**	**64.0**	**56.4**	**52.3**	**50.2**	**51.5**
	(30.6-74.6)	(25.6-63.0)	(33.4-65.5)	(26.1-73.8)	(40.9-82.1)	(38.4-73.0)	(34.2-69.9)	(34.8-65.5)	(38.8-64.0)
Currently consulting AYUSH[1] practitioner in public sector	**5.8**	**13.4**	**8.7**	**39.5**	**34.0**	**37.0**	**14.8**	**20.2**	**17.0**
	(2.4-13.6)	(6.6-25.3)	(4.9-15.1)	(16.2-68.8)	(13.8-62.4)	(19.2-59.2)	(6.6-29.7)	(11.1-34.0)	(10.3-26.8)
Currently on medication from AYUSH practitioners	**3.3**	**11.8**	**6.6**	**14.4**	**34.0**	**23.5**	**6.2**	**19.2**	**11.5**
	(1.2-8.6)	(5.5-23.5)	(3.5-12.1)	(4.7-36.7)	(13.8-62.4)	(11.3-42.5)	(2.8-13.3)	(10.3-32.9)	(6.9-18.6)
50 – 69 years									
Currently consulting allopathic practitioner in public sector	**13.4**	**30.5**	**21.1**	**17.6**	**29.3**	**23.9**	**14.9**	**30.0**	**22.2**
	(6.0-27.4)	(20.2-43.3)	(14.0-30.5)	(7.9-34.5)	(16.1-47.3)	(15.0-35.9)	(8.5-24.8)	(21.3-40.4)	(16.4-29.4)
Currently on treatment with public sector as source of medicines in last 2 weeks	**11.3**	**30.2**	**19.8**	**16.5**	**15.8**	**16.1**	**13.2**	**23.7**	**18.3**
	(4.3-26.7)	(17.7-46.5)	(12.3-30.4)	(7.1-33.8)	(7.7-29.8)	(9.3-26.4)	(7.0-23.6)	(15.2-35.0)	(12.7-25.6)
Currently on treatment with Chemist/Private/NGO dispensary as source of medicines in last 2 weeks	**77.0**	**61.1**	**69.8**	**71.9**	**57.5**	**64.1**	**75.1**	**59.4**	**67.5**
	(63.7-86.4)	(45.8-74.4)	(60.8-77.5)	(56.1-83.7)	(39.7-73.5)	(53.7-73.3)	(65.4-82.8)	(47.8-70.1)	(60.8-73.6)
Currently consulting AYUSH practitioner in public sector	**19.1**	**12.7**	**16.2**	**22.3**	**22.7**	**22.5**	**20.3**	**17.2**	**18.8**
	(10.5-32.3)	(6.5-23.4)	(9.9-25.5)	(10.4-41.6)	(12.3-38.1)	(13.7-34.7)	(12.7-30.7)	(10.9-26.0)	(13.3-25.9)
Currently on medication from AYUSH practitioners	**15.0**	**11.1**	**13.3**	**19.3**	**16.8**	**17.9**	**16.6**	**13.7**	**15.2**
	(7.3-28.4)	(5.3-22.0)	(7.4-22.7)	(8.3-38.7)	(8.1-31.6)	(10.3-29.5)	(9.7-27.0)	(8.1-22.1)	(10.2-22.0)

[1]the systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

4.4.2 Raised blood pressure

Table 4.4.2.1a Practices reported for blood pressure measurement by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 69 years	(95% CI)								
Measured ever in life	**60.5**	**71.0**	**65.5**	**38.8**	**50.6**	**44.6**	**46.8**	**57.6**	**52.0**
	(54.8-65.9)	(67.4-74.4)	(61.8-68.9)	(35.5-42.3)	(46.4-54.7)	(41.5-47.8)	(43.5-50.1)	(54.5-60.7)	(49.5-54.6)
Measured in last 12 months	**50.7**	**57.5**	**53.9**	**28.9**	**38.8**	**33.8**	**36.9**	**45.3**	**41.0**
	(45.0-56.4)	(53.4-61.6)	(50.0-57.8)	(25.5-32.5)	(35.1-42.7)	(30.9-36.8)	(33.6-40.3)	(42.3-48.3)	(38.4-43.6)

Table 4.4.2.1b Practices reported for blood pressure measurement by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 49 years	(95% CI)								
Measured ever in life	**53.5**	**67.7**	**60.1**	**34.4**	**47.9**	**41.0**	**41.4**	**54.8**	**47.8**
	(47.7-59.3)	(63.4-71.8)	(56.3-63.8)	(30.7-38.3)	(43.5-52.4)	(37.6-44.5)	(38.1-44.9)	(51.4-58.2)	(45.1-50.6)
Measured in last 12 months	**42.9**	**53.2**	**47.7**	**25.0**	**34.9**	**29.8**	**31.6**	**41.3**	**36.2**
	(37.7-48.3)	(48.8-57.6)	(44.0-51.5)	(21.4-29.0)	(31.0-39.1)	(26.8-33.0)	(28.4-35.0)	(38.1-44.6)	(33.7-38.8)
50 – 69 years									
Measured ever in life	**76.6**	**78.1**	**77.3**	**48.9**	**56.1**	**52.5**	**58.9**	**63.6**	**61.3**
	(68.6-83.1)	(72.4-82.9)	(72.0-81.9)	(43.9-53.8)	(50.3-61.7)	(48.3-56.7)	(54.1-63.5)	(59.2-67.8)	(57.6-64.8)
Measured in last 12 months	**68.7**	**66.7**	**67.8**	**37.7**	**47.0**	**42.4**	**48.9**	**53.7**	**51.3**
	(59.8-76.5)	(59.6-73.2)	(61.6-73.3)	(32.6-43.0)	(41.7-52.3)	(38.2-46.7)	(43.7-54.1)	(49.5-58.0)	(47.5-55.1)

Table 4.4.2.2a Awareness, treatment and control of blood pressure among those with raised blood pressure by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 69 years	(95% CI)								
Awareness of raised blood pressure	**24.0**	**40.5**	**31.2**	**24.4**	**31.5**	**27.8**	**24.2**	**34.9**	**29.2**
	(19.1-29.7)	(34.8-46.5)	(26.9-35.9)	(19.8-29.6)	(27.2-36.1)	(24.6-31.3)	(20.8-28.0)	(31.5-38.6)	(26.6-32.0)
On treatment[1]	**13.1**	**26.7**	**19.0**	**11.0**	**16.8**	**13.8**	**11.9**	**20.6**	**16.0**
	(10.0-17.0)	(21.8-32.3)	(16.1-22.4)	(7.7-15.4)	(13.5-20.7)	(11.2-17.0)	(9.5-14.8)	(17.8-23.7)	(14.0-18.2)
Control (Blood pressure level SBP<140mmHg and DBP <90mmHg)	**7.5**	**15.6**	**11.1**	**12.7**	**13.6**	**13.2**	**10.5**	**14.4**	**12.3**
	(5.0-11.1)	(12.3-19.7)	(8.8-13.9)	(9.2-17.4)	(10.8-17.2)	(10.8-16.0)	(8.1-13.5)	(12.1-17.0)	(10.6-14.3)

[1]on treatment any one day in the last 2 weeks

Table 4.4.2.2b Awareness, treatment and control of blood pressure among those with raised blood pressure by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 49 years	(95% CI)								
Awareness of raised blood pressure	**19.5**	**31.6**	**24.1**	**18.1**	**24.9**	**21.1**	**18.7**	**27.4**	**22.3**
	(14.4-25.9)	(23.5-41.0)	(19.3-29.6)	(12.6-25.1)	(19.5-31.2)	(17.3-25.6)	(14.8-23.4)	(22.7-32.6)	(19.3-25.8)
On treatment[1]	**8.1**	**13.7**	**10.2**	**8.4**	**9.3**	**8.8**	**8.3**	**11.0**	**9.4**
	(4.9-13.1)	(8.7-21.0)	(7.5-13.8)	(4.4-15.5)	(6.0-14.1)	(6.1-12.6)	(5.4-12.4)	(8.0-14.8)	(7.3-12.0)
Control (Blood pressure level SBP<140 mmHg and DBP <90 mmHg)	**7.0**	**10.9**	**8.4**	**11.6**	**13.5**	**12.4**	**9.5**	**12.5**	**10.8**
	(4.0-12.1)	(7.1-16.2)	(5.9-11.9)	(7.0-18.6)	(9.6-18.7)	(9.2-16.6)	(6.5-13.8)	(9.6-16.2)	(8.5-13.6)
50 – 69 years									
Awareness of raised blood pressure	**31.3**	**48.7**	**40.2**	**33.2**	**38.1**	**35.8**	**32.4**	**42.3**	**37.6**
	(23.0-40.9)	(41.5-56.0)	(33.4-47.4)	(26.6-40.6)	(31.4-45.2)	(31.5-40.4)	(27.1-38.2)	(37.3-47.4)	(33.8-41.5)
On treatment[1]	**21.2**	**38.7**	**30.2**	**14.6**	**24.3**	**19.8**	**17.3**	**30.0**	**24.0**
	(15.3-28.6)	(31.7-46.2)	(24.7-36.3)	(9.6-21.4)	(18.8-30.8)	(15.8-24.5)	(13.3-22.1)	(25.6-34.7)	(20.7-27.6)
Control (Blood pressure level SBP<140mmHg and DBP <90 mmHg)	**8.4**	**20.1**	**14.4**	**14.4**	**13.8**	**14.1**	**11.9**	**16.3**	**14.2**
	(4.4-15.5)	(14.8-26.7)	(10.7-19.0)	(9.9-20.5)	(9.8-19.1)	(11.3-17.5)	(8.5-16.4)	(12.9-20.3)	(11.9-16.9)

[1]on treatment any one day in the last 2 weeks

Table 4.4.2.3a Source of current consultation and treatment among those with known raised blood pressure by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 69 years	(95% CI)								
Currently consulting allopathic practitioner in public sector	**17.1**	**22.3**	**20.1**	**10.5**	**23.2**	**17.5**	**13.3**	**22.8**	**18.6**
	(10.0-27.6)	(16.7-29.2)	(15.2-26.1)	(6.4-16.8)	(16.5-31.6)	(12.8-23.4)	(9.3-18.8)	(18.2-28.3)	(15.1-22.7)
Currently on treatment with public sector as source of medicines in last 2 weeks	**5.6**	**16.4**	**11.7**	**9.6**	**10.2**	**9.9**	**7.9**	**13.0**	**10.7**
	(2.8-10.9)	(11.6-22.8)	(8.5-16.0)	(5.5-16.2)	(6.3-16.2)	(6.8-14.4)	(5.1-12.0)	(9.7-17.1)	(8.3-13.7)
Currently on treatment with Chemist/Private/NGO dispensary as source of medicines in last 2 weeks	**49.4**	**48.3**	**48.8**	**37.0**	**42.6**	**40.1**	**42.3**	**45.2**	**43.9**
	(38.7-60.2)	(38.0-58.8)	(41.4-56.2)	(26.0-49.4)	(34.5-51.3)	(32.6-48.1)	(34.5-50.6)	(38.7-51.8)	(38.7-49.3)
Currently consulting AYUSH[1] practitioner in public sector	**16.1**	**19.2**	**17.8**	**14.7**	**17.9**	**16.5**	**15.3**	**18.4**	**17.1**
	(8.6-28.2)	(12.7-27.8)	(12.8-24.4)	(8.8-23.7)	(11.7-26.3)	(11.7-22.8)	(10.3-22.2)	(13.8-24.3)	(13.4-21.5)
Currently on medication from AYUSH practitioners	**10.1**	**16.4**	**13.7**	**9.0**	**7.7**	**8.3**	**9.5**	**11.5**	**10.6**
	(5.8-17.2)	(10.2-25.1)	(9.5-19.2)	(5.1-15.5)	(4.3-13.4)	(5.4-12.4)	(6.3-14.0)	(8.0-16.3)	(8.1-13.8)

[1]the systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

Table 4.4.2.3b Source of current consultation and treatment among those with known raised blood pressure by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 – 49 years	(95% CI)								
Currently consulting allopathic practitioner in public sector	**15.0**	**14.8**	**14.9**	**8.1**	**23.7**	**16.4**	**11.4**	**19.8**	**15.7**
	(6.2-32.1)	(7.9-26.0)	(8.9-23.8)	(3.4-18.4)	(14.0-37.2)	(10.2-25.3)	(6.0-20.6)	(13.0-29.0)	(11.1-21.8)
Currently on treatment with public sector as source of medicines in last 2 weeks	**1.8**	**10.6**	**6.1**	**5.4**	**10.4**	**8.1**	**3.7**	**10.5**	**7.2**
	(0.6-5.2)	(4.8-21.8)	(3.0-11.9)	(1.9-14.4)	(5.1-20.3)	(4.2-14.9)	(1.6-8.3)	(6.2-17.3)	(4.4-11.5)
Currently on treatment with Chemist/Private/NGO dispensary as source of medicines in last 2 weeks	**39.3**	**33.2**	**36.3**	**41.4**	**26.6**	**33.6**	**40.5**	**29.5**	**34.8**
	(24.1-56.9)	(19.1-51.2)	(27.6-46.0)	(23.3-62.2)	(16.0-40.8)	(23.1-46.0)	(27.9-54.4)	(20.5-40.3)	(27.6-42.7)
Currently consulting AYUSH[1] practitioner in public sector	**16.8**	**21.8**	**19.3**	**15.2**	**16.6**	**15.9**	**15.9**	**18.8**	**17.4**
	(7.3-34.0)	(10.5-40.0)	(11.3-31.0)	(6.6-31.1)	(8.1-31.0)	(9.0-26.6)	(8.9-26.8)	(11.4-29.5)	(11.8-24.9)

Currently on medication from AYUSH practitioners	**7.2**	**20.8**	**13.9**	**8.7**	**4.2**	**6.3**	**8.0**	**11.4**	**9.7**
	(2.9-16.8)	(9.7-39.1)	(7.5-24.3)	(3.2-21.4)	(1.5-11.3)	(3.1-12.6)	(4.0-15.2)	(6.0-20.4)	(6.1-15.2)
50 – 69 years									
Currently consulting allopathic practitioner in public sector	**19.2**	**26.9**	**24.0**	**12.3**	**22.9**	**18.3**	**15.0**	**24.7**	**20.7**
	(10.5-32.4)	(19.1-36.4)	(17.5-31.8)	(6.5-22.0)	(14.8-33.6)	(13.0-25.2)	(9.7-22.5)	(18.8-31.7)	(16.5-25.8)
Currently on treatment with public sector as source of medicines in last 2 weeks	**9.5**	**19.9**	**16.0**	**12.8**	**10.1**	**11.2**	**11.5**	**14.5**	**13.3**
	(4.2-19.9)	(13.4-28.5)	(11.3-22.2)	(6.6-23.3)	(5.1-18.8)	(7.2-17.2)	(6.9-18.6)	(10.2-20.3)	(10.1-17.3)
Currently on treatment with Chemist/Private/NGO dispensary as source of medicines in last 2 weeks	**59.6**	**57.4**	**58.2**	**33.5**	**53.1**	**44.7**	**43.9**	**55.1**	**50.5**
	(42.6-74.6)	(46.4-67.7)	(47.7-68.1)	(21.5-48.3)	(43.0-63.0)	(35.6-54.1)	(33.7-54.7)	(47.6-62.3)	(43.7-57.3)
Currently consulting AYUSH practitioner in public sector	**15.4**	**17.5**	**16.7**	**14.4**	**18.7**	**16.9**	**14.8**	**18.2**	**16.8**
	(8.2-27.2)	(10.9-27.0)	(11.6-23.5)	(8.2-24.1)	(11.7-28.6)	(11.7-23.8)	(9.7-21.9)	(13.0-24.8)	(13.0-21.5)
Currently on medication from AYUSH practitioners	**13.1**	**13.7**	**13.5**	**9.2**	**9.9**	**9.6**	**10.8**	**11.6**	**11.3**
	(6.3-25.2)	(7.6-23.4)	(8.7-20.2)	(5.1-16.3)	(4.9-19.2)	(5.9-15.4)	(6.7-16.9)	(7.4-17.8)	(8.1-15.5)

[1]the systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

4.4.3 Reported raised cholesterol

Table 4.4.3.1a Practices reported for blood cholesterol measurement ever in life and history of raised cholesterol by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	**Women**	**Combined**	**Men**	**Women**	**Combined**	**Men**	**Women**	**Combined**
30- 69 years	**(95% CI)**								
Measured ever in life	**12.2**	**13.0**	**12.6**	**2.7**	**3.1**	**2.9**	**6.2**	**6.5**	**6.4**
	(9.5-15.6)	(9.6-17.4)	(10.0-15.7)	(2.0-3.8)	(2.0-4.6)	(2.2-3.8)	(5.0-7.7)	(5.0-8.4)	(5.2-7.7)
Reported raised cholesterol	**3.2**	**4.2**	**3.7**	**0.9**	**0.8**	**0.8**	**1.7**	**2.0**	**1.8**
	(2.1-4.8)	(2.9-6.1)	(2.6-5.1)	(0.5-1.6)	(0.4-1.4)	(0.5-1.3)	(1.2-2.4)	(1.4-2.7)	(1.4-2.4)

Table 4.4.3.1b Practices reported for blood cholesterol measurement ever in life and history of raised cholesterol by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30- 49 years	(95% CI)								
Measured ever in life	**9.0**	**10.1**	**9.5**	**1.5**	**2.3**	**1.9**	**4.3**	**5.0**	**4.6**
	(6.4-12.4)	(6.9-14.4)	(7.2-12.5)	(1.0-2.4)	(1.5-3.5)	(1.4-2.6)	(3.2-5.6)	(3.7-6.7)	(3.7-5.8)
Raised cholesterol	**1.9**	**3.0**	**2.4**	**0.4**	**0.7**	**0.6**	**1.0**	**1.5**	**1.2**
	(1.0-3.6)	(1.8-4.9)	(1.6-3.6)	(0.2-0.9)	(0.3-1.6)	(0.3-1.0)	(0.6-1.6)	(1.0-2.3)	(0.9-1.7)
50 - 69 years									
Measured ever in life	**19.8**	**19.2**	**19.5**	**5.5**	**4.7**	**5.1**	**10.7**	**9.7**	**10.2**
	(14.9-25.8)	(13.8-26.1)	(15.3-24.6)	(3.5-8.4)	(2.7-8.0)	(3.6-7.0)	(8.2-13.8)	(7.2-12.8)	(8.2-12.5)
Raised cholesterol	**6.3**	**6.8**	**6.5**	**1.8**	**0.9**	**1.4**	**3.5**	**2.9**	**3.2**
	(3.7-10.5)	(3.9-11.6)	(4.4-9.6)	(0.8-4.3)	(0.5-1.9)	(0.7-2.5)	(2.2-5.4)	(1.8-4.7)	(2.3-4.5)

Table 4.4.3.2a Source of current consultation, treatment and medication for raised blood cholesterol* by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30- 69 years	(95% CI)								
On treatment[1]	**31.9**	**35.0**	**33.6**	**64.1**	**34.2**	**50.2**	**42.2**	**34.8**	**38.4**
	(16.7-52.4)	(18.6-55.9)	(22.9-46.3)	(35.0-85.6)	(13.1-64.2)	(30.3-70.0)	(26.5-59.7)	(20.8-52.0)	(28.1-49.7)
Adherence[2]	**29.5**	**28.0**	**28.7**	**55.4**	**31.9**	**44.5**	**37.8**	**29.0**	**33.3**
	(14.9-50.2)	(13.7-48.8)	(18.9-41.1)	(27.3-80.5)	(11.5-62.8)	(25.2-65.6)	(22.7-55.8)	(16.3-46.2)	(23.6-44.5)
AYUSH[3]									
Consulting	**9.8**	**5.1**	**7.3**	**18.8**	**23.2**	**20.9**	**12.7**	**9.8**	**11.2**
	(2.6-30.9)	(2.1-12.0)	(2.9-16.8)	(5.5-48.0)	(7.0-55.0)	(9.0-41.4)	(5.1-27.9)	(4.2-21.3)	(6.0-20.0)
On treatment	**6.0**	**2.4**	**4.1**	**8.2**	**5.0**	**6.7**	**6.7**	**3.1**	**4.8**
	(1.0-28.9)	(0.8-7.1)	(1.2-13.4)	(1.7-31.3)	(1.2-18.3)	(2.2-18.5)	(1.9-20.8)	(1.3-7.2)	(2.0-11.1)
Public sector as source of medicines in last 2 weeks	**2.4**	**9.9**	**6.4**	**8.8**	**1.1**	**5.2**	**4.4**	**7.6**	**6.1**
	(0.7-7.5)	(3.6-24.7)	(2.6-14.8)	(2.8-24.5)	(0.3-3.8)	(2.0-13.0)	(1.9-9.8)	(2.9-18.6)	(3.0-11.9)
Currently on treatment with Chemist /Private/NGO ddispensary as source of medicines in last 2 weeks	**29.6**	**28.4**	**28.9**	**56.1**	**33.2**	**45.4**	**38.0**	**29.6**	**33.7**
	(14.9-50.2)	(13.9-49.4)	(19.0-41.3)	(27.9-80.9)	(12.4-63.6)	(25.6-66.7)	(22.9-55.9)	(16.7-46.9)	(24.0-45.0)

*among those with raised cholesterol
[1]on treatment any one day in the last 2 weeks
[2]took prescribed medication daily in last 2 weeks
[3]the systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

Table 4.4.3.2b Source of current consultation, treatment and medication for raised blood cholesterol* by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30- 49 years	(95% CI)								
On treatment[1]	**29.2**	**22.4**	**25.3**	**46.0**	**44.5**	**45.1**	**34.0**	**29.3**	**31.2**
	(7.8-66.9)	(8.0-49.0)	(11.9-45.8)	(17.6-77.3)	(13.7-80.2)	(21.1-71.7)	(14.5-61.1)	(13.6-52.0)	(18.6-47.5)
Adherence[2]	**28.6**	**22.4**	**25.0**	**30.4**	**40.8**	**36.7**	**29.1**	**28.1**	**28.5**
	(7.4-66.8)	(8.0-49.0)	(11.7-45.6)	(9.3-64.9)	(11.6-78.4)	(14.9-65.7)	(10.9-58.0)	(12.8-51.1)	(16.2-45.2)
AYUSH[3]									
Consulting	**9.2**	**7.5**	**8.2**	**36.9**	**31.8**	**33.8**	**17.2**	**15.1**	**15.9**
	(1.2-45.0)	(2.4-21.5)	(2.7-22.7)	(9.6-76.4)	(7.6-72.4)	(12.9-63.7)	(5.2-43.7)	(5.4-35.4)	(7.4-31.1)
On treatment	**0.0**	**2.5**	**1.4**	**6.7**	**4.1**	**5.1**	**1.9**	**3.0**	**2.5**
	(0.0-0.0)	(0.4-12.7)	(0.3-7.5)	(0.8-37.4)	(0.6-23.3)	(1.3-18.3)	(0.3-12.9)	(0.8-10.1)	(0.9-7.2)
Public sector as source of medicines in last 2 weeks	**0.0**	**1.7**	**1.0**	**11.6**	**1.7**	**5.6**	**3.3**	**1.7**	**2.4**
	(0.0-0.0)	(0.5-6.3)	(0.3-3.5)	(2.1-44.5)	(0.4-6.7)	(1.4-20.2)	(0.6-15.8)	(0.6-4.7)	(0.8-6.6)
Currently on treatment with Chemist /Private/NGO dispensary as source of medicines in last 2 weeks	**29.2**	**21.5**	**24.7**	**36.8**	**42.8**	**40.4**	**31.4**	**28.1**	**29.5**
	(7.8-66.9)	(7.4-48.5)	(11.5-45.5)	(12.7-70.0)	(12.7-79.4)	(17.6-68.3)	(12.5-59.3)	(12.7-51.2)	(17.0-46.0)
50 - 69 years									
On treatment[1]	**33.8**	**46.8**	**40.4**	**73.8**	**17.5**	**54.7**	**47.5**	**40.7**	**44.4**
	(16.8-56.4)	(21.1-74.3)	(23.2-60.3)	(32.1-94.4)	(4.7-47.7)	(26.5-80.2)	(26.8-69.0)	(20.2-65.0)	(28.5-61.5)
Adherence[2]	**30.2**	**33.2**	**31.7**	**68.9**	**17.5**	**51.5**	**43.4**	**30.0**	**37.2**
	(14.5-52.4)	(12.6-63.3)	(17.0-51.3)	(29.0-92.3)	(4.7-47.7)	(24.0-78.1)	(23.5-65.6)	(12.8-55.5)	(22.7-54.6)
AYUSH[3]									
Consulting	**10.2**	**2.8**	**6.5**	**9.1**	**9.3**	**9.1**	**9.8**	**4.2**	**7.2**
	(1.7-42.7)	(0.8-9.4)	(1.6-22.2)	(1.1-47.0)	(1.9-35.3)	(2.1-32.2)	(2.5-31.9)	(1.5-11.0)	(2.6-18.4)
On treatment	**10.2**	**2.4**	**6.2**	**9.1**	**6.4**	**8.2**	**9.8**	**3.2**	**6.8**
	(1.7-42.7)	(0.6-9.0)	(1.5-22.4)	(1.1-47.0)	(0.8-35.9)	(1.6-32.4)	(2.5-31.9)	(1.0-10.0)	(2.3-18.3)
Public sector as source of medicines in last 2 weeks	**4.0**	**17.6**	**10.9**	**7.3**	**0.0**	**4.8**	**5.2**	**13.9**	**9.2**
	(1.2-12.7)	(5.6-43.2)	(4.3-25.1)	(1.5-28.7)	(0.0-0.0)	(1.2-17.8)	(2.0-12.8)	(4.6-35.0)	(4.1-19.5)
Currently on treatment with Chemist /Private/NGO dispensary as source of medicines in last 2 weeks	**29.8**	**34.8**	**32.3**	**66.5**	**17.5**	**49.9**	**42.3**	**31.2**	**37.2**
	(14.3-52.0)	(13.5-64.6)	(17.5-51.9)	(27.9-91.1)	(4.7-47.7)	(22.0-77.8)	(22.8-64.6)	(13.6-56.7)	(22.6-54.7)

*among those with raised cholesterol
[1]on treatment any one day in the last 2 weeks
[2]took prescribed medication daily in last 2 weeks
[3]the systems of medicine under AYUSH in the survey includes, Ayurveda; Unani; Siddha and Homeopathy

4.4.4 Cardiovascular conditions

Table 4.4.4.1a Adults aged 30–69 years with known cardiovascular conditions* and the source of diagnosis by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 69 years	(95% CI)								
Known CVD condition	**4.3**	**2.4**	**3.4**	**3.2**	**4.0**	**3.6**	**3.6**	**3.5**	**3.5**
	(3.0-6.1)	(1.6-3.5)	(2.6-4.4)	(2.4-4.3)	(2.7-6.1)	(2.8-4.8)	(2.9-4.5)	(2.5-4.8)	(2.9-4.3)
Govt. Health facility as a source of diagnosis	**1.2**	**0.6**	**0.9**	**0.8**	**1.1**	**1.0**	**1.0**	**0.9**	**1.0**
	(0.6-2.5)	(0.3-1.2)	(0.6-1.6)	(0.5-1.4)	(0.6-2.1)	(0.6-1.5)	(0.6-1.5)	(0.6-1.6)	(0.7-1.3)

*cardiovascular conditions diagnosed in a hospital include, chest pain (heart related) or a heart attack (angina) or a stroke (cerebrovascular accident or incident)

Table 4.4.4.1b Adults aged 30–69 years with known cardiovascular conditions* and the source of diagnosis by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 49 years	(95% CI)								
Known CVD condition	**2.7**	**1.6**	**2.2**	**1.8**	**3.7**	**2.7**	**2.1**	**3.0**	**2.5**
	(1.6-4.7)	(0.9-3.0)	(1.5-3.3)	(1.1-2.9)	(2.2-6.2)	(1.9-3.9)	(1.5-3.0)	(1.9-4.6)	(1.9-3.4)
Govt. health facility as a source of diagnosis	**0.9**	**0.2**	**0.6**	**0.4**	**0.9**	**0.6**	**0.6**	**0.7**	**0.6**
	(0.3-2.7)	(0.1-0.7)	(0.2-1.5)	(0.1-1.1)	(0.4-2.2)	(0.3-1.3)	(0.3-1.3)	(0.3-1.5)	(0.4-1.1)
50 - 69 years									
Known CVD condition	**7.9**	**4.0**	**6.0**	**6.5**	**4.8**	**5.6**	**7.0**	**4.5**	**5.8**
	(5.1-12.0)	(2.4-6.5)	(4.3-8.4)	(4.6-8.9)	(3.1-7.4)	(4.2-7.5)	(5.4-9.0)	(3.2-6.4)	(4.6-7.1)
Govt. health facility as a source of diagnosis	**1.9**	**1.4**	**1.7**	**1.9**	**1.5**	**1.7**	**1.9**	**1.5**	**1.7**
	(0.8-4.5)	(0.6-3.3)	(0.9-3.1)	(1.0-3.4)	(0.6-3.6)	(1.0-2.8)	(1.2-3.1)	(0.8-2.8)	(1.1-2.5)

*cardiovascular conditions diagnosed in a hospital include, chest pain (heart related) or a heart attack (angina) or a stroke (cerebrovascular accident or incident)

Table 4.4.4.2a Adults aged 30–69 years who were on medication to prevent or treat known cardiovascular conditions among those with CVDs by area of residence and gender (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 69 years	(95% CI)								
Aspirin*	**38.2**	**19.2**	**31.9**	**12.2**	**8.0**	**9.9**	**23.5**	**10.7**	**17.4**
	(23.6-55.3)	(7.6-40.6)	(20.5-45.9)	(6.3-22.5)	(3.2-18.7)	(5.6-17.0)	(15.5-33.9)	(5.4-20.0)	(11.9-24.7)
Aspirin (daily)**	**33.9**	**19.2**	**29.0**	**6.2**	**5.7**	**5.9**	**18.2**	**8.9**	**13.8**
	(19.9-51.3)	(7.6-40.6)	(18.1-43.0)	(2.7-13.8)	(1.8-16.8)	(2.8-12.1)	(11.1-28.3)	(4.1-18.2)	(8.9-20.7)
Statins*	**28.9**	**21.3**	**26.3**	**15.9**	**6.4**	**10.7**	**21.5**	**10.0**	**16.0**
	(15.3-47.6)	(9.2-42.0)	(15.7-40.7)	(7.8-29.7)	(2.8-13.9)	(6.4-17.2)	(13.5-32.5)	(5.4-17.7)	(11.1-22.6)

*at least once in last 2 weeks
**daily in last 2 weeks

Table 4.4.4.2b Adults aged 30–69 years who were on medication to prevent or treat known cardiovascular conditions among those with CVDs by area of residence, gender and age categories (Percentage)

	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
30 - 49 years	(95% CI)								
Aspirin*	**22.4**	**5.1**	**16.5**	**7.2**	**6.3**	**6.6**	**14.3**	**6.1**	**9.7**
	(6.5-54.6)	(1.0-21.7)	(5.3-40.9)	(1.6-26.5)	(1.7-20.7)	(2.5-16.4)	(5.3-33.4)	(2.0-17.1)	(4.5-19.7)
Aspirin (daily)**	**17.0**	**5.1**	**12.9**	**7.2**	**3.5**	**4.8**	**11.8**	**3.8**	**7.3**
	(3.6-52.7)	(1.0-21.7)	(3.3-39.0)	(1.6-26.5)	(0.5-22.4)	(1.4-15.5)	(3.7-31.5)	(0.8-16.5)	(2.8-17.7)
Statins*	**18.2**	**5.2**	**13.8**	**9.0**	**1.3**	**3.9**	**13.3**	**2.0**	**7.0**
	(4.3-52.4)	(1.5-16.1)	(3.9-38.6)	(2.6-26.9)	(0.2-9.2)	(1.3-11.1)	(4.8-32.0)	(0.6-6.7)	(2.8-16.3)
50 - 69 years									
Aspirin*	**50.9**	**31.5**	**44.6**	**15.4**	**10.8**	**13.4**	**29.9**	**17.0**	**24.8**
	(32.5-69.0)	(11.8-61.4)	(28.9-61.4)	(7.1-30.0)	(3.3-30.1)	(6.8-24.5)	(19.4-43.1)	(7.8-33.4)	(16.6-35.4)
Aspirin (daily)**	**47.4**	**31.5**	**42.2**	**5.6**	**9.3**	**7.2**	**22.7**	**16.0**	**20.0**
	(29.2-66.3)	(11.8-61.4)	(26.7-59.4)	(2.0-14.4)	(2.5-29.3)	(3.0-16.3)	(13.3-35.8)	(7.0-32.4)	(12.7-30.2)
Statins*	**37.3**	**35.4**	**36.7**	**20.2**	**14.6**	**17.8**	**27.2**	**20.9**	**24.7**
	(18.5-61.0)	(14.5-64.0)	(21.1-55.8)	(8.7-40.2)	(6.0-31.3)	(10.1-29.5)	(16.2-42.0)	(10.9-36.2)	(16.8-34.8)

*at least once in last 2 weeks
**daily in last 2 weeks

4.4.5 Cancer screening

Table 4.4.5.1a Adults aged 30–69 years who had ever undergone oral cancer screening by area of residence, gender and age categories (Percentage)

Age group	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
30 - 49 years	**1.1**	**1.7**	**1.4**	**2.4**	**0.4**	**1.4**	**1.9**	**0.9**	**1.4**
	(0.5- 2.6)	(1.0- 3.1)	(0.8-2.4)	(1.1- 5.3)	(0.2- 0.8)	(0.7- 2.8)	(1.0- 3.7)	(0.5- 1.4)	(0.9- 2.3)
50 - 69 years	**4.4**	**2.5**	**3.5**	**2.1**	**1.1**	**1.6**	**2.9**	**1.6**	**2.2**
	(2.4- 7.9)	(1.2- 4.9)	(2.3- 5.3)	(1.1- 4.0)	(0.5- 2.4)	(0.8- 3.0)	(1.9- 4.5)	(0.9- 2.7)	(1.5- 3.3)
30 - 69 years	**2.1**	**2.0**	**2.0**	**2.3**	**0.6**	**1.5**	**2.2**	**1.1**	**1.7**
	(1.3- 3.5)	(1.3- 3.0)	(1.4- 2.9)	(1.3- 4.3)	(0.3- 1.1)	(0.9- 2.5)	(1.4- 3.5)	(0.8- 1.5)	(1.2- 2.3)

Table 4.4.5.2a Women aged 30–69 years who had ever undergone clinical breast cancer screening* by area of residence and age categories (Percentage)

Age group	Urban	Rural	Total
	(95% CI)		
30 - 49 years	**2.5**	**0.9**	**1.5**
	(1.4- 4.4)	(0.5- 1.7)	(1.0- 2.2)
50 - 69 years	**3.0**	**1.4**	**2.0**
	(1.6- 5.5)	(0.6- 3.3)	(1.2- 3.3)
30 – 69 years	**2.7**	**1.1**	**1.6**
	(1.7- 4.2)	(0.6- 1.8)	(1.1- 2.3)

*any clinical breast examination done by a doctor

Table 4.4.5.3a Women aged 30–69 years who had ever undergone cervical cancer screening* by area of residence and age categories (Percentage)

Age group	Urban	Rural	Total
	(95% CI)		
30 - 49 years	**4.5**	**1.1**	**2.3**
	(2.9- 6.8)	(0.7- 1.9)	(1.6- 3.3)
50 - 69 years	**3.1**	**1.5**	**2.1**
	(1.5- 6.5)	(0.6- 3.5)	(1.2- 3.6)
30 – 69 years	**4.0**	**1.3**	**2.2**
	(2.9- 5.6)	(0.8- 2.0)	(1.7- 3.0)

*any screening tests done by Visual Inspection with Acetic Acid (VIA), pap smear or Human Papilloma Virus (HPV) test

4.4.6 Drug therapy and counselling for CVD risk

Table 4.4.6.1a Adults aged 40–69 years with 10-year CVD risk of ≥30% or with existing CVD received drug therapy and counselling to prevent heart attacks and stroke (as per WHO guidelines) by area of residence, gender and age categories (Percentage)

Drug therapy and counselling to prevent heart attacks and stroke*	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
40 - 49 years	**38.2**	**33.4**	**37.3**	**27.2**	**8.5**	**17.5**	**31.6**	**11.9**	**23.3**
	(14.0-70.1)	(14.9-59.0)	(16.5-64.1)	(11.4-51.9)	(2.2-27.5)	(8.3-33.4)	(16.5-52.0)	(4.5-27.7)	(13.1-37.9)
50 - 59 years	**37.1**	**36.5**	**36.8**	**8.9**	**16.2**	**13.2**	**20.4**	**22.1**	**21.3**
	(16.8-63.2)	(17.6-60.6)	(21.0-56.0)	(3.1-22.9)	(5.2-22.9)	(5.6-28.1)	(10.5-36.0)	(11.2-38.9)	(13.1-32.6)
60 - 69 years	**43.0**	**43.3**	**43.1**	**29.0**	**34.1**	**31.1**	**35.5**	**38.6**	**36.8**
	(25.2-62.8)	(22.9-66.2)	(28.5-59.0)	(15.0-48.6)	(17.9-55.2)	(18.9-46.7)	(23.7-49.3)	(25.0-54.2)	(27.0-47.8)
40 - 69 years	**40.6**	**40.5**	**40.6**	**23.2**	**20.5**	**21.9**	**30.7**	**27.5**	**29.3**
	(27.0-55.8)	(25.3-57.8)	(29.3-52.9)	(14.2-35.3)	(12.5-31.9)	(15.6-29.8)	(22.5-40.5)	(19.7-37.0)	(23.2-36.2)

*Drug therapy is defined as taking medication for raised blood glucose/diabetes, raised total cholesterol, or raised blood pressure, or taking aspirin or statins to prevent or treat heart disease. Counselling is defined as, received advice from a Doctor or other health worker to quit or not to start the use of tobacco, to reduce salt in diet, to eat at least five servings of fruits and/or vegetables per day, to reduce fat in diet, to start or increase physical activity and to maintain a healthy body weight or to lose weight

4.5 HEALTH SYSTEM RESPONSE INDICATORS

Table 4.5.1a IEC materials related to NCDs displayed/available in waiting room/outpatient department in public primary care facilities and secondary health care facilities (CHCs and DHs) (Percentage)

	Public primary care facilities	CHCs		DHs	
	(n= 537)	NPCDCS Implemented (n= 281)	NPCDCS Non-Implemented (n= 105)	NPCDCS Implemented (n= 290)	NPCDCS Non-Implemented (n= 44)
Posters	60.9	86.8	48.6	83.1	84.1
Videos	5.2	13.2	3.8	19.3	18.2
Pamphlets	33.3	54.4	26.7	61.7	54.5
Booklets	20.7	40.2	17.1	48.3	31.8

4.6 YOGA PRACTICES AMONG ADULTS (18–69 YEARS)

Table 4.6.1a Adults who practiced yoga by area of residence, gender and age categories (Percentage)

Practiced yoga	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
	(95% CI)								
18 - 69 years	**7.5**	**5.0**	**6.3**	**3.3**	**0.9**	**2.1**	**4.7**	**2.3**	**3.5**
	(5.6-10.0)	(3.8-6.5)	(5.2-7.8)	(2.4-4.5)	(0.6-1.5)	(1.6-2.8)	(3.8-5.9)	(1.8-2.9)	(3.0-4.2)
18 - 44 years	**7.1**	**3.9**	**5.6**	**3.1**	**0.9**	**2.0**	**4.4**	**1.8**	**3.2**
	(5.1-9.7)	(2.6-5.7)	(4.5-7.0)	(2.1-4.6)	(0.5-1.5)	(1.4-2.8)	(3.4-5.7)	(1.3-2.5)	(2.6-3.9)
45 - 69 years	**8.5**	**7.4**	**8.0**	**3.6**	**1.1**	**2.4**	**5.4**	**3.3**	**4.3**
	(5.6-12.6)	(5.1-10.6)	(5.9-10.6)	(2.4-5.5)	(0.6-2.2)	(1.7-3.4)	(4.0-7.2)	(2.3-4.6)	(3.5-5.4)

Table 4.6.2a Adults who practiced asana, pranayam, meditation among those who practiced yoga by area of residence and gender (Percentage)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Among those who practiced yoga	(95% CI)								
Asana	**78.9**	**65.8**	**74.1**	**88.1**	**45.9**	**79.0**	**83.1**	**60.2**	**76.0**
	(65.1-88.2)	(49.2-79.3)	(63.9-82.1)	(75.9-94.6)	(25.3-67.9)	(68.0-87.0)	(74.1-89.4)	(46.9-72.2)	(68.7-82.1)
Pranayam	**65.8**	**65.2**	**65.6**	**45.6**	**44.7**	**45.4**	**56.7**	**59.5**	**57.5**
	(52.8-76.8)	(50.7-77.3)	(55.0-74.8)	(33.1-58.7)	(25.7-65.4)	(34.7-56.6)	(46.9-65.9)	(47.7-70.3)	(49.5-65.2)
Meditation	**53.8**	**47.9**	**51.6**	**33.9**	**55.5**	**38.5**	**44.8**	**50.0**	**46.4**
	(41.9-65.3)	(35.4-60.7)	(43.5-59.7)	(22.6-47.3)	(34.7-74.6)	(27.9-50.5)	(36.0-53.9)	(39.1-60.9)	(39.6-53.3)

Table 4.6.2b Adults who practiced asana, pranayam, meditation among those who practiced yoga by area of residence, gender and age categories (Percentage)

Among those who practiced yoga	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	(95% CI)								
Asana	**72.3**	**62.4**	**69.1**	**84.4**	**49.7**	**77.2**	**77.9**	**58.3**	**72.6**
	(55.2-84.7)	(40.4-80.2)	(56.1-79.7)	(67.3-93.4)	(23.9-75.6)	(62.5-87.3)	(66.2-86.4)	(40.9-73.8)	(63.0-80.5)
Pranayam	**60.2**	**59.7**	**60.0**	**38.4**	**40.9**	**38.9**	**50.1**	**53.7**	**51.0**
	(44.2-74.2)	(41.3-75.7)	(48.1-70.9)	(23.4-55.8)	(17.3-69.7)	(25.2-54.5)	(38.3-61.8)	(38.5-68.2)	(41.5-60.5)
Meditation	**53.1**	**55.3**	**53.8**	**30.9**	**51.2**	**35.1**	**42.8**	**54.0**	**45.9**
	(37.9-67.8)	(37.1-72.2)	(41.4-65.8)	(17.8-48.0)	(24.9-76.8)	(22.9-49.6)	(31.6-54.8)	(38.5-68.7)	(36.3-55.7)
45 - 69 years									
Asana	**91.0**	**69.6**	**81.5**	**95.9**	**39.1**	**82.6**	**93.1**	**62.7**	**81.9**
	(74.5-97.2)	(48.8-84.6)	(68.8-89.8)	(84.3-99.0)	(13.9-72.0)	(66.8-91.8)	(83.5-97.3)	(45.3-77.3)	(72.5-88.6)
Pranayam	**76.3**	**71.2**	**74.0**	**60.6**	**51.5**	**58.5**	**69.5**	**66.7**	**68.5**
	(57.8-88.3)	(52.2-84.8)	(61.5-83.6)	(43.4-75.5)	(21.6-80.3)	(43.5-72.0)	(56.2-80.1)	(50.2-79.9)	(58.5-76.9)
Meditation	**55.1**	**39.8**	**48.3**	**40.1**	**63.3**	**45.5**	**48.6**	**45.1**	**47.3**
	(37.7-71.4)	(26.6-54.7)	(37.8-59.0)	(22.8-60.2)	(30.0-87.4)	(29.2-62.8)	(35.8-61.5)	(31.8-59.2)	(38.2-56.6)

Table 4.6.3a Time (minutes) spent to practice asana, pranayam and meditation in a day among those who practiced yoga by area of residence and gender (Mean)

18 - 69 years	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
Among those who practiced yoga	**(95% CI)**								
Asana	**19.2**	**28.9**	**22.4**	**31.2**	**19.2**	**29.7**	**24.9**	**26.9**	**25.4**
	(14.4-23.9)	(19.8-38.0)	(17.7-27.0)	(20.7-41.6)	(11.8-26.7)	(20.5-38.8)	(19.0-30.8)	(19.5-34.2)	(20.6-30.2)
Pranayam	**15.4**	**17.3**	**16.1**	**20.7**	**11.1**	**18.6**	**17.3**	**16.0**	**16.9**
	(12.9-17.9)	(12.8-21.9)	(13.6-18.6)	(15.1-26.3)	(7.8-14.5)	(13.9-23.4)	(14.6-20.1)	(12.3-19.8)	(14.6-19.2)
Meditation	**15.2**	**27.0**	**19.3**	**18.8**	**23.1**	**20.1**	**16.4**	**25.8**	**19.5**
	(11.8-18.6)	(17.7-36.3)	(14.6-23.9)	(10.4-27.2)	(10.9-35.3)	(13.5-26.8)	(12.7-20.2)	(18.3-33.3)	(15.7-23.4)
Practiced any one of the above	**33.4**	**43.3**	**37.1**	**43.2**	**26.6**	**39.7**	**37.9**	**38.6**	**38.1**
	(27.1-39.7)	(31.4-55.1)	(30.7-43.4)	(29.5-56.9)	(18.1-35.2)	(29.2-50.1)	(30.7-45.1)	(29.7-47.5)	(32.4-43.8)

Table 4.6.3b Time (minutes) spent to practice asana, pranayam and meditation in a day among those who practiced yoga by area of residence gender and age categories (Mean)

Among those who practiced yoga	Urban			Rural			Total		
	Men	Women	Combined	Men	Women	Combined	Men	Women	Combined
18 - 44 years	**(95% CI)**								
Asana	**16.4**	**32.0**	**20.9**	**29.7**	**17.1**	**28.0**	**23.1**	**27.9**	**24.1**
	(9.6-23.2)	(14.9-49.1)	(13.6-28.2)	(14.7-44.8)	(7.1-27.0)	(14.8-41.2)	(14.3-31.8)	(15.3-40.4)	(16.7-31.5)
Pranayam	**14.3**	**18.0**	**15.5**	**20.9**	**10.9**	**18.7**	**16.7**	**16.3**	**16.6**
	(11.0-17.7)	(10.4-25.7)	(12.1-19.0)	(11.6-30.2)	(8.6-13.3)	(11.2-26.2)	(12.5-20.8)	(10.3-22.3)	(13.1-20.0)
Meditation	**13.9**	**28.5**	**18.7**	**22.1**	**22.7**	**22.3**	**16.6**	**26.7**	**19.9**
	(10.9-17.0)	(14.0-43.1)	(12.8-24.7)	(9.4-34.8)	(5.6-39.8)	(12.0-32.5)	(11.5-21.8)	(15.2-38.3)	(14.6-25.2)
Practiced any one of the above	**27.9**	**46.5**	**33.8**	**39.9**	**24.6**	**36.7**	**33.4**	**39.4**	**35.1**
	(21.0-34.8)	(27.3-65.6)	(25.7-42.0)	(21.0-58.8)	(14.6-34.6)	(21.5-51.9)	(23.8-43.1)	(25.8-53.0)	(27.1-43.1)
45 - 69 years									
Asana	**23.2**	**25.9**	**24.2**	**33.8**	**24.2**	**32.7**	**27.9**	**25.7**	**27.3**
	(18.8-27.6)	(18.3-33.5)	(20.3-28.2)	(22.6-45.0)	(17.7-30.6)	(22.7-42.7)	(22.1-33.8)	(19.1-32.2)	(22.7-31.9)
Pranayam	**17.0**	**16.7**	**16.9**	**20.4**	**11.4**	**18.5**	**18.3**	**15.8**	**17.4**
	(12.8-21.2)	(11.6-21.8)	(13.4-20.4)	(16.0-24.7)	(4.0-18.8)	(14.3-22.8)	(15.1-21.5)	(11.3-20.3)	(14.6-20.2)
Meditation	**17.5**	**24.7**	**20.1**	**13.6**	**23.7**	**16.8**	**16.1**	**24.4**	**19.0**
	(11.5-23.5)	(17.2-32.2)	(15.3-24.9)	(10.1-17.0)	(6.8-40.6)	(10.6-23.1)	(12.1-20.1)	(17.0-31.8)	(15.2-22.8)
Practiced any one of the above	**43.7**	**39.8**	**42.0**	**50.2**	**30.3**	**45.5**	**46.5**	**37.6**	**43.2**
	(33.4-54.1)	(28.0-51.5)	(34.0-50.0)	(35.9-64.4)	(13.6-47.0)	(33.7-57.4)	(37.9-55.1)	(27.8-47.5)	(36.6-49.9)

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