GLOBAL ADULT TOBACCO SURVEY

India 2009-2010

International Institute for Population Sciences
Deonar, Mumbai – 400 088

Ministry of Health & Family Welfare (MoHFW),
Govt. of India.

सत्यमेव जयते

Ministry of Health and Family Welfare
Government of India

GLOBAL ADULT TOBACCO SURVEY

GATS INDIA 2009-2010

(Established in 1956)
Capacity Building for a Better Future
International Institute for Population Sciences
Deonar, Mumbai - 400 088

The Global Adult Tobacco Survey (GATS) India, 2009-2010 has been conducted by the International Institute for Population Sciences, Mumbai as per the standard protocol under Global Tobacco Surveillance System (GTSS).

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सत्यमेव जयते

प्रधान मंत्री

Prime Minister

MESSAGE

I commend the Ministry of Health & Family Welfare for successfully carrying out the first national level Global Adult Tobacco Survey.

India is the second largest consumer of tobacco products in the world. It is clear that we need to heighten our concern about tobacco usage being a leading cause of death and debilitating disease in our country. The increasing prevalence of tobacco consumption among high risk groups, including women and children, and the exposure to second hand smoke, either in homes or in public places, is a matter of serious concern.

The Government of India has maintained a consistent policy that discourages the use of tobacco products, and I hope that this report will lead to a scaling up of tobacco control measures and of increasing awareness at various levels of government, civil society and the media.

Manmohan Singh

(Manmohan Singh)

New Delhi
9 September, 2010

SONIA GANDHI
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MESSAGE

It is a matter of concern that India is now the second largest consumer of tobacco products in the world. The consumption of tobacco in various forms is a major threat to public health. There is strong evidence to link tobacco use with the incidence of cancer. A massive public awareness campaign has to be sustained at various levels to deal with this malaise.

We have hundreds of thousands of workers, including women and children, who are employed in the *beedi* industry. These children must be in schools. Alternative livelihoods for families dependent on the *beedi* industry must be found. Various social welfare schemes have been launched for the welfare of these workers. The implementation of these schemes must remain our priority. Thousands of farmers in Andhra Pradesh and Karnataka particularly are dependent on tobacco cultivation for their well-being. We must have a long-term plan for crop diversification as well.

I am happy that the Ministry of Health and Family Welfare has taken the initiative to conduct the National-level Global Adult Tobacco Survey (GATS). I am sure that the survey will be very useful in our stepped-up anti-tobacco campaign.

Sonia Gandhi

13th September 2010

गुलाम नबी आज़ाद
GHULAM NABI AZAD

स्वास्थ्य एवं परिवार कल्याण मंत्री
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Minister of Health & Family Welfare
Government of India
Nirman Bhavan, New Delhi-110108

September 1, 2010.

Message

It is with great pride that I am able to announce the publication of the Global Adult Tobacco Survey (GATS), a report which endeavours to highlight the social and economic risks associated with the consumption of tobacco products. As India has been classified as one of the 15 high burden countries, we must succeed in controlling and regulating both the human and economic cost of tobacco consumption, which are at present too great.

The GATS gives renewed emphasis to the need for a far-reaching policy response to the challenges posed by tobacco induced diseases in this country. As one of the largest consumers of tobacco in the world, India is faced by human costs, including cancers, cardiovascular and chronic respiratory diseases, which require the urgent attention and intervention of the Government on both regional and state levels.

We must also consider the economic burdens that the usage of tobacco imposes on our country's health care systems. As many as one million deaths annually can be attributed to tobacco consumption forcing health facilities to spend an even greater share of their precious resources on treating largely preventable diseases.

I am extremely hopeful that this report will give a new impetus to the implementation of tobacco control policies and I would like to thank the International Institute for Population Sciences (IIPS), Mumbai, who carried out this important research, as well as other national and international partners for their respective contributions.

(Ghulam Nabi Azad)

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FOREWORD

Globally tobacco kills 5.5. million persons each year. Besides loss to human life, there are huge social, economic and environmental costs attributable to tobacco use. India is the second largest consumer of tobacco in the world, which leads to almost 1 million deaths each year. Smokeless tobacco and bidi smoking are the most prevalent forms of tobacco use in India. Tobacco is a major risk factor for non communicable diseases, which are on the rise in the country.

To counter the challenge of tobacco problem in India, the Government enacted comprehensive tobacco control legislation, namely "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003. India was also the seventh country in the world to ratify World Health Organization's Framework Convention on Tobacco Control (FCTC), the first ever global treaty for tobacco control.

To fulfil the obligations and commitments under the law and WHO FCTC, Ministry of Health and Family Welfare launched a dedicated National Tobacco Control Program (NTCP) in the 11th Five Year Plan. The programme aims to build the capacity at various levels for effective implementation of tobacco control strategies. Recognizing the need for creating a data base on tobacco use and monitoring tobacco use and key tobacco control indicators in the country, Global Adult Tobacco Survey was conducted as an essential component of NTCP. The survey was undertaken in 29 states and 2 Union Territories of India, covering 99.9% of the population.

The GATS India report is a product of the untiring team efforts of the International Institute of Population Sciences, Mumbai along with the officials from the Ministry of Health and Family Welfare and the technical collaborators the World Health Organization and the US Centers for Disease Control and Prevention; and key public health experts.

The survey clearly indicates that control of tobacco use in general and specifically the high prevalence of smokeless tobacco use among women is an area of concern. The report would serve as an evidence base to strengthen tobacco control initiatives and also serve as an authoritative reference source for policy makers, public health professionals and all other stakeholders concerned with tobacco control in the country.

I congratulate **International Institute for Population Sciences**, Mumbai and other partners successfully completing the survey and bringing out GATS India report which would be of immense use in advancing tobacco control in the country.

(K. SUJATHA RAO)
Secretary (H& FW)
17.9.2010

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Preface

Tobacco consumption is the leading preventable cause of death and disease in the world. Growing tobacco use accounts for a substantial and avoidable fraction of cardiovascular diseases, stroke, and cancer. There is a growing body of evidence linking smoking and an increased risk of tuberculosis infection, disease and mortality.

The tobacco epidemic is expanding, especially in less-developed countries, adding significantly to their burden of disease and poverty. India is in the second phase of tobacco epidemic with nearly one million persons dying due to tobacco use every year. India has the highest number of oral cancer cases in the world due to a very high prevalence of chewing and smokeless tobacco use in the country. Tobacco harms economy and the sustainable development as tobacco use prevalence is high among the lower income groups

Global evidence exists to support the fact that significant gains from tobacco control include improvements in public health, reduced disease and death, and gains in terms of productivity and growth from a healthier and more active workforce. In addition, effective tobacco control contributes to cleaner streets and air quality, preservation of forests, reduced absenteeism, reduced fire hazards, healthier mothers and children; and a better quality of life in general.

The Global Adult Tobacco Survey (GATS) is a dedicated survey mechanism that has been developed to track tobacco prevalence, exposure to secondhand smoke, exposure to tobacco advertising/promotion, cessation, knowledge and attitudes; that are critical for the tobacco control program, policy development and evaluation. GATS India provides these estimates at national and state level and has captured urban/rural and gender specific data

The report begins with an introduction that captures the burden of tobacco use, the tobacco control policies and program implemented by the Government of India and the survey objectives. This followed by a chapter in which the methodology of the survey including the organisations involved in conduct of the survey, the study population, the sampling design, questionnaire, data collection and statistical analysis are defined. The remaining chapters give the survey results in specific areas along with the data tables, followed by the policy recommendations and conclusions

Controlling tobacco use is a key element of any national strategy for preventing non communicable diseases (CVDs, cancer, stroke etc.) or for promoting health more generally. The report gives recommendations to drive and catalyse tobacco control policies and efforts in the country. The data would be of immense use to map the tobacco epidemic across states, formulating region/state and gender specific strategies and providing clear directions for future directives. In fact this report has in it, the seeds of the tobacco control roadmap and evidence which would guide us in our continuous endeavour to fight the tobacco battle into the years to come.

Dr. R.K. Srivastava

ACKNOWLEDGEMENT

The 2009-2010 Global Adult Tobacco Survey (GATS) in India was successfully completed with the committed efforts and support of different organizations and individuals at various stages of the survey.

At the outset we acknowledge our sincere gratitude to the Ministry of Health and Family Welfare (MoHFW), Government of India, for granting responsibility of conducting the Global Adult Tobacco Survey (GATS) in India to IIPS, Mumbai, and funding this project. We express our thanks to Miss. K. Sujatha Rao, Secretary to the Government of India, MoHFW; Dr. R. K. Srivastava, Director General of Health Services (DGHS); Shri Keshav Desiraju, Additional Secretary (H); Dr. Dinesh Bhatnagar, Additional Director General, Ms. Madhubala, ADG (Stats); Shri. S.K. Das, Former Additional Director General (Stats); Sh. B.K. Prasad, Joint Secretary, and Dr. D.C. Jain, DDG (NCD); for providing overall guidance and support during the tenure of the project.

We wish to put on record the contributions of Late Prof. P. N. Mari Bhat, the former Director & Sr. Professor (2005 -2007) of the IIPS, Mumbai, who was instrumental in undertaking the GATS-India project at the initial stage. We gratefully acknowledge valuable suggestions and contributions by Ms. Anuradha Vemuri, Director, MoHFW; Dr. Rattan Chand, Chief Director (Stats); Dr. Jagdish Kaur, Chief Medical Officer and Dr. Vinayak Prasad, former Director (PH) at various stages of the survey.

We extend our appreciation to all collaborative partner organizations viz., World Health Organization (WHO) Country office for India, WHO SEARO; Centers for Disease Control and Prevention (CDC); CDC Foundation, Atlanta; Research Triangle Institute (RTI) International and Johns Hopkins Bloomberg School of Public Health (JHSPH) for providing technical support in successfully conducting the GATS in India.

We gratefully acknowledge the immense help and guidance received time to time from Dr. Samira Asma, Associate Director, CDC-Atlanta and Dr. Krishna Mohan Palipudi, Senior Survey Statistician, CDC-Atlanta for their constant involvement and support at various stages of the project.

We sincerely acknowledge the WHO's contribution to the project with special thanks to Dr. D. N. Sinha, Regional Surveillance Officer, WHO-SEARO and Ms. Vineet Gill Munish, National Professional Officer (TFI), WHO, India.

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This acknowledgement cannot be concluded without expressing appreciation for the efforts and hard work put in by the field investigators and supervisors in collecting data and all data managers for timely transferring data to IIPS.
Last but not the least, credit goes to all respondents who participated in GATS-India project.

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CHAPTER 4 TOBACCO USE

EXECUTIVE SUMMARY

The Global Adult Tobacco Survey India (GATS India) is the global standard for systematically monitoring adult tobacco use (smoking and smokeless) and tracking key tobacco control indicators. Global Adult Tobacco Survey India was carried out in all 29 states of the country and 2 Union Territories of Chandigarh and Puducherry, covering about 99.9 percent of the total population of India. The major objectives of the survey were to obtain estimates of prevalence of tobacco use (smoking and smokeless tobacco); exposure to second-hand smoke; cessation; the economics of tobacco; exposure to media messages on tobacco use; and knowledge, attitudes and perceptions towards tobacco use.

The Ministry of Health & Family Welfare (MoHFW), Government of India, designated the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency for conducting GATS in India. Technical assistance was provided by the Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), the Johns Hopkins Bloomberg School of Public Health, and Research Triangle Institute International (RTI International).

GATS India was conducted in 2009–2010 as a household survey of persons age 15 and above. A nationally representative probability sample was used to provide national and regional (North, West, East, South, Central and North-East) estimates by residence (urban and rural) and gender and state estimates by gender. The survey was designed to produce internationally comparable data on tobacco use and other tobacco control indicators using a standardized questionnaire, sample design, data collection and management procedures. GATS India was the first nationwide survey in which electronic handheld devices were used for data collection and management. A total of 69,296 interviews were completed among which 33,767 and 35,529 were of males and females respectively. Out of all completed interviews, 41,825 interviews were conducted in rural areas and 27,471 interviews in urban areas. The overall response rate was 91.8 percent which ranged from the highest of 99.2 percent in Tamil Nadu to the lowest of 80.1 in Arunachal Pradesh.

Tobacco use

GATS India revealed that more than one-third (35%) of adults in India use tobacco in some form or the other. Among them 21 percent adults use only smokeless tobacco, 9 percent only smoke and 5 percent smoke as well as use smokeless tobacco. Based on these, the estimated number of tobacco users in India is 274.9 million, with 163.7 million users of only smokeless tobacco, 68.9 million only smokers, and 42.3 million users of both smoking and smokeless tobacco. The prevalence of overall tobacco use among males is 48 percent and that among females is 20 percent. Nearly two in five (38%) adults in rural areas and one in four (25%) adults in urban areas use tobacco in some form. Prevalence of smoking among males is 24 percent whereas the prevalence among females is 3 percent. The extent of use of smokeless tobacco products among males (33%) is higher than among females (18%).

The prevalence of tobacco use among all the states and Union Territories ranges from the highest of 67 percent in Mizoram to the lowest of 9 percent in Goa. Prevalence of tobacco use in Arunachal Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Sikkim, Tripura, Assam and West Bengal is higher than the national average. In most of the states/UTs,

the prevalence of both smoking and smokeless tobacco use among males is higher than among females with exceptions in Puducherry, Tamil Nadu, Meghalaya, Tripura and Mizoram, where prevalence of smokeless tobacco is higher among females than males. More than 75 percent of tobacco users, both smokers as well as users of smokeless tobacco are daily users of tobacco. In India, *khaini* or tobacco-lime mixture (12%) is the most commonly used smokeless tobacco product, followed by gutkha, a mixture of tobacco, lime and areca nut mixture (8%), betel quid with tobacco (6%) and applying tobacco as dentifrice (5%). The prevalence of each of the smokeless tobacco products, except dentifrice, is higher among males than females. Among smoking tobacco products, bidi (9%) is used most commonly followed by the cigarette (6%) and the hookah (1%).

Among both males and females, the prevalence of cigarette smoking is higher in urban areas but the prevalence of all other smoking products is higher in rural areas. The prevalence of each of the smokeless tobacco product is higher in rural than urban areas, however, gutkha is almost equally prevalent in both urban and rural areas.

On an average a daily cigarette smoker in India smokes 6.2 cigarette sticks per day, and a daily bidi smoker smokes 11.6 bidi sticks per day. One-fourth of daily cigarette smokers smoke more than 10 cigarettes per day, and more than half of the daily bidi smokers smoke more than 10 bidis per day.

The mean age at initiation of daily tobacco use for tobacco users age 20–34 years is 17.8 years. The mean age at initiation of smoking as well as use of smokeless tobacco among users of respective products age 20-34 years is 17.9 years. Two in every five daily tobacco users age 20–34 had started using tobacco daily before attaining the age of 18. The quit ratio for smoking (defined as former smokers among ever daily smokers) is 13 percent, while the quit ratio for use of smokeless tobacco use (defined as former users of smokeless tobacco among ever daily users of smokeless tobacco) is 5 percent. Three in five (60%) daily tobacco users use tobacco within 30 minutes of waking up in the morning.

Tobacco Cessation

Nearly two in five smokers (38%) and users of smokeless tobacco (35%) made an attempt to quit respective tobacco use in the past 12 month period prior to the survey. Among smokers, males and females equally reported (38% of males and 39% of females) that they made a quit attempt. Among smokeless tobacco users fewer females (29%) made a quit attempt compared to males (39%). There is considerable variation in quit attempts across states/UTs. For smoking it ranges from 12 percent in Delhi to 55 percent in Andhra Pradesh. For users of smokeless tobacco it ranges from 8 percent in Delhi to 54 percent in Madhya Pradesh.

Among those smokers who made a quit attempt, 9 percent used counselling and 4 percent used pharmacotherapy for cessation. However, 26 percent used other methods of cessation such as traditional medicines and other products. Among users of smokeless tobacco 8 percent used counselling to quit smokeless tobacco and 22 percent used other methods. Among 47 percent of smokers who had visited a health care provider in the past 12 months, a little more than half (53%) were asked by the health care provider if they smoked and 46 percent were advised to stop smoking. Among 47 percent of users of smokeless tobacco who visited a health care provider in the last 12 months prior to the survey, little more

than one-third (34%) were asked by the health care provider whether they used smokeless tobacco and only 27 percent were advised to stop such use.

Second-hand smoke

GATS India shows that 52 percent of adults were exposed to second-hand smoke (SHS) at home. In rural areas 58 percent and in urban areas 39 percent were exposed to SHS at home. The SHS exposure at home ranged from the highest of 97 percent in Mizoram to the lowest of 10 percent in Tamil Nadu. Exposure to SHS in indoor workplaces who usually work indoors or both indoors and outdoors was 30 percent. The exposure to SHS was highest (68%) in Jammu & Kashmir and lowest in Chandigarh (15%). Among those who visited different public places within 30 days prior to the survey, 29 percent were exposed to SHS in any of the public places; 18 percent on public transport, 11 percent in restaurants, 7 percent in Government buildings and 5 percent at the health care facility. Exposure to SHS at any public place ranged from the highest of 54 percent in Meghalaya to the lowest of 11 percent in Chandigarh. Half of the adults (51%) who had visited restaurants during the 30 days prior to the survey had seen a designated non-smoking area in the restaurant, and 16 percent observed smoking in such an area. There was a large variation across the states/UTs in the proportion of adults who saw a designated non-smoking area in the restaurant. It varied from 17 percent in Mizoram to 89 percent in Delhi. Similar variation in observing smoking in non-smoking area was also noted. It varied from 3 percent in Chandigarh to 41 percent in Sikkim.

Economics

About half of all cigarette (51%) and bidi (49%) smokers and users of smokeless tobacco products (55%) purchased tobacco products from stores[1]. Kiosks[2] were next common points of purchase. Thirty-one percent cigarette smokers, 39 percent bidi smokers and 32 percent smokeless tobacco users purchased tobacco products from kiosks, which included roadside paan shops. More than half (59%) of cigarette smokers purchased just two brands of cigarettes and over three-fourth (76%) of cigarette smokers purchased one of five most preferred brands. However, only about one-fifth of bidi smokers purchased bidis of one of the five most preferred brands. On an average, a daily cigarette smoker incurred an expenditure of ₹ 399.20 per month on cigarettes and a daily bidi smoker ₹ 93.40 per month on bidis. Monthly expenditure on cigarettes in urban areas (₹ 469.00) is higher than in rural areas (₹ 347.50), but monthly expenditure on bidis in urban areas (₹ 92.50) is slightly lower than rural areas (₹ 98.00). Monthly expenditure on cigarettes ranged from the lowest of ₹ 181.70 in Jharkhand to the highest of ₹ 1264.90 in Arunachal Pradesh. Monthly expenditure on bidis was lowest in Bihar (₹ 42.70) and highest in Rajasthan (₹ 147.80).

Media

A little more than half (52%) of adults in India noticed anti-cigarette information on any media/location during the last 30 days prior to the survey. A relatively higher proportion of adults noticed anti-bidi

[1] A place where products and supplies, such as food, clothing, daily use commodities are offered for sale, a shop.

[2] A small booth, bookstall or a cubicle from which cigarettes, newspapers, and sweets are sold. In India these are generally found at the airports, railway platforms or cinema halls to sell products.

information (61%) and anti-smokeless tobacco information (66%). The anti-tobacco information noticed by adults varied widely across states for different products. The proportion of adults who noticed anti-cigarette information ranged from 91 percent in Chandigarh to 36 percent in Bihar. The proportion of adults who noticed anti-bidi information ranged from 92 percent in Chandigarh to 31 percent in Assam. Similarly, a proportion of adults who noticed anti-smokeless tobacco information was highest in Chandigarh (93%) and lowest in West Bengal (39%). Majority of cigarette smokers (71%), bidi smokers (62%) and users of smokeless tobacco (63%) noticed health warnings on packages of the respective products. Among those who noticed health warnings on packages, 38 percent of cigarette smokers, 29 percent of bidi smokers and 34 percent of smokeless tobacco users thought of quitting such products because of warning labels on the respective packages of tobacco products. Among all adults, 28 percent noticed some form of advertisement or promotion of cigarettes, 47 percent noticed some advertisement or promotions of bidis and 55 percent noticed some advertisement or promotion of smokeless tobacco products.

Knowledge, attitudes and perceptions

Half (49%) of adults in India are aware that smoking causes stroke and less than two-thirds (64%) believe that smoking causes heart attack whereas, a large proportion (85%) believes that smoking causes lung cancer. Across all states/UTs, highest proportion of adults in Mizoram reported that smoking causes stroke (79%), heart attack (92%) and lung cancer (98%) whereas the lowest proportion of adults in Arunachal Pradesh reported it (34%, 37% and 78% respectively).

Recommendations

In view of the high prevalence of tobacco use in the country, there should be a national effort to prevent any further increase in the prevalence of tobacco use, especially among the vulnerable groups such as females, youth and children. There should also be targeted programmes addressing different types of tobacco use and different user groups with special focus on cessation. There is a need to further strengthen the implementation of Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003, at national, state and sub-state levels. Establishment of a comprehensive implementation and regulatory structure at the national and state level is required. Tobacco control strategies need to be mainstreamed with other national health programmes, within the overall framework of the National Rural Health Mission (NRHM). The multifaceted nature of tobacco problem in India calls for greater involvement and investment of various stakeholder ministries/departments, e.g. Human Resource Development (Education), Finance, Agriculture, Labour, Commerce, Rural Development, Information & Broadcasting, Women & Child, etc., in addition to the Ministry of Health & Family Welfare, as also the Panchayati Raj Institutions, academic/public health institutions, civil society groups, media, etc.

The progress under the National Tobacco Control Programme (NTCP) launched in 2007-08 needs to be carefully evaluated at the end of the 11th Five Year Plan (2007-12) and a comprehensive NTCP should be expanded on a nationwide basis in the 12th Five Year Plan.

1. INTRODUCTION

Tobacco use is a major preventable cause of premature death and disease, currently leading to over five million deaths each year worldwide which is expected to rise to over eight million deaths yearly by 2030.[1] The vast majority of these deaths are projected to occur in developing countries. Nearly 8–9 lakh people die every year in India due to diseases related to tobacco use.[2] Majority of the cardiovascular diseases, cancers and chronic lung diseases are directly attributable to tobacco consumption. Almost 40 percent of tuberculosis deaths in the country are associated with smoking.[3]

Globally, cigarette smoking is the dominant form of tobacco use. In the Indian context, tobacco use implies a varied range of chewing and smoking forms of tobacco available at different price points, reflecting the varying socio-economic and demographic patterns of consumption.[4] Tobacco is consumed in a variety of, both smoking and smokeless forms, e.g. bidi, gutkha, *khaini*, paan masala, hookah, cigarettes, cigars, chillum, *chutta, gul*, *mawa*, *misri*, etc. Tobacco is also a part of the socio-cultural milieu in various societies, especially in the Eastern, Northern, and North-Eastern parts of the country.[2]

India is the second largest consumer of tobacco products and third largest producer of tobacco in the world. In order to facilitate the implementation of the tobacco control laws, bring about greater awareness regarding harmful effects of tobacco and fulfill obligation(s) under the WHO Framework Convention on Tobacco Control (WHO FCTC)[5], the Government of India launched the National Tobacco Control Programme (NTCP) in the country. The Adult Tobacco Survey (ATS) is an important component of the country's comprehensive tobacco control programme and reflects an efficient and systematic surveillance mechanism to monitor the tobacco epidemic through collection of baseline data and study of key tobacco control indicators.[6]

The Global Adult Tobacco Survey (GATS) is one of the components of the Global Tobacco Surveillance System (GTSS).[8] GATS is a standardized household survey that enables countries to collect data on key tobacco control indicators and assist countries in the formulation, tracking and implementation of effective tobacco control interventions and international comparisons as laid out in the MPOWER policy package of WHO.[1,7] The World Health Organization aims to reduce the global burden of disease and death caused by tobacco, thereby protecting present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke. This is accomplished by providing global policy leadership through promoting the WHO Framework Convention on Tobacco Control (WHO FCTC[2]) and the MPOWER package.[1,7] The Framework Convention mandates Member States to progressively enforce its provisions, and WHO supports countries in their efforts to implement tobacco control measures through MPOWER.

GATS has been implemented in 14 countries globally where more than half of the world's smokers live: Bangladesh, Brazil, China, Egypt, India, Mexico, Philippines, Poland, the Russian Federation, Thailand, Turkey, Ukraine, Uruguay and Vietnam. The Centers for Disease Control and Prevention (CDC), CDC Foundation, Johns Hopkins Bloomberg School of Public Health (JHSPH), Research Triangle Institute International (RTI International), the World Health Organization and many countries throughout the world worked together to design and implement GATS.

The Global Adult Tobacco Survey India (GATS India) was carried out in all six geographical regions for both urban and rural areas of 29 states of the country and the two Union Territories of Chandigarh and Puducherry covering about 99.9 percent of the total population of India[9]. GATS India is unique in terms of its large sample size of 72,000 households and key survey activities having been carried out in 19 languages. The standard GATS questionnaire was adapted to India based on the prevailing pattern of tobacco use in the country and experiences from previous surveillance of tobacco use in the country.

1.1 TOBACCO CONTROL POLICIES IN INDIA

The Government of India enacted 'Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (COTPA)' to prohibit the consumption of cigarettes and other tobacco products, which are injurious to health, with a view to achieve improvement of public health in general, and also to prohibit the advertisement of, and provide for regulation of trade, commerce, production, supply and distribution of cigarettes and other tobacco products in the country.[10] Various provisions of this Act have been enforced since 1st May 2004.

The key features of the COTPA are as follows:

(i) Ban on smoking in public places, including indoor workplaces.

(ii) Ban on direct and indirect advertising of tobacco products.

(iii) Ban on sale of tobacco products to minors (less than 18 years of age).

(iv) Ban on sale of tobacco products within a radius of 100 yards of educational institutions.

(v) Display of mandatory pictorial health warnings on all tobacco product packages.

(vi) Testing of tobacco products for tar and nicotine.

The Smoke-free Rules were revised in October, 2008, redefining 'public places' so as to include all workplaces and authorizing personnel responsible for enforcement of law for maintaining smoke-free public places across the country.

1.1.1 Tobacco control initiatives

(1) The National Tobacco Control Programme is under implementation in 42 districts of 21 states since 2007-2008.[6] The main components of the programme are as follows:

(a) National level

i. Public awareness/mass media campaigns for awareness building and behavioural change.
ii. Establishment of tobacco product testing laboratories, to build regulatory capacity, as mandated under COTPA, 2003.
iii. Mainstreaming the programme components as a part of the health delivery mechanism under the National Rural Health Mission (NRHM) framework.
iv. Promoting research and training on alternate crops and livelihoods with other nodal ministries.
v. Monitoring and Evaluation, including surveillance, e.g. Adult Tobacco Survey (ATS).

(b) State level

i. Dedicated State Tobacco Control Cells to build capacity for effective implementation and monitoring of tobacco control initiatives.
ii. Developing coordination and linkages for tobacco control with all stakeholder departments and programs.

(c) District level

i. Monitoring and implementation of provisions under COTPA.
ii. Training of health and social workers, law enforcers, NGOs, Self Help Groups, Civil society organizations, etc., in tobacco control.
iii. IEC (information, education and communication) activities at grass-root level.
iv. Provision of tobacco cessation facilities.
v. School-based awareness and training activities.

(2) Tobacco control initiatives are being integrated with ongoing National Health Programmes, e.g. National Cancer Control Programme (NCCP), National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke (NPDCS), National Mental Health Programme (NMHP), Revised National TB Control Programme (RNTCP) and School Health Programme (SHP).

(3) Expansion and strengthening of existing tobacco cessation facilities in the country. The states are encouraged and provided technical support to set up cessation facilities in as many institutions as possible, e.g. general hospitals, TB hospitals, Regional Cancer Centres, medical and dental colleges and other institutions.[6]

(4) Advocacy for tobacco control at the state and sub-state level.

(5) Capacity-building for tobacco control initiatives, e.g. training of doctors and health functionaries/staff under NRHM.

1.2 TOBACCO USE IN INDIA

Of all the prevalent smoking forms of tobacco, bidi is the most popular product in India, especially in rural areas. It is estimated that one-third of all tobacco produced in India is used for bidi making.[2,11] Cigarette smoking is the second-most popular form of tobacco smoking in India, and is observed mainly in urban areas. Hookah, *chuttas*, *dhumti*, chillum, cigars, cheroots and pipes are some other forms of smoking tobacco in use in different parts of the country. Paan (betel quid) with tobacco is the most common form of chewable tobacco. Dry tobacco areca-nut preparations, such as paan masala, gutkha and *mawa*, are also popular.[2] Along with smoking and chewing, other tobacco products such as m*ishri*, *gul*, *bajjar*, *gudakhu*, etc., are widely used as applications to the teeth and gums. Many of these products are also popular among females.[2]

In general, males smoke as well as chew tobacco whereas females mainly use chewing forms of tobacco, except in a few areas where prevalence of smoking among females is higher.[12] In coastal areas of Andhra Pradesh and Odisha, females smoke cheroot (called *chutta*) in a reverse manner (i.e. with glowing end inside the mouth). In some parts of Northern India, females often smoke hookah. In addition to chewing and smoking, a range of different tobacco products in different parts of the country are applied on the teeth and gums. These products include dry snuff or *tapkeer* in the Western part of India, *mishri* in Maharashtra, *gul* and *gudakhu* in the Eastern region and creamy snuff or tobacco toothpaste in Eastern and North-Eastern regions of the country.[2]

1.2.1 Economic impact of tobacco use

Tobacco use has economic implications for the society and nation as a whole. Individual household's economic implications of tobacco include direct cost of tobacco products and indirect cost due to the expenditure arising from the adverse health effects of tobacco use. A health cost study in India revealed that the direct and indirect costs of the three major tobacco-related diseases, namely cancer, coronary artery disease (CAD) and chronic obstructive lung disease (COLD) (for the year 2002-03), exceeded the total combined revenue and capital expenditure by the Centre and the States on medical and public health, water supply and sanitation.[3]

According to an independent study conducted in 2004, taking into account tuberculosis, respiratory diseases, cardiovascular diseases and cancers, the total economic cost of tobacco use in India was about 16 percent more than the total tax revenue collected from tobacco.[13-15] An analysis of the data from the 52nd Round of the NSS reveals a higher risk of impoverishment due to borrowing and distress sale of assets during hospitalization of member of households that reported tobacco use.[16] Findings of the survey also recommend the inclusion of tobacco and alcohol control in anti-poverty measures and poverty-reduction strategies and development frameworks for the poor in developing countries.

1.2.2 Health impact of tobacco use

Smoking increases the incidence of clinical tuberculosis[17] and is a cause of half of the male tuberculosis deaths in India.[3] Nearly half of cancers among males and one-fourth of cancers among females are tobacco related.[29] The cohort study from rural India estimated the relative risk of death due to tobacco use to be 40-80 percent higher for any type of tobacco use; 50–60 percent higher for smoking and 90 percent higher for reverse smoking; and 15–30 percent higher for use of chewing tobacco in males and females respectively and 40 percent higher for chewing tobacco and smoking combined.[2]

An urban cohort study in Mumbai found the relative risk of dying was more than 50 percent higher for smokers and about 15 percent higher for users of smokeless tobacco products.[2] An urban case-control study in Chennai found that the relative risk of dying for smokers was slightly higher than two-fold.[3] The mortality attributable to tobacco use has also been estimated in a large cohort study of about 148,000 persons in India. The adjusted relative risk of all causes of mortality, smoking was 1.37 for cigarette smokers and 1.64 for bidi smokers (males), with a significant dose–response relationship for the number of bidis or cigarettes smoked. Females were essentially smokeless tobacco users; and the adjusted relative risk for them was 1.25. The risk of deaths from respiratory diseases was 2.12; from tuberculosis 2.30; and from neoplasms was 2.60. These values were significantly high in male smokers than never tobacco

users.[18] Smoking is responsible for a large and growing number of premature deaths in India. In a nationally representative study it has been estimated that in 2010 smoking will cause about 930,000 adult deaths in India; and about 70 percent of them will be between the age 30–69 years.[19]

1.2.3 Prevalence of smoking and smokeless tobacco

In order to arrive at an accurate level of prevalence of tobacco use by age groups, gender and place of residence, a number of surveys have been conducted in the country. The Global Youth Tobacco Survey (GYTS) under Global Tobacco Surveillance System (GTSS) covering population in the age group 13–15 was conducted in 2003 and repeated in 2006 and 2009. Similarly, the National Family Health Survey conducted in 1998–1999 and 2005–2006 did collect some information on prevalence of tobacco use among males and females. The National Sample Survey Organization (NSSO) also conducted a household survey in 1995–1996 to estimate tobacco use among the adult population in India. The Sample Registration System (SRS) for the first time included questions on tobacco use in the baseline survey conducted in 2004.[20] However, except GTSS, tobacco use per se was not the focus in all these surveys.

The following nationwide surveys throw light on tobacco use among the adult population:

1. The 52nd round of the National Sample Survey (NSS) on Morbidity and Private Health Expenditure, conducted between June 1995 to June 1996 by the National Sample Survey Organization (NSSO) of the Government of India, collected information on current regular smoking and chewing of tobacco for all individuals above the age of 10 years.[21]
2. The National Family Health Survey (NFHS-2) conducted in 1998–1999 by the International Institute for Population Sciences (IIPS), Mumbai, India, and ORC Macro also collected information on tobacco use through household survey. The survey covered 92,486 households from 26 states in India. In the household questionnaire of NFHS-2, the head of the household was asked if any member of the household chewed paan masala or tobacco or smoked tobacco. The data was tabulated for persons age 15 and above.[22]
3. The third round of the National Family Health Survey (NFHS-3) conducted by International Institute for Population Sciences and Macro International in 2005–2006 also collected data on tobacco use from 124,385 females age 15–49 and 74 369 males age 15–54 from all 29 states in India. The survey collected information on current tobacco use status including cigarettes, bidis and other forms of chewing tobacco.[12]
4. The National Household Survey of Drugs and Alcohol Abuse in India (NHSDAA) conducted in 2002 among males covered over 40,000 individuals age 12–60 in 25 states and collected data on tobacco use.[23]
5. The baseline survey of Sample Registration System collected data on tobacco use covering the population age 15 and above. The prevalence is available separately for smoking, chewing (with and without tobacco) and tobacco only, and hence estimates of prevalence of smokeless tobacco cannot be computed.[20]

The estimates of tobacco use among adult males and females in India, as obtained from these four different surveys, are summarized in the following table. The four surveys give the prevalence of smoking and tobacco use among India's adult population and it can be broadly concluded that about

one in two males and one in ten females in India use tobacco in some form or the other. About one-third of adult males smoke and/or chew tobacco. Among females, chewing tobacco is more common than smoking and only a small proportion of females smoke tobacco. The use of tobacco among adult males in India, especially of chewing tobacco, shows an increasing trend as given in Table 1.1.

Table1.1: Prevalence of tobacco use in India

Survey		NSS 52nd Round	NFHS-2	NHSDAA	NFHS-3	SRS
Male	Tobacco users	51.3	46.5	61.0	57.6	NA
	Smokers	35.3	29.3	NA	33.4	26.1
	Users of smokeless tobacco	24.0	28.1	NA	36.4	NA
Female	Tobacco users	10.3	13.8	NA	10.8	NA
	Smokers	2.6	2.4	NA	1.4	2.3
	Users of smokeless tobacco	8.6	12.0	NA	8.4	NA

The analysis of NFHS-3 data shows that the use of tobacco and smoking are fairly common in India, particularly among males. There are some population subgroups among which smoking in females is fairly common, such as in North-Eastern states.[12] Prevalence of tobacco use is relatively higher in the rural than the urban population. Tobacco use increases with age in India, though it is sizeable even among youth, especially among young males. The data also shows the tobacco use decreases with increase in education levels as well as rise in the wealth status, though more than one-third of males with 12 or more years of schooling or males in the highest wealth quintile use tobacco.

Tobacco use is much higher among both males and females in scheduled tribes compared to other caste groups. There are great many regional and state level variations in tobacco use. The use of tobacco among both females and males in all the states of the North-Eastern part of India is much higher and exceeds the national average. Tobacco use among males in the North-Eastern states ranges from 62 percent in Sikkim to 83 percent in Mizoram. The reported high prevalence of tobacco in the North-Eastern part of India is consistent with the findings of the Global School Personnel Survey in the North-Eastern part of India, 2001[24] and the National Household Survey of Drugs and Alcohol Abuse, 2002.[23] Even the tobacco use rates in the states of the East (Odisha, West Bengal, Jharkhand and Bihar) and Central regions (Uttar Pradesh, Madhya Pradesh and Chhattisgarh) of India are higher than the national average.[12]

School based surveys under the Global Tobacco Surveillance System (GTSS) have provided information on important key indicators such as tobacco use, exposure to second-hand smoke (SHS), cessation and exposure to tobacco advertisement and is helpful in monitoring implementation of tobacco control strategies as envisaged under the COTPA and WHO FCTC[24,25].

1.3 SURVEY OBJECTIVES

The objectives of the GATS India are:

- Measure the impact of tobacco control efforts through implementation of different provisions of COTPA 2003 and its regulations
- Systematically monitor adult tobacco (smoking and smokeless) use and track key tobacco control indicators.

2. METHODOLOGY

The Global Adult Tobacco Survey (GATS) is the global standard for systematically monitoring adult tobacco use (smoking and smokeless) and tracking key tobacco control indicators. GATS India is a nationally representative household survey designed to produce internationally comparable data on tobacco use and other tobacco control indicators using a standardized questionnaire, sampling design, data collection and management procedures. A nationally representative probability sample was used to provide national and regional (North, Central, East, North-East, West and South) estimates of tobacco use and its various dimensions by residence (urban and rural) and gender and state estimates by gender. This chapter describes the methodology, study population, sampling design, questionnaire, data collection and statistical analysis used for the survey.

2.1 STUDY POPULATION

GATS India is a household survey and hence includes only household population. The target population for the survey is defined as all Indian residents, age 15 and above, living in their primary residence prior to the survey date. The institutional population comprising of those living in collective living places like, students' dormitories, hospitals, hotels, prisons, military barracks, etc., is not included in the survey.

The respondents eligible for GATS India were all non-institutionalized persons age 15 and above, who resided in the country and agreed to participate in this survey. The eligibility for the individual interview was based on the age reported in the household interview. However, in the course of individual interview if the eligible respondent was found to be younger than age 15, then he/she was excluded from the survey.

The participation in the survey was purely voluntary. Before starting the interview, the interviewer read out the consent form (statements) and proceeded for the interview only after the respondent consented for the same. In case of minor respondent age 15–17, the interviewer was required to obtain the consent from both, the parent or guardian, of the minor, as the case may be, as well as that of the respondent. Even though, respondent consented for the interview, he/she could withdraw from the study at any time in the course of the interview. Respondent also had a right to refuse to answer any question without providing any reason.

2.2 SAMPLING DESIGN

The GATS India covered all the 29 states (including Delhi) and two Union Territories (UTs) - Chandigarh and Puducherry, covering about 99.92 percent of the total population of India (1028 million according to 2001 Census). For GATS India survey, sampling was done independently in each state/UT and within the state/UT, independently in urban and rural areas (see Appendix A for details).

In urban areas, three-stage sampling was adopted for the selection of households. The primary sampling units (PSUs) were the city wards, secondary sampling units (SSUs) were census enumeration blocks (CEBs) and tertiary sampling units (TSUs) were households. At first stage, the list of all the wards from all cities and towns of the state/UT formed the urban sampling frame from which a required sample of

wards, i.e., primary sampling units (PSUs), was selected using probability proportional to size (PPS) sampling. At second stage, a list of all census enumeration blocks (CEBs) in every selected ward formed the sampling frame from which one CEB was selected by PPS from each selected ward. At third stage, a list of all the residential households in each selected CEB formed the sampling frame from which a sample of required number of households was selected.

In rural areas, two-stage sampling was adopted for the selection of households. The primary sampling units (PSUs) were villages and secondary sampling units (SSUs) were households. All the villages are first stratified into different strata by using geographical regions, and further stratified by village size, proportion of scheduled caste, scheduled tribe population and female literacy. At the first stage, the list of all the villages in a state/UT formed the sampling frame. The required number of villages, i.e. (PSUs), was selected according to the probability proportional to size (PPS) sampling, within each stratum. At the second stage, a list of all the residential households in each selected village formed the sampling frame from which a sample of required number of households was selected.

A household listing operation carried out in each sample area provided the necessary frame for selecting households at the second stage in rural areas and at the third stage in urban areas. The household listing operation involved, preparing up-to-date location and layout sketch maps, assigning a GATS India specific number to each structure, recording addresses of the structures, identifying residential structures, and then listing the names of the head of the households. Listing of all households in large villages with 300 or more households is a huge task and might involve errors due to omission or duplication. Hence all the large villages with 300 or more households are segmented into three or more segments (depending on village size) of almost equal segments each of about 100-200 households. From all the segments in each large village, two segments are selected by using PPS sampling. House listing in the large PSUs is done only in selected two segments. In all such large villages, sampling design became a three-stage design.

The selection of the required number of households was done using systematic sampling. Half of the selected households were randomly assigned to be ‘male’ households where only the males were interviewed, and the other half were assigned to be ‘female’ households where only the females were interviewed. At the last stage, one individual was randomly picked from each selected household by elementary random sampling.

Following the standard guidelines of GATS Sample Design Manual, the initial target sample size for each region was fixed at 8,000 households. At state/UT level, a minimum sample size of 2,000 for larger states (1,000 for each male and female interview) and 1,500 for smaller-size states from North-East region was allocated. The state/UT level sample was further allocated to urban and rural areas of the states/UTs in the proportion of urban/rural population as per 2001 census, within each state/UT. The total target sample size at national level was 70,802 households, including 42,647 in rural areas and 28,155 in urban areas. To take into account possible non-response and ineligibility, the sample size was inflated by 12.5 percent (79,719 households; 39,982 in rural and 39,737 in urban areas). It was decided to draw a sample of average of 30 households from each primary sampling unit (PSU). With an assumption of a sample of 30 per PSU, the number of PSUs to be selected from each state and urban/rural areas of each state was estimated.

2.3 QUESTIONNAIRE

GATS India collected information on various dimensions of tobacco use. The data collected on a variety of indicators is expected to assist monitoring tobacco use prevalence and aid policymakers and programme managers to track and formulate tobacco control strategies.

GATS India used two types of questionnaires: the household questionnaire, and the individual questionnaire. The household and individual questionnaires were based on GATS core questionnaire, which were designed for use in countries implementing GATS. In consultation with the Technical Advisory Committee these questionnaires were adapted and modified to reflect the relevant issues applicable to India's situation. The questionnaire was tested in the field during pretest and based on the pretest experiences the GATS India questionnaire was finalized. The questionnaire was developed in English and later translated into 19 Indian languages (for administration in different states/UTs). The questionnaire was also back translated to check the quality of translation. GATS India Questionnaires are given in Appendix E.

2.3.1 Household questionnaire

The household questionnaire was administered to head of the household or any adult member in the absence of head. The household questionnaire collected information of all usual residents in the sampled household to identify eligible persons from the household. In the households selected for interviewing male respondents, information of only male residents was collected, similarly in the households selected for interviewing female respondents, information of only female residents was collected. For all listed household members, basic information on age and sex was collected. The questionnaire also collected information on current use of smoked and smokeless tobacco. The information on age was used to identify an eligible random respondent for the individual questionnaire.

2.3.2 Individual questionnaire

The Individual questionnaire was administered to the individual, age 15 and above, selected randomly for the interview through handheld machines. The individual questionnaire starts with consent statement and consists of eight sections as listed below:

1. *Background characteristics:* Questions on sex, age, education, occupation, and possession of household items.
2. *Tobacco smoking:* Questions in this section cover patterns of use (daily smoking, less than daily smoking, not at all), former/past smoking, age of initiation of daily smoking, daily/weekly smoking of different tobacco products (cigarettes, bidi, hookah, pipes, cigars and other smoked tobacco), time to the first smoke of a day after waking up and attempts to quit.
3. *Smokeless tobacco:* Questions include patterns of use (daily consumption, less than daily consumption, not at all), former/past use of smokeless tobacco, age of initiation of daily use of smokeless tobacco, consumption of different smokeless tobacco products *(*betel quid with tobacco, *khaini,* gutkha, paan masala and other smokeless tobacco products like, *mishri, gul,*

bajjar, *gudakhu*, etc., and other smokeless chewing tobacco products etc.), time to the first use of smokeless tobacco of a day after waking up, attempts to quit.

4. *Cessation:* Questions related to quit attempts, advice to quit smoking by health care providers, methods used to quit smoking and future plan to quit smoking. Similar information was collected for cessation of smokeless tobacco as well.
5. *Second-hand smoke:* Questions in this section were on whether smoking allowed in the home, exposure to second-hand smoke at home, indoor smoking policy at the workplace, exposure in the last 30 days in the workplace, government buildings/offices, health care facilities, restaurants, and public transportation. The section also included knowledge about serious illness among non-smokers due to second-hand smoke.
6. *Economics:* Questions cover type of tobacco product and quantity bought, cost of tobacco products, brand, and source of last tobacco products purchased.
7. *Media:* Questions on exposure to advertising on television, radio, billboards, posters, newspapers/magazines, cinema, internet, public transportation, public walls, others; exposure to sporting events related to tobacco; exposure to music, theatre; exposure to tobacco promotion activities; reaction to health warning labels on cigarette packages; exposure to anti-tobacco advertising and information. Similar questions were included for smokeless tobacco as well. The reference period for the questions in this section was previous 30 days.
8. *Knowledge, attitudes and perceptions:* Questions regarding knowledge about health effects of both smoking and smokeless tobacco.

Before starting the fieldwork two additional questions, i.e. whether respondent has seen health warning on bidi packages and whether bidi smoker thought of quitting because of health warnings, were added to the questionnaire.

2.4 QUESTIONNAIRE PROGRAMMING AND PREPARATION OF HANDHELD COMPUTERS

GATS was the first survey ever conducted in India that used electronic means of data collection for both, the household and individual, questionnaire at a national level. General Survey System (GSS) software, developed by RTI International, was used for this purpose. GSS software includes a variety of software tools developed to facilitate the design, administration, collection, and management of survey data on handheld computers, specifically a Microsoft Windows-based platform running Windows Mobile 5.0 or Mobile 6.0, often called Pocket PC systems. The software system is designed to support field data collection activities where Field Interviewers collect data using handheld computers. The systems have been developed and tested using Hewlett Packard (HP) iPAQ Pocket PC (Model: iPAQ hx2490c) and subsequently used for data collection. The electronic data collection facilitated the complex skip patterns used in the GATS India questionnaire, as well as some built-in validity checks during the process of data collection.

The programming was mainly supported by RTI International and the WHO. The programming of the questionnaire using Global Surveillance System was carried out in collaboration with IT personnel associated with GATS India. Repeated quality control mechanisms were used to test the quality of questionnaire programming following the GATS Programmer's Guide to General Survey System manual. The main steps involved in quality control checks were: version control/verification for household and

individual questionnaires, date and time verification, verification of skip patterns, and validation checks. The entire process, including questionnaire administration, data collection using handheld machines, and data management and aggregation (preparing a raw data for analysis), was pretested, before the actual survey process.

Handheld programming was finalized and the final questionnaire for data collection was uploaded to handhelds in March-April 2009. The electronic case file (used for identifying the selected household addresses) was finalized in May 2009 and uploaded to handhelds in two phases to facilitate the fieldwork half of the households in the first phase in June 2009 and the remaining in the second phase in August 2009.

2.5 RECRUITMENT, TRAINING AND FIELDWORK

2.5.1 Organizations involved in GATS India

GATS India is the project of the Ministry of Health & Family Welfare (MoHFW), Government of India. International Institute for Population Sciences (IIPS), Mumbai, was designated as the nodal agency for GATS India by MoHFW. In addition to the International Advisory Committee, Technical Advisory Committee (TAC) of Indian experts, constituted by MoHFW provided guidance to GATS India at all stages, and on all the aspects of the project including questionnaire content, tabulation, format of the report and dissemination of the results.

GATS India survey protocols were approved by the Ethics Review Committee, Institutional Review Board (IRB) of IIPS. The committee reviewed the survey protocols and questionnaire, and suggested modifications in the consent form in order to protect the rights of the research subjects.

For GATS India, the data collection work was entrusted to 15 reputed research agencies (RAs) across the country, who worked under the overall guidance and supervision of Ministry of Health and Family Welfare, Government of India, IIPS and WHO. List of research agencies along with the states in which they carried out the survey is attached in Appendix D.

The GATS India report was reviewed by Technical Review Committee, consisting of subject experts from IIPS, CDC, WHO and public health specialists.

2.5.2 Pretest

The pretest of GATS India was conducted in Indore, a city in Madhya Pradesh in May 2008. As GATS India was the first large scale nationwide survey in India, that was to be conducted using handheld machines, it was necessary to make sure that during fieldwork all the steps involved in the data collection operation work out smoothly. Hence it was decided to conduct the pilot survey exactly similar to the main survey but only on smaller scale, so that if necessary the survey plan could be changed or modified suitably. In other words, the scope of pretest was much broader than the usual pretest of questionnaires.

The planning for the pretest started almost two months prior to the pretest. The questionnaire for pretest was translated into Hindi. Question by Question Specification Manual was also translated into Hindi. As Hindi is the language used in 13 out of 31 states/UTs of GATS India, it was decided to carry out pretest in the Hindi speaking state of Madhya Pradesh. The city of Indore was selected as the headquarter for the pretest and for conducting the training programme. In order to gain varied experiences of the fieldwork, three different types of sites, rural, urban slum and urban non-slum, were selected. For pretest 27 field staff was selected. The field staff was given intense classroom training supplemented by practical training through demonstration and mock interviews. In the pretest 166 interviews were completed. Special attempts were made to include respondents of different age, sex and tobacco use status.

The experience of pretest was encouraging and overall helped equip the GATS India team at IIPS for actual implementation of the survey in the field through training of field staff, manual preparations, and modifications in the iPAQ software as necessary.

2.5.3 Manual

For the standardization of survey procedures across the survey areas and to minimize non-sampling errors the following different instruction manuals were prepared.

1. Field Interviewer's Manual: This manual was intended to help investigators in conducting data collection work effectively. The manual was adapted from Global Tobacco Surveillance System (GTSS)[1]-GATS: Field Interviewer Manual. The manual includes general guidelines and tips to conduct interviews and minimize non-response.

2. Question-by-Question Specifications: This manual was intended to help investigators while interviewing the respondent. The manual was adapted from GTSS-GATS: Question-by-Question Specifications. The manual discusses each question included in the questionnaire with regard to its purpose, manner to ask the question and recording the response.

3. Field Supervisor's Manual: This manual was intended to help team supervisors in supervising data collection work. The manual was adapted from GTSS-GATS: Field Supervisor Manual. The manual describes the roles and responsibilities of the Field Supervisor.

4. Mapping and Listing Manual: This manual was intended to guide mapping and listing team to perform the mapping and house-listing operations effectively. The manual was adapted from GTSS-GATS: Mapping and Listing manual. It discusses each step involved in drawing Location and Layout map of each ultimate sampling area and listing all the structures and households.

5. Handheld (iPAQ) Manual: This manual was intended to acquaint all the GATS India office and field staff in using iPAQs. The manual was adapted from GTSS-GATS: Field Interviewer Manual. The manual introduces all the parts and features of an iPAQ, various functions

[1] Details of sample design, core questionnaire, programmers guide, data management implementation plan, quality assurance guidelines, field interviewer manual, field supervisor manual, question by question specifications, mapping and listing manual and sample weights manual are at www.cdc.gov/tobacco/global/gtss/index.htm, www.who.int/tobacco/surveillance/en

programmed into the iPAQ, provides details on how to begin an interview, record the household and individual interviews, and transmission of data into SD card.

6. Data Transfer Protocol: This manual describes in detail each step involved in transferring data from Field Investigator's iPAQ to IIPS. The manual was adapted from GTSS-GATS: Field Interviewer Manual. It was intended to guide all those staff members including field supervisors, data managers and IT personnel.

7. Training Manual: The manual was intended to guide the senior staff of research agencies in conducting training programme for all the staff involved in GATS India. It describes the expected schedule and contents of an ideal training programme.

2.5.4 Training Programme

As GATS India survey was conducted by 15 different research agencies in 29 states and 2 Union Territories, training of field staff was to be conducted at 31 different locations by officials of 15 research agencies. To train these trainers from different research agencies and IIPS personnel involved in GATS India three centralized training workshops were organized by IIPS.

1. Mapping and house-listing: This was intended to equip personnel from regional agencies to conduct training in their state/UT and coordinate and supervise mapping and house-listing operations. The training was of three-day duration and was held from 14-16 May 2009. On the first two days, there were classroom lectures followed by practice session on the third day. The practice sessions involved mapping and house listing in one urban area and one village. GATS India coordinators from IIPS and officials from MoHFW, WHO, CDC, RTI were resource persons for these training programmes.

2. Training of interviewers and supervisors: This was intended to equip personnel from regional agencies to conduct training of interviewers and supervisors in their state/UT and coordinate and supervise the data collection work. The Training of Trainers workshop programme was organized from 21 to 30 June 2009. Three senior persons from each research agency attended the training workshop. During the training programme participants were introduced to GATS India objectives, sampling, mapping, house-listing, interviewing techniques, and different tobacco products used in India, Government of India's tobacco control initiatives including tobacco control legislation in the country. The training programme also included question–by-question discussion of the questionnaire. Public health experts in the field of tobacco control gave additional inputs. The training programme included demonstration interviews, mock interviews, and practice interviews in a nearby village. GATS India coordinators from IIPS and officials from MoHFW, WHO, CDC, RTI were resource persons for these training programs. During the training programme a few special sessions were arranged for IT managers in which they were trained in data transfer and aggregation procedures.

3. Training of IT Managers: A special training programme for IT professional from research agencies was organized during 14-21 March 2009. Two IT persons from each research agency attended the training. The personnel from regional agencies trained at IIPS imparted training to field staff in their respective state/UT. IIPS coordinators and research staff also attended state training programmes for field staff and provided necessary inputs.

2.5.5 Fieldwork

The fieldwork took place from June 2009 to January 2010. The first part of fieldwork related to mapping and listing operations in all the selected PSUs. The mapping and house-listing teams completed mapping and house-listing in all the selected PSUs prior to data collection work. Upon completion of house-listing in the state, listing of households in each sample area was sent to IIPS where IT managers selected a sample of households in each PSU. Under the guidance of IIPS IT managers, a CMS file of selected households prepared by IT managers of the research agencies was loaded in the iPAQ.

Each field team comprised of 2 male interviewers, 2 female interviewers and one supervisor. It was mandatory for field teams to visit each selected PSU for at least two days. For assuring quality data, IIPS assigned one research officer/senior research officer to every state, who supervised the mapping, house listing and data collection work. During fieldwork period IIPS employed 17 research officers, 3 senior research officers and 4 IT experts to provide technical support and quality assurance at all levels of the fieldwork.

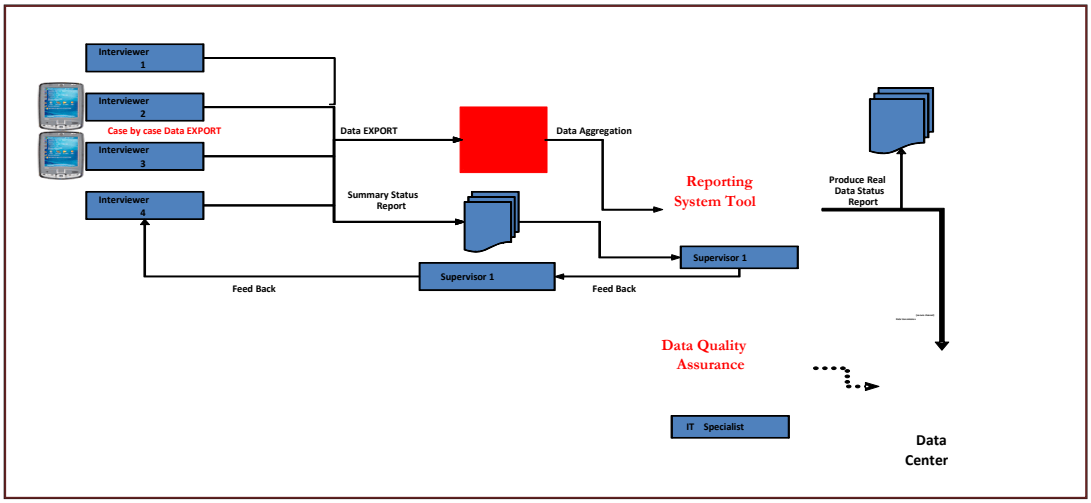
In addition to IIPS research officers, GATS India coordinators also monitored the fieldwork.

After completion of data collection in each PSU, the field supervisors compiled data files and sent the same to State Head Office. State IT managers aggregated the data from different teams and uploaded them on FTP sites. IIPS IT managers downloaded the data files on a regular basis and aggregated the data at state/UT level. Upon receiving data from all the states, a national data file was prepared.

2.6 DATA PROCESSING AND AGGREGATE

Figure 2.1 provides an overview of the data management model used in India for GATS. All the data from interviews were aggregated by field supervisors on a daily basis, using SD cards specially designed with secure data protocols for GATS fieldwork data collection. Each supervisor transferred the data to a laptop and forwarded the supervisory-level aggregated files (four interviewers' data per day) to the central office at fieldwork agency through established secure channels. IT personnel aggregated the data received from all supervisors every other day and sent feedback to the field for clarifications if any. Finally, national level data was aggregated by IT experts at IIPS after receiving the state/regional specific aggregated data files. IT personnel, with the support from CDC, WHO and RTI International, merged and aggregated all the files to a single SDF file. Using an aggregation module in GSS and SPSS version 17, the aggregated data were transposed to an analyzable raw data format that could be read using any statistical software available for further analysis and reporting.

Figure 2.1: Data management implementation design, GATS India, 2009-2010



2.7 STATISTICAL ANALYSIS

For tabulation purposes GATS national data file in SPSS format was used. Data used for the tabulation includes only cases where respondent reported their smoking status and status of smokeless tobacco use and allowed to continue interview till at least first four sections of the individual interview.

To improve representativeness of the sample in terms of the size, distribution and characteristics of the study population was suitably weighted. The weights are derived considering design weight (reciprocal of the probability of selection), household response rate and individual response rate. The post stratification calibration was done for age-sex-residence distribution on survey period in each state/UT. Details of weighting procedure are provided in Appendix 'A' on Sample design.

All the statistical analysis was done using SPSS-17 software.

3. SAMPLE AND POPULATION CHARACTERISTICS

This chapter presents information on sample coverage; household, person-level and overall response rates; distribution of households; and persons by interview completion status. An account of selected background characteristics of sampled households is also outlined in this chapter. The population estimates are based on the projections for India by the Expert Committee on Population Projection.[26]

3.1 SAMPLE COVERAGE, HOUSEHOLD AND PERSON-LEVEL RESPONSE RATES

Table 3.1 shows the unweighted number of households and persons sampled and the status of interview completion by place of residence. The distribution of the total sampled households (79,690) was 47,959 rural and 31,731 urban. Of the total sampled households, the interview was completed in all respects in 76,069 of them, leading to an overall household response rate of 96.8 percent. A total of 46,141 rural and 29,928 urban households successfully completed their interviews, giving a rural and urban response rate of 97.4 percent and 96.0 percent respectively.

The total number of persons interviewed was 69,296 which represents 94.8 percent of the total 79,690 persons sampled. The figures for the number of persons with completed interviews were 41,825 in rural and 27,471 in urban areas, thus covering 94.4 percent and 95.5 percent of the sampled 47,959 and 31,731 persons by rural and urban residence, respectively.

The overall response rate calculated as the product of the response rates at the household and person-level was 91.8 percent. By residence category, the overall response rates were 91.9 percent in rural and 91.6 percent in urban areas.

Table 3.2 provides the unweighted number of households, interview completion status and household response rates by region and state/UT in India. For all the six regions the household response rate is above 93.0 percent; it is highest in the South (97.9%) followed by the North-East (97.5%), North and Central (97.1% for both), and East (96.7%), and lowest in the West (93.6%). Variations in the household response rates across states/UTs ranged from the highest response rate in Tamil Nadu (99.6%) to the lowest rate in Maharashtra (92.0%). The main reasons for non-completion of household interviews were ‘not at home’ and ‘unoccupied’ (corresponding figures being 2% and 1.1% respectively of the total selected households).

Table 3.1: Distribution of selected households and persons by interview completion status and response rates, classified by residence (unweighted), GATS India, 2009-2010

	Residence		
	Rural	Urban	Total
Selected household interview			
Completed (HC)	46,141	29,928	76,069
Incomplete (HIC)	91	73	164
Not eligible (HNE)	142	92	234
Refused (HR)	123	304	427
Unoccupied (HU)	479	445	924
Address not a dwelling (HAD)	84	100	184
Other[1] (HO)	899	789	1,688
Number of sample households	47,959	31,731	79,690
Household response rate[3] (HRR)	97.4	96.0	96.8
Selected person interview			
Completed (IC)	41,825	27,471	69,296
Incomplete (II)	1,174	507	1,681
Not eligible (INE)	3,646	2,956	6,602
Refused (IR)	95	90	185
Incapacitated (IIC)	174	84	258
Other[2] (IO)	1,045	623	1,668
Number of sampled persons	47,959	31,731	79,690
Person-level response rate[4] (PRR)	94.4	95.5	94.8
Total response rate[5] (TRR)	91.9	91.6	91.8

Note [1] This category also includes households with nobody at home.

[2] This category also includes selected persons who were not at home.

[3] Household response rate (HRR):

$$\frac{[HC]}{[HC]+[HIC]+[HR]+[HO]} * 100$$

[4] Person-level response rate (PRR):

$$\frac{[IC]}{[IC]+[II]+[IR]+[IIC]+[IO]} * 100$$

[5] Total response rate (TRR): (HRR*PRR)/100.

Table 3.3 shows the distribution of selected persons by interview completion status and person-level and total response rates by regions and states/UTs in India. The person-level response rate is the highest in South region (97.0%) and lowest in North-East (93.0%). Invariably in regions and states/UTs total response rates are lower than the household response rates. The total response rate is also highest in the South (94.9%). In the West region the total response rate was the lowest (88.7%). There is considerable variation in person-level and total response rate between states/UTs. The highest person-level response rate was reported in Mizoram (99.8%) and the lowest response rate in Arunachal Pradesh (81.9%). The total response rate ranged from the highest of 99.2 percent in Tamil Nadu to the lowest of 80.1 percent in Arunachal Pradesh. In all, 8 percent of the sampled respondents were found to be ineligible for the survey. Incomplete interviews and other reasons including 'not at home' each constituted 1.1 percent of the total non-response. There were negligible instances of 'refusal' and 'incapacitated' being the reasons for person-level non-response for most states.

Table 3.2: Distribution of households by interview completion status and response rates, according to regions and states/UTs (unweighted), GATS India, 2009-2010

Regions and states/UTs	Completed (HC)	Incomplete (HIC)	Not eligible(HNE)	Refused (HR)	Unoccupied (HU)	Address not a Dwelling (HAD)	Other[1] (HO)	Total Household Selected	Household Response Rate[2](HRR)
India	76,069	164	234	427	924	184	1,688	79,690	96.8
North	15,533	14	33	79	170	8	341	16,178	97.1
Jammu & Kashmir	2,085	11	26	10	15	6	20	2,173	96.9
Himachal Pradesh	2,294	1	0	5	18	0	68	2,386	96.9
Punjab	2,462	0	6	14	18	2	38	2,540	97.7
Chandigarh	2,210	0	0	4	36	0	21	2,271	98.9
Uttarakhand	2,199	0	1	0	34	0	80	2,314	96.5
Haryana	2,198	2	0	2	12	0	32	2,246	98.4
Delhi	2,085	0	0	44	37	0	82	2,248	94.3
Central	11,072	19	31	39	117	25	237	11,540	97.1
Rajasthan	2,191	1	6	1	10	9	25	2,243	98.5
Uttar Pradesh	4,522	4	4	14	44	1	81	4,670	97.8
Chhattisgarh	2,270	2	8	4	15	3	68	2,370	96.5
Madhya Pradesh	2,089	12	13	20	48	12	63	2,257	95.1
East	10,569	25	30	84	67	12	220	11,007	96.7
West Bengal	3,511	7	15	55	34	5	39	3,666	96.8
Jharkhand	2,266	0	2	13	13	2	75	2,371	96.2
Odisha	2,174	17	7	2	5	4	52	2,261	96.5
Bihar	2,618	1	6	14	15	1	54	2,709	97.2
North-East	16,959	53	117	94	187	33	163	17,606	97.5
Sikkim	1,643	3	3	6	24	1	25	1,705	97.8
Arunachal Pradesh	1,660	7	7	18	25	7	6	1,730	97.8
Nagaland	1,589	4	6	21	56	10	33	1,719	96.1
Manipur	1,585	18	6	9	33	0	11	1,662	97.3
Mizoram	1,659	0	5	2	12	6	9	1,693	99.0
Tripura	1,614	2	23	0	15	3	3	1,660	98.3
Meghalaya	1,591	12	51	36	20	5	25	1,740	92.8
Assam	5,618	7	16	2	2	1	51	5,697	98.7
West	10,011	31	11	107	157	93	531	10,941	93.6
Gujarat	2,873	1	6	1	42	2	77	3,002	97.1
Maharashtra	5,207	24	2	83	72	51	342	5,781	92.0
Goa	1,931	6	3	23	43	40	112	2,158	93.1
South	11,925	22	12	24	226	13	196	12,418	97.9
Andhra Pradesh	2,847	2	0	2	29	1	35	2,916	98.7
Karnataka	2,111	6	7	11	80	3	82	2,300	95.2
Kerala	2,173	2	4	7	90	0	23	2,299	98.4
Tamil Nadu	2,650	8	0	2	6	2	2	2,670	99.6
Puducherry	2,144	4	1	2	21	7	54	2,233	97.2

Note: [1] This category also includes households with nobody at home.

[2] Household response rate (HRR):

$$\frac{[HC]}{[HC] + [HIC] + [HR] + [HO]} * 100$$

Table 3.3 Distribution of selected persons by interview completion status and response rates, according to regions and states/UTs (unweighted), GATS India, 2009-2010

Region and state/UT	Completed(IC)	Incomplete (II)	Not eligible (INE)	Refused (IR)	Incapacitated (IIC)	Other[1] (IR)	Number of sample persons	Person-level response rate[2] (IRR)	Total response rate[3] (TRR)
India	69,296	1,681	6,602	185	258	1,668	79,690	94.8	91.8
North	14,050	289	1,312	48	51	428	16,178	94.5	91.8
Jammu & Kashmir	1,723	100	118	27	10	195	2,173	83.8	81.2
Himachal Pradesh	2,076	51	227	3	13	16	2,386	96.2	93.2
Punjab	2,286	53	144	3	5	49	2,540	95.4	93.2
Chandigarh	2,072	5	179	1	5	9	2,271	99.0	97.9
Uttarakhand	1,950	2	301	0	8	53	2,314	96.9	93.4
Haryana	2,045	74	94	1	9	23	2,246	95.0	93.5
Delhi	1,898	4	249	13	1	83	2,248	95.0	89.5
Central	10,061	131	910	25	38	375	11,540	94.7	91.9
Rajasthan	2,046	32	122	0	1	42	2,243	96.5	95.0
Uttar Pradesh	4,141	11	371	16	20	111	4,670	96.3	94.2
Chhattisgarh	2,064	16	188	3	5	94	2,370	94.6	91.3
Madhya Pradesh	1,810	72	229	6	12	128	2,257	89.3	84.9
East	9,725	207	876	11	32	156	11,007	96.0	92.8
West Bengal	3,183	170	224	4	11	74	3,666	92.5	89.5
Jharkhand	2,061	2	240	4	7	57	2,371	96.7	93.0
Odisha	2,089	17	140	0	8	7	2,261	98.5	95.1
Bihar	2,392	18	272	3	6	18	2,709	98.2	95.4
North-East	15,259	806	1,206	65	63	207	17,606	93.0	90.8
Sikkim	1,490	90	96	7	5	17	1,705	92.6	90.6
Arunachal Pradesh	1,316	275	124	9	3	3	1,730	81.9	80.1
Nagaland	1,396	40	208	8	4	63	1,719	92.4	88.8
Manipur	1,419	44	163	0	5	31	1,662	94.7	92.1
Mizoram	1,573	1	116	2	1	0	1,693	99.8	98.8
Tripura	1,430	80	105	2	5	38	1,660	92.0	90.4
Meghalaya	1,417	35	212	36	12	28	1,740	92.7	86.0
Assam	5,218	241	182	1	28	27	5,697	94.6	93.4
West	9,103	174	1,327	23	40	274	10,941	94.7	88.7
Gujarat	2,670	29	230	0	6	67	3,002	96.3	93.6
Maharashtra	4,667	131	776	18	25	164	5,781	93.3	85.8
Goa	1,766	14	321	5	9	43	2,158	96.1	89.5
South	11,098	74	971	13	34	228	12,418	97.0	94.9
Andhra Pradesh	2,747	13	147	1	4	4	2,916	99.2	97.9
Karnataka	1,881	39	276	6	2	96	2,300	92.9	88.5
Kerala	1,825	4	321	5	23	121	2,299	92.3	90.8
Tamil Nadu	2,584	3	78	1	2	2	2,670	99.7	99.2
Puducherry	2,061	15	149	0	3	5	2,233	98.9	96.2

Note: [1] This category also includes selected persons who were not at home.

[2] Person-level response rate (PRR):

$$\frac{[IC]}{[IC] + [II] + [IR] + [IIC] + [IO]} * 100$$

[3] Total response rate(TRR) : (HRR*PRR)/100

3.2 CHARACTERISTICS OF SAMPLED RESPONDENTS

Table 3.4 presents the unweighted count of sampled respondents and population estimates classified by select socio-demographic and occupational background. The unweighted sample count of persons responded was 69,296. The estimated population of persons age 15 and above in India in 2009 was 795.5 million. For the same year, the estimated populations for the age groups of 15–24, 25–44, 45–64 and 65 and above were 234.6, 334.4, 172.6 and 53.8 million respectively, which constituted 30 percent, 42 percent, 22 percent and 7 percent respectively of the estimated population age 15 and above. The estimated population compositions by sex were 411.1 million males and 384.3 million females, with more male weighted number of respondents (52%). Of the estimated *de facto* population age 15 and above of 795.5 million, 71 percent are in rural areas. A larger section of the population (31%) has no formal schooling and only 12 percent have reported their educational attainment to be 'below primary'. A total of 29 percent of the population reported educational attainment to be 'primary but less than secondary' and 28 percent have reported the same to be 'secondary and above'.

Table 3.4: Unweighted sample counts and weighted population estimates according to selected background characteristics, GATS India, 2009-2010

Background characteristic	Unweighted number	Weighted population estimates	
		Number	Percentage
Overall	69,296	795,533,825	100
Age			
15- 24	13,463	234,688,656	29.5
25- 44	35,020	334,397,810	42.0
45- 64	16,123	172,636,198	21.7
65+	4,690	53,811,160	6.8
Gender			
Male	33,767	411,149,499	51.7
Female	35,529	384,384,326	48.3
Residence			
Rural	41,825	562,982,509	70.8
Urban	27,471	232,551,316	29.2
Education level			
No formal schooling	18,805	245,940,595	30.9
Less than primary	7,992	97,039,222	12.2
Primary but less than secondary	19,547	229,495,677	28.8
Secondary and above	22,812	220,632,584	27.7
Missing	140	2,425,747	0.3
Occupation			
Government and non-government employee	15,928	192,200,743	24.2
Self-employed	19,629	227,635,161	28.6
Student	5,819	88,875,130	11.2
Homemaker	23,858	242,848,124	30.5
Retired or unemployed	3,932	43,244,551	5.4
Missing	130	730,117	0.1

The distribution by occupation of the estimated *de facto* population age 15 and above shows that the majority are homemakers (31%) followed by 29 percent who were self-employed, 24 percent who were employees, 11 percent students and retired or unemployed constituting 5 percent of the population.

3.3 STATES AND REGIONAL POPULATION DISTRIBUTION

Table 3.5 shows the distribution of unweighted count of respondents and weighted population estimates classified by region and state/UT of India. The share of the estimated population age 15 years and above is highest in the Central region (33%), followed by the South (23%), East (21%), West (15%), North (5%) and North-East (4%). The largest proportion of estimated population is in Uttar Pradesh (16%) and 14 states and Union Territories having less than 1 percent of India's population each. Of these seven are in the North-East, five in the North, and one each in the West and South.

Table 3.5: Unweighted sample counts and weighted population estimates according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Unweighted number	Weighted Population Estimates	
		Number	Percentage
India	69,296	795,533,825	100.0
North	14,050	41,267,755	5.2
Jammu & Kashmir	1,723	8,008,791	1.0
Himachal Pradesh	2,076	4,811,552	0.6
Punjab	2,286	19,676,825	2.5
Chandigarh	2,072	975,383	0.1
Uttarakhand	1,950	4,874,230	0.6
Haryana	2,045	1,685,957	0.2
Delhi	1,898	1,235,017	0.2
Central	10,061	258,912,982	32.5
Rajasthan	2,046	42,045,590	5.3
Uttar Pradesh	4,141	125,081,975	15.7
Chhattisgarh	2,064	45,930,500	5.8
Madhya Pradesh	1,810	45,854,917	5.8
East	9,725	167,926,114	21.1
West Bengal	3,183	62,926,187	7.9
Jharkhand	2,061	19,405,692	2.4
Odisha	2,089	27,929,035	3.5
Bihar	2,392	57,665,200	7.2
North-East	15,259	28,666,647	3.6
Sikkim	1,490	415,334	0.1
Arunachal Pradesh	1,316	811,770	0.1
Nagaland	1,396	1,325,886	0.2
Manipur	1,419	1,593,813	0.2
Mizoram	1,573	640,961	0.1
Tripura	1,430	2,486,278	0.3
Meghalaya	1,417	1,531,227	0.2
Assam	5,218	19,861,378	2.5
West	9,103	118,432,532	14.9
Gujarat	2,670	40,151,002	5.0
Maharashtra	4,667	77,037,269	9.7
Goa	1,766	1,244,261	0.2
South	11,098	975,861,622	22.7
Andhra Pradesh	2,747	60,865,061	7.7
Karnataka	1,881	41,958,016	5.3
Kerala	1,825	25,853,733	3.2
Tamil Nadu	2,584	50,657,517	6.4
Puducherry	2,061	993,469	0.1

4. TOBACCO USE

National estimates of tobacco use in the general population are essential for monitoring the tobacco epidemic in the country and provide the evidence base for developing policies for effective implementation of a comprehensive tobacco control programme. As the provisions of the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, Distribution) Act, 2003 (COTPA) cover all tobacco products, it is necessary to have reliable estimates of both smoking and smokeless tobacco use in the country.

Both smoking and smokeless tobacco use is prevalent in India. Smoking tobacco products include bidis, manufactured and hand-rolled cigarettes, pipes, cigars, hookah, water pipes and other locally produced smoking tobacco products, e.g. *chuttas*, *dhumti* and chillum, etc. Smokeless tobacco is used either by chewing or applying to the teeth and gums, or sniffing. Smokeless tobacco products used in India include chewing tobacco products, such as, betel quid with tobacco, *khaini*, gutkha, paan masala, and other such products like *mishri*, mawa, *gul*, *bajjar*, *gudakhu*, snuff, etc.

This chapter presents the prevalence of tobacco use in India and its varied dimensions including use of different tobacco products, frequency of use, age at the time of initiation, prevalence of quitting tobacco use, timing of the first tobacco use of the day and the like.

4.1 TOBACCO USE

4.1.1 Prevalence of tobacco use

Table 4.1 presents the percent distribution of adults classified by tobacco use status. Tobacco use is studied first by dividing the adult population into two groups—current users of tobacco and current non-users of tobacco. Current users are defined as users of tobacco who use tobacco either daily or occasionally. Current users are divided into current daily tobacco users and current occasional tobacco users. Current occasional tobacco users are further classified as current occasional tobacco users but former daily tobacco users and current as well as former occasional tobacco users. Current non-users of tobacco are first divided as current non-users but former daily tobacco users and never daily users, who are further divided as current non-users but former occasional tobacco users and never users of tobacco.

More than one-third (35%) of adults in India use tobacco in some form: smoking, chewing, application to the teeth and gums or sniffing. About 29 percent of adults use tobacco on a daily basis whereas a little more than 5 percent use it occasionally. In other words, 84 percent of tobacco users use tobacco every day. A small proportion (2%) of adults who were formerly daily users have since stopped using tobacco on a daily basis and use it only occasionally, whereas an additional 2 percent of adults who were formerly daily users have since stopped using tobacco completely. Of all adults, 62 percent have never used any tobacco product in their lifetime. The prevalence of tobacco use among males is 48 percent as compared with 20 percent among females. About two in five adults from rural areas and one in four from urban areas use tobacco in some form or the other. Among male and female tobacco users as well as tobacco users from urban and rural areas, 82-85 percent of tobacco users are daily users. A little less than half of

all males and 78 percent of all females have never used tobacco at all. The proportion of adults who never used tobacco is much higher in urban areas (72%) than rural areas (58%).

Table 4.1: Percentage of adults age 15 and above by detailed status of tobacco use, according to gender and residence, GATS India, 2009-2010

Status of tobacco use	Overall	Gender		Residence	
		Male	Female	Urban	Rural
Current tobacco user	34.6	47.9	20.3	25.3	38.4
Daily user	29.1	40.8	16.7	21.1	32.5
Occasional user	5.4	7.1	3.5	4.2	5.9
Occasional user, former daily	1.8	2.2	1.3	1.6	1.9
Occasional user, never daily	3.6	4.9	2.2	2.6	4.0
Current non-user	65.4	52.2	79.7	74.7	61.6
Former daily user	1.7	2.3	1.1	1.5	1.8
Never daily user	63.7	49.9	78.6	73.2	59.8
Former occasional user	1.3	1.7	1.0	1.1	1.4
Never user	62.4	48.2	77.6	72.1	58.4

4.1.2 Number of tobacco users

Table 4.2 presents estimated number of users of any type of tobacco classified by residence and gender. Currently there are 274.9 million tobacco users, age 15 and above, in India. Among them, 197.0 million are males and 77.9 million are females; and 216.0 million tobacco users from rural areas and 58.8 million from urban areas. GATS India estimates the number of daily tobacco users to be 231.9 million (167.7 million males and 64.2 million females). The number of adult daily tobacco users in India is almost equal to the population of Indonesia, which is the fourth most-populated country in the world. In addition to these 231.9 million daily tobacco users, there are 43.0 million tobacco users who use tobacco occasionally.

Table 4.2 : Number of adults age 15 and above by detailed status of tobacco use, according to gender and residence, GATS India, 2009-2010

Status of tobacco use	Overall	Gender		Residence	
		Male	Female	Urban	Rural
	Numbers in thousand				
Overall	795,534	411,150	384,384	232,551	562,983
Current tobacco user	274,887	196,976	77,911	58,839	216,048
Daily user	231,871	167,691	64,181	49,043	182,828
Occasional user	43,015	29,285	13,730	9,796	33,220
Occasional user, former daily	14,226	9,050	5,176	3,803	10,423
Occasional user, never daily	28,789	20,235	8,555	5,993	22,796
Current non-user	520,647	214,174	306,473	173,712	346,935
Former daily user	13,707	9,327	4,381	3,387	10,320
Never daily user	506,940	204,847	302,093	170,325	336,615
Former occasional user	10,540	6,867	3,673	2,634	7,906
Never user	496,400	197,980	298,420	167,691	328,709

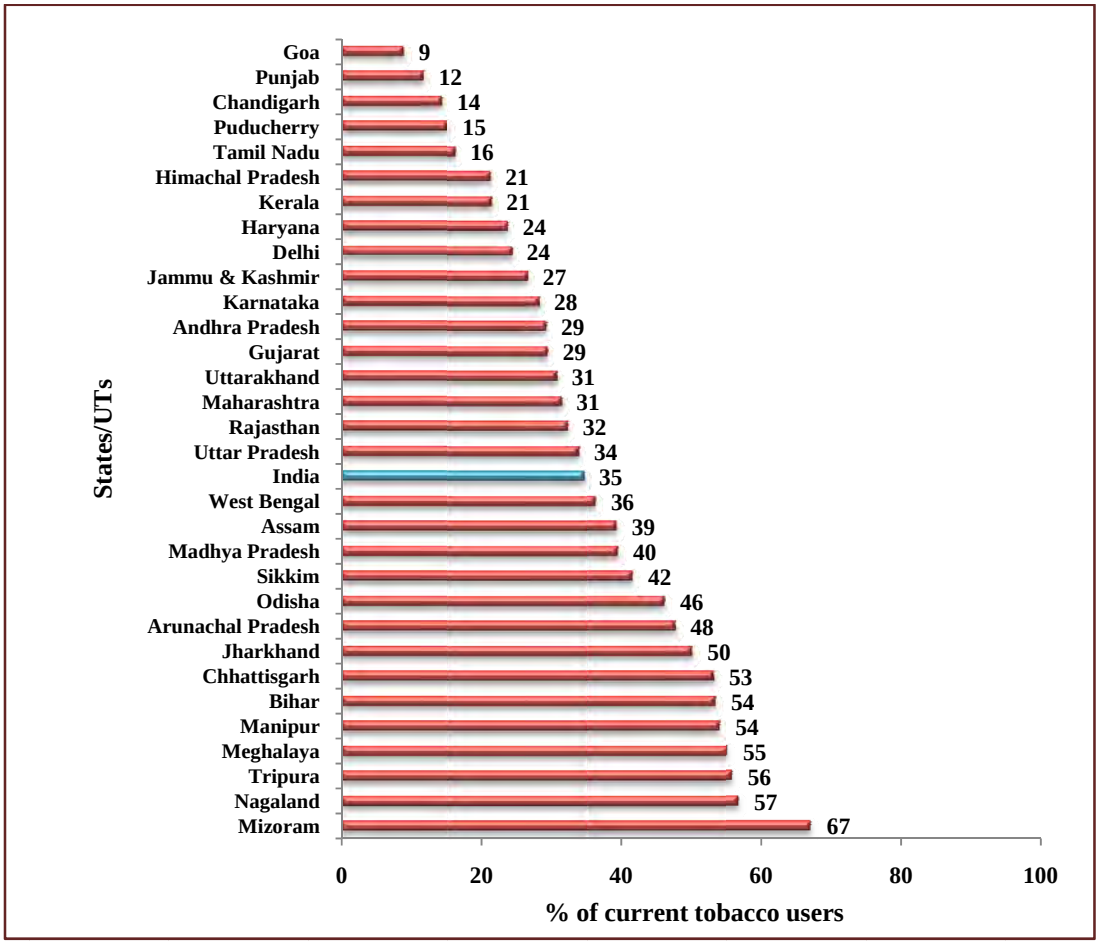
Among the total adult population of 795.5 million, 520.6 million adults currently do not use tobacco in any form. However, 24.2 million of these current non-users of tobacco had used tobacco, either daily or

occasionally, in the past. In other words, 299.1 million adult Indians have used tobacco, and 496.4 million have never used tobacco in their lifetime.

4.1.3 Prevalence of tobacco use by region and state/UT

The regional and state/UT level differentials in the prevalence of tobacco use for all adults and separately for males and females are presented in Tables 4.3, 4.4 and 4.5, respectively and in Figure 4.1 and Map 4.1. There is a large variation in the prevalence of tobacco use all across different regions and states/UTs. The highest prevalence of tobacco use is reported in the East (45%), and North-East (44%) and the lowest prevalence is reported in the North (19%). In every region most of the tobacco users (75%-88%) are daily users of tobacco. Among all the states/UTs, the highest prevalence of tobacco use is reported in Mizoram (67%) and the lowest in Goa (9%). Other states where majority of adults use tobacco are Nagaland (57%), Tripura (56%), Meghalaya (55%), Manipur and Bihar (54% each), Chhattisgarh (53%) and Jharkhand (50%). Apart from the above mentioned states, tobacco use is higher than the national average in the states of Arunachal Pradesh, Odisha, Sikkim, Madhya Pradesh, Assam and West Bengal. Most tobacco users in all the states are daily users, which is similar to those at the regional level.

Figure 4.1 Percentage of current tobacco users according to states/UTs, GATS India, 2009-2010



Map 4.1 Percentage of current tobacco users in India and its states/UTs, GATS India, 2009-2010

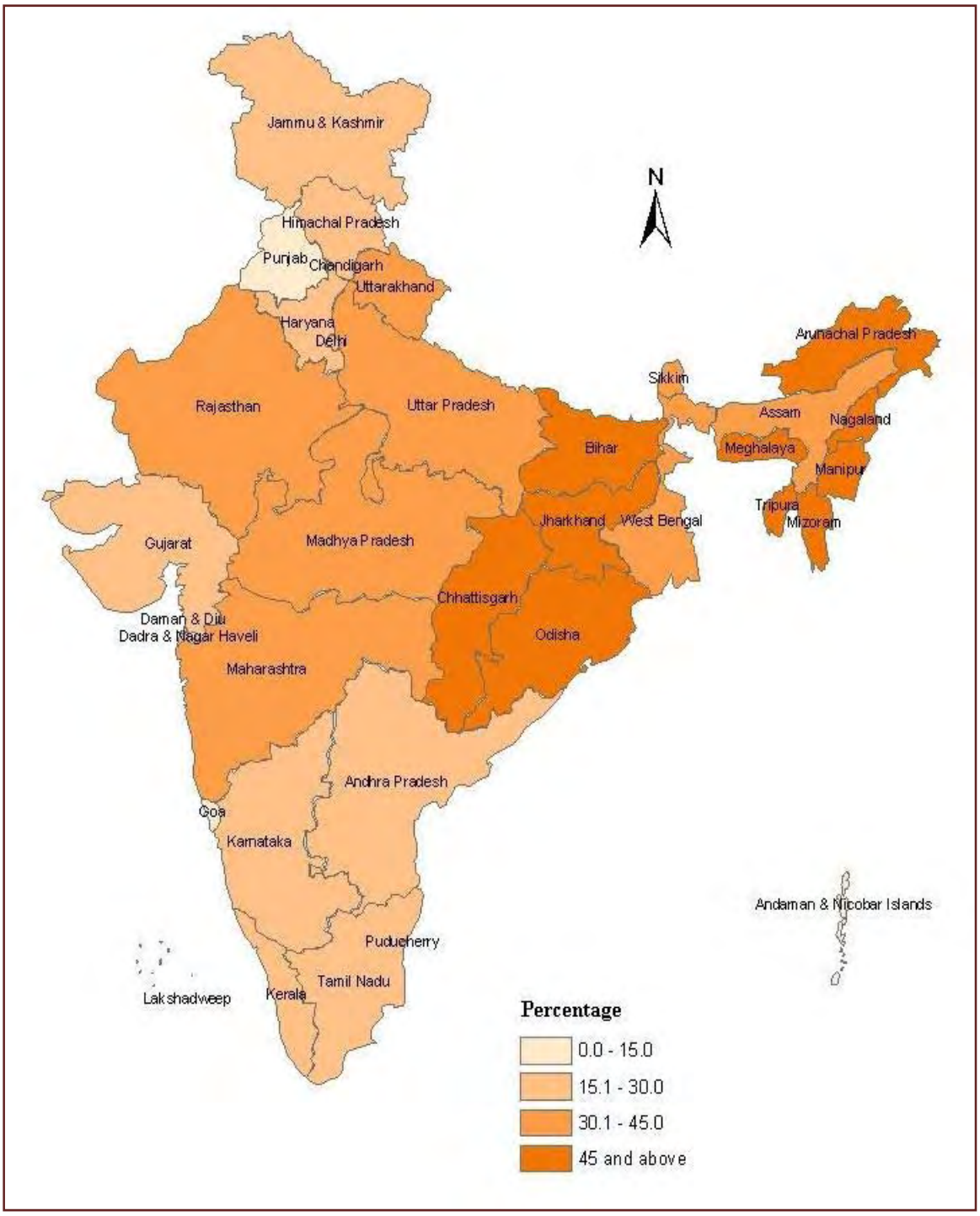


Table 4.3: Percentage of adults age 15 and above by detailed status of tobacco use, according to regions and states/UTs, GATS India, 2009-2010

Region and state /UT	Current tobacco user					Current non-user				
	Current tobacco user	Daily user	Occas-ional user	Occas-ional user, former daily	Occas-ional user, never daily	Current non-user	Former daily user	Never daily user	Former occas-ional user	Never user
India	34.6	29.1	5.4	1.8	3.6	65.4	1.7	63.7	1.3	62.4
North	18.9	16.5	2.4	0.6	1.8	81.1	1.4	79.8	1.0	78.8
Jammu & Kashmir	26.6	23.4	3.2	1.1	2.1	73.4	2.3	71.1	1.3	69.8
Himachal Pradesh	21.2	18.1	3.1	0.8	2.3	78.8	3.5	75.4	1.9	73.4
Punjab	11.7	9.7	1.9	0.4	1.5	88.3	0.4	88.0	0.6	87.4
Chandigarh	14.3	11.9	2.4	0.7	1.7	85.7	0.2	85.5	0.4	85.1
Uttarakhand	30.7	28.1	2.6	0.6	2.0	69.3	2.4	66.9	1.5	65.4
Haryana	23.7	22.1	1.6	0.2	1.4	76.3	1.0	75.3	0.5	74.8
Delhi	24.3	23.6	0.8	0.1	0.7	75.7	0.8	74.9	0.2	74.7
Central	38.1	32.8	5.3	1.5	3.8	61.9	1.8	60.1	1.1	59.0
Rajasthan	32.3	28.4	3.9	1.5	2.4	67.7	2.3	65.3	0.9	64.4
Uttar Pradesh	33.9	29.8	4.2	1.0	3.1	66.1	1.6	64.4	0.9	63.6
Chhattisgarh	53.2	44.8	8.4	1.9	6.5	46.8	1.7	45.1	1.3	43.9
Madhya Pradesh	39.5	33.0	6.5	2.3	4.2	60.5	1.9	58.6	1.9	56.8
East	45.4	37.6	7.8	2.0	5.9	54.6	1.8	52.8	2.1	50.7
West Bengal	36.3	30.4	5.9	2.0	3.9	63.7	0.6	63.1	0.8	62.4
Jharkhand	50.1	41.8	8.2	1.4	6.8	49.9	2.6	47.4	3.7	43.7
Odisha	46.2	42.1	4.0	1.1	2.9	53.8	0.5	53.4	0.6	52.7
Bihar	53.5	41.8	11.7	2.5	9.1	46.5	3.4	43.1	3.8	39.3
North-East	44.1	33.2	10.9	2.4	8.5	55.9	0.9	54.9	1.3	53.6
Sikkim	41.6	27.7	13.9	4.0	9.9	58.4	1.4	57.0	1.9	55.1
Arunachal Pradesh	47.7	35.0	12.7	3.2	9.5	52.3	0.5	51.8	2.2	49.6
Nagaland	56.8	44.2	12.6	0.9	11.7	43.2	2.0	41.2	2.8	38.4
Manipur	54.1	32.6	21.5	5.8	15.7	45.9	1.2	44.7	2.7	42.0
Mizoram	67.2	61.7	5.5	1.4	4.1	32.8	1.4	31.5	0.7	30.7
Tripura	55.9	46.3	9.6	2.7	6.9	44.1	2.2	41.9	1.4	40.5
Meghalaya	55.2	45.0	10.2	2.5	7.7	44.8	1.7	43.1	1.2	41.9
Assam	39.3	29.1	10.2	2.2	8.0	60.7	0.6	60.0	1.1	58.9
West	30.5	26.8	3.7	1.4	2.3	69.5	1.6	67.9	1.1	66.8
Gujarat	29.4	24.0	5.4	1.7	3.7	70.6	2.5	68.1	2.0	66.1
Maharashtra	31.4	28.6	2.9	1.2	1.6	68.6	1.1	67.5	0.6	66.9
Goa	8.8	7.8	1.0	0.3	0.8	91.2	1.6	89.5	1.0	88.5
South	24.1	19.8	4.3	2.5	1.8	75.9	1.9	74.0	1.1	72.9
Andhra Pradesh	29.2	24.0	5.2	3.5	1.8	70.8	1.9	68.9	1.3	67.6
Karnataka	28.2	25.0	3.1	2.5	0.6	71.8	1.1	70.7	0.8	70.0
Kerala	21.4	15.1	6.3	2.4	3.9	78.6	4.7	73.8	2.6	71.2
Tamil Nadu	16.2	13.1	3.0	1.4	1.6	83.8	1.0	82.8	0.4	82.4
Puducherry	15.1	12.4	2.7	1.0	1.7	84.9	1.3	83.5	0.7	82.9

Similar to the regional variation in prevalence of tobacco use among adults, the prevalence of tobacco use among males and females is the highest in Eastern region (59% for males and 31% among females) and lowest in the Northern region of the country (32% for males and 4% for females). The state level variation among males ranges from 73 percent in Mizoram and Meghalaya to 13 percent in Goa. Tobacco use among males in Meghalaya, Mizoram, Nagaland, Manipur, Bihar, Arunachal Pradesh, Chhattisgarh, Jharkhand, Tripura, Madhya Pradesh, Odisha, Assam, West Bengal, Rajasthan, Uttar Pradesh and Sikkim exceeds the national average. The prevalence of tobacco use among females also varies widely across the states/UTs. The highest prevalence of tobacco among females is reported in Mizoram, where 62 percent of females use tobacco, in contrast to less than 1 percent tobacco use in Punjab. Similarly, in Chandigarh, Delhi, Himachal Pradesh and Goa less than 5 percent of adult females use tobacco in any form.

Table 4.4: Percentage of males age 15 and above by detailed status of tobacco use, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current tobacco user					Current non-user				
	Current tobacco user	Daily user	Occas-ional user	Occas-ional user, former daily	Occas-ional user, never daily	Current non-user	Former daily user	Never daily user	Former occas-ional user	Never user
India	47.9	40.8	7.1	2.2	4.9	52.1	2.3	49.8	1.7	48.2
North	31.7	27.8	3.9	1.0	2.9	68.3	2.0	66.3	1.5	64.7
Jammu & Kashmir	41.6	37.0	4.6	1.7	2.9	58.4	3.2	55.2	1.8	53.5
Himachal Pradesh	38.5	32.5	6.0	1.5	4.6	61.5	5.9	55.6	2.8	52.8
Punjab	21.6	18.1	3.5	0.8	2.8	78.4	0.5	77.9	1.1	76.8
Chandigarh	23.7	19.8	4.0	1.0	3.0	76.3	0.4	75.9	0.7	75.2
Uttarakhand	43.9	40.2	3.7	0.8	2.9	56.1	3.0	53.0	2.2	50.8
Haryana	39.6	36.9	2.7	0.4	2.3	60.4	1.7	58.7	0.8	57.9
Delhi	40.9	39.5	1.3	0.3	1.1	59.1	0.6	58.5	0.3	58.3
Central	53.4	45.7	7.7	2.1	5.6	46.6	2.5	44.1	1.6	42.5
Rajasthan	50.5	44.8	5.7	1.8	4.0	49.5	3.9	45.6	1.2	44.4
Uttar Pradesh	48.8	43.2	5.6	1.5	4.1	51.2	2.0	49.3	1.0	48.2
Chhattisgarh	63.9	50.4	13.5	2.7	10.8	36.1	2.1	34.0	2.0	32.0
Madhya Pradesh	58.5	49.0	9.5	3.5	6.0	41.5	3.1	38.4	3.0	35.4
East	59.0	50.1	9.0	2.1	6.9	41.0	1.1	39.8	1.6	38.3
West Bengal	52.3	43.5	8.9	3.1	5.8	47.7	0.8	46.9	1.4	45.5
Jharkhand	63.6	55.9	7.8	1.1	6.6	36.4	1.9	34.5	1.3	33.2
Odisha	56.1	49.5	6.6	1.6	5.0	43.9	0.6	43.3	1.1	42.1
Bihar	66.2	55.7	10.6	1.5	9.0	33.8	1.5	32.3	2.1	30.2
North-East	56.9	45.6	11.3	2.5	8.8	43.1	1.4	41.8	1.6	40.1
Sikkim	48.7	35.5	13.2	3.6	9.6	51.3	1.8	49.5	2.5	47.0
Arunachal Pradesh	64.0	52.1	12.0	5.5	6.5	36.0	0.6	35.4	1.5	33.9
Nagaland	69.2	56.9	12.3	1.4	10.9	30.8	2.1	28.7	2.1	26.6
Manipur	66.6	40.3	26.3	7.9	18.4	33.4	1.6	31.8	1.6	30.2
Mizoram	72.5	68.7	3.9	1.8	2.1	27.5	2.1	25.3	1.2	24.1
Tripura	63.4	50.3	13.1	4.3	8.9	36.6	3.7	33.0	1.6	31.4
Meghalaya	73.2	62.7	10.5	2.9	7.6	26.8	2.6	24.1	0.9	23.2
Assam	52.6	42.6	10.0	1.8	8.2	47.4	0.9	46.5	1.6	44.8
West	43.4	38.3	5.1	1.7	3.5	56.6	2.4	54.2	1.6	52.6
Gujarat	46.2	39.1	7.1	2.1	5.0	53.8	4.1	49.8	2.8	47.0
Maharashtra	42.5	38.3	4.2	1.5	2.7	57.5	1.6	56.0	1.0	55.0
Goa	13.1	12.0	1.1	0.4	0.7	86.9	2.6	84.3	1.4	82.9
South	34.6	28.6	6.1	3.1	2.9	65.4	3.1	62.2	2.0	60.2
Andhra Pradesh	39.7	33.6	6.0	3.0	3.0	60.3	3.3	57.0	2.5	54.5
Karnataka	39.8	36.2	3.6	3.1	0.5	60.2	0.9	59.2	1.0	58.2
Kerala	35.5	24.1	11.5	4.5	7.0	64.5	9.3	55.2	5.4	49.8
Tamil Nadu	24.0	18.5	5.5	2.6	2.9	76.0	1.8	74.2	0.7	73.6
Puducherry	23.5	18.6	4.9	1.9	3.0	76.5	1.9	74.6	1.2	73.4

Table 4.5: Percentage of females age 15 and above by detailed status of tobacco use, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current tobacco user					Current non-user				
	Current tobacco user	Daily user	Occas-ional user	Occas-ional user, former daily	Occas-ional user, never daily	Current non-user	Former daily user	Never daily user	Former occas-ional user	Never user
India	20.3	16.7	3.6	1.3	2.2	79.7	1.1	78.6	1.0	77.6
North	3.7	3.2	0.5	0.1	0.4	96.3	0.6	95.7	0.3	95.4
Jammu & Kashmir	10.3	8.6	1.7	0.5	1.2	89.7	1.4	88.3	0.8	87.6
Himachal Pradesh	3.7	3.6	0.2	0.1	0.1	96.3	1.0	95.2	1.0	94.2
Punjab	0.5	0.4	0.1	0.0	0.1	99.5	0.1	99.3	0.0	99.3
Chandigarh	1.7	1.4	0.3	0.2	0.1	98.3	0.1	98.3	0.1	98.2
Uttarakhand	5.8	5.3	0.5	0.2	0.3	94.2	1.1	93.1	0.1	93.0
Haryana	5.6	5.2	0.4	0.0	0.4	94.4	0.3	94.1	0.0	94.1
Delhi	3.7	3.5	0.1	0.0	0.1	96.3	1.0	95.4	0.1	95.2
Central	21.1	18.4	2.6	0.8	1.8	78.9	1.0	77.9	0.6	77.3
Rajasthan	12.9	10.9	2.1	1.3	0.8	87.1	0.6	86.5	0.6	85.8
Uttar Pradesh	16.9	14.4	2.5	0.5	2.0	83.1	1.3	81.8	0.6	81.2
Chhattisgarh	41.6	38.8	2.8	1.1	1.7	58.4	1.2	57.1	0.5	56.7
Madhya Pradesh	18.9	15.6	3.3	0.9	2.3	81.1	0.6	80.5	0.6	79.9
East	31.2	24.5	6.7	1.9	4.8	68.8	2.4	66.4	2.8	63.6
West Bengal	19.3	16.5	2.7	0.9	1.8	80.7	0.3	80.4	0.2	80.2
Jharkhand	35.9	27.2	8.7	1.7	7.0	64.1	3.3	60.9	6.2	54.7
Odisha	36.2	34.7	1.5	0.7	0.8	63.8	0.4	63.4	0.2	63.3
Bihar	40.1	27.2	12.8	3.6	9.2	59.9	5.4	54.5	5.7	48.8
North-East	30.8	20.3	10.5	2.4	8.1	69.2	0.5	68.7	1.0	67.7
Sikkim	33.2	18.5	14.7	4.5	10.2	66.8	0.9	65.9	1.3	64.6
Arunachal Pradesh	31.7	18.2	13.5	0.9	12.5	68.3	0.4	67.9	2.9	65.1
Nagaland	43.0	30.2	12.9	0.4	12.5	57.0	1.9	55.1	3.6	51.5
Manipur	41.8	25.1	16.8	3.7	13.1	58.2	0.8	57.4	3.8	53.6
Mizoram	61.6	54.4	7.1	0.9	6.3	38.4	0.6	37.9	0.2	37.7
Tripura	48.1	42.2	5.9	1.0	4.9	51.9	0.8	51.2	1.2	50.0
Meghalaya	36.7	26.8	9.8	2.1	7.8	63.3	0.8	62.5	1.6	61.0
Assam	25.3	15.0	10.4	2.7	7.7	74.7	0.3	74.3	0.5	73.8
West	16.1	14.0	2.1	1.0	1.1	83.9	0.7	83.2	0.5	82.7
Gujarat	11.3	7.7	3.6	1.2	2.4	88.7	0.9	87.8	1.1	86.7
Maharashtra	18.9	17.5	1.3	1.0	0.4	81.1	0.6	80.5	0.1	80.4
Goa	4.1	3.1	1.0	0.1	0.9	95.9	0.6	95.3	0.6	94.7
South	13.7	11.2	2.5	1.9	0.6	86.3	0.6	85.7	0.2	85.5
Andhra Pradesh	18.8	14.3	4.5	3.9	0.6	81.2	0.4	80.8	0.1	80.6
Karnataka	16.3	13.6	2.7	1.9	0.8	83.7	1.3	82.4	0.5	81.9
Kerala	8.5	6.9	1.6	0.5	1.1	91.5	0.5	91.0	0.1	90.9
Tamil Nadu	8.4	7.8	0.6	0.3	0.3	91.6	0.3	91.3	0.2	91.2
Puducherry	6.3	5.9	0.4	0.0	0.4	93.7	0.7	93.0	0.1	92.9

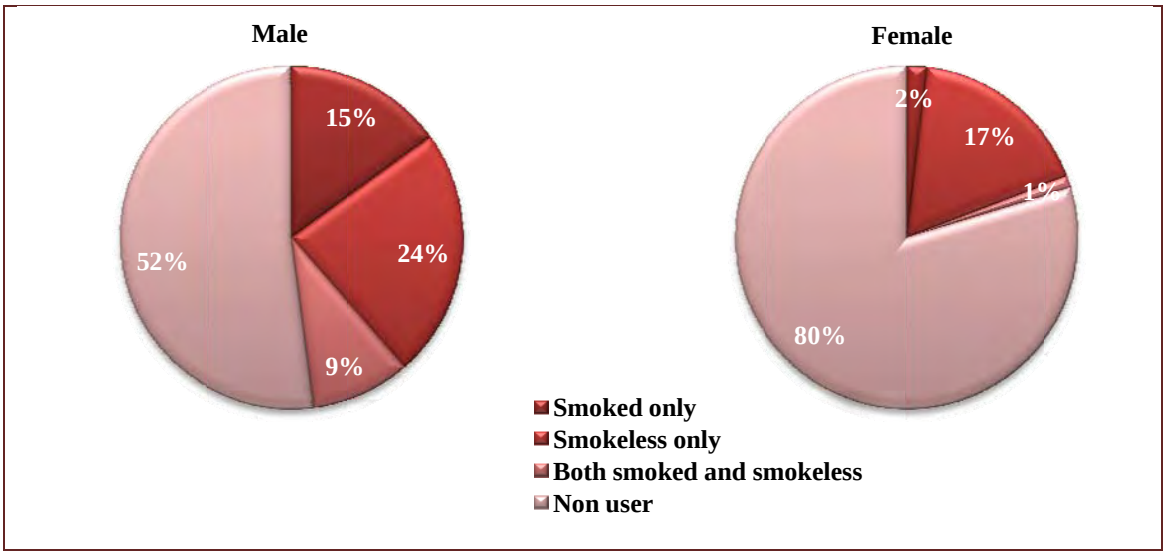
4.1.4 Prevalence of tobacco use by background characteristics

Table 4.6 presents the prevalence of different types of tobacco use for males and females classified by background characteristics. Table 4.6 and Figure 4.2 presents the proportion of adults who currently smoke tobacco but do not use smokeless tobacco (smoked only), who smoke as well as use smokeless tobacco (both smoked and smokeless), who do not smoke but use only smokeless tobacco (smokeless only), along with the proportions of adults who use tobacco in any form and who do not use in any form (non-user).

Out of the 35 percent of adults currently using tobacco in some form or the other, 9 percent smoke but do not use smokeless tobacco, 21 percent use smokeless tobacco but do not smoke, whereas 5 percent smoke as well as use smokeless tobacco.

Among males, 15 percent smoke only, 24 percent use only smokeless tobacco and 9 percent use both. Among females, 2 percent only smoke, 17 percent use only smokeless tobacco and 1 percent use both (Figure 4.2).

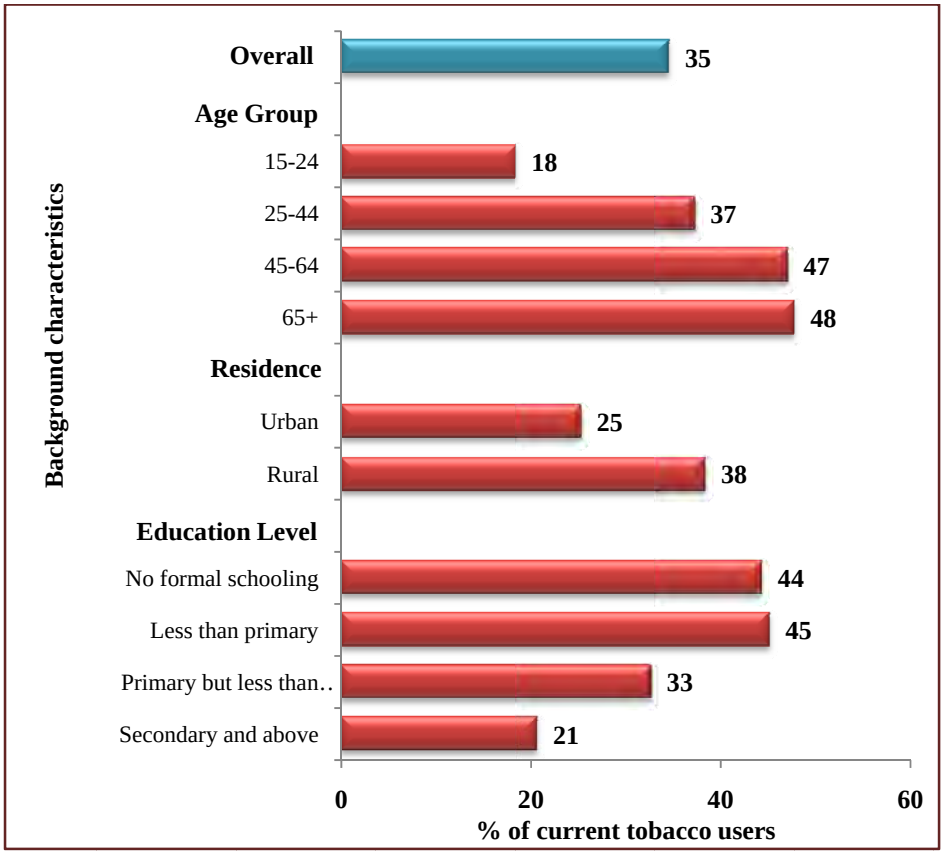
Figure 4.2 Percent distribution of tobacco use according to gender, GATS India, 2009-2010



Among both males and females, the prevalence of tobacco use is higher in rural than urban areas. More than half of rural males (52%) and 24 percent of rural females use tobacco compared with 38 percent of urban males and 12 percent of urban females. The prevalence of tobacco use among males increases from 27 percent in the age group of 15–24 to 61 percent in that of age 45–64, and then decreases to 56 percent in the oldest age group of 65 and above. However, among females the prevalence of tobacco use increases consistently with age from 8 percent for females age 15–24 to 40 percent among females age 65 and above. The proportion of males who use both the forms of tobacco, smoking as well as smokeless tobacco, is highest in the age group 25–44 (12%). Among females this proportion is highest among those, age 65 and above (4%).

Tobacco use has been found to be inversely related to the literacy levels. Among adults, tobacco use decreases sharply with education (Figure 4.3). For example, prevalence of tobacco use decreases from 68 percent among males and 33 percent among females with no formal education to 31 percent among males and only 4 percent among females with secondary or more education, respectively. Males with no formal education or less than primary education (14% each) are more likely to use both forms of tobacco. Similarly, females with no formal education (2%) are more likely to smoke as well as use smokeless tobacco. In all the occupational categories, tobacco use is the lowest among students, as most of the students belong to the young age group, 15-24, with low prevalence of tobacco use.

Figure 4.3 Percentage of current tobacco users by background characteristics, GATS India, 2009-2010



The state/UT level variation in the prevalence of different types of tobacco use for adult population, males and females, is shown in Tables 4.7, 4.8 and 4.9. A salient feature of the data is the large proportion of adults, both males and females from the North-East, East and Central regions of the country who use tobacco in both smoking as well as smokeless forms. The state level variation in the proportion of adults who smoke as well as use smokeless tobacco ranges from 20 percent in Nagaland to 1 percent in Goa. Among all the states/UTs the highest proportion of males who smoke as well as use smokeless tobacco is the highest in Nagaland (33%) and lowest in Goa (1%). Even in Bihar (16%), Nagaland (33%), Manipur (26%), Mizoram (20%), Tripura (20%) and Meghalaya (14% each), large proportion of males smoke as well as use smokeless tobacco. Among females the proportion of dual use of tobacco is very low. Only in the six states of the North-East region (Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram and Tripura) about 5 percent to 7 percent of all adult females smoke as well as use smokeless tobacco. In 16 out of 29 states, less than one percent females use both smoking and smokeless forms of tobacco products.

Table 4.6: Percent distribution of adults age 15 and above who are current tobacco users by tobacco use pattern, according to background characteristics, GATS India, 2009-2010

Background characteristic	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both, smoked and smokeless		
Overall	34.6	8.7	20.6	5.3	65.4	100
Age						
15- 24	18.4	2.3	13.1	3.0	81.6	100
25- 44	37.3	8.5	22.4	6.4	62.7	100
45- 64	47.1	15.9	25.0	6.1	52.9	100
65+	47.8	14.0	27.5	6.2	52.2	100
Residence						
Urban	25.3	7.7	14.1	3.6	74.7	100
Rural	38.4	9.1	23.3	6.0	61.6	100
Education level						
No formal schooling	44.4	10.9	27.5	6.0	55.6	100
Less than primary	45.2	12.0	24.9	8.3	54.8	100
Primary but less than secondary	32.7	7.5	19.8	5.4	67.3	100
Secondary and above	20.7	5.9	11.7	3.1	79.3	100
Occupation						
Government and non-government employee	45.1	12.6	24.2	8.3	54.9	100
Self-employed	48.9	13.7	26.9	8.3	51.1	100
Student	7.5	1.2	5.4	0.9	92.5	100
Homemaker	20.5	2.6	16.4	1.4	79.5	100
Retired and unemployed	46.8	13.7	25.6	7.5	53.2	100
Male	47.9	15.0	23.6	9.3	52.1	100
Age						
15- 24	27.4	4.3	17.7	5.4	72.6	100
25- 44	54.6	15.3	27.6	11.7	45.4	100
45- 64	61.1	27.3	23.7	10.1	38.9	100
65+	55.7	22.1	24.7	8.9	44.3	100
Residence						
Urban	37.5	14.0	17.1	6.4	62.5	100
Rural	52.3	15.5	26.4	10.5	47.7	100
Education level						
No formal schooling	68.0	25.0	29.1	13.9	32.0	100
Less than primary	61.6	20.2	27.4	13.9	38.4	100
Primary but less than secondary	48.1	12.7	26.3	9.1	51.9	100
Secondary and above	30.5	9.2	16.5	4.8	69.5	100
Occupation						
Government and non-government employee	51.7	16.4	24.8	10.5	48.3	100
Self-employed	55.7	17.2	28.0	10.5	44.3	100
Student	9.5	2.0	6.2	1.4	90.5	100
Homemaker	55.7	22.5	20.0	13.3	44.3	100
Retired and unemployed	51.9	17.0	25.0	9.8	48.1	100
Female	20.3	1.9	17.3	1.1	79.7	100
Age						
15- 24	8.3	0.1	8.0	0.3	91.7	100
25- 44	19.0	1.4	16.8	0.8	81.0	100
45- 64	32.1	3.8	26.4	1.9	67.9	100
65+	40.2	6.3	30.2	3.7	59.8	100
Residence						
Urban	11.8	0.7	10.7	0.4	88.2	100
Rural	23.7	2.3	20.0	1.3	76.3	100
Education level						
No formal schooling	32.7	4.0	26.7	2.1	67.3	100
Less than primary	23.1	1.0	21.5	0.6	76.9	100
Primary but less than secondary	11.5	0.2	10.9	0.4	88.5	100
Secondary and above	3.6	0.1	3.4	0.1	96.4	100
Occupation						
Government and non-government employee	27.7	2.6	22.6	2.5	72.3	100
Self-employed	25.0	1.4	22.9	0.6	75.0	100
Student	4.3	0.0	4.2	0.0	95.7	100
Homemaker	19.0	1.8	16.3	1.0	81.0	100
Retired and unemployed	34.9	6.0	26.9	2.1	65.1	100

Table 4.7: Percent distribution of adults age 15 and above who are current tobacco users by tobacco use pattern, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both smoked and smokeless		
India	34.6	8.7	20.6	5.3	65.4	100
North	18.9	11.7	5.0	2.2	81.1	100
Jammu & Kashmir	26.6	19.0	4.7	3.0	73.4	100
Himachal Pradesh	21.2	16.7	2.9	1.6	78.8	100
Punjab	11.7	5.2	4.8	1.7	88.3	100
Chandigarh	14.3	8.9	3.3	2.1	85.7	100
Uttarakhand	30.7	19.1	8.6	3.0	69.3	100
Haryana	23.7	17.3	4.1	2.3	76.3	100
Delhi	24.3	13.8	6.9	3.6	75.7	100
Central	38.1	8.9	22.6	6.6	61.9	100
Rajasthan	32.3	13.4	13.5	5.4	67.7	100
Uttar Pradesh	33.9	8.7	19.1	6.2	66.1	100
Chhattisgarh	53.2	5.9	40.6	6.7	46.8	100
Madhya Pradesh	39.5	8.1	22.6	8.8	60.5	100
East	45.4	7.8	29.8	7.9	54.6	100
West Bengal	36.3	14.4	15.0	6.9	63.7	100
Jharkhand	50.1	2.1	40.5	7.5	49.9	100
Odisha	46.2	3.0	35.9	7.3	53.8	100
Bihar	53.5	4.7	39.3	9.5	46.5	100
North-East	44.1	9.5	24.9	9.8	55.9	100
Sikkim	41.6	16.0	15.2	10.4	58.4	100
Arunachal Pradesh	47.7	11.5	18.3	17.9	52.3	100
Nagaland	56.8	11.5	25.3	20.0	43.2	100
Manipur	54.1	9.6	28.5	16.1	45.9	100
Mizoram	67.2	26.5	27.5	13.2	32.8	100
Tripura	55.9	14.5	28.6	12.8	44.1	100
Meghalaya	55.2	27.0	19.5	8.7	44.8	100
Assam	39.3	6.6	24.9	7.8	60.7	100
West	30.5	5.2	22.4	2.9	69.5	100
Gujarat	29.4	7.8	18.4	3.2	70.6	100
Maharashtra	31.4	3.8	24.8	2.8	68.6	100
Goa	8.8	4.2	4.0	0.7	91.2	100
South	24.1	10.7	10.8	2.6	75.9	100
Andhra Pradesh	29.2	14.1	11.8	3.3	70.8	100
Karnataka	28.2	8.8	16.3	3.1	71.8	100
Kerala	21.4	10.7	8.1	2.6	78.6	100
Tamil Nadu	16.2	8.1	6.6	1.5	83.8	100
Puducherry	15.1	9.1	4.8	1.3	84.9	100

Table 4.8: Percent distribution of males age 15 and above who are current tobacco users by tobacco use pattern, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both, smoked and smokeless		
India	47.9	15.0	23.6	9.3	52.1	100
North	31.7	19.6	8.4	3.7	68.3	100
Jammu & Kashmir	41.6	30.7	6.7	4.2	58.4	100
Himachal Pradesh	38.5	30.1	5.2	3.3	61.5	100
Punjab	21.6	9.4	8.9	3.2	78.4	100
Chandigarh	23.7	15.2	5.0	3.6	76.3	100
Uttarakhand	43.9	27.3	12.2	4.5	56.1	100
Haryana	39.6	28.7	6.7	4.1	60.4	100
Delhi	40.9	24.1	10.4	6.3	59.1	100
Central	53.4	14.7	27.7	11.0	46.6	100
Rajasthan	50.5	21.8	19.0	9.7	49.5	100
Uttar Pradesh	48.8	13.4	24.9	10.5	51.2	100
Chhattisgarh	63.9	11.4	43.0	9.5	36.1	100
Madhya Pradesh	58.5	15.1	28.0	15.3	41.5	100
East	59.0	12.7	31.8	14.5	41.0	100
West Bengal	52.3	26.6	12.8	12.9	47.7	100
Jharkhand	63.6	3.7	45.8	14.2	36.4	100
Odisha	56.1	5.4	36.3	14.5	43.9	100
Bihar	62.2	4.1	45.9	16.2	33.8	100
North-East	56.9	17.0	23.8	16.0	43.1	100
Sikkim	48.7	21.1	13.4	14.2	51.3	100
Arunachal Pradesh	64.0	19.1	16.1	28.8	36.0	100
Nagaland	69.2	16.1	20.5	32.6	30.8	100
Manipur	66.6	14.5	26.4	25.7	33.4	100
Mizoram	72.5	39.9	13.1	19.5	27.5	100
Tripura	63.4	24.0	19.8	19.6	36.6	100
Meghalaya	73.2	52.6	6.2	14.4	26.8	100
Assam	52.6	12.8	26.6	13.2	47.4	100
West	43.4	9.7	28.5	5.2	56.6	100
Gujarat	46.2	14.8	26.4	5.0	53.8	100
Maharashtra	42.5	7.1	30.0	5.3	57.5	100
Goa	13.1	7.1	4.7	1.3	86.9	100
South	34.6	20.0	9.9	4.8	65.4	100
Andhra Pradesh	39.7	24.0	10.4	5.3	60.3	100
Karnataka	39.8	17.2	16.6	6.0	60.2	100
Kerala	35.5	22.4	7.6	5.5	64.5	100
Tamil Nadu	24.0	16.3	4.9	2.8	76.0	100
Puducherry	23.5	17.7	3.3	2.5	76.5	100

Table 4.9: Percent distribution of females age 15 and above who are current tobacco users by tobacco use pattern, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both, smoked and smokeless		
India	20.3	1.9	17.3	1.1	79.7	100
North	3.7	2.4	1.0	0.3	96.3	100
Jammu & Kashmir	10.3	6.2	2.5	1.6	89.7	100
Himachal Pradesh	3.7	3.1	0.6	0.0	96.3	100
Punjab	0.5	0.4	0.2	0.0	99.5	100
Chandigarh	1.7	0.6	1.1	0.0	98.3	100
Uttarakhand	5.8	3.8	1.9	0.1	94.2	100
Haryana	5.6	4.3	1.1	0.2	94.4	100
Delhi	3.7	0.9	2.6	0.2	96.3	100
Central	21.1	2.4	17.0	1.7	78.9	100
Rajasthan	12.9	4.5	7.6	0.8	87.1	100
Uttar Pradesh	16.9	3.3	12.4	1.3	83.1	100
Chhattisgarh	41.6	0.0	37.9	3.7	58.4	100
Madhya Pradesh	18.9	0.5	16.7	1.7	81.1	100
East	31.2	2.6	27.6	1.0	68.8	100
West Bengal	19.3	1.5	17.3	0.4	80.7	100
Jharkhand	35.9	0.5	34.9	0.4	64.1	100
Odisha	36.2	0.7	35.5	0.0	63.8	100
Bihar	40.1	5.4	32.3	2.4	59.9	100
North-East	30.8	1.6	26.0	3.2	69.2	100
Sikkim	33.2	9.9	17.3	6.0	66.8	100
Arunachal Pradesh	31.7	4.0	20.5	7.2	68.3	100
Nagaland	43.0	6.4	30.6	6.0	57.0	100
Manipur	41.8	4.8	30.4	6.6	58.2	100
Mizoram	61.6	12.5	42.6	6.5	38.4	100
Tripura	48.1	4.6	37.7	5.7	51.9	100
Meghalaya	36.7	0.7	33.1	2.8	63.3	100
Assam	25.3	0.1	23.1	2.1	74.7	100
West	16.1	0.1	15.6	0.4	83.9	100
Gujarat	11.3	0.3	9.9	1.2	88.7	100
Maharashtra	18.9	0.0	18.8	0.0	81.1	100
Goa	4.1	0.9	3.2	0.0	95.9	100
South	13.7	1.5	11.7	0.5	86.3	100
Andhra Pradesh	18.8	4.3	13.1	1.4	81.2	100
Karnataka	16.3	0.2	16.0	0.1	83.7	100
Kerala	8.5	0.0	8.5	0.0	91.5	100
Tamil Nadu	8.4	0.0	8.3	0.1	91.6	100
Puducherry	6.3	0.0	6.3	0.0	93.7	100

4.1.5 Age at initiation of tobacco use

The age of initiating tobacco use, either the smoking or chewing form, has a direct bearing on the health of users. Table 4.10 presents the distribution of ever daily smokers age 20–34 by age at the initiation of daily tobacco use. The table is purposely restricted to younger respondents as their age at initiation of tobacco use presents the current and recent scenario in this regard.

Table 4.10: Percent distribution of ever daily tobacco users age 20-34 by age at tobacco use initiation and gender, according to selected background characteristics, GATS India, 2009-2010

Background characteristic	Age at tobacco initiation				Total	Mean Age
	<15	15-17	18-19	20-34		
Overall	15.7	24.7	19.3	40.3	100	17.8
Gender						
Male	13.2	25.2	21.2	40.4	100	18.0
Female	25.8	22.4	11.5	40.2	100	17.1
Residence						
Urban	12.9	21.6	22.2	43.3	100	18.3
Rural	16.5	25.6	18.4	39.5	100	17.7
Education Level						
No formal schooling	22.4	24.6	13.1	39.9	100	17.2
Less than primary	16.4	26.8	21.7	35.1	100	17.7
Primary but less than secondary	14.3	25.3	22.1	38.3	100	17.8
Secondary and above	8.8	22.2	20.2	48.8	100	19.0
Occupation						
Government and non-government employee	13.1	26.8	21.6	38.5	100	17.7
Self-employed	14.3	24.4	19.3	42.0	100	18.1
Student	21.5	26.4	22	30.1	100	16.7
Homemaker	23.4	19.6	14.4	42.7	100	17.7
Retired and unemployed	24.2	25.1	13.6	37.1	100	17.1

Two out of every five (40%) daily tobacco users age 20–34 had started using tobacco on a daily basis before attaining the age of 18. The mean age at initiation of daily tobacco use is 17.8 years. The study points out that females and rural tobacco users started tobacco use at a younger age than their male and urban counterparts respectively. While 26 percent of daily female tobacco users started daily tobacco use by the age of 15, the corresponding figures for males is only 13 percent. Again, 42 percent of daily tobacco users in rural areas started tobacco use before the age of 18 compared to 35 percent of urban tobacco users. About half of all daily tobacco users (47%) with no formal education started tobacco use daily by the age of 18 compared with 31 percent of those with secondary and above education. The age at initiation of daily tobacco use increases with the literacy level of the tobacco user. About half (48%) of daily tobacco users among students also got into the habit before they turned 18.

4.1.6 Age at initiation of tobacco use by region and state/UT

The pattern of age at initiation of tobacco use varies across the regions and states/UTs (Table 4.11). Among all the regions, tobacco use is initiated at a much younger age in the Central region. It is at a

comparatively older age in the South. In the Central region 44 percent of daily tobacco users started tobacco use before 18, while the figure is only 28 percent for the Southern region. The mean age of initiation of tobacco use is 17.3 in the Central region and 18.6 in the South.

Table 4.11: Percent distribution of age at initiation among ever daily tobacco users age 20-34 by age at tobacco use initiation, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Age at tobacco product initiation				Total	Mean age
	<15	15-17	18-19	20-34		
India	15.7	24.7	19.3	40.3	100	17.8
North	10.3	26.8	22.8	40.1	100	18.4
Jammu & Kashmir	16.0	31.6	20.8	31.6	100	17.2
Himachal Pradesh	2.8	15.9	21.5	59.8	100	20.5
Punjab	10.8	26.1	23.5	39.6	100	18.4
Chandigarh	4.7	15.9	52.0	27.4	100	17.7
Uttarakhand	11.1	24.7	18.5	45.7	100	19.3
Haryana	5.0	33.2	25.3	36.5	100	18.0
Delhi	2.3	33.9	28.6	35.1	100	18.8
Central	19.7	24.2	17.5	38.6	100	17.3
Rajasthan	17.0	35.3	21.4	26.3	100	17.0
Uttar Pradesh	14.3	22.4	19.8	43.4	100	18.0
Chhattisgarh	28.8	25.2	14.1	31.9	100	16.2
Madhya Pradesh	21.5	16.7	13.5	48.2	100	17.6
East	15.7	26.5	19.4	38.5	100	17.9
West Bengal	12.4	33.1	19.9	34.6	100	17.5
Jharkhand	22.4	23.4	12.0	42.3	100	17.6
Odisha	21.4	29.4	22.7	26.5	100	16.5
Bihar	13.2	22.2	20.0	44.6	100	18.8
North-East	9.6	29.5	21.1	39.8	100	18.1
Sikkim	13.7	25.9	25.8	34.5	100	17.5
Arunachal Pradesh	16.9	28.2	23.3	31.7	100	17.0
Nagaland	11.5	39.6	8.0	41.0	100	18.5
Manipur	9.4	17.5	15.4	57.7	100	19.1
Mizoram	9.3	39.4	30.1	21.1	100	17.4
Tripura	10.3	18.7	22.9	48.0	100	19.0
Meghalaya	23.7	23.7	21.4	31.2	100	17.0
Assam	7.4	32.1	21.5	39.0	100	18.1
West	12.5	26.7	17.9	42.9	100	18.4
Gujarat	13.5	27.6	13.9	45.0	100	18.3
Maharashtra	11.9	26.1	20.0	41.9	100	18.5
Goa	6.0	41.7	14.0	38.3	100	17.5
South	9.9	17.8	25.2	47.1	100	18.6
Andhra Pradesh	6.8	17.0	21.4	54.9	100	19.4
Karnataka	11.4	17.2	30.5	41.0	100	17.7
Kerala	19.6	16.9	17.7	45.8	100	18.6
Tamil Nadu	10.1	21.8	30.5	37.6	100	18.5
Puducherry	11.4	25.9	24.3	38.4	100	18.0

Tobacco use is initiated at a much younger age in Chhattisgarh where 29 percent of daily tobacco users started tobacco consumption before age 15 and 54 percent by age 18. Half or more daily tobacco users in Rajasthan, Nagaland and Odisha initiated daily tobacco use before reaching the age of 18. On the contrary, less than a quarter of daily tobacco users in Himachal Pradesh, Chandigarh and Andhra Pradesh started daily tobacco use by that age.

4.1.7 Time to first tobacco use of the day

Nicotine contained in tobacco is highly addictive in nature. The use of tobacco within a short span of time after waking up is an indirect indicator of nicotine dependence. Table 4.12 presents the distribution of daily tobacco users classified by the timing of first use of tobacco of the day, either in the smoking or smokeless form, after waking up. More than one in five daily tobacco user resorts to tobacco use immediately or within five minutes after waking up, 39 percent use it after five minutes but within 30 minutes, 15 percent within half an hour to an hour of waking up, and the remaining 25 percent make the first use of tobacco of the day after one hour of waking up. In other words 60 percent of daily tobacco users are so addicted to tobacco that they resort to tobacco use within half an hour of getting up from the bed, and three quarters of all the tobacco users use it within the first hour of waking up.

Table 4.12: Percent distribution of daily tobacco users[1] age 15 and above by time in minutes to first tobacco use after waking up, according to selected background characteristics, GATS India, 2009-2010

Background characteristic	Time to first smoke or use of smokeless tobacco				Total
	≤5 minutes	6-30 minutes	31-60 minutes	≥60 minutes	
Overall	21.3	38.9	15.2	24.6	100
Age					
15- 24	13.8	30.2	17.6	38.4	100
25- 44	20.5	40.4	14.9	24.2	100
45- 64	24.4	40.1	14.8	20.7	100
65+	25.2	40.2	14.6	19.9	100
Gender					
Male	21.3	40.8	16.1	21.8	100
Female	21.2	33.9	12.9	32.0	100
Residence					
Urban	16.6	39.3	17.2	26.9	100
Rural	22.5	38.8	14.7	24.0	100
Education level					
No formal schooling	24.3	39.8	13.8	22.2	100
Less than primary	20.4	39.3	16.4	23.9	100
Primary but less than secondary	18.9	38.6	15.9	26.6	100
Secondary and above	17.7	36.4	17.0	28.8	100
Occupation					
Government and non-government employee	22.0	40.9	15.0	22.1	100
Self-employed	22.6	39.5	16.1	21.8	100
Student	5.8	30.3	20.3	43.6	100
Homemaker	18.3	33.8	13.7	34.2	100
Retired and unemployed	21.4	39.9	14.0	24.7	100

Note: [1] Includes smokers as well as users of smokeless tobacco.

The proportion of daily tobacco users who use tobacco within half an hour after waking up is slightly higher among males and rural persons than their respective counterparts though the differences are not very large. The proportion of daily tobacco users who use tobacco within half an hour after waking up was found to increase with increasing age and decrease with rising education. The proportion of daily tobacco users who use tobacco within half an hour after waking up increases from 44 percent among tobacco users age 15-24 to 65 percent among those age 65 and above. A little less than two-thirds of daily tobacco users (64%) with no education use tobacco within half an hour of waking up compared to 54 percent with secondary and above education. The proportion of daily tobacco users who use tobacco within half an hour of waking up does not differ much among daily users having different occupations. A little more than one-third of students who are daily tobacco users use tobacco within half an hour of getting up from the bed.

4.1.8 Time to first tobacco use of the day by region and state/UTs

Table 4.13 presents the distribution of daily tobacco users in different regions and states/UTs classified by the timing of first use of tobacco of the day, either in the smoking or smokeless form, after waking up. The variation in the proportion of daily tobacco users make their first tobacco use of the day within half an hour of waking up ranges from the highest of 64 percent in South region to lowest of 49 percent in North-East region. The proportion of adults who use tobacco within half an hour after waking up is the highest in Arunachal Pradesh (78%) and lowest in Jammu & Kashmir (35%). In every state, more than one-third of daily tobacco users make their first tobacco use of the day within half an hour of waking up. In fact, with the exception of Jammu & Kashmir, Gujarat, Nagaland and Assam, in every state the majority of tobacco users make the first tobacco use of the day within this half hour period, and in Haryana, Chhattisgarh, Delhi, Tamil Nadu and Arunachal Pradesh more than three-quarters of tobacco users do the same.

Table 4.13:Percent distribution of daily tobacco users[1] age 15 and above by time in minutes to first tobacco use after waking up among daily smokers and users of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

	Time to first smoke or first use of smokeless tobacco				
Region and state/UT	**≤5 minutes**	**6-30 minutes**	**31-60 minutes**	**≥60 minutes**	**Total**
India	21.3	38.9	15.2	24.6	100
North	17.6	39.8	21.1	21.4	100
Jammu & Kashmir	7.9	27.2	21.7	43.2	100
Himachal Pradesh	24.3	41.8	14.5	19.4	100
Punjab	12.8	52.5	25.2	9.4	100
Chandigarh	12.5	52.0	25.4	10.1	100
Uttarakhand	25.8	36.0	22.2	15.9	100
Haryana	39.6	35.7	12.8	11.9	100
Delhi	27.1	49.6	13.4	9.9	100
Central	23.8	38.1	13.6	24.5	100
Rajasthan	20.8	47.0	14.4	17.8	100
Uttar Pradesh	23.3	30.0	16.1	30.6	100
Chhattisgarh	29.9	46.2	8.9	14.9	100
Madhya Pradesh	18.7	40.1	13.1	28.0	100
East	20.8	37.6	13.5	28.1	100
West Bengal	16.2	39.6	19.3	24.9	100
Jharkhand	22.7	40.6	7.2	29.4	100
Odisha	29.4	37.5	14.5	18.7	100
Bihar	19.6	35.2	10.4	34.9	100
North-East	17.2	32.0	20.4	30.4	100
Sikkim	26.3	36.4	17.9	19.4	100
Arunachal Pradesh	29.8	47.8	14.3	8.1	100
Nagaland	17.7	27.1	23.2	32.0	100
Manipur	27.2	24.6	15.3	32.9	100
Mizoram	30.7	36.0	18.0	15.3	100
Tripura	17.2	35.4	18.2	29.1	100
Meghalaya	14.1	41.9	15.8	28.3	100
Assam	14.9	30.1	22.1	32.8	100
West	18.4	40.1	17.7	23.8	100
Gujarat	14.5	30.0	24.3	31.2	100
Maharashtra	20.2	44.4	14.9	20.5	100
Goa	14.6	42.0	18.3	25.0	100
South	20.6	43.4	17.6	18.4	100
Andhra Pradesh	17.9	48.0	19.5	14.6	100
Karnataka	22.4	32.6	18.6	26.4	100
Kerala	26.1	32.5	11.3	30.1	100
Tamil Nadu	20.4	56.5	15.6	7.5	100
Puducherry	17.7	55.1	12.6	14.6	100

Note: [1] Includes smokers as well as users of smokeless tobacco.

4.2 TOBACCO SMOKING

This section presents the prevalence of tobacco smoking and its different dimensions. Tobacco smoking includes smoking any product, like bidi, manufactured cigarette, hand-rolled cigarette, pipe, cigar, hookah, water pipe and some other forms, like *chutta*, *dhumti* and chillum.

4.2.1 Prevalence of tobacco smoking

The prevalence of smoking among adults in India is presented in Table 4.14. More than one-eighth (14%) of all adults in India smoke tobacco either on a daily basis or occasionally. About 11 percent of adults smoke tobacco every day whereas about 3 percent smoke only occasionally. In other words, most smokers (76%) are daily smokers. About 2 percent of adults who used to smoke tobacco daily and 1 percent who used to smoke occasionally have since stopped smoking completely. The prevalence of smoking among males (24%) is much higher than among females (3%). Though prevalence of smoking is lower among females, most females smokers are daily smokers. Of the adult population, 5 percent of males and a little less than 1 percent of females who were formerly smokers either daily or occasional have stopped smoking completely. Smoking prevalence is higher in rural areas (15%) than urban areas (11%), though the rural urban differentials are not very high. Among male and female current smokers as well as among current smokers in rural and urban areas 75-83 percent are daily smokers. More than four-fifths of adults (71% males and 96% females) have never smoked tobacco at any time of their life.

Table 4.14: Percentage of adults age 15 and above by detailed status of smoking, according to gender and residence, GATS India, 2009-2010

Status of smoking	Overall	Gender		Residence	
		Male	Female	Urban	Rural
Current smoker	14.0	24.3	2.9	11.2	15.1
Daily smoker	10.7	18.3	2.4	8.4	11.6
Occasional smoker	3.3	5.9	0.5	2.8	3.5
Occasional smoker, former daily	0.9	1.4	0.3	0.8	0.9
Occasional smoker, never daily	2.5	4.5	0.2	2.0	2.6
Non-smoker	86.0	75.7	97.1	88.8	84.9
Former daily smoker	1.7	2.7	0.5	1.2	1.8
Never daily smoker	84.4	73.0	96.5	87.5	83.0
Former occasional smoker	1.3	2.3	0.2	1.0	1.4
Never smoker	83.1	70.7	96.3	86.6	81.7

4.2.2 Number of tobacco smokers

Table 4.15 presents the number of smokers in India classified by residence and gender. In India, 111.2 million adults (99.9 million male and 11.3 million female) currently smoke tobacco in some form. The number of current tobacco smokers in rural areas (85.1 million) is much higher than the number of tobacco smokers in urban areas (26.1 million). There are 84.8 million adults (75.4 million males and 9.4 million females) who smoke tobacco every day and an additional 26.4 million (24.4 million males and 2.0 million females) smoke tobacco occasionally. The adult population of smokers of 84.8 million is almost equal to the population of Vietnam or Germany. The number of daily as well as occasional smokers in rural areas is thrice that in urban areas. Of the total adult population of 795.5 million, 684.3 million adults

do not smoke tobacco currently. However 23.3 million among these used to smoke formerly, either daily or occasionally. In other words, almost 134.5 million adult Indians out of total adult population of 795.5 million have ever smoked tobacco.

Table 4.15: Number of adults age 15 and above by detailed status of smoking, according to gender and residence, GATS India, 2009-2010

Status of smoking	Overall	Gender		Residence	
		Male	Female	Urban	Rural
	Numbers in thousand				
Overall	795,534	411,149	384,384	232,551	562,983
Current smoker	111,203	99,874	11,330	26,102	85,101
Daily smoker	84,815	75,443	9,372	19,497	65,318
Occasional smoker	26,389	24,431	1,958	6,605	19,784
Occasional smoker, former daily	6,863	5,801	1,063	1,964	4,899
Occasional smoker, never daily	19,526	18,630	895	4,641	14,884
Non-smoker	684,330	311,276	373,054	206,449	477,881
Former daily smoker	13,237	11,221	2,016	2,866	10,372
Never daily smoker	671,093	300,055	371,038	203,584	467,509
Former occasional smoker	10,128	9,309	819	2,297	7,831
Never smoker	660,965	290,746	370,219	201,287	459,678

4.2.3 Prevalence of tobacco smoking by region and state/UT

Prevalence of tobacco smoking by regions and states/UTs among adult population, males and females respectively, is presented in Tables 4.16, 4.17 and 4.18. Like the prevalence of tobacco use, the prevalence of smoking also varies substantially across regions and states/UTs. Though tobacco use is highest in the East region, the prevalence of smoking is highest in the North-Eastern region where about one in every five adults smokes tobacco. The lowest prevalence of smoking is reported in the West region where one in 12 adults smokes tobacco. Even among both males and females, the highest prevalence of smoking is reported in the North-East region and lowest in the West region. Similar to national pattern, majority of current smokers are daily smokers in all the regions.

State level variation in prevalence of smoking among adult population ranges from the peak of 40 percent in Mizoram to 5 percent in Goa (Figure 4.4). Among males, prevalence of smoking varies from the highest of 67 percent in Meghalaya to lowest of 8 percent in Goa. Except in Punjab (13%), Maharashtra (12%) and Goa (8%), in every state at least 13 percent adult males smoke tobacco. In seven states from the North-East and East regions, i.e. Meghalaya (67%), Mizoram (59%), Nagaland (49%), Arunachal Pradesh (48%), Tripura (44%), Manipur and West Bengal (40% each), the prevalence of smoking among males exceeds 40 percent. The prevalence of smoking among females also varies widely across the states/UTs. Highest prevalence of smoking among females is reported from Mizoram (19%). In 10 out of 31 states/UTs surveyed, less than one percent females reported smoking. It is only in the six states of North-East region, i.e. Mizoram (19%), Sikkim (16%), Nagaland (12%), Manipur (11%), Arunachal Pradesh (11%) and Tripura (10%), that 10 percent or more females currently smoke tobacco.

Table 4.16: Percentage of adults age 15 and above by detailed status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current smoker					Current non-smoker				
	Current smoker	Daily smoker	Occas-ional smoker	Occas-ional smoker, former daily	Occas-ional smoker, never daily	Current non-smoker	Former daily smoker	Never daily smoker	Former occas-ional smoker	Never smoker
India	14.0	10.7	3.3	0.9	2.5	86.0	1.7	84.4	1.3	83.1
North	13.8	11.8	2.1	0.5	1.6	86.2	1.6	84.5	1.1	83.5
Jammu & Kashmir	21.9	19.0	2.9	0.9	2.0	78.1	3.3	74.8	1.6	73.2
Himachal Pradesh	18.3	15.6	2.7	0.6	2.1	81.7	3.7	78.0	2.1	75.9
Punjab	6.9	5.2	1.6	0.4	1.3	93.1	0.2	92.9	0.6	92.3
Chandigarh	11.0	8.6	2.4	0.7	1.6	89.0	0.2	88.8	0.4	88.4
Uttarakhand	22.1	19.9	2.2	0.6	1.6	77.9	3.1	74.8	1.6	73.2
Haryana	19.6	18.2	1.5	0.2	1.3	80.4	0.9	79.4	0.5	79.0
Delhi	17.4	16.4	1.0	0.0	0.9	82.6	0.6	82.0	0.3	81.7
Central	15.5	12.0	3.4	0.7	2.7	84.5	1.9	82.7	1.3	81.4
Rajasthan	18.8	15.9	2.9	0.8	2.2	81.2	2.1	79.1	1.1	78.0
Uttar Pradesh	14.9	12.5	2.4	0.5	1.9	85.1	2.1	83.1	1.1	82.0
Chhattisgarh	12.6	7.7	4.9	1.0	3.9	87.4	1.4	86.0	1.3	84.7
Madhya Pradesh	16.9	11.5	5.4	1.0	4.3	83.1	1.6	81.5	1.8	79.7
East	15.7	10.6	5.1	0.9	4.2	84.3	1.8	82.5	1.9	80.6
West Bengal	21.3	17.1	4.2	1.2	3.0	78.7	0.2	78.5	0.8	77.7
Jharkhand	9.6	2.7	6.9	1.0	5.8	90.4	2.2	88.2	2.0	86.2
Odisha	10.3	7.6	2.7	0.5	2.2	89.7	0.5	89.2	1.1	88.1
Bihar	14.2	7.6	6.6	0.9	5.7	85.8	4.1	81.7	3.5	78.2
North-East	19.3	14.7	4.6	0.9	3.7	80.7	0.9	79.8	1.0	78.8
Sikkim	26.4	17.5	8.9	3.0	5.9	73.6	1.5	72.1	2.0	70.1
Arunachal Pradesh	29.4	21.1	8.3	2.8	5.5	70.6	0.3	70.3	1.0	69.3
Nagaland	31.5	25.4	6.1	0.6	5.4	68.5	1.8	66.8	2.3	64.5
Manipur	25.7	16.7	9.0	2.0	7.0	74.3	1.3	73.1	2.5	70.6
Mizoram	39.7	35.4	4.2	1.2	3.1	60.3	2.2	58.1	0.6	57.5
Tripura	27.3	22.8	4.5	1.0	3.4	72.7	2.8	69.9	1.3	68.6
Meghalaya	35.7	30.0	5.7	1.6	4.1	64.3	1.2	63.2	0.7	62.4
Assam	14.4	10.7	3.8	0.6	3.2	85.6	0.5	85.0	0.8	84.2
West	8.1	6.5	1.6	0.4	1.2	91.9	1.0	90.9	0.7	90.2
Gujarat	11.0	9.2	1.8	0.6	1.1	89.0	1.9	87.1	0.9	86.2
Maharashtra	6.6	5.1	1.5	0.3	1.2	93.4	0.6	92.8	0.5	92.3
Goa	4.8	4.1	0.7	0.2	0.5	95.2	1.3	93.8	0.7	93.1
South	13.3	10.6	2.7	1.4	1.3	86.7	1.8	84.9	1.2	83.7
Andhra Pradesh	17.4	14.6	2.9	1.7	1.2	82.6	1.9	80.6	1.6	79.0
Karnataka	11.9	10.3	1.5	0.9	0.6	88.1	0.6	87.5	0.5	87.1
Kerala	13.4	8.7	4.7	1.4	3.3	86.6	4.9	81.7	3.1	78.6
Tamil Nadu	9.6	7.1	2.4	1.3	1.2	90.4	1.0	89.5	0.3	89.2
Puducherry	10.3	8.2	2.1	0.8	1.3	89.7	1.0	88.6	0.5	88.2

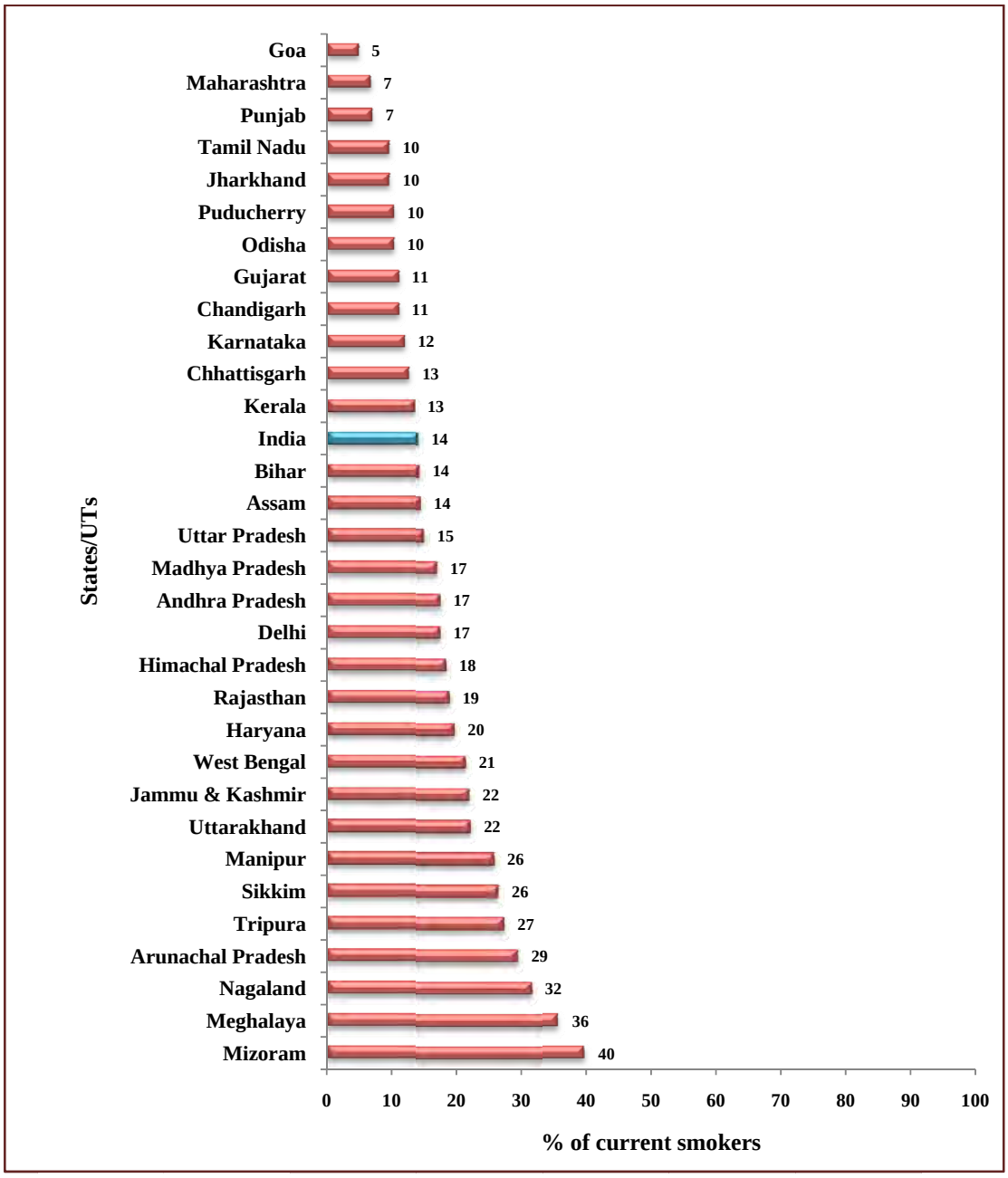
Table 4.17: Percentage of males age 15 and above by detailed status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current smoker					Current non-smoker				
	Current smoker	Daily smoker	Occas-ional smoker	Occas-ional smoker, former daily	Occas-ional smoker, never daily	Current non-smoker	Former daily smoker	Never daily smoker	Former occas-ional smoker	Never smoker
India	24.3	18.3	5.9	1.4	4.5	75.7	2.7	73.0	2.3	70.7
North	23.3	19.8	3.5	0.9	2.6	76.7	2.5	74.2	1.7	72.5
Jammu & Kashmir	34.9	30.6	4.3	1.5	2.8	65.1	4.9	60.2	2.4	57.8
Himachal Pradesh	33.4	28.2	5.2	1.1	4.1	66.6	6.3	60.3	3.2	57.1
Punjab	12.7	9.5	3.1	0.7	2.4	87.3	0.3	87.0	1.1	85.8
Chandigarh	18.8	14.6	4.2	1.3	2.9	81.2	0.4	80.8	0.6	80.2
Uttarakhand	31.8	28.5	3.2	0.8	2.4	68.2	4.2	64.0	2.4	61.6
Haryana	32.8	30.3	2.5	0.3	2.2	67.2	1.6	65.6	0.9	64.7
Delhi	30.4	28.8	1.6	0.1	1.6	69.6	0.7	68.9	0.5	68.4
Central	25.7	19.6	6.1	1.2	4.9	74.3	3.1	71.2	2.2	69.0
Rajasthan	31.5	26.9	4.6	0.9	3.7	68.5	3.7	64.8	2.0	62.8
Uttar Pradesh	23.9	19.7	4.1	0.9	3.3	76.1	3.1	73.0	1.8	71.2
Chhattisgarh	20.9	11.7	9.1	1.6	7.6	79.1	2.6	76.6	2.5	74.1
Madhya Pradesh	30.5	20.7	9.8	1.7	8.1	69.5	3.0	66.5	3.4	63.1
East	27.2	17.7	9.5	1.7	7.8	72.8	2.3	70.5	3.3	67.2
West Bengal	39.5	31.5	8.1	2.3	5.8	60.5	0.4	60.0	1.5	58.6
Jharkhand	17.9	4.7	13.2	2.0	11.2	82.1	3.4	78.8	3.7	75.1
Odisha	19.9	14.5	5.4	0.9	4.5	80.1	1.0	79.1	2.2	76.9
Bihar	20.3	8.5	11.8	1.3	10.4	79.7	4.6	75.1	5.8	69.3
North-East	33.1	25.4	7.6	1.5	6.2	66.9	1.6	65.3	1.7	63.6
Sikkim	35.3	22.9	12.4	3.7	8.7	64.7	2.2	62.5	2.3	60.2
Arunachal Pradesh	47.9	35.7	12.2	5.6	6.6	52.1	0.5	51.6	1.9	49.7
Nagaland	48.7	39.6	9.1	1.1	8.0	51.3	2.8	48.6	3.6	44.9
Manipur	40.2	23.7	16.4	3.6	12.8	59.8	2.1	57.7	3.5	54.3
Mizoram	59.4	55.4	4.0	1.8	2.2	40.6	3.6	37.0	0.7	36.3
Tripura	43.6	36.1	7.5	1.8	5.7	56.4	5.3	51.1	2.3	48.8
Meghalaya	67.0	56.5	10.5	2.9	7.5	33.0	2.3	30.7	1.3	29.4
Assam	26.1	19.6	6.5	1.0	5.5	73.9	0.9	73.0	1.5	71.5
West	14.8	12.0	2.8	0.7	2.1	85.2	1.9	83.3	1.2	82.1
Gujarat	19.8	17.0	2.8	0.9	1.8	80.2	3.4	76.8	1.7	75.1
Maharashtra	12.4	9.6	2.9	0.6	2.3	87.6	1.1	86.5	1.0	85.5
Goa	8.4	7.3	1.1	0.4	0.7	91.6	2.5	89.1	1.3	87.8
South	24.7	19.9	4.8	2.1	2.7	75.3	3.4	71.9	2.3	69.6
Andhra Pradesh	29.3	25.2	4.1	1.7	2.4	70.7	3.6	67.2	3.0	64.2
Karnataka	23.2	20.2	3.0	1.8	1.2	76.8	1.2	75.6	0.9	74.7
Kerala	27.9	18.2	9.7	2.9	6.8	72.1	10.3	61.8	6.5	55.3
Tamil Nadu	19.1	14.2	4.9	2.5	2.4	80.9	1.8	79.1	0.6	78.5
Puducherry	20.1	16.0	4.1	1.5	2.6	79.9	1.9	77.9	0.9	77.0

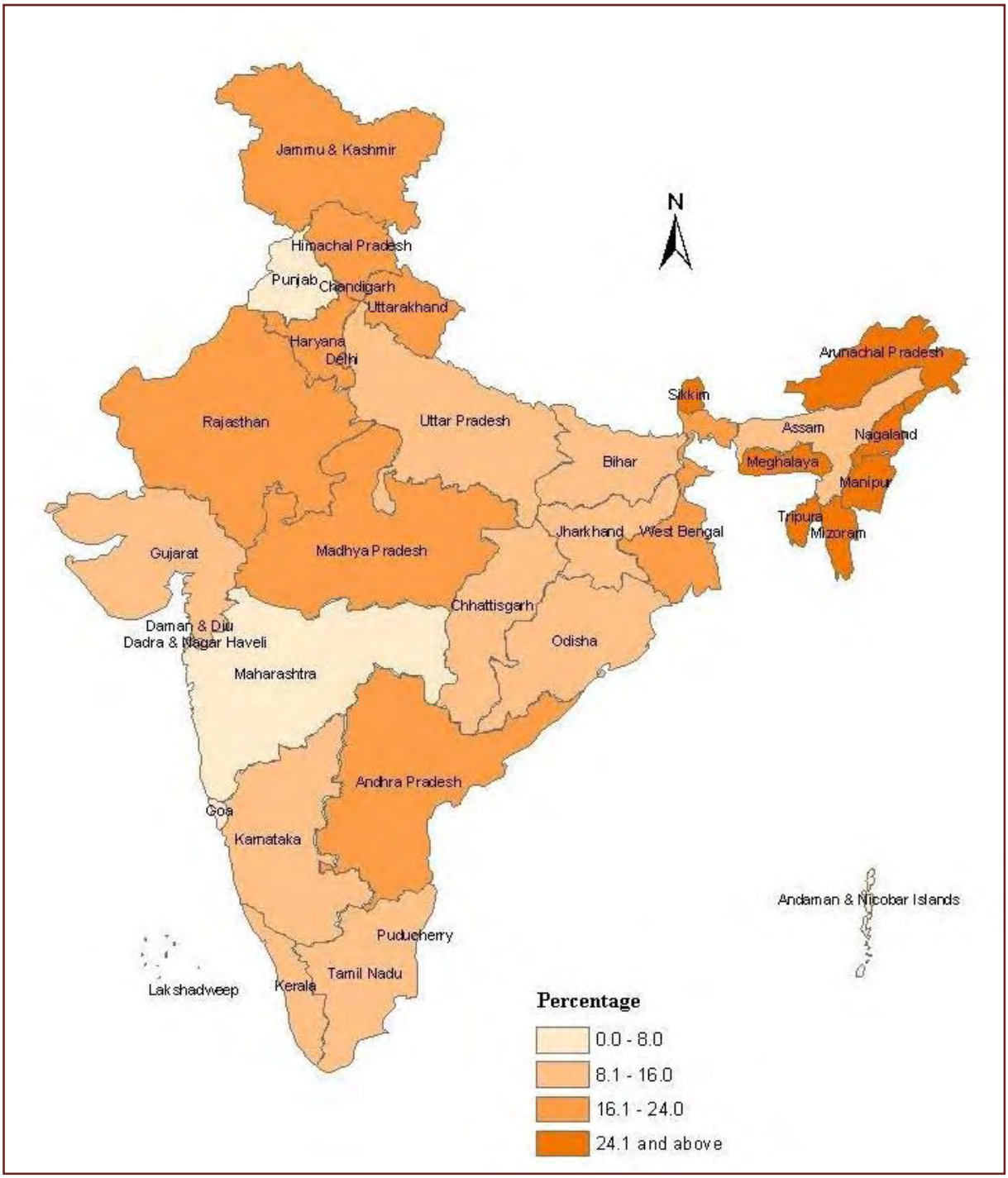
Table 4.18: Percentage of females age 15 and above by detailed status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current smoker					Current non-smoker				
	Current smoker	Daily smoker	Occas-ional smoker	Occas-ional smoker, former daily	Occas-ional smoker, never daily	Current non-smoker	Former daily smoker	Never daily smoker	Former occas-ional smoker	Never smoker
India	2.9	2.4	0.5	0.3	0.2	97.1	0.5	96.5	0.2	96.3
North	2.7	2.4	0.3	0.1	0.3	97.3	0.6	96.7	0.3	96.4
Jammu & Kashmir	7.8	6.3	1.4	0.3	1.1	92.2	1.6	90.7	0.8	89.9
Himachal Pradesh	3.1	2.9	0.2	0.1	0.1	96.9	1.0	95.9	1.0	94.8
Punjab	0.4	0.4	0.0	0.0	0.0	99.6	0.1	99.5	0.0	99.5
Chandigarh	0.6	0.6	0.0	0.0	0.0	99.4	0.1	99.3	0.1	99.2
Uttarakhand	3.9	3.6	0.2	0.1	0.1	96.1	1.0	95.1	0.1	95.0
Haryana	4.5	4.3	0.3	0.0	0.3	95.5	0.2	95.3	0.0	95.2
Delhi	1.1	0.9	0.1	0.0	0.1	98.9	0.6	98.3	0.0	98.3
Central	4.1	3.6	0.5	0.2	0.3	95.9	0.5	95.4	0.2	95.2
Rajasthan	5.3	4.2	1.1	0.6	0.6	94.7	0.3	94.5	0.2	94.3
Uttar Pradesh	4.6	4.3	0.3	0.0	0.3	95.4	0.9	94.6	0.3	94.3
Chhattisgarh	3.7	3.3	0.4	0.4	0.0	96.3	0.1	96.2	0.1	96.1
Madhya Pradesh	2.2	1.6	0.6	0.3	0.3	97.8	0.1	97.7	0.1	97.6
East	3.6	3.1	0.5	0.2	0.3	96.4	1.4	95.0	0.4	94.6
West Bengal	1.9	1.8	0.1	0.0	0.1	98.1	0.0	98.0	0.0	98.0
Jharkhand	0.9	0.6	0.3	0.1	0.3	99.1	1.1	98.0	0.2	97.8
Odisha	0.7	0.7	0.0	0.0	0.0	99.3	0.0	99.3	0.0	99.3
Bihar	7.8	6.5	1.2	0.4	0.8	92.2	3.6	88.7	1.1	87.6
North-East	4.8	3.5	1.3	0.3	1.0	95.2	0.2	95.0	0.3	94.7
Sikkim	15.9	11.2	4.7	2.2	2.5	84.1	0.7	83.4	1.6	81.8
Arunachal Pradesh	11.2	6.8	4.4	0.0	4.4	88.8	0.1	88.7	0.1	88.6
Nagaland	12.4	9.7	2.7	0.1	2.6	87.6	0.6	86.9	0.8	86.1
Manipur	11.4	9.8	1.6	0.4	1.3	88.6	0.4	88.2	1.5	86.7
Mizoram	19.0	14.5	4.5	0.5	4.0	81.0	0.8	80.2	0.6	79.7
Tripura	10.3	9.0	1.4	0.3	1.1	89.7	0.3	89.4	0.2	89.2
Meghalaya	3.6	2.8	0.8	0.2	0.6	96.4	0.0	96.4	0.1	96.4
Assam	2.2	1.3	0.9	0.3	0.7	97.8	0.1	97.7	0.2	97.6
West	0.5	0.3	0.2	0.1	0.1	99.5	0.1	99.4	0.1	99.3
Gujarat	1.5	0.8	0.7	0.3	0.4	98.5	0.2	98.3	0.2	98.1
Maharashtra	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0
Goa	0.9	0.6	0.3	0.0	0.3	99.1	0.0	99.1	0.0.	99.1
South	2.0	1.4	0.6	0.6	0.0	98.0	0.1	97.8	0.1	97.7
Andhra Pradesh	5.7	4.1	1.7	1.7	0.0	94.3	0.3	94.0	0.3	93.7
Karnataka	0.3	0.3	0.1	0.1	0.0	99.7	0.0	99.7	0.0	99.7
Kerala	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0
Tamil Nadu	0.1	0.1	0.0	0.0	0.0	99.9	0.1	99.8	0.0	99.8
Puducherry	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0

Figure 4.4 Percentage of current smokers age 15 and above according to states/UTs, GATS India, 2009-2010



Map 4.2 Percentage of current smokers in India and its states/UTs, GATS India, 2009-2010

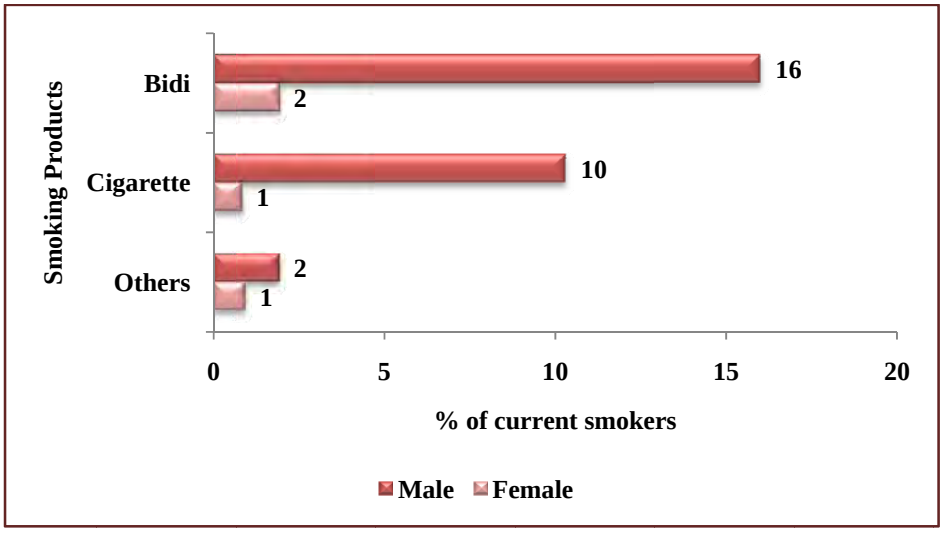


4.2.4 Prevalence of various tobacco smoking products

The prevalence of various tobacco smoking products among males and females is shown in Table 4.19 and Figure 4.5. The table clearly depicts that in India, bidi is the most commonly used smoking product followed by cigarette and hookah. About 9 percent of Indian adults smoke bidis, 6 percent smoke cigarettes, 1 percent smoke hookah and less than 1 percent (0.6%) smoke cigars and cheroots. A sizeable proportion of smokers smoke multiple tobacco products too.

People in rural areas smoke more than those in urban areas. Smoking prevalence increases with increasing age and decreasing educational categories (Figure 4.6).Among both males and females the prevalence of cigarette smoking is higher in urban areas but the prevalence of use of all other smoking products is higher in rural areas. In urban areas, 13 percent males smoke cigarettes as against 9 percent of their rural counterparts. On the other hand, 10 percent and 0.4 percent of males in urban areas smoke bidi and hookah respectively as compared with 19 percent and one percent males from rural areas who smoke these products.

Figure 4.5 Percentage of current smokers age 15 and above by various smoking products, GATS India, 2009-2010



The proportion of daily cigarette and bidi smokers is 4 percent (6% among males and 1% among females) and 8 percent (13% among males and 2% among females) respectively. In other words, 63 percent of cigarette smokers smoke cigarette every day whereas 81 percent of bidi smokers are daily bidi smokers. In rural and urban areas prevalence of daily cigarette smoking is 3 percent and 5 percent respectively, whereas that of daily bidi smoking is 9 percent and 5 percent respectively (Data on daily cigarette and bidi smoking not shown in table).

The proportion of males who smoke cigarettes, bidis and cigars/cheroots increases with age up to the age of 64, but again reverses to go down for males age 65 and above. For example, the prevalence of cigarette smoking among males increases from 6 percent among adolescents age 15–24 to 13 percent in the age group 45–64, and decreases to 7 percent for males age 65 and above. The prevalence of hookah smoking, however, increases consistently from very small proportion (0.2%) among males age 15–24 to 3 percent

among males, age 65 and above. The prevalence of use of each smoking product among females increases consistently with age. In the age group of 65 and above, 3 percent of males as well as females smoke hookah. Males smoke more than females.

The proportion of males who smoke cigarettes does not reflect any consistent relationship with their education, but the proportion of males who smoke other tobacco products, such as, bidi, cigar, cheroot and hookah decreases sharply and consistently with rise in their educational levels. Among females, the prevalence of all smoking products decreases with rising education. About 2 percent of females with no education smoke cigarettes, 4 percent smoke bidis and nearly 1 percent smoke any of the three products – cigar, cheroot or hookah. In contrast, only a small proportion (0.1%) of females with secondary education reported smoking cigarettes and practically none of the females reported smoking any tobacco product. There appears to be no discernible relationship between smoking any kind of tobacco product and nature of occupation.

Figure 4.6 Percentage of current smokers age 15 and above by background characteristics, GATS India, 2009-2010

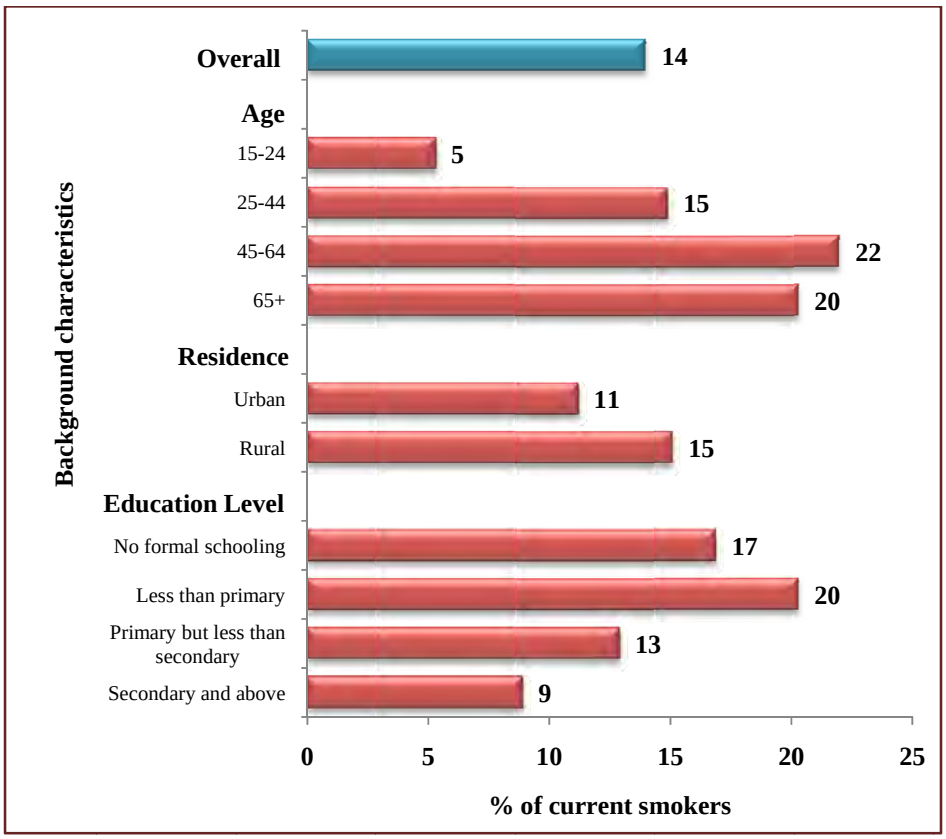


Table 4.19: Percentage of adults age 15 and above who are current smokers of various smoked tobacco products by gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Any smoked tobacco product	Any cigarette[1]	Bidi	Cigars, *cheroots* or cigarillos	Hookah	Other smoked tobacco
Overall	14.0	5.7	9.2	0.6	0.9	0.4
Age						
15- 24	5.3	3.4	2.2	0.1	0.2	0.1
25- 44	14.9	6.5	9.8	0.5	0.7	0.3
45- 64	22.0	7.6	15.7	1.0	1.3	0.6
65+	20.3	4.9	14.8	1.8	2.9	1.2
Residence						
Urban	11.2	7.0	5.5	0.4	0.3	0.2
Rural	15.1	5.2	10.7	0.6	1.1	0.5
Education level						
No formal schooling	16.9	4.4	12.9	1.2	1.6	0.7
Less than primary	20.3	6.6	15.3	0.5	0.9	0.4
Primary but less than secondary	12.9	6.3	8.1	0.4	0.6	0.3
Secondary and above	8.9	6.3	3.4	0.1	0.2	0.1
Occupation						
Government and non-government employee	20.9	10.1	12.9	0.9	0.9	0.6
Self-employed	22.0	8.1	15.6	0.7	1.1	0.5
Student	2.1	1.9	0.4	0.0	0.0	0.0
Homemaker	4.1	1.2	2.6	0.3	0.7	0.2
Retired and unemployed	21.2	7.3	13.7	1.0	1.4	0.5
Male	24.3	10.3	16.0	0.7	1.1	0.5
Age						
15- 24	9.7	6.4	4.1	0.1	0.2	0.1
25- 44	27.0	12.1	17.6	0.7	1.0	0.4
45- 64	37.4	13.1	27.2	1.4	1.8	0.8
65+	31.0	7.4	23.3	1.0	3.2	1.1
Residence						
Urban	20.4	13.0	9.8	0.6	0.4	0.4
Rural	25.9	9.2	18.6	0.7	1.4	0.5
Education level						
No formal schooling	38.9	9.9	31.1	1.6	2.3	1.0
Less than primary	34.2	11.3	25.7	0.6	1.3	0.6
Primary but less than secondary	21.8	10.6	13.8	0.6	1.0	0.4
Secondary and above	14.0	9.9	5.3	0.2	0.3	0.2
Occupation						
Government and non-government employee	26.9	13.0	16.5	0.6	0.7	0.3
Self-employed	27.7	10.3	19.7	0.9	1.4	0.7
Student	3.4	3.1	0.7	0.1	0.0	0.0
Homemaker	35.7	13.7	24.9	0.2	4.1	0.3
Retired and unemployed	26.8	10.0	17.0	1.2	1.7	0.7
Female	2.9	0.8	1.9	0.5	0.6	0.3
Age						
15-24	0.3	0.1	0.2	0.1	0.2	0.1
25- 44	2.1	0.5	1.5	0.3	0.5	0.3
45- 64	5.7	1.8	3.4	0.5	0.8	0.4
65+	9.9	2.5	6.6	2.6	2.6	1.3
Residence						
Urban	1.1	0.4	0.7	0.2	0.2	0.1
Rural	3.7	1.0	2.3	0.6	0.8	0.4
Educational level						
No formal schooling	6.0	1.7	3.8	0.9	1.3	0.6
Less than primary	1.6	0.3	1.2	0.2	0.3	0.2
Primary but less than secondary	0.5	0.3	0.3	0.1	0.2	0.1
Secondary and above	0.1	0.1	0.0	0.0	0.0	0.0
Occupation						
Government and non-government employee	5.1	2.2	3.3	1.8	1.5	1.4
Self-employed	2.1	0.5	1.4	0.0	0.2	0.0
Student	0.1	0.0	0.0	0.0	0.0	0.0
Homemaker	2.8	0.7	1.7	0.3	0.6	0.2
Retired and unemployed	8.0	1.1	5.9	0.5	0.6	0.2

Note: [1] Includes manufactured cigarettes and tobacco rolled in paper or leaf.

4.2.5 Number of users of various tobacco smoking products

Table 4.20 presents the number of users of different smoking tobacco products classified by residence and gender. It has already been observed that there are 111.2 million adult tobacco smokers in India. There are 46.4 million (43.1 million males and 3.3 million females) adult cigarette smokers and 73.3 million (66.1 million males and 7.2 million females) bidi smokers. Besides the users of these two main smoking products there are 7.1 million hookah smokers, 4.9 million smokers of cigars, cheroots, etc., and 3.3 million people who use all other smoking products combined. The number of male smokers of each product is higher than the number of female smokers. Though the prevalence of cigarette smoking in rural areas is lower than in urban areas, the number of cigarette smokers in rural areas is higher than in urban areas. The number of smokers of any kind of smoking tobacco product in rural areas is higher than in urban areas, partly because of the higher prevalence of smoking in rural areas and also because of the larger rural population.

Table 4.20: Number of adults age 15 and above who are current smokers of various smoking tobacco products, according to residence and gender, GATS India, 2009-2010

		Gender		Residence	
	Overall	Male	Female	Urban	Rural
	Numbers in thousand				
Current smoker	111,203	99,874	11,330	26,102	85,101
Cigarette	46,358	43,086	3,272	16,361	29,997
Bidi	73,314	66,081	7,232	12,775	60,539
Cigar, cheroot or cigarillos	4,929	3,088	1,840	1,118	3,811
Hookah	7,101	4,640	2,460	750	6,351
Other smoking product	3,287	2,000	1,288	588	2,700

4.2.6 Prevalence of various tobacco smoking products by region and state/UT

The regional and state/UT level variation in the prevalence of use of various smoking products among total population, males and females, is presented in Tables 4.21, 4.22 and 4.23 respectively. In North, Central, East and West regions bidi smoking is more prevalent than cigarette smoking, whereas in North-East and South cigarette smoking is more prevalent than bidi smoking. Except in South (1%), prevalence of smoking cigar/cheroot is very small. Similarly, with the exception of North (3%) and Central (1%), in every region less than 1 percent adults smoke hookah.

In most of the states, bidi smoking is more prevalent than cigarette smoking. However, in many states from the North-East and South, cigarette smoking is more prevalent than bidi smoking. The state level prevalence of cigarette smoking ranges from the highest of 37 percent in Mizoram to the lowest of 2 percent in Uttar Pradesh. Prevalence of bidi smoking is highest in Arunachal Pradesh and Tripura (22% in both) and lowest in Goa (2%). The proportion of cigarette smoking among males varies from the high of 57 percent in Mizoram to the low of 4 percent in Uttar Pradesh. Prevalence of bidi smoking among males varies from the highest of 35 percent in Tripura and Meghalaya to lowest of 2 percent in Goa. In most of the states smoking of cigars and cheroots is less than 1 percent. However, in Andhra Pradesh, Sikkim and Arunachal Pradesh, 3-4 percent of males smoke cigars and/or cheroots. Hookah smoking is also quite rare

in most states. Jammu & Kashmir (15%) and Haryana (9%) are the only states where this figure exceeds 5 percent among males.

Table 4.21: Percentage of adults age 15 and above who are current smokers of various smoked tobacco products, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Any smoked tobacco product	Any cigarette[1]	Bidi	Cigars, cheroots or cigarillos	Hookah	Other smoked tobacco
India	14.0	5.7	9.2	0.6	0.9	0.4
North	13.8	6.1	7.7	0.3	2.8	0.2
Jammu & Kashmir	21.9	12.0	3.8	0.6	10.7	1.2
Himachal Pradesh	18.3	7.7	14.5	0.3	1.8	0.1
Punjab	6.9	3.7	4.2	0.2	0.1	0.0
Chandigarh	11.0	5.3	6.0	0.2	0.1	0.0
Uttarakhand	22.1	4.1	19.2	0.1	2.2	0.0
Haryana	19.6	3.8	15.4	0.0	5.7	0.0
Delhi	17.4	9.9	8.7	0.0	0.3	0.0
Central	15.5	3.5	12.6	0.5	1.5	0.6
Rajasthan	18.8	2.8	16.0	0.4	2.4	0.6
Uttar Pradesh	14.9	2.3	12.4	0.0	1.4	0.1
Chhattisgarh	12.6	5.7	9.5	1.7	1.7	1.8
Madhya Pradesh	16.9	5.1	13.4	0.8	0.8	0.7
East	15.7	7.4	10.3	0.2	0.4	0.4
West Bengal	21.3	10.3	15.7	0.3	0.3	0.3
Jharkhand	9.6	6.8	4.1	0.1	0.0	0.2
Odisha	10.3	4.7	6.5	0.2	0.4	0.4
Bihar	14.2	5.9	8.4	0.1	0.6	0.6
North-East	19.3	12.1	8.6	0.8	0.9	0.5
Sikkim	26.4	19.4	10.8	2.3	1.5	1.6
Arunachal Pradesh	29.4	20.6	21.9	1.7	2.4	4.0
Nagaland	31.5	26.3	11.8	0.3	0.5	0.5
Manipur	25.7	19.2	10.7	0.7	0.8	0.9
Mizoram	39.7	37.2	6.1	1.2	2.0	0.1
Tripura	27.3	7.3	21.5	1.2	2.4	0.5
Meghalaya	35.7	27.2	18.7	0.2	0.5	0.7
Assam	14.4	8.8	5.3	0.7	0.7	0.3
West	8.1	3.1	4.8	0.3	0.4	0.3
Gujarat	11.0	2.6	8.9	0.8	1.1	0.7
Maharashtra	6.6	3.4	2.7	0.1	0.1	0.0
Goa	4.8	3.7	1.5	0.1	0.0	0.0
South	13.3	8.0	6.5	1.2	0.2	0.2
Andhra Pradesh	17.4	11.1	6.8	2.9	0.1	0.0
Karnataka	11.9	4.4	8.3	0.0	0.1	0.0
Kerala	13.4	10.5	4.9	0.0	0.0	0.2
Tamil Nadu	9.6	6.0	5.3	0.8	0.5	0.5
Puducherry	10.3	8.2	2.8	1.2	0.4	1.2

Note: [1]Includes manufactured cigarettes and rolled tobacco in paper or leaf.

Table 4.22: Percentage of males age 15 and above who are current smokers of various smoked tobacco products, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Any smoked tobacco product	Any cigarette[1]	Bidi	Cigars, cheroots or cigarillos	Hookah	Other smoked tobacco
India	24.3	10.3	16.0	0.7	1.1	0.5
North	23.3	11.0	13.3	0.5	3.9	0.4
Jammu & Kashmir	34.9	21.6	6.3	1.0	14.6	1.9
Himachal Pradesh	33.4	15.3	25.9	0.6	3.3	0.3
Punjab	12.7	7.1	7.6	0.3	0.1	0.0
Chandigarh	18.8	9.2	10.1	0.4	0.1	0.0
Uttarakhand	31.8	6.3	27.8	0.2	2.7	0.0
Haryana	32.8	7.0	26.5	0.0	9.0	0.1
Delhi	30.4	17.8	14.8	0.0	0.6	0.0
Central	25.7	5.6	21.0	0.2	1.6	0.3
Rajasthan	31.5	4.9	26.7	0.2	3.9	1.0
Uttar Pradesh	23.9	4.1	20.1	0.0	1.7	0.1
Chhattisgarh	20.9	7.7	15.0	0.1	0.1	0.1
Madhya Pradesh	30.5	8.4	24.3	0.6	0.7	0.1
East	27.2	14.2	17.4	0.3	0.4	0.8
West Bengal	39.5	19.6	28.9	0.6	0.6	0.6
Jharkhand	17.9	13.3	7.1	0.3	0.0	0.3
Odisha	19.9	8.7	13.0	0.4	0.8	0.7
Bihar	20.3	11.0	10.2	0.0	0.0	1.2
North-East	33.1	22.3	14.8	1.4	1.4	0.6
Sikkim	35.3	26.6	13.1	3.9	2.8	3.0
Arunachal Pradesh	47.9	38.0	33.5	2.9	4.2	4.8
Nagaland	48.7	41.9	17.5	0.5	1.0	0.6
Manipur	40.2	34.4	14.3	0.8	1.3	1.1
Mizoram	59.4	56.6	7.9	0.9	1.1	0.2
Tripura	43.6	13.6	34.9	2.3	2.5	1.0
Meghalaya	67.0	51.9	34.8	0.3	0.8	1.2
Assam	26.1	17.0	10.2	1.3	1.2	0.3
West	14.8	5.8	8.9	0.6	0.8	0.4
Gujarat	19.8	4.8	16.7	1.5	2.1	1.2
Maharashtra	12.4	6.3	5.1	0.1	0.1	0.1
Goa	8.4	6.8	2.3	0.3	0.0	0.1
South	24.7	14.8	12.9	1.8	0.4	0.4
Andhra Pradesh	29.3	18.5	13.6	4.0	0.1	0.1
Karnataka	23.2	8.7	16.5	0.1	0.2	0.0
Kerala	27.9	21.9	10.3	0.0	0.1	0.3
Tamil Nadu	19.1	12.0	10.6	1.7	1.0	1.1
Puducherry	20.1	16.0	5.5	2.3	0.7	2.3

Note: [1] Includes manufactured cigarettes and tobacco rolled in paper or leaf.

Table 4.23: Percentage of females age 15 and above who are current smokers of various smoked tobacco products, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Any smoked tobacco product	Any cigarette[1]	Bidi	Cigars, cheroots or cigarillos	Hookah	Other smoked tobacco
India	2.9	0.8	1.9	0.5	0.6	0.3
North	2.7	0.3	1.2	0.0	1.5	0.1
Jammu & Kashmir	7.8	1.5	1.0	0.2	6.4	0.3
Himachal Pradesh	3.1	0.1	3.1	0.0	0.3	0.0
Punjab	0.4	0.0	0.4	0.0	0.0	0.0
Chandigarh	0.6	0.0	0.5	0.0	0.1	0.0
Uttarakhand	3.9	0.1	2.9	0.0	1.1	0.0
Haryana	4.5	0.2	2.6	0.0	1.9	0.0
Delhi	1.1	0.0	1.1	0.0	0.0	0.0
Central	4.1	1.1	3.4	1.0	1.4	0.9
Rajasthan	5.3	0.6	4.6	0.7	0.9	0.2
Uttar Pradesh	4.6	0.2	3.5	0.1	0.9	0.1
Chhattisgarh	3.7	3.5	3.5	3.5	3.5	3.5
Madhya Pradesh	2.2	1.6	1.7	1.0	0.8	1.3
East	3.6	0.4	2.9	0.0	0.5	0.0
West Bengal	1.9	0.4	1.6	0.0	0.1	0.1
Jharkhand	0.9	0.0	0.9	0.0	0.0	0.0
Odisha	0.7	0.7	0.0	0.0	0.0	0.0
Bihar	7.8	0.4	6.5	0.1	1.3	0.0
North-East	4.8	1.5	2.0	0.1	0.4	0.4
Sikkim	15.9	11.0	8.1	0.5	0.0	0.0
Arunachal Pradesh	11.2	3.5	10.4	0.4	0.6	3.2
Nagaland	12.4	9.2	5.6	0.1	0.0	0.4
Manipur	11.4	4.3	7.0	0.6	0.2	0.8
Mizoram	19.0	16.9	4.3	1.5	2.9	0.0
Tripura	10.3	0.9	7.6	0.1	2.3	0.0
Meghalaya	3.6	1.8	2.3	0.1	0.1	0.1
Assam	2.2	0.1	0.1	0.0	0.1	0.4
West	0.5	0.1	0.2	0.0	0.0	0.0
Gujarat	1.5	0.2	0.5	0.0	0.0	0.1
Maharashtra	0.0	0.0	0.0	0.0	0.0	0.0
Goa	0.9	0.3	0.7	0.0	0.0	0.0
South	2.0	1.3	0.1	0.6	0.0	0.0
Andhra Pradesh	5.7	3.7	0.2	1.8	0.0	0.0
Karnataka	0.3	0.0	0.0	0.0	0.0	0.0
Kerala	0.0	0.0	0.0	0.0	0.0	0.0
Tamil Nadu	0.1	0.1	0.0	0.0	0.0	0.0
Puducherry	0.0	0.0	0.0	0.0	0.0	0.0

Note: [1]Includes manufactured cigarettes and tobacco rolled in paper or leaf.

It is already noted that prevalence of smoking is very low among females. However, the figures for cigarette smoking are high in Mizoram (17%), Sikkim (11%) and Nagaland (9%) while those for bidi smoking are high in Arunachal Pradesh (10%), Sikkim and Tripura (8% each) and Manipur and Bihar (7% each). Smoking cigars and/or cheroots is tangible among females in Chhattisgarh (4%) and Andhra Pradesh (2%). Hookah smoking is relatively more prevalent among females in Jammu & Kashmir (6%), Chhattisgarh (4%) and Mizoram (3%).

4.2.7 Frequency of smoking

Table 4.24 presents the percent distribution of adult population classified according to categories of daily use, occasional use and non-smokers. Among Indian adults, 11 percent (18% males and 2% females) are daily smokers, 3 percent (6% males and 1% females) are occasional smokers and the remaining 86 percent (76% males and 97% females) are non-smokers. Among both males and females, the daily smokers are proportionately more in rural areas than urban areas, though there is not much urban-rural difference for occasional smokers. The proportion of daily smokers among males increases with age from 5 percent in the age group of 15–24 to 31 percent in the age group 45–64, but decreases to 26 percent among males age 65 and above. The prevalence of daily smokers among females increases from almost a negligible proportion in the age group of 15–24 to 9 percent among females age 65 and above. A small proportion of young males (1%) and females (less than 0.1%) age 15–17 reported smoking daily (numbers not shown in the table). As with overall tobacco use, the prevalence of daily smoking among both males and females holds an inverse relationship with education. The table shows that 2 percent of male students smoke tobacco every day.

4.2.8 Frequency of smoking by region and state/UT

The percent distribution of adult population classified according to categories of daily smokers, occasional smokers and non-smokers in different regions and states/UTs is shown in Table 4.25. The pattern of regional and state/UT level variation in daily smoking is more or less similar to that of current prevalence. The table shows that in all regions, most (68%-85%) of the current smokers are daily smokers. The state/UT level differentials in the pattern of smoking also show that in almost all states most smokers are daily smokers. The only exception is Jharkhand where the proportion of occasional smokers (7%) exceeds that of daily smokers (3%). In Bihar also almost equal proportion of smokers are daily smokers (8%) and occasional smokers (7%).

Table 4.24: Percent distribution of adults age 15 and above by status of smoking and gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Smoking status			Total
	Daily	Occasional[1]	Non-smoker	
Overall	10.7	3.3	86.0	100
Age				
15- 24	2.7	2.5	94.7	100
25- 44	11.1	3.8	85.1	100
45- 64	18.5	3.5	78.0	100
65+	17.4	2.9	79.7	100
Residence				
Urban	8.4	2.8	88.8	100
Rural	11.6	3.5	84.9	100
Education level				
No formal schooling	14.0	2.9	83.1	100
Less than primary	16.0	4.2	79.7	100
Primary but less than secondary	9.2	3.7	87.1	100
Secondary and above	6.0	3.0	91.1	100
Occupation				
Government and non-government employee	15.7	5.1	79.1	100
Self-employed	17.3	4.8	78.0	100
Student	1.0	1.1	97.9	100
Homemaker	3.2	0.9	95.9	100
Retired and unemployed	15.4	5.8	78.8	100
Male	18.3	5.9	75.7	100
Age				
15- 24	5.0	4.7	90.3	100
25- 44	20.0	7.0	73.0	100
45- 64	31.4	6.0	62.6	100
65+	25.9	5.1	69.0	100
Residence				
Urban	15.2	5.2	79.6	100
Rural	19.7	6.2	74.1	100
Education level				
No formal schooling	32.0	6.9	61.1	100
Less than primary	27.0	7.2	65.8	100
Primary but less than secondary	15.6	6.2	78.2	100
Secondary and above	9.4	4.6	86.0	100
Occupation				
Government and non-government employee	20.1	6.8	73.1	100
Self-employed	21.7	6.0	72.3	100
Student	1.6	1.8	96.6	100
Homemaker	25.9	9.8	64.3	100
Female	2.4	0.5	97.1	100
Age				
15-24	0.2	0.2	99.7	100
25- 44	1.6	0.5	97.9	100
45- 64	4.8	0.9	94.3	100
65+	9.2	0.8	90.1	100
Residence				
Urban	0.9	0.2	98.9	100
Rural	3.1	0.6	96.3	100
Education level				
No formal schooling	5.0	1.0	94.0	100
Less than primary	1.4	0.2	98.4	100
Primary but less than secondary	0.4	0.1	99.5	100
Secondary and above	0.0	0.1	99.9	100
Occupation				
Government and non-government employee	4.3	0.8	94.9	100
Self-employed	1.6	0.4	97.9	100
Student	0.0	0.1	99.9	100
Homemaker	2.3	0.5	97.2	100
Retired and unemployed	7.4	0.6	92.0	100

Note: [1] Includes less than daily smokers.

Table 4.25: Percent distribution of adults age 15 and above by smoking status, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Smoking status			Total
	Daily	Occasional[1]	Non-smoker	
India	10.7	3.3	86.0	100
North	11.8	2.1	86.2	100
Jammu & Kashmir	19.0	2.9	78.1	100
Himachal Pradesh	15.6	2.7	81.7	100
Punjab	5.2	1.6	93.1	100
Chandigarh	8.6	2.4	89.0	100
Uttarakhand	19.9	2.2	77.9	100
Haryana	18.2	1.5	80.4	100
Delhi	16.4	1.0	82.6	100
Central	12.0	3.4	84.5	100
Rajasthan	15.9	2.9	81.2	100
Uttar Pradesh	12.5	2.4	85.1	100
Chhattisgarh	7.7	4.9	87.4	100
Madhya Pradesh	11.5	5.4	83.1	100
East	10.6	5.1	84.3	100
West Bengal	17.1	4.2	78.7	100
Jharkhand	2.7	6.9	90.4	100
Odisha	7.6	2.7	89.7	100
Bihar	7.6	6.6	85.8	100
North-East	14.7	4.6	80.7	100
Sikkim	17.5	8.9	73.6	100
Arunachal Pradesh	21.1	8.3	70.6	100
Nagaland	25.4	6.1	68.5	100
Manipur	16.7	9.0	74.3	100
Mizoram	35.4	4.2	60.3	100
Tripura	22.8	4.5	72.7	100
Meghalaya	30.0	5.7	64.3	100
Assam	10.7	3.8	85.6	100
West	6.5	1.6	91.9	100
Gujarat	9.2	1.8	89.0	100
Maharashtra	5.1	1.5	93.4	100
Goa	4.1	0.7	95.2	100
South	10.6	2.7	86.7	100
Andhra Pradesh	14.6	2.9	82.6	100
Karnataka	10.3	1.5	88.1	100
Kerala	8.7	4.7	86.6	100
Tamil Nadu	7.1	2.4	90.4	100
Puducherry	8.2	2.1	89.7	100

Note: [1] Includes less than daily smokers

4.2.9 Number of cigarettes smoked per day

The daily frequency of smoking (or the number of cigarettes or bidis smoked every day) is one of the important dimensions of tobacco smoking since the number of cigarettes or bidis smoked every day indicates the degree of dependence on nicotine. Table 4.26 and Figures 4.7 present the percent

distribution of daily cigarette smokers classified by number of cigarettes smoked every day. A typical daily cigarette smoker in India smokes on an average of 6.2 cigarette sticks every day. Half of all cigarette smokers smoke less than five cigarettes a day, 27 percent smoke 5–9 cigarettes, 16 percent smoke 10–14 cigarettes, 6 percent smoke 15–24 cigarettes and about 2 percent smoke more than 25 cigarettes per day. Though the prevalence of cigarette smoking among females is considerably lower than among males, the frequency of cigarettes smoked per day among female cigarette smokers (7.0) is slightly higher than male smokers (6.1). Daily male cigarette smokers from urban areas smoke a slightly higher number of cigarettes (6.4) than their rural counterparts (6.0), though among female cigarette smokers the number of cigarettes smoked every day is more in rural areas. The mean number of cigarettes smoked per day increases from 4.8 among males age 15–24 to 6.8 among males age 65 and above, though no such pattern is observed among females. The frequency of cigarettes smoked per day by both male and female smokers does not show any particular relationship with either education level or nature of occupation.

Figure 4.7 Percent distribution of daily cigarette smokers by number of cigarettes smoked on an average per day according to gender, GATS India, 2009-2010

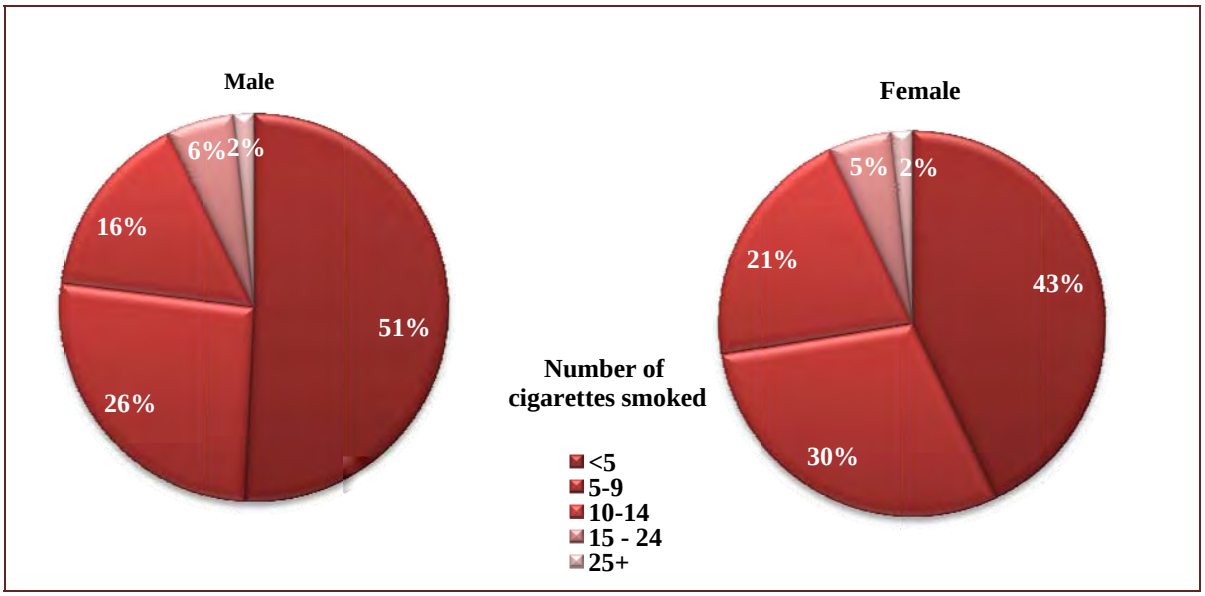


Table 4.26: Percent distribution of current daily cigarette smokers age 15 and above by number of cigarettes smoked on average per day, by gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Number of cigarettes smoked on average per day					Total	Mean no. of cigarettes smoked per day
	<5	5-9	10-14	15-24	25+		
Overall	50.1	26.5	16.1	5.6	1.7	100	6.2
Age							
15 - 24	64.0	21.2	10.2	3.7	0.9	100	5.0
25 - 44	49.1	28.1	16.1	5.2	1.5	100	6.1
45 - 64	48.4	25.3	17.3	7.1	1.9	100	6.6
65+	42.4	28.9	20.4	4.6	3.8	100	7.2
Residence							
Urban	45.2	29.5	18.8	5.0	1.4	100	6.4
Rural	53.0	24.6	14.5	6.0	1.9	100	6.1
Education level							
No formal schooling	53.1	22.2	18.0	4.3	2.4	100	6.3
Less than primary	50.7	23.5	17.0	6.1	2.7	100	6.2
Primary but less than secondary	52.3	27.7	13.2	5.5	1.3	100	6.0
Secondary and above	44.7	30.6	17.0	6.7	1.0	100	6.3
Occupation							
Government and non-government employee	47.4	27.9	16.5	6.4	1.8	100	6.4
Self-employed	50.9	25.7	16.3	5.6	1.5	100	6.1
Student	51.4	32.5	13.8	1.9	0.3	100	5.9
Homemaker	58.5	20.7	14.0	3.8	2.9	100	6.1
Retired and unemployed	51.9	26.8	15.4	3.6	2.3	100	5.8
Male	50.7	26.2	15.7	5.6	1.7	100	6.1
Age							
15- 24	64.2	21.0	10.6	3.9	0.4	100	4.8
25- 44	50.0	27.9	15.5	5.0	1.6	100	6.0
45- 64	47.2	25.8	17.5	7.5	2.0	100	6.7
65+	48.5	23.7	18.7	4.4	4.7	100	6.8
Residence							
Urban	45.0	29.4	19.1	5.1	1.4	100	6.4
Rural	54.4	24.1	13.5	6.0	1.9	100	6.0
Education level							
No formal schooling	57.4	19.2	16.6	3.9	2.9	100	6.1
Less than primary	51.1	24.1	16.6	5.9	2.3	100	6.0
Primary but less than secondary	52.1	27.5	13.5	5.6	1.3	100	6.0
Secondary and above	44.7	30.6	17.0	6.7	1.0	100	6.3
Occupation							
Government and non-government employee	48.4	27.6	15.8	6.5	1.7	100	6.3
Self-employed	51.0	25.5	16.4	5.7	1.5	100	6.1
Student	51.3	32.6	13.9	1.9	0.3	100	5.9
Homemaker	74.9	10.9	7.7	2.2	4.4	100	5.0
Retired and unemployed	51.1	27.3	15.4	3.7	2.5	100	5.9
Female	42.9	29.5	20.6	5.2	1.8	100	7.0
Age							
15 - 24	57.5*	28.1*	0.3*	0.0	14.1*	100	9.0
25 - 44	30.3	32.0	28.5	8.9	0.3	100	8.4
45 - 64	58.5	21.1	15.5	3.5	1.4	100	5.3
65+	27.5	41.3	24.5	5.0	1.5	100	7.9
Residence							
Urban	49.6	32.1	11.6	4.4	2.3	100	5.8
Rural	41.7	29.0	22.3	5.3	1.7	100	7.2
Education level							
No formal schooling	41.2	30.3	22.1	5.3	1.1	100	6.8
Less than primary	39.2	6.4	29.2	11.6	13.7	100	12.5
Primary but less than secondary	62.1	35.2	2.2	0.5	0.0	100	4.7
Secondary and above	35.5*	42.2*	2.2*	3.0*	17.2*	100	21.3
Occupation							
Government and non-government employee	36.3	31.3	24.6	6.0	1.8	100	7.6
Self-employed	35.4	46.3	14.0	2.7	1.7	100	6.2
Student	90.2*	9.8*	0.0	0.0	0.0	100	3.8
Homemaker	46.9	27.7	18.5	5.0	1.9	100	6.9
Retired and unemployed	67.9	14.3	16.0	1.9	0.0	100	3.9

Note: *Based on less than 25 unweighted cases.

4.2.10 Number of cigarettes smoked per day by region and state/UT

Table 4.27 presents the percent distribution of daily cigarette smokers classified by number of cigarettes smoked everyday across different regions and states/UTs. The table on the prevalence of cigarette smoking has shown that it varies across the regions and states/UTs. Even the frequency of cigarettes smoked per day varies substantially. In the North-East region daily cigarette smokers smoke an average of 8.5 cigarette sticks per day whereas the corresponding figure for daily cigarette smokers in the East is 4.8.

Table 4.27: Percent distribution of current daily cigarette smokers age 15 and above by number of cigarettes smoked on an average per day, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Number of cigarettes smoked on average per day					Total	Mean no. of cigarettes smoked per day
	<5	5-9	10-14	15-24	25+		
India	50.1	26.5	16.1	5.6	1.7	100	6.2
North	33.4	33.6	25.5	7.1	0.4	100	6.8
Jammu & Kashmir	27.7	26.0	38.2	7.2	0.9	100	7.6
Himachal Pradesh	48.3	42.6	6.6	2.5	0.0	100	4.8
Punjab	27.5	35.9	23.8	12.8	0.0	100	7.7
Chandigarh	52.9	25.1	16.9	4.4	0.8	100	6.4
Uttarakhand	54.1	36.3	9.6	0.0	0.0	100	4.3
Haryana	46.0	42.4	11.6	0.0	0.0	100	4.9
Delhi	33.0	52.7	11.5	2.8	0.0	100	6.0
Central	39.9	28.6	21.7	6.0	3.8	100	7.5
Rajasthan	52.8	17.2	23.2	6.7	0.0	100	5.8
Uttar Pradesh	31.9	37.9	22.7	4.2	3.3	100	7.6
Chhattisgarh	34.0	28.0	22.3	8.4	7.3	100	9.2
Madhya Pradesh	50.2	23.3	19.1	5.0	2.4	100	6.3
East	65.0	18.9	11.1	4.0	0.9	100	4.8
West Bengal	60.0	21.6	13.9	3.3	1.2	100	5.2
Jharkhand	91.9*	8.1*	0.0	0.0	0.0	100	2.4
Odisha	84.9	12.0	2.2	0.9	0.0	100	3.3
Bihar	71.6	10.8	4.5	13.1	0.0	100	4.9
North-East	35.6	33.3	14.6	13.4	3.1	100	8.5
Sikkim	42.7	40.5	11.4	1.1	4.3	100	10.0
Arunachal Pradesh	46.9	19.9	10.3	16.7	6.2	100	8.7
Nagaland	47.2	32.5	14.3	4.0	1.9	100	6.0
Manipur	46.9	21.4	16.7	9.3	5.7	100	8.6
Mizoram	6.2	20.7	30.3	37.3	5.5	100	13.0
Tripura	32.5	37.5	14.3	10.9	4.9	100	9.8
Meghalaya	8.7	24.5	26.9	30.0	9.9	100	14.8
Assam	41.9	40.3	9.2	8.4	0.3	100	6.5
West	53.5	26.5	15.5	2.6	1.9	100	6.0
Gujarat	59.3	19.1	10.4	4.6	6.6	100	7.2
Maharashtra	51.4	29.4	17.4	1.8	0.0	100	5.6
Goa	47.0	28.5	16.8	5.4	2.3	100	6.6
South	50.8	27.6	15.5	5.1	1.0	100	5.8
Andhra Pradesh	56.8	27.3	11.6	3.7	0.7	100	5.1
Karnataka	56.2	29.8	14.0	0.0	0.0	100	4.5
Kerala	44.6	22.8	19.9	11.3	1.4	100	7.2
Tamil Nadu	38.3	30.6	22.7	6.1	2.2	100	7.4
Puducherry	38.6	37.0	13.5	8.4	2.5	100	7.1

In all the states, daily cigarette smokers smoke at least 2.4 cigarettes per day and with the exception of Jharkhand, Odisha, Uttarakhand, Karnataka, Himachal Pradesh, Haryana and Bihar, daily cigarette smokers from all the states smoke on an average at least 5 cigarettes per day. The daily frequency of cigarette sticks smoked is the highest in Meghalaya (15) and Mizoram (13). About 40 percent to 42 percent of daily cigarette smokers in these two states smoke more than 15 cigarette sticks per day.

4.2.11 Number of bidis smoked per day

The percent distribution of daily bidi smokers by number of bidis smoked per day is shown in Table 4.28 and Figures 4.8. Less than half of all bidi smokers (47%) on an average smoke less than 10 bidis per day, whereas the remaining 53 percent smoke more than 10 bidis per day. A little more than 10 percent of all daily bidi smokers in India smoke an average of 25 bidis every day. The overall average is 11.6 bidis per day. The daily frequency of bidi smoking among male bidi smokers (12.2 sticks) is almost twice that for female smokers (6.5 sticks). Daily male bidi smokers from both, urban (12.0) and rural (12.3) areas, smoke on an average same number of bidis, though female bidi smokers from urban areas smoke slightly higher number of bidis (7.4 bidi sticks) per day compared to their rural counterpart (6.3 bidi sticks). Male smokers, age 15–17, also reported smoking an average of 6.1 bidis per day (figure not shown in table). The frequency of bidis increases from 9.5 bidis per day among males in the age group 15–24 to 12.1 bidis per day among males in the age group 25–44, and then remains practically unchanged. Among female bidi smokers the frequency of bidis does not vary with age. Among both male and female bidi smokers the frequency of daily bidis smoked bears a negative relationship with education, and it does not differ by occupation. It needs to be noted that male students who smoke bidi regularly smoke an average of eight bidis every day.

Figure 4.8 Percent distribution of current bidi smokers by number of bidi smoked on an average per day according to gender, GATS India, 2009-2010

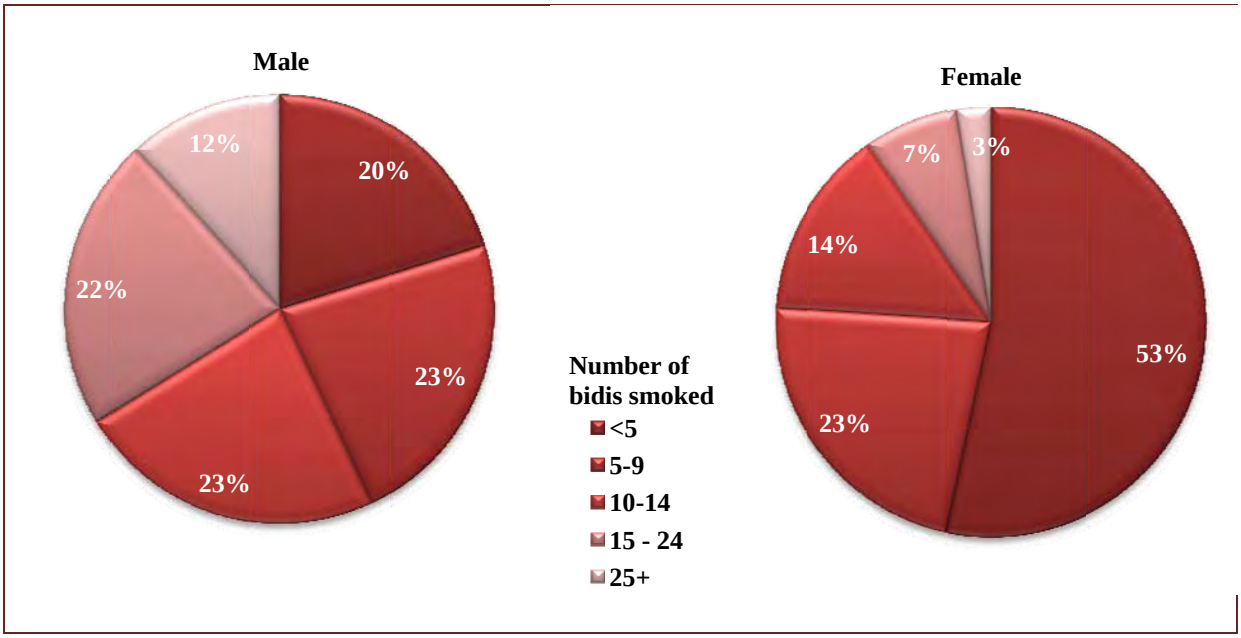


Table 4.28: Percent distribution of current daily bidi smokers age 15 and above by number of bidis smoked on an average per day and gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Number of bidis smoked on average per day					Total	Mean no. of bidis smoked per day
	<5	5-9	10-14	15-24	25+		
Overall	23.7	22.8	22.3	20.5	10.7	100	11.6
Age							
15- 24	28.2	26.1	27.2	11.5	6.9	100	9.4
25- 44	22.2	24.4	22.6	20.7	10.1	100	11.6
45- 64	22.2	20.0	21.6	23.7	12.5	100	12.4
65+	31.4	24.6	20.6	13.8	9.5	100	10.1
Residence							
Urban	22.7	23.1	23.5	21.0	9.8	100	11.7
Rural	23.9	22.8	22.0	20.4	10.9	100	11.6
Education level							
No formal schooling	27.7	22.0	20.9	19.4	10.1	100	11.1
Less than primary	19.6	25.2	22.5	19.1	13.7	100	12.3
Primary but less than secondary	20.8	21.3	24.8	23.2	9.8	100	12.0
Secondary and above	22.7	26.6	22.6	20.8	7.4	100	10.9
Occupation							
Government and non-government employee	18.5	24.3	24.7	24.1	8.3	100	12.1
Self-employed	22.3	21.5	21.4	21.1	13.6	100	12.2
Student	25.3	58.3	4.6	11.2	0.7	100	7.5
Homemaker	43.7	16.0	21.4	12.1	6.7	100	8.5
Retired and unemployed	33.0	29.0	19.1	10.3	8.7	100	9.2
Male	20.2	22.8	23.2	22.1	11.7	100	12.2
Age							
15- 24	27.2	26.2	28.0	11.4	7.2	100	9.5
25- 44	19.9	24.2	23.1	21.9	10.9	100	12.1
45- 64	18.3	20.1	22.5	25.5	13.5	100	13.1
65+	23.7	24.9	22.8	16.8	11.8	100	11.4
Residence							
Urban	20.9	23.2	23.7	21.9	10.2	100	12.0
Rural	20.0	22.8	23.1	22.1	12.0	100	12.3
Education level							
No formal schooling	20.8	21.8	22.5	22.5	12.4	100	12.4
Less than primary	19.0	24.7	22.4	19.6	14.2	100	12.5
Primary but less than secondary	19.8	21.6	25.3	23.6	9.7	100	12.1
Secondary and above	22.6	26.6	22.6	20.8	7.3	100	10.9
Occupation							
Government and non-government employee	16.3	23.4	25.9	25.5	8.9	100	12.6
Self-employed	21.7	21.3	21.6	21.5	13.9	100	12.4
Student	25.3	58.3	4.6	11.2	0.7	100	7.5
Homemaker	15.3	18.4	31.1	20.7	14.4	100	12.7
Retired and unemployed	30.2	29.9	20.1	11.0	8.8	100	9.4
Female	53.4	22.7	14.3	7.1	2.6	100	6.5
Age							
15-24	61.3*	22.8*	1.0*	14.9*	0.0	100	6.4
25- 44	51.5	27.1	15.3	5.8	0.3	100	5.8
45- 64	54.0	18.6	14.2	9.1	4.1	100	7.0
65+	54.0	23.8	14.3	4.9	3.0	100	6.5
Residence							
Urban	47.0	21.3	20.3	7.9	3.5	100	7.4
Rural	54.2	22.9	13.5	6.9	2.4	100	6.3
Education level							
No formal schooling	53.8	22.6	14.6	7.4	1.6	100	6.2
Less than primary	35.2	37.3	23.2	4.0	0.2	100	7.0
Primary but less than secondary	76.6	8.6	0.4	0.6	13.9	100	6.1
Secondary and above	29.4*	24.4*	5.9*	4.6*	35.8*	100	39.1
Occupation							
Government and non-government employee	46.2	35.9	10.1	7.3	0.5	100	6.1
Self-employed	52.9	30.6	13.4	2.9	0.3	100	5.2
Student	0.0	0.0	0.0	0.0	0.0	100	0.0
Homemaker	58.2	14.8	16.5	7.8	2.8	100	6.4
Retired and unemployed	47.8	23.9	14.0	6.6	7.7	100	8.2

Note: * Based on less than 25 unweighted cases.

4.2.12 Number of bidis smoked per day by region and state/UT

Like the daily frequency of cigarettes, the frequency of bidi sticks smoked per day also varies substantially across the regions and states/UTs (Table 4.29). In the South region, the daily bidi smoker smokes an average of 13.4 bidis per day whereas those in the East region smoke 9.9 bidis per day. In all the states daily bidi smokers on an average smoke at least 6.4 bidis per day. The daily frequency of bidis is highest in Karnataka (16.5) and Rajasthan (16.2), where daily bidi smokers smoke at least 15 sticks per day.

Table 4.29: Percent distribution of current daily bidi smokers age 15 and above by number of bidis smoked on an average per day, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Number of bidis smoked on average per day					Total	Mean no. of bidis smoked per day
	<5	5-9	10-14	15-24	25+		
India	23.7	22.8	22.3	20.5	10.7	100	11.6
North	21.3	24.6	25.0	22.4	6.6	100	10.9
Jammu & Kashmir	12.1	33.6	26.5	27.8	0.0	100	10.7
Himachal Pradesh	31.6	23.4	20.2	19.4	5.4	100	9.5
Punjab	16.9	32.3	25.1	23.7	2.0	100	10.7
Chandigarh	10.5	22.7	22.9	37.1	6.7	100	12.8
Uttarakhand	26.5	19.5	24.1	16.6	13.3	100	11.1
Haryana	8.8	20.5	35.8	28.2	6.7	100	12.7
Delhi	2.2	11.3	34.4	47.0	5.2	100	14.6
Central	24.1	18.7	24.5	22.3	10.4	100	11.9
Rajasthan	12.6	13.6	19.7	29.8	24.3	100	16.2
Uttar Pradesh	23.3	21.7	31.6	20.5	3.0	100	10.3
Chhattisgarh	34.2	23.2	16.2	14.2	12.2	100	9.7
Madhya Pradesh	34.2	13.7	15.0	23.5	13.6	100	12.3
East	24.2	33.0	20.9	13.2	8.7	100	9.9
West Bengal	15.2	31.7	26.0	17.0	10.1	100	11.2
Jharkhand	52.2	16.0	15.9	7.5	8.4	100	7.8
Odisha	25.9	48.8	9.6	6.1	9.5	100	8.8
Bihar	43.3	31.4	13.1	7.1	5.1	100	7.2
North-East	20.1	30.7	21.3	14.7	13.2	100	11.1
Sikkim	28.2	51.3	9.7	6.3	4.5	100	9.5
Arunachal Pradesh	29.9	38.6	10.4	16.7	4.5	100	9.5
Nagaland	44.2	33.0	11.4	8.6	2.9	100	6.4
Manipur	32.3	25.8	20.0	12.0	10.0	100	9.1
Mizoram	7.6	25.6	28.2	25.1	13.6	100	12.5
Tripura	26.3	23.6	18.1	13.8	18.1	100	11.5
Meghalaya	9.4	20.1	23.7	11.5	35.4	100	15.2
Assam	13.2	35.5	25.6	16.9	8.9	100	11.0
West	25.0	23.2	16.9	13.4	21.5	100	12.2
Gujarat	30.1	20.1	14.1	12.4	23.3	100	12.0
Maharashtra	16.3	28.4	21.5	15.3	18.6	100	12.6
Goa	32.8	35.9	18.1	8.0	5.2	100	7.5
South	22.4	17.4	20.6	29.9	9.6	100	13.4
Andhra Pradesh	24.2	20.8	24.1	22.0	9.0	100	11.1
Karnataka	24.4	9.4	11.3	44.4	10.6	100	16.5
Kerala	16.8	9.3	36.1	28.2	9.7	100	14.4
Tamil Nadu	18.5	28.5	21.9	22.0	9.1	100	12.0
Puducherry	21.7	38.1	15.2	18.8	6.2	100	9.9

4.2.13 Age at initiation of tobacco smoking

Table 4.30 presents the distribution of ever daily smokers, age 20–34, by age at the initiation of daily smoking. Of all daily smokers, 14 percent started smoking daily by the age of 15, 26 percent in the age group 15–17, 21 percent in the age group 18-19, and the remaining 39 percent after the age of 20. In other words, two out of every five daily smokers, age 20–34 years, had started smoking tobacco on a daily basis before attaining the age of 18, i.e. as minors. The mean age at initiation of smoking is 17.9 years. The table points out that female daily smokers had started smoking at a much younger age compared to males. About 31 percent of daily female smokers had started smoking daily by the age of 15 compared with only 13 percent of daily male smokers. The mean age at initiation of smoking for females is 14.7 as against 18.1 for males. Similarly, daily smokers from rural areas start smoking at an earlier age compared to smokers from urban areas. More than two in five (42%) smokers in rural areas started tobacco smoking before the age of 18 compared to 31 percent of urban smokers.

Table 4.30: Percent distribution of ever daily smokers age 20-34 by age at smoking initiation, according to selected background characteristics, GATS India, 2009-2010

Background characteristic	Age at smoking initiation				Total	Mean age
	<15	15-17	18-19	20-34		
Overall	13.7	25.6	21.4	39.3	100	17.9
Gender						
Male	12.8	25.2	22.0	40.0	100	18.1
Female	30.6	32.2	10.4	26.8	100	14.7
Residence						
Urban	8.1	23.1	26.9	42.0	100	18.5
Rural	15.7	26.5	19.5	38.3	100	17.7
Education Level						
No formal schooling	18.4	30.3	14.2	37.1	100	17.1
Less than primary	11.8	31.0	24.4	32.8	100	18.0
Primary but less than secondary	16.0	22.4	24.8	36.8	100	17.6
Secondary and above	7.5	21.0	21.2	50.3	100	19.2
Occupation						
Government and non-government employee	9.7	29.6	22.5	38.2	100	17.9
Self-employed	14.3	22.1	20.8	42.8	100	18.2
Student	14.1	38.3	24.3	23.3	100	16.9
Homemaker	28.6	27.8	17.9	25.7	100	16.3
Retired and unemployed	25.7	18.6	21.0	34.8	100	17.2

About half of all daily smokers with no formal education started smoking daily by the age of 18 compared to 29 percent of those with secondary and above education. In other words, the age at initiation of smoking bears an inverse relationship with the educational attainment of the smoker. More than half (52%) of daily smokers among students also got into the habit before they turned 18.

4.2.14 Age at initiation of tobacco smoking by region and state/UT

The pattern of age at initiation of smoking varies across the regions and states/UTs (Table 4.31). Among all the regions, smoking is initiated at a much younger age in the Central region. It is at a comparatively older age in the South region. About 44 percent of daily smokers in the Central region start smoking before they turned 18 as against 29 percent from the South region. The mean age of initiation of smoking among smokers in the Central region is 17.1 years, almost two years lower than the corresponding mean age in the Southern region (18.9).

Ever daily smoker in Chhattisgarh have initiated smoking at a much younger age. One in every five daily smokers started smoking before age 15, and half of them begun by the age of 18. Half or more daily smokers in Nagaland, Mizoram, Meghalaya and Maharashtra initiated daily smoking before the age of 18. On the contrary, less than one-fifth of smokers in Himachal Pradesh, Andhra Pradesh and Gujarat start smoking daily by the time they are 18.

Table 4.31: Percent distribution of ever daily smokers age 20-34 by age at smoking initiation, according to regions and states/UTs, GATS India, 2009-2010

	Age at smoking initiation					
Region and state/UT	**<15**	**15-17**	**18–19**	**20-34**	**Total**	**Mean age**
India	13.7	25.6	21.4	39.3	100	17.9
North	9.2	26.9	26.1	37.8	100	18.3
Jammu & Kashmir	15.0	31.8	22.0	31.2	100	17.3
Himachal Pradesh	3.0	16.5	21.9	58.5	100	20.4
Punjab	7.8	27.7	34.3	30.3	100	17.8
Chandigarh	7.0	15.3	50.0	27.7	100	18.6
Uttarakhand	10.6	25.6	17.8	46.0	100	19.2
Haryana	2.9	30.3	26.4	40.4	100	18.4
Delhi	0.6	23.7	36.7	39.0	100	19.3
Central	18.5	25.7	21.4	34.3	100	17.1
Rajasthan	16.6	28.8	24.4	30.2	100	17.2
Uttar Pradesh	15.2	25.6	22.6	36.6	100	17.5
Chhattisgarh	20.3	33.4	12.4	34.0	100	14.9
Madhya Pradesh	27.6	18.9	19.7	33.8	100	17.0
East	13.6	27.8	18.4	40.2	100	18.1
West Bengal	12.2	26.6	19.7	41.5	100	18.2
Jharkhand	16.5	32.2	28.1	23.2	100	17.2
Odisha	19.6	22.5	16.4	41.5	100	16.9
Bihar	13.3	33.8	13.4	39.5	100	18.9
North-East	10.4	30.2	19.8	39.6	100	18.3
Sikkim	12.5	27.0	25.9	34.6	100	17.6
Arunachal Pradesh	13.9	27.9	22.9	35.3	100	17.4
Nagaland	6.6	50.9	7.6	34.9	100	18.0
Manipur	7.0	21.5	19.3	52.3	100	19.3
Mizoram	10.2	47.3	25.8	16.7	100	16.9
Tripura	8.1	30.1	20.8	41.0	100	18.3
Meghalaya	28.0	24.2	23.3	24.5	100	16.5
Assam	7.0	27.7	18.7	46.7	100	19.0
West	11.8	24.6	20.9	42.7	100	18.8
Gujarat	8.4	6.5	22.6	62.4	100	20.1
Maharashtra	14.1	35.8	20.0	30.1	100	17.9
Goa	2.3*	47.6*	9.6*	40.5*	100	18.1*
South	7.6	21.5	24.1	46.7	100	18.9
Andhra Pradesh	5.1	13.7	21.5	59.7	100	19.7
Karnataka	3.3	34.7	19.1	42.9	100	18.4
Kerala	18.6	27.5	22.3	31.6	100	18.3
Tamil Nadu	10.6	20.0	35.8	33.6	100	18.2
Puducherry	14.7	23.2	25.9	36.3	100	17.7

Note: *Based on less than 25 unweighted cases

4.2.15 Prevalence of former daily smoking and quit ratio

This section discusses quit ratios or the magnitude of success achieved by daily smokers in quitting tobacco smoking. Two different types of ratios are defined here: the first is the percentage of former daily smokers among all adults and the second is the percentage of former daily smokers among all ever daily smokers. Table 4.32 presents these two types of quit ratios by background characteristics.

In India, about two percent of the adult population was formerly smoking tobacco every day but have now stopped smoking completely. Since the majority of the Indian population does not smoke, the quit ratios – percentages of former daily smokers among ever daily smokers are more relevant to understand the extent of success achieved by daily smokers in quitting. The quit ratio for smoking is 13 percent, i.e. about one in every eight ever daily smokers has completely stopped smoking. The quit ratios of smoking do not differ much by residence or education. The noticeable point is the very low quit ratio for smoking among students (6%) and high ratio (27%) among retired persons.

Table 4.32: Percentage of adults age 15 and above who were former daily smokers, percentage of ever daily smokers who were former daily smokers, according to background characteristics, GATS India, 2009-2010

Background characteristic	Former daily smokers [1] (Among all adults)	Former daily smokers [1] (Among ever daily smokers)[2]
Overall	1.7	12.6
Age		
15- 24	0.3	8.2
25- 44	0.9	7.0
45- 64	3.4	14.7
65+	6.8	26.3
Gender		
Male	2.7	12.1
Female	0.5	16.2
Residence		
Urban	1.2	11.8
Rural	1.8	12.9
Education level		
No formal schooling	2.1	12.2
Less than primary	1.9	10.0
Primary but less than secondary	1.7	14.3
Secondary and above	1.1	14.0
Occupation		
Government and non-government employee	2.0	10.4
Self-employed	2.2	10.9
Student	0.1	6.3
Homemaker	0.6	14.2
Retired and unemployed	6.4	26.7

Note: [1]Includes current non-smokers.
[2]Also known as the quit ratio for daily smoking.

4.2.16 Prevalence of former daily smoking and quit ratio by region and state/UT

Table 4.33 presents the quit ratios by region and state/UT. It is seen in section 4.2.3 that smoking is most prevalent in the North-Eastern region of India. The quit ratio of smoking is also the lowest in the North-Eastern region, implying that once people take to smoking they rarely quit it. There is no sizeable variation in the quit ratios for smoking across the regions.

Table 4.33: Percentage of adults age 15 and above who were former daily smokers, percentage of ever daily smokers who were former daily smokers, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Former daily smokers [1] (Among all adults)	Former daily smokers [1] (Among ever daily smokers)[2]
India	1.7	12.6
North	1.6	11.6
Jammu & Kashmir	3.3	14.2
Himachal Pradesh	3.7	18.5
Punjab	0.2	4.2
Chandigarh	0.2	2.6
Uttarakhand	3.1	13.3
Haryana	0.9	4.9
Delhi	0.6	3.7
Central	1.9	12.7
Rajasthan	2.1	11.0
Uttar Pradesh	2.1	13.7
Chhattisgarh	1.4	13.8
Madhya Pradesh	1.6	11.3
East	1.8	13.8
West Bengal	0.2	1.3
Jharkhand	2.2	37.6
Odisha	0.5	5.8
Bihar	4.1	32.7
North-East	0.9	5.5
Sikkim	1.5	6.9
Arunachal Pradesh	0.3	1.3
Nagaland	1.8	6.3
Manipur	1.3	6.3
Mizoram	2.2	5.7
Tripura	2.8	10.6
Meghalaya	1.2	3.6
Assam	0.5	4.5
West	1.0	13.0
Gujarat	1.9	16.1
Maharashtra	0.6	9.6
Goa	1.3	23.3
South	1.8	12.8
Andhra Pradesh	1.9	10.5
Karnataka	0.6	5.0
Kerala	4.9	32.8
Tamil Nadu	1.0	10.2
Puducherry	1.0	10.0

Note: [1] Includes current non-smokers.
[2] Also known as the quit ratio for daily smoking.

In most of the states except Goa, Bihar, Kerala and Jharkhand the quit ratios of smoking are less than 20 percent. In fact, in most states/UTs the quit ratios are less than 10 percent. The quit ratios in West Bengal and Arunachal Pradesh are only 1 percent which is the lowest among all the states, implying that daily smokers in these states practically do not quit smoking. The other states/UTs where quit ratios are below 5 percent are Chandigarh, Meghalaya, Delhi, Punjab, Assam, Haryana and Karnataka, as compared to the states of Bihar, Kerala and Jharkhand where about one-third of ever daily smokers managed to quit smoking.

4.2.17 Time since quitting tobacco smoking

One important dimension of quitting is the duration for which tobacco smokers could refrain from smoking, as there is always a chance of reverting after a short duration of non-smoking. Table 4.34 presents the percent distribution of former daily smokers who have stopped smoking completely, classified by duration in years since the time of quitting. About one in eight quitters have stayed away from smoke for the last one year, about one-fourth have quit for between one to five years and about half have stopped smoking for more than 10 years. Current non-smokers who used to smoke formerly every day have stopped smoking for an average of 11.3 years (figure not shown in table).

About half of male smokers (49%) and 44 percent of female smokers who were former daily smokers have abstained from smoking for more than 10 years. Almost equal proportion of former daily smokers, both from urban (50%) and rural (48%) areas, have abstained from smoking for more than 10 years. The duration since quitting smoking does not vary consistently across groups of persons classified by education level.

Table 4.34: Percent distribution of former daily smokers age 15 and above by time since quitting smoking, according to selected background characteristics, GATS India, 2009-2010

Background characteristic	Time since quitting smoking (in years)				Total
	<1	1 - 4	5 - 9	10+	
Overall	12.4	25.6	13.7	48.2	100
Gender					
Male	11.1	26.7	13.2	49.0	100
Female	19.7	19.6	17.0	43.8	100
Residence					
Urban	11.6	24.4	14.2	49.8	100
Rural	12.7	26.0	13.6	47.7	100
Education Level					
No formal schooling	12.9	29.7	14.8	42.6	100
Less than primary	13.3	15.4	17.4	53.9	100
Primary but less than secondary	10.9	23.6	11.3	54.2	100
Secondary and above	10.6	29.0	13.1	47.3	100
Occupation					
Government and non-government employee	14.5	25.7	18.8	40.9	100
Self-employed	15.3	28.4	9.9	46.3	100
Student	29.6*	65.4*	5.0*	0.0*	100
Homemaker	8.9	16.5	17.7	56.9	100
Retired and unemployed	5.9	22.6	12.5	59.1	100

Note: * Based on less than 25 unweighted cases.

More than half of homemakers (57%) and retired persons (59%) have abstained from smoking for more than 10 years compared to 41 percent and 46 percent of government and non-government employees and self-employed persons respectively.

4.2.18 Time since quitting tobacco smoking by region and state/UT

Table 4.35 presents regional and state/UT level variation in the percent distribution of former daily smokers, who have stopped smoking completely, classified by duration in years since the time of quitting. It has already been stated that the quit ratios for smoking in Bihar, Kerala and Jharkhand are quite high. In these three states about one-third of ever daily smokers could quit smoking. In all these states more than 50 percent of former daily smokers have abstained from smoking for more than 10 years.

Table 4.35: Percent distribution of former daily smokers age 15 and above by time since quitting smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Time since quitting smoking (in years)				Total
	<1	1-4	5–9	10+	
India	12.4	25.6	13.7	48.2	100
North	12.1	30.8	12.9	44.2	100
Jammu & Kashmir	7.9	34.0	11.3	46.8	100
Himachal Pradesh	11.9	30.8	11.1	46.1	100
Punjab	48.7*	34.8*	16.6*	0.0*	100
Chandigarh	0.0*	51.5*	48.5*	0.0*	100
Uttarakhand	7.2	24.9	14.3	53.6	100
Haryana	15.2*	29.4*	24.1*	31.3*	100
Delhi	28.4*	10.6*	27.6*	33.4*	100
Central	13.8	23.5	14.0	48.7	100
Rajasthan	4.5	41.1	19.3	35.1	100
Uttar Pradesh	15.4	21.7	13.1	49.8	100
Chhattisgarh	19.0	16.1	5.7	59.3	100
Madhya Pradesh	14.6	15.0	18.5	52.0	100
East	12.1	21.4	12.3	54.1	100
West Bengal	12.6	21.2	10.4	55.8	100
Jharkhand	37.1*	29.3*	16.5*	17.1*	100
Odisha	5.3	13.8	18.3	62.6	100
Bihar	0.0*	42.2*	22.6*	35.2*	100
North-East	26.1	28.8	17.3	27.8	100
Sikkim	0.0*	17.9*	24.3*	57.8*	100
Arunachal Pradesh	0.0*	37.8*	0.0*	62.2*	100
Nagaland	6.2*	19.8*	37.7*	36.4*	100
Manipur	11.2*	35.6*	12.3*	41.0*	100
Mizoram	21.3	36.5	17.1	25.1	100
Tripura	11.6	34.0	30.5	24.0	100
Meghalaya	0.0*	18.9*	18.3*	62.7*	100
Assam	51.3	26.9	3.9	17.9	100
West	17.5	19.4	15.2	47.9	100
Gujarat	19.9	10.1	21.5	48.4	100
Maharashtra	13.8*	35.0*	4.7*	46.5*	100
Goa	3.8*	13.0*	18.1*	65.1*	100
South	7.9	33.8	14.0	44.3	100
Andhra Pradesh	8.9	33.8	19.4	37.9	100
Karnataka	0.0*	38.2*	29.1*	32.7*	100
Kerala	5.8	28.1	8.6	57.5	100
Tamil Nadu	15.3	46.8	7.2	30.7	100
Puducherry	0.0*	48.4*	29.3*	22.3*	100

Note: * Based on less than 25 unweighted cases.

Even in Chandigarh, Uttar Pradesh, Chhattisgarh, Madhya Pradesh and Gujarat about 50 percent or more former daily smokers have abstained from smoking for more than 10 years. On the other hand 50 percent or more former daily smokers in Meghalaya and Assam have been abstaining from smoking for less than five years.

4.3 USE OF SMOKELESS TOBACCO

This section presents the prevalence of smokeless tobacco use and its different dimensions. Smokeless tobacco includes chewing tobacco items such as betel quid with tobacco, *khaini*, gutkha, paan masala, and other such products, like *mishri*, *gul*, *bajjar*, *gudakhu*, snuff, etc., which are applied to the teeth and gums or inhaled.

4.3.1 Prevalence of use of smokeless tobacco

Table 4.36 gives prevalence of smokeless tobacco use in India by gender and residence. The table shows that a quarter (26%) of all adults in India uses smokeless tobacco either by chewing, or applying it to the teeth and gums, or by sniffing. Use of smokeless tobacco is more prevalent than the smoking version and prevalence of smokeless tobacco use (26%) is far more than prevalence of smoking (14%). Of the 26 percent of all adults who use smokeless tobacco, 21 percent use smokeless tobacco every day and the other 5 percent use it occasionally. In other words, most users of smokeless tobacco use it on a daily basis. A little more than 2 percent of the adults who were smokeless tobacco users in the past, either daily or occasionally, have since stopped such use completely. The extent of use of smokeless tobacco among males (33%) is higher than females (18%), though the differentials are not as sharp as with prevalence of smoking. In rural areas 29 percent of adults use smokeless tobacco whereas in urban areas the figure is 18 percent.

Table 4.36: Percentage of adults age 15 and above by detailed status of use of smokeless tobacco, according to gender and residence, GATS India, 2009-2010

Status of use of smokeless tobacco	Overall	Gender		Residence	
		Male	Female	Urban	Rural
Current user of smokeless tobacco	25.9	32.9	18.4	17.7	29.3
Daily user	21.4	27.4	14.9	14.7	24.2
Occasional user	4.5	5.4	3.5	3.0	5.1
Occasional user , former daily	1.4	1.5	1.2	1.1	1.5
Occasional user, never daily	3.1	4.0	2.3	1.9	3.7
Non-user of smokeless tobacco	74.1	67.1	81.6	82.3	70.7
Former daily user	1.2	1.4	0.9	1.0	1.2
Never daily user	73.0	65.7	80.7	81.4	69.5
Former occasional user	1.1	1.2	0.9	0.8	1.2
Never user	71.9	64.5	79.8	80.5	68.3

4.3.2 Number of users of smokeless tobacco

The number of users of smokeless tobacco is given in Table 4.37. The number of adult current users of smokeless tobacco in India is 206.0 million, much higher than the number of current tobacco smokers

(111.2 million). The number of male smokeless tobacco users (135.2 million) is almost twice that of female smokeless tobacco users (70.7 million). Similarly, the number of smokeless tobacco users in rural areas (164.9 million) is almost four times that that in urban areas (41.0 million).

There are 170.2 adults (112.8 million males and 57.3 million females) who use smokeless tobacco every day and an additional 35.8 million people (22.4 million males and 13.4 million females) who use smokeless tobacco occasionally. The number of daily users of smokeless tobacco is twice the number of daily tobacco smokers. More than 17 million adults who were formerly using smokeless tobacco either everyday (9.2 million) or occasionally (8.5 million) have stopped the use of the same completely. Currently 589.5 million adults age 15 and above do not use smokeless tobacco and 571.9 million adults have never used smokeless tobacco in their lifetime.

Table 4.37: Number of adults age 15 and above by detailed status of use of smokeless tobacco, according to gender and residence, GATS India, 2009-2010

Status of use of smokeless tobacco	Overall	Gender		Residence	
		Male	Female	Rural	Urban
	Numbers in thousand				
Total	795,534	411,149	384,384	562,983	232,551
Current user of smokeless tobacco	205,981	135,247	70,734	164,932	41,049
Daily user	170,168	112,849	57,318	136,015	34,152
Occasional user	35,813	22,397	13,416	28,916	6,897
Occasional user , former daily	10,768	6,015	4,753	8,222	2,547
Occasional user, never daily	25,045	16,382	8,663	20,695	4,350
Non-user of smokeless tobacco	589,553	275,903	313,650	398,051	191,502
Former daily user	9,156	5,717	3,439	6,871	2,285
Never daily user	580,397	270,186	310,211	391,180	189,217
Former occasional user	8,491	5,003	3,488	6,547	1,944
Never user	571,906	265,183	306,724	384,633	187,274

4.3.3 Prevalence of use of smokeless tobacco by region and state/UT

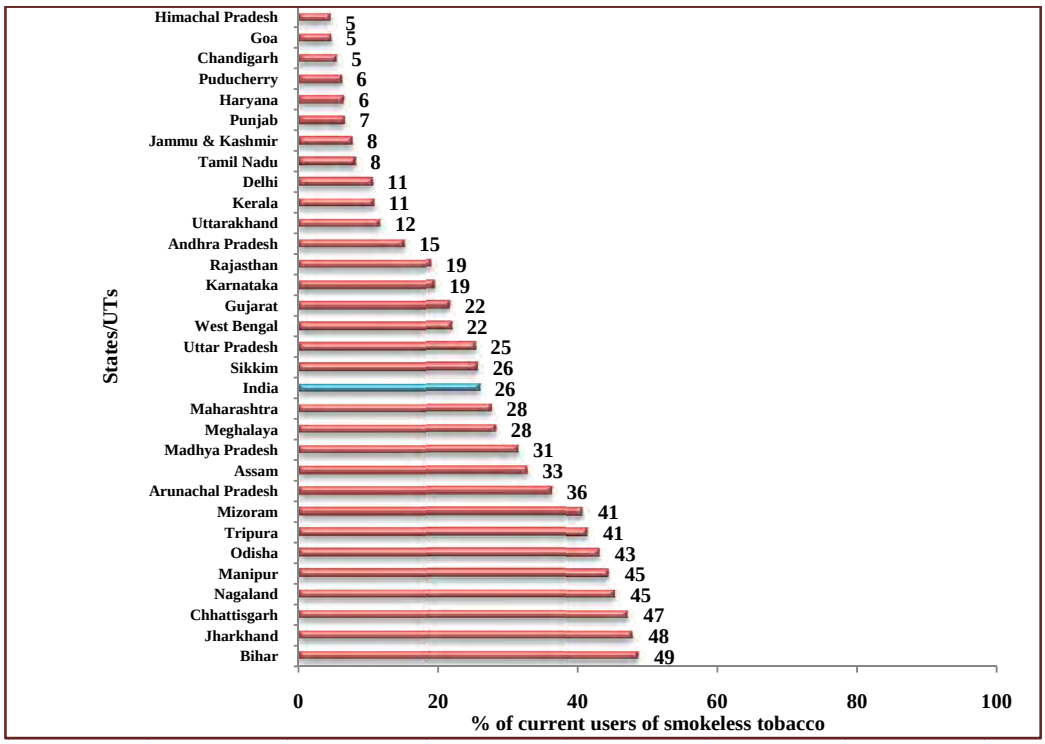
Tables 4.38, 4.39 and 4.40 present regional and state/UT level variation in the prevalence of smokeless tobacco among all adult respondents, male and female respondents, respectively. The prevalence of smokeless tobacco use varies from a high of 38 percent in the Eastern region to the low of 7 percent in the Northern region. Regional pattern of prevalence of smokeless tobacco use is slightly different from that of the prevalence of smoking. It has been noted that in India as a whole the prevalence of smokeless tobacco is greater than that of smoking. However, in the North region, the prevalence of smokeless tobacco use is lower than that of smoking, and in the South region the two have similar values. Among all regions, though the prevalence of smoking tobacco is highest in the North region, the prevalence of smokeless tobacco is the lowest there. In all the regions, most of the current users of smokeless tobacco are daily users (70%-87%).

The state/UT level variation in the prevalence of smokeless tobacco use ranges from 49 percent in Bihar to 5 percent in Goa (Figure 4.9). In Chhattisgarh, Nagaland, Manipur, Odisha, Tripura and Mizoram a large proportion (more than 40%) of adults use smokeless tobacco. With the exception of Manipur, in every state majority of smokeless tobacco users use it on daily basis. In all states from the North and

South except for Karnataka, the prevalence of smokeless tobacco use is higher than or equal to the prevalence of smoking.

The proportion of males who use smokeless tobacco is highest in Bihar (62%) and lowest in Puducherry and Goa (6% each). Even in Jharkhand (60%), Nagaland and Chhattisgarh (53% each), Manipur (52%), and Odisha (51%) majority of males use smokeless tobacco. In every state, except Manipur, daily users of smokeless tobacco are more than occasional users. Except in Kerala (55%), Meghalaya (63%), Tripura (65%), Sikkim (68%) and Arunachal Pradesh (68%), Andhra Pradesh (71%), Puducherry (72%), Nagaland and Tamil Nadu (74%) in every state three-fourth or more smokeless tobacco user males are daily users. State/UT level variation in prevalence of smokeless tobacco is much wider among females. Prevalence of smokeless tobacco among females is highest in Mizoram (49%) and lowest in Punjab (0.2%). In all the seven states of the North and Goa, less than 5 percent females use smokeless tobacco. In all states/UTs, with the exception of Punjab and Sikkim, majority of smokeless tobacco users are daily users. In Punjab only a small proportion of females reported using tobacco (0.2%), and almost all of them reported using it occasionally. In Sikkim also proportion of occasional users (13%) of smokeless tobacco is higher than daily users (10%). In all the state/UTs except Arunachal Pradesh, Manipur, Assam, Bihar, Nagaland, Gujarat, Meghalaya, Andhra Pradesh and Chandigarh three-fourth or more females who use smokeless tobacco use it every day. It is to be noted that in Mizoram, Tripura, Meghalaya, Tamil Nadu and Puducherry a higher proportion of females than males use smokeless tobacco. The gender differentials evidenced in smokeless tobacco use in most of the states are narrower compared to those in case of smoking.

Figure 4.9 Percentage of current users of smokeless tobacco according to states/UTs, GATS India, 2009-2010



Map 4.3 Percentage of current users of smokeless tobacco in India and its states/UTs, GATS India, 2009-2010

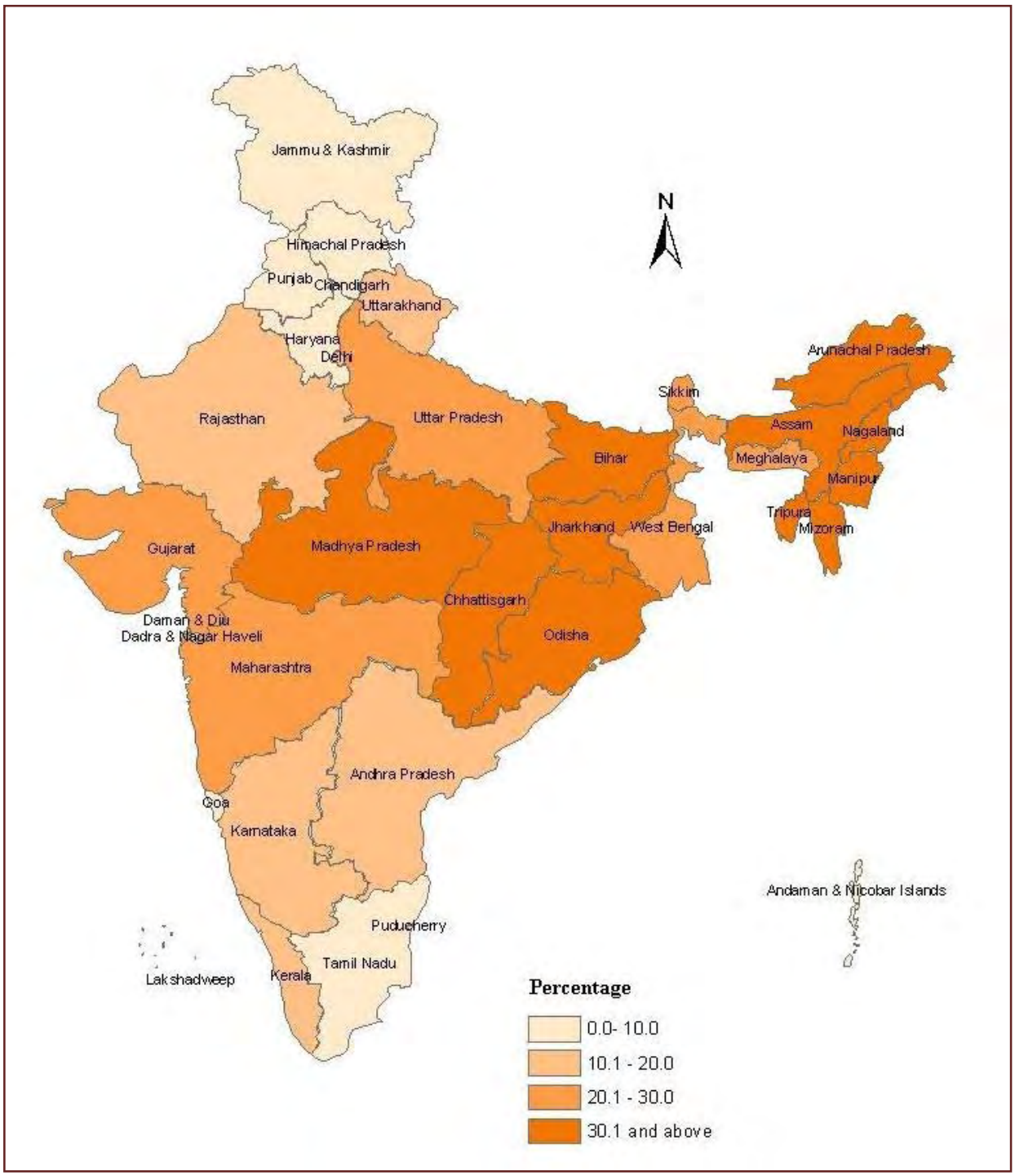


Table 4.38: Percentage of adults age 15 and above by detailed status of use of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current user of smokeless tobacco					Current non-user of smokeless tobacco				
	Current user of smokeless tobacco	Daily user	Occas-ional user	Occas-ional user, former daily	Occas-ional user, never daily	Current non-user of smokeless tobacco	Former daily user	Never daily user	Former occas-ional user	Never user
India	25.9	21.4	4.5	1.4	3.1	74.1	1.2	73.0	1.1	71.9
North	7.2	6.1	1.1	0.2	0.9	92.8	0.3	92.5	0.4	92.2
Jammu & Kashmir	7.6	6.3	1.4	0.3	1.1	92.4	0.3	92.1	0.6	91.5
Himachal Pradesh	4.5	3.6	1.0	0.1	0.9	95.5	0.6	94.9	0.6	94.3
Punjab	6.5	5.7	0.8	0.1	0.7	93.5	0.2	93.3	0.1	93.2
Chandigarh	5.4	4.6	0.8	0.1	0.6	94.6	0.1	94.5	0.2	94.3
Uttarakhand	11.6	9.3	2.2	0.2	2.0	88.4	0.6	87.8	0.9	86.9
Haryana	6.4	5.8	0.6	0.2	0.4	93.6	0.2	93.5	0.2	93.3
Delhi	10.5	10.0	0.5	0.1	0.4	89.5	0.2	89.2	0.2	89.1
Central	29.2	24.7	4.5	1.2	3.3	70.8	1.4	69.4	1.0	68.4
Rajasthan	18.9	16.1	2.8	1.2	1.7	81.1	1.6	79.5	0.5	79.0
Uttar Pradesh	25.3	21.5	3.8	0.9	2.9	74.7	1.2	73.5	0.7	72.8
Chhattisgarh	47.2	40.3	7.0	1.4	5.6	52.8	1.4	51.3	1.1	50.2
Madhya Pradesh	31.4	25.9	5.5	1.7	3.8	68.6	1.8	66.8	2.1	64.8
East	37.6	30.7	6.9	1.6	5.4	62.4	1.5	60.9	1.9	58.9
West Bengal	21.9	17.4	4.5	1.4	3.0	78.1	0.5	77.6	0.8	76.8
Jharkhand	47.9	40.7	7.3	1.2	6.1	52.1	2.5	49.5	3.3	46.2
Odisha	43.1	39.2	3.9	1.0	2.9	56.9	0.6	56.3	0.5	55.8
Bihar	48.7	37.8	11.0	2.1	8.9	51.3	2.6	48.6	3.5	45.2
North-East	34.6	24.3	10.3	2.4	7.9	65.4	0.6	64.8	1.3	63.4
Sikkim	25.6	14.9	10.7	3.9	6.8	74.4	1.5	72.9	1.8	71.0
Arunachal Pradesh	36.2	22.1	14.1	3.6	10.5	63.8	0.3	63.4	2.5	61.0
Nagaland	45.3	31.6	13.6	1.1	12.6	54.7	2.7	52.1	4.0	48.1
Manipur	44.5	21.2	23.3	6.0	17.4	55.5	0.8	54.7	3.1	51.6
Mizoram	40.7	35.5	5.2	0.5	4.6	59.3	0.5	58.8	0.7	58.1
Tripura	41.4	31.4	10.0	2.6	7.4	58.6	1.4	57.2	1.9	55.3
Meghalaya	28.2	19.2	9.0	2.0	7.0	71.8	0.8	71.0	0.9	70.1
Assam	32.7	23.5	9.2	2.2	7.0	67.3	0.3	67.0	1.0	66.0
West	25.3	22.1	3.2	1.1	2.1	74.7	1.2	73.4	0.8	72.7
Gujarat	21.6	16.4	5.2	1.2	4.0	78.4	1.9	76.5	1.5	74.9
Maharashtra	27.6	25.4	2.2	1.1	1.1	72.4	0.9	71.5	0.4	71.2
Goa	4.6	4.1	0.5	0.1	0.4	95.4	0.5	94.9	0.4	94.5
South	13.4	10.5	2.9	1.7	1.3	86.6	0.7	85.8	0.7	85.2
Andhra Pradesh	15.1	10.9	4.2	2.7	1.5	84.9	0.6	84.3	0.8	83.5
Karnataka	19.4	16.8	2.6	1.9	0.7	80.6	1.1	79.6	0.5	79.0
Kerala	10.7	7.0	3.7	1.4	2.3	89.3	1.4	87.9	1.4	86.5
Tamil Nadu	8.1	6.8	1.3	0.4	0.9	91.9	0.2	91.7	0.2	91.5
Puducherry	6.1	5.0	1.0	0.2	0.8	93.9	0.8	93.1	0.3	92.8

Table 4.39: Percentage of males age 15 and above by detailed status of use of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current user of smokeless tobacco					Current non-user of smokeless tobacco				
	Current user of smokeless tobacco	Daily user	Occas-ional user	Occas-ional user, former daily	Occas-ional user, never daily	Current non-user of smokeless tobacco	Former daily user	Never daily user	Former occas-ional user	Never user
India	32.9	27.4	5.4	1.5	4.0	67.1	1.4	65.7	1.2	64.5
North	12.2	10.3	1.9	0.3	1.6	87.8	0.4	87.4	0.6	86.8
Jammu & Kashmir	10.9	8.6	2.3	0.4	1.9	89.1	0.2	88.9	0.7	88.2
Himachal Pradesh	8.4	6.5	1.9	0.1	1.8	91.6	1.0	90.6	1.2	89.5
Punjab	12.2	10.8	1.4	0.2	1.2	87.8	0.3	87.5	0.3	87.3
Chandigarh	8.6	7.5	1.1	0.1	1.0	91.4	0.2	91.2	0.2	91.0
Uttarakhand	16.6	13.4	3.2	0.3	2.9	83.4	0.9	82.5	1.4	81.1
Haryana	10.8	9.9	0.9	0.3	0.6	89.2	0.2	88.9	0.3	88.6
Delhi	16.7	15.9	0.9	0.2	0.7	83.3	0.1	83.2	0.2	83.0
Central	38.7	32.5	6.2	1.5	4.7	61.3	1.9	59.4	1.5	57.9
Rajasthan	28.7	24.3	4.4	1.4	3.0	71.3	2.5	68.8	0.5	68.3
Uttar Pradesh	35.4	30.6	4.8	1.2	3.5	64.6	1.5	63.1	1.0	62.1
Chhattisgarh	52.5	41.6	10.9	1.8	9.1	47.5	1.6	45.9	1.7	44.2
Madhya Pradesh	43.4	36.0	7.3	2.2	5.1	56.6	2.9	53.7	3.4	50.4
East	46.3	39.1	7.2	1.5	5.8	53.7	1.1	52.6	1.1	51.5
West Bengal	25.8	19.5	6.3	2.0	4.3	74.2	0.7	73.6	1.2	72.4
Jharkhand	60.0	54.0	5.9	0.7	5.2	40.0	2.2	37.9	0.7	37.2
Odisha	50.8	44.5	6.3	1.3	5.0	49.2	0.8	48.4	0.8	47.6
Bihar	62.2	53.1	9.1	1.1	8.0	37.8	1.3	36.5	1.2	35.2
North-East	39.8	29.8	10.0	2.4	7.6	60.2	0.7	59.5	1.6	57.9
Sikkim	27.6	18.9	8.7	3.2	5.5	72.4	2.6	69.8	2.5	67.3
Arunachal Pradesh	44.9	30.5	4.4	6.3	8.1	55.1	0.2	54.8	1.8	53.0
Nagaland	53.1	39.1	14.0	1.6	12.4	46.9	2.6	44.2	2.6	41.7
Manipur	52.1	23.3	28.9	8.1	20.8	47.9	0.9	47.0	2.5	44.5
Mizoram	32.6	27.2	5.5	0.6	4.9	67.4	1.1	66.3	1.4	64.9
Tripura	39.4	25.7	13.7	3.7	9.9	60.6	1.8	58.8	2.7	56.1
Meghalaya	20.7	13.0	7.6	1.2	6.4	79.3	0.8	78.5	0.2	78.3
Assam	39.8	31.8	8.0	1.8	6.2	60.2	0.3	59.9	1.4	58.5
West	33.7	29.4	4.3	1.3	3.0	66.3	1.7	64.6	1.1	63.5
Gujarat	31.4	24.5	6.9	1.5	5.4	68.6	3.0	65.6	2.2	63.4
Maharashtra	35.3	32.3	3.0	1.2	1.8	64.7	1.1	63.6	0.6	63.0
Goa	6.0	5.6	0.4	0.1	0.3	94.0	0.3	93.7	0.2	93.5
South	14.7	11.1	3.5	1.6	1.9	85.3	1.0	84.3	1.1	83.2
Andhra Pradesh	15.7	11.2	4.4	2.0	2.4	84.3	1.1	83.2	1.6	81.6
Karnataka	22.7	20.0	2.6	2.1	0.5	77.3	0.8	76.5	0.5	76.0
Kerala	13.1	7.1	6.0	2.3	3.7	86.9	2.4	84.6	2.9	81.7
Tamil Nadu	7.7	5.7	2.0	0.5	1.5	92.3	0.3	92.0	0.2	91.8
Puducherry	5.8	4.2	1.6	0.4	1.1	94.2	1.0	93.2	0.6	92.7

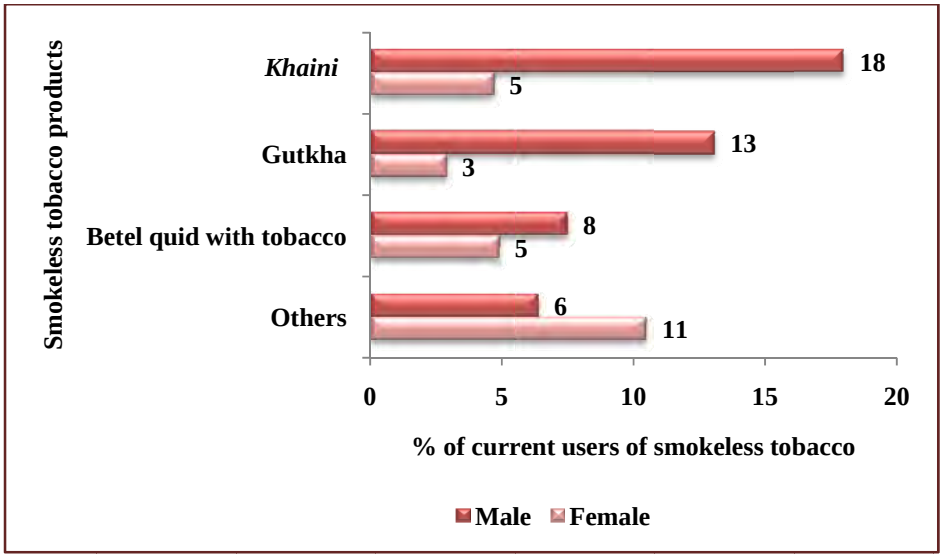
Table 4.40: Percentage of females age 15 and above by detailed status of use of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Current user of smokeless tobacco					Current non-user of smokeless tobacco				
	Current user of smokeless tobacco	Daily user	Occas-ional user	Occas-ional user, former daily	Occas-ional user, never daily	Current non-user of smokeless tobacco	Former daily user	Never daily user	Former occas-ional user	Never user
India	18.4	14.9	3.5	1.2	2.3	81.6	0.9	80.7	0.9	79.8
North	1.3	1.1	0.2	0.0	0.1	98.7	0.1	98.6	0.1	98.4
Jammu & Kashmir	4.1	3.7	0.4	0.1	0.2	95.9	0.4	95.6	0.4	95.1
Himachal Pradesh	0.6	0.6	0.0	0.0	0.0	99.4	0.1	99.3	0.1	99.1
Punjab	0.2	0.0	0.1	0.0	0.1	99.8	0.0	99.8	0.0	99.8
Chandigarh	1.1	0.8	0.3	0.2	0.1	98.9	0.1	98.9	0.1	98.8
Uttarakhand	2.1	1.7	0.3	0.1	0.2	97.9	0.2	97.8	0.0	97.8
Haryana	1.3	1.1	0.2	0.0	0.2	98.7	0.1	98.6	0.0	98.6
Delhi	2.8	2.7	0.1	0.0	0.1	97.2	0.5	96.7	0.1	96.6
Central	18.7	16.1	2.6	0.8	1.8	81.8	0.8	80.5	0.5	80.0
Rajasthan	8.5	7.3	1.2	1.0	0.2	91.5	0.5	91.1	0.4	90.6
Uttar Pradesh	13.7	11.0	2.7	0.5	2.2	86.3	0.9	85.4	0.4	85.0
Chhattisgarh	41.6	38.8	2.7	1.0	1.7	58.4	1.2	57.2	0.5	56.7
Madhya Pradesh	18.4	14.9	3.5	1.2	2.3	81.6	0.6	81.0	0.7	80.4
East	28.6	22.0	6.6	1.7	5.0	71.4	1.9	69.5	2.9	66.7
West Bengal	17.8	15.2	2.6	0.8	1.7	82.2	0.3	81.9	0.4	81.6
Jharkhand	35.4	26.7	8.7	1.7	7.0	64.6	2.9	61.7	6.1	55.6
Odisha	35.5	34.0	1.5	0.7	0.8	64.5	0.4	64.1	0.2	64.0
Bihar	34.6	21.8	12.9	3.0	9.9	65.4	3.9	61.4	5.8	55.7
North-East	29.2	18.5	10.7	2.4	8.2	70.8	0.5	70.3	1.1	69.2
Sikkim	23.3	10.3	13.0	4.6	8.4	76.7	0.3	76.4	1.1	75.4
Arunachal Pradesh	27.7	13.9	13.8	1.0	12.8	72.3	0.4	71.9	3.2	68.8
Nagaland	36.6	23.4	13.2	0.5	12.8	63.4	2.7	60.7	5.5	55.1
Manipur	37.0	19.1	17.9	3.9	14.0	63.0	0.8	62.3	3.6	58.6
Mizoram	49.1	44.2	4.9	0.5	4.4	50.9	0.0	50.9	0.0	50.9
Tripura	43.5	37.2	6.2	1.4	4.9	56.5	1.1	55.5	1.0	54.5
Meghalaya	35.9	25.5	10.5	2.8	7.7	64.1	0.8	63.3	1.6	61.7
Assam	25.3	14.8	10.5	2.6	7.8	74.7	0.3	74.4	0.5	73.9
West	16.0	14.0	2.0	0.9	1.1	84.0	0.6	83.4	0.4	83.0
Gujarat	11.0	7.6	3.4	0.9	2.5	89.0	0.7	88.3	0.9	87.4
Maharashtra	18.9	17.5	1.3	1.0	0.4	81.1	0.6	80.5	0.1	80.4
Goa	3.2	2.4	0.7	0.1	0.6	96.8	0.6	96.2	0.5	95.7
South	12.2	9.9	2.3	1.7	0.6	87.8	0.5	87.3	0.2	87.1
Andhra Pradesh	14.5	10.5	4.0	3.4	0.6	85.5	0.1	85.4	0.1	85.3
Karnataka	16.0	13.5	2.6	1.8	0.8	84.0	1.3	82.7	0.5	82.2
Kerala	8.5	6.9	1.6	0.5	1.1	91.5	0.5	91.0	0.1	90.9
Tamil Nadu	8.4	7.8	0.6	0.3	0.3	91.6	0.2	91.4	0.2	91.3
Puducherry	6.3	5.9	0.4	0.0	0.4	93.7	0.7	93.0	0.1	92.9

4.3.4 Prevalence of various products of smokeless tobacco

The use of various smokeless products among adult males and females is presented in Table 4.41 and Figure 4.10. *Khaini* (tobacco-lime mixture) is the most commonly used smokeless tobacco product, followed by gutkha *(*mixture of tobacco, lime and areca nut). About one in eight adults chew *khaini* (18% males and 5% females); 8 percent (13% males and 3% females) of all adults chew gutkha; 6 percent (8% males and 5% females) of adults use betel quid with tobacco; and 5 percent (3% males and 6% females) use tobacco products such as *mishri, gul, gudakhu* for oral application. Besides these, some other products, such as snuff for nasal application, paan masala without tobacco and other intoxicating substances in combination with tobacco are used by a small proportion of adults. The prevalence of each of the smokeless tobacco products is higher among males compared to females. The only exceptions are oral tobacco and the other products which are used by a higher proportion of females than males.

Figure 4.10 Percentage of current users of smokeless tobacco age 15 and above by various products, GATS India, 2009-2010



Though on the whole *khaini* is the most commonly used smokeless tobacco product, among certain groups of males such as adolescents (age 15–24), urban males, males with secondary or higher education, and male students gutkha is the most commonly used smokeless tobacco product. Among females in general, and from almost all the age and education groups, smokeless tobacco is used mainly by way of oral application. More than one in 20 adult females (6%) use *mishri/gul/gudakhu* for oral application and 5 percent each use betel quid with tobacco and *khaini*.

Prevalence of use of betel quid with tobacco and *khaini* among males increases from 5 percent and 10 percent respectively in the age group 15–24 to 9 percent and 22 percent in the age group 25–44, and remains almost unchanged in the subsequent age groups. However prevalence of gutkha use decreases from 14 percent among males age 15-24 and 17 percent among males age 25-44 to 5 percent among those age 65 and above. Use of *khaini* and oral tobacco products among males have been found to decrease with rising education.

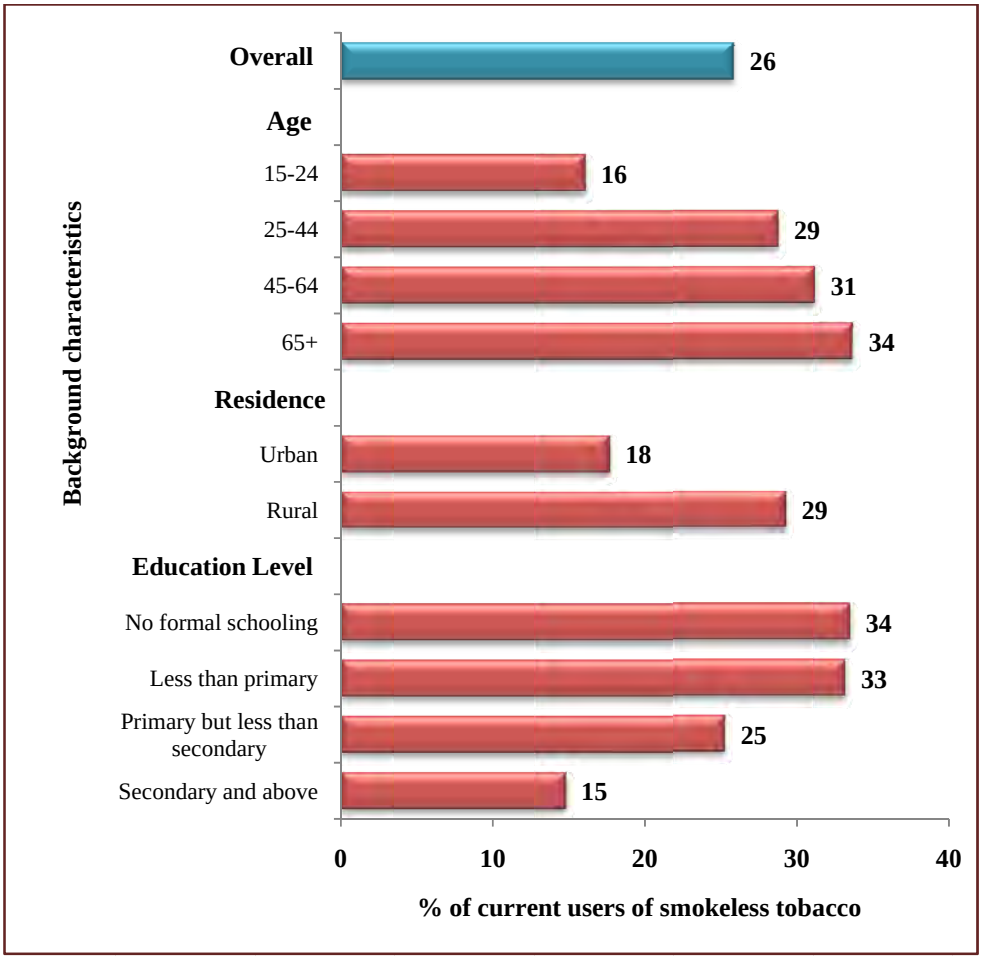
Table 4.41: Percentage of adults age 15 and above who are current users of various smokeless tobacco products, by gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Any smokeless tobacco product	Betel quid with tobacco	*Khaini* or tobacco-lime mixture	Gutkha, tobacco lime, areca-nut mixture	Oral tobacco (as snuff, *mishri*, *gul*, *gudakhu*)	Other smokeless tobacco[1]
Overall	25.9	6.2	11.6	8.2	4.7	4.4
Age						
15- 24	16.1	2.9	5.9	8.0	2.4	3.5
25- 44	28.8	6.3	13.2	10.0	5.4	4.8
45- 64	31.2	8.8	14.9	5.8	6.1	4.5
65+	33.7	11.9	15.9	4.8	6.0	6.0
Residence						
Urban	17.7	4.8	6.6	7.1	2.5	2.7
Rural	29.3	6.8	13.7	8.6	5.6	5.1
Education level						
No formal schooling	33.5	7.6	15.2	7.1	7.8	6.4
Less than primary	33.2	9.3	14.5	10.1	5.6	5.6
Primary but less than secondary	25.3	5.9	11.1	10.1	3.9	3.7
Secondary and above	14.8	3.7	6.8	6.5	1.6	2.3
Occupation						
Government and non-government employee	32.5	7.5	15.9	13.0	4.9	4.3
Self-employed	35.2	7.7	18.5	11.6	5.6	4.6
Student	6.3	1.4	1.5	2.8	0.9	2.3
Homemaker	17.9	5.3	4.5	3.2	5.0	5.1
Retired and unemployed	33.1	8.6	16.7	7.3	5.2	4.6
Male	32.9	7.5	18.0	13.1	3.3	3.5
Age						
15- 24	23.1	5.0	10.1	14.0	2.2	3.1
25- 44	39.3	8.7	21.7	16.7	4.2	4.2
45- 64	33.8	8.1	21.2	7.7	3.1	2.7
65+	33.6	8.9	21.0	4.5	2.6	4.0
Residence						
Urban	23.6	5.6	10.6	11.2	1.8	2.5
Rural	36.8	8.3	21.1	13.9	3.9	3.9
Education level						
No formal schooling	43.0	7.8	28.1	12.7	4.2	3.7
Less than primary	41.4	11.3	22.1	15.2	3.9	4.8
Primary but less than secondary	35.4	8.1	18.0	15.8	3.7	3.9
Secondary and above	21.3	5.2	10.5	10.0	2.1	2.6
Occupation						
Government and non-government employee	35.3	8.2	19.0	16.2	2.7	3.0
Self-employed	38.5	8.4	21.6	14.2	4.6	4.6
Student	7.6	2.1	2.4	4.3	0.9	1.7
Homemaker	33.2	10.4	18.8	10.9	2.1	1.8
Retired and unemployed	34.9	7.7	20.6	9.6	3.0	3.2
Female	18.4	4.9	4.7	2.9	6.3	5.4
Age						
15-24	8.2	0.7	1.4	1.5	2.7	3.9
25- 44	17.6	3.8	4.1	3.0	6.6	5.4
45- 64	28.4	9.6	8.4	3.9	9.4	6.4
65+	33.9	14.7	11.1	5.0	9.4	7.9
Residence						
Urban	11.1	3.9	2.2	2.5	3.2	2.9
Rural	21.3	5.3	5.8	3.1	7.5	6.4
Education level						
No formal schooling	28.8	7.6	8.8	4.3	9.5	7.7
Less than primary	22.1	6.6	4.3	3.3	7.9	6.8
Primary but less than secondary	11.3	2.9	1.6	2.2	4.1	3.5
Secondary and above	3.5	1.0	0.4	0.6	0.9	1.7
Occupation						
Government and non-government employee	25.1	5.6	7.7	4.7	10.9	7.6
Self-employed	23.6	5.3	7.7	2.8	9.1	4.5
Student	4.2	0.3	0.2	0.5	0.8	3.4
Homemaker	17.2	5.1	4.0	2.9	5.2	5.2
Retired and unemployed	28.9	10.6	7.6	1.8	10.4	7.8

Note: [1] Includes paan masala, betel quid without tobacco and nasal use of snuff

Though chewing betel quid and gutkha consumption do not vary consistently with education, prevalence of both is lowest among males with secondary education. Prevalence of every smokeless tobacco product among females bears a positive relationship with age and negative relationship with education. For example, the prevalence of oral tobacco increases from 3 percent among females age 15–24 to 9 percent for females age 65 and above, and decreases from 10 percent among females with no formal education to 1 percent among females with secondary and above education.

Figure 4.11 Percentage of current users of smokeless tobacco by background characteristics, GATS India, 2009-2010



4.3.5 Number of users of various products of smokeless tobacco

Table 4.42 presents the number of users of different smokeless products in India. Among the 206.0 million smokeless tobacco-users, 49.7 million (30.7 million males and 18.9 million females) adult Indians chew betel quid with tobacco, 92.3 million (74.1 million males and 18.2 million females) chew *khaini*, 65.1 million (53.9 million males and 11.1 million females) consume gutkha, 37.5 million (13.4 million males and 24.1 million females) use tobacco for oral application and another 35.1 million (14.4 million males and 20.7 million females) use some other smokeless tobacco products. The number of male users of

every kind of smokeless tobacco products is higher than females except for products for oral application and other products. The number of users of all smokeless tobacco products combined in rural areas (164.9 million) is higher than urban areas (41.0 million), partly because of the higher prevalence of smoking in rural areas and also because of the larger rural population.

Table 4.42: Number of adults age 15 and above who are current users of various smokeless tobacco products, according to residence and gender, GATS India, 2009-2010

	Overall	Gender		Residence	
		Male	Female	Rural	Urban
	Numbers in thousands				
Current user of smokeless tobacco	205,981	135,247	70,734	164,932	41,049
Betel quid with tobacco	49,672	30,736	18,937	38,454	11,219
Khaini or tobacco lime mixture	92,335	74,096	18,239	76,965	15,370
Gutkha or tobacco lime, areca nut mixture	65,072	53,933	11,139	48,616	16,456
Oral tobacco use	37,481	13,405	24,076	31,734	5,747
Other smokeless tobacco product	35,106	14,419	20,687	28,876	6,229

4.3.6 Prevalence of various products of smokeless tobacco by region and state/UTs

Tables 4.43, 4.44 and 4.45 presents the regional and state/UT level variation in use of different smokeless tobacco products. There is appreciable regional and state/UT level variation in the prevalence of use of the most common smokeless tobacco products. In North, Central, East and West regions *khaini* is the most commonly used form of smokeless tobacco, whereas in North-East and South betel quid with tobacco is the most prevalent smokeless tobacco product. Among males from all the regions except the South, *khaini* is the most commonly used form of smokeless tobacco. In the South, however, males mostly use gutkha followed by betel quid with tobacco and *khaini*. Among females from the North-East and South regions betel quid with tobacco is the most prevalent smokeless tobacco product followed by *khaini* and gutkha. In the Central and Western regions, on the other hand, females mostly use tobacco for oral application and in the Eastern region other smokeless products including paan masala are most commonly used. In the Northern region, prevalence of every smokeless product among females is less than 1 percent.

The pattern of use of smokeless tobacco products varies across states/UTs. Use of betel quid with tobacco is the most prevalent in Tripura where every third person uses it, whereas in Himachal Pradesh, Punjab, Chandigarh and Uttarakhand only 0.5 percent use it. The highest use of *khaini* is reported in Jharkhand (33%) and the lowest in Tamil Nadu (0.5%). Prevalence of gutkha is highest in Madhya Pradesh (17%) and lowest in Puducherry (0.6%). Oral tobacco is used mainly in Chhattisgarh (28%), and even in Maharashtra, Jharkhand (8% in both) and Odisha (7%) the prevalence of use is more than 5 percent. In all remaining states/UTs, less than 5 percent use tobacco for oral application.

The state/UT level variation in smokeless tobacco use differs among males and females. Among males, prevalence of betel quid with tobacco is highest in Manipur (35%) and lowest in Uttarakhand (0.2%) and Chandigarh and (0.5%). Even in Nagaland, Tripura (27% each) and Odisha (23%) use of betel quid with tobacco is on the higher side. Use of *khaini* is highest in Bihar and Jharkhand (51% each) and lowest in Tamil Nadu (1%). The highest prevalence of gutkha is reported in Madhya Pradesh (27%) with the lowest

in Puducherry (1%). Similarly in states, like Gujarat (22%) and Arunachal Pradesh (21%), a high proportion of males use gutkha.

Table 4.43: Percentage of adults age 15 and above who are current users of various smokeless tobacco products, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Any smokeless tobacco product	Betel quid with tobacco	*Khaini* or tobacco lime mixture	Gutkha, tobacco lime, areca nut mixture	Oral tobacco (as snuff, *mishri, gul, gudakhu*)	Other smokeless tobacco[1]
India	25.9	6.2	11.6	8.2	4.7	4.4
North	7.2	0.7	3.8	2.8	0.3	0.8
Jammu & Kashmir	7.6	1.5	2.8	2.6	0.8	2.7
Himachal Pradesh	4.5	0.5	3.4	0.8	0.1	0.6
Punjab	6.5	0.5	3.7	2.7	0.2	0.0
Chandigarh	5.4	0.5	2.9	2.1	0.1	0.2
Uttarakhand	11.6	0.5	7.1	4.1	0.0	1.3
Haryana	6.4	0.6	3.1	3.1	0.1	0.4
Delhi	10.5	1.4	3.1	8.2	0.3	0.4
Central	29.2	5.5	14.1	12.1	6.9	2.8
Rajasthan	18.9	1.3	7.3	11.5	1.6	1.3
Uttar Pradesh	25.3	6.7	13.7	10.5	1.6	1.3
Chhattisgarh	47.2	4.8	21.2	11.9	28.3	4.6
Madhya Pradesh	31.4	6.8	14.0	17.0	4.5	6.1
East	37.6	9.7	18.4	6.9	5.2	10.9
West Bengal	21.9	9.2	8.9	4.5	4.3	2.1
Jharkhand	47.9	5.2	32.6	9.7	7.9	10.4
Odisha	43.1	17.7	11.0	9.4	7.3	12.4
Bihar	48.7	7.7	27.6	7.5	4.3	20.0
North-East	34.6	17.2	14.3	6.6	1.5	10.3
Sikkim	25.6	7.4	14.7	6.3	0.9	6.2
Arunachal Pradesh	36.2	14.3	18.0	15.9	2.3	20.5
Nagaland	45.3	25.0	26.2	9.8	0.9	13.3
Manipur	44.5	29.5	19.2	3.9	0.8	14.9
Mizoram	40.7	6.9	24.5	4.1	3.1	18.4
Tripura	41.4	32.8	5.8	2.2	0.4	2.8
Meghalaya	28.2	14.3	5.9	1.2	1.3	6.7
Assam	32.7	14.7	14.3	7.3	1.7	10.4
West	25.3	3.7	11.2	9.8	6.6	2.6
Gujarat	21.6	3.1	5.3	12.8	4.2	4.0
Maharashtra	27.6	4.1	14.5	8.3	8.0	1.9
Goa	4.6	1.9	2.0	0.7	0.6	0.5
South	13.4	5.3	3.3	4.2	1.4	1.8
Andhra Pradesh	15.1	1.7	6.9	7.0	0.7	2.0
Karnataka	19.4	9.9	2.4	5.8	1.9	1.8
Kerala	10.7	7.6	2.2	1.9	1.6	2.1
Tamil Nadu	8.1	4.7	0.5	0.7	1.9	1.6
Puducherry	6.1	4.2	1.1	0.6	1.3	0.9

Note: [1] Includes paan masala, betel quid without tobacco and nasal use of snuff.

Use of oral tobacco is high only in Chhattisgarh where 23 percent males use tobacco for oral application. In rest of the states less than 1 percent males use gutkha. In Arunachal Pradesh a high proportion (25%) of males use some other tobacco products, like snuff, paan masala without tobacco, etc.

Table 4.44: Percentage of males age 15 and above who are current users of various smokeless tobacco products, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Any smokeless tobacco product	Betel quid with tobacco	*Khaini* or tobacco lime mixture	Gutkha or tobacco lime, areca nut mixture	Oral tobacco(as snuff, *mishri, gul, gudakhu)*	Other smokeless tobacco [1]
India	32.9	7.5	18.0	13.1	3.3	3.5
North	12.2	1.1	6.7	4.9	0.5	1.0
Jammu & Kashmir	10.9	2.2	4.4	4.8	1.2	3.2
Himachal Pradesh	8.4	1.0	6.5	1.6	0.2	1.0
Punjab	12.2	0.9	6.9	4.9	0.4	0.0
Chandigarh	8.6	0.5	5.0	3.2	0.0	0.3
Uttarakhand	16.6	0.2	10.5	6.0	0.0	1.8
Haryana	10.8	0.8	5.6	5.7	0.1	0.5
Delhi	16.7	2.2	5.0	13.2	0.5	0.7
Central	38.7	7.0	20.6	18.4	5.1	2.7
Rajasthan	28.7	2.3	13.0	17.9	0.6	1.6
Uttar Pradesh	35.4	8.7	21.4	16.3	1.2	1.0
Chhattisgarh	52.5	3.9	26.1	16.8	23.4	3.9
Madhya Pradesh	43.4	9.7	19.7	26.7	2.1	7.4
East	46.3	13.0	30.5	12.6	2.8	7.0
West Bengal	25.8	10.0	13.4	7.2	1.7	2.3
Jharkhand	60.0	9.4	50.8	18.5	6.5	4.9
Odisha	50.8	22.5	12.3	17.7	2.0	11.6
Bihar	62.2	13.2	51.2	14.0	3.2	10.6
North-East	39.8	18.9	23.5	9.0	1.3	10.5
Sikkim	27.6	10.2	17.9	5.9	1.5	5.0
Arunachal Pradesh	44.9	18.2	23.1	20.5	2.5	24.9
Nagaland	53.1	27.2	34.3	12.0	1.2	11.5
Manipur	52.1	35.2	28.6	4.7	1.2	19.4
Mizoram	32.6	2.4	15.1	2.1	0.8	18.8
Tripura	39.4	27.0	9.1	2.5	0.5	3.9
Meghalaya	20.7	5.5	7.5	1.1	0.1	5.4
Assam	39.8	17.8	25.7	10.4	1.5	10.3
West	33.7	4.6	18.2	16.0	3.9	2.9
Gujarat	31.4	4.9	9.6	21.7	3.4	4.4
Maharashtra	35.3	4.5	22.8	13.4	4.2	2.2
Goa	6.0	2.0	3.5	1.2	0.4	0.5
South	14.7	4.6	3.9	6.2	1.4	1.3
Andhra Pradesh	15.7	0.6	8.2	9.5	0.2	1.5
Karnataka	22.7	10.4	1.8	10.5	0.9	0.4
Kerala	13.1	8.7	3.0	1.6	1.3	2.0
Tamil Nadu	7.7	2.8	1.1	1.2	3.4	1.5
Puducherry	5.8	2.5	1.5	0.8	2.2	1.2

Note: [1] Includes paan masala, betel quid without tobacco and nasal use of snuff.

Among women, prevalence of betel quid with tobacco is highest in Tripura (39%). In Himachal Pradesh and Punjab not a single female respondent reported use of betel quid. Even in Nagaland and Meghalaya use of betel quid with tobacco is on the higher side (23%). Use of *khaini* is highest in Mizoram (34%

each). In Tamil Nadu it is nil and in the states of Punjab, Chandigarh and Goa it is less than 5 in 1,000. The highest prevalence of gutkha is reported in Arunachal Pradesh (11%) and lowest in Goa (0.1%). Use of oral tobacco is high only in Chhattisgarh where every third woman (34%) uses tobacco for oral application. Even in Maharashtra and Odisha it is on the higher side (12%-13%). In the remaining states less than 1 percent females use it. Use of some other tobacco products, like snuff, paan masala without tobacco, etc., is the highest in Bihar (30%). Even in Jharkhand, Odisha, Arunachal Pradesh, Nagaland, Mizoram, Manipur and Assam more than one in 10 females (10%-16%) females use these products.

Table 4.45: Percentage of females age 15 and above who are current users of various smokeless tobacco products, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Any smokeless tobacco product	Betel quid with tobacco	*Khaini* or tobacco lime mixture	Gutkha, tobacco lime, areca nut mixture	Oral tobacco (as snuff, *mishri, gul, gudakhu)*	Other smokeless tobacco[1]
India	18.4	4.9	4.7	2.9	6.3	5.4
North	1.3	0.3	0.4	0.2	0.1	0.5
Jammu & Kashmir	4.1	0.7	1.0	0.3	0.4	2.3
Himachal Pradesh	0.6	0.0	0.4	0.0	0.0	0.2
Punjab	0.2	0.0	0.1	0.1	0.0	0.0
Chandigarh	1.1	0.5	0.1	0.5	0.2	0.1
Uttarakhand	2.1	1.0	0.6	0.5	0.0	0.5
Haryana	1.3	0.5	0.4	0.2	0.1	0.3
Delhi	2.8	0.5	0.8	1.9	0.0	0.1
Central	18.7	3.8	6.8	5.0	8.8	2.8
Rajasthan	8.5	0.2	1.3	4.7	2.8	1.0
Uttar Pradesh	13.7	4.4	4.9	3.9	2.2	1.7
Chhattisgarh	41.6	5.7	15.9	6.7	33.6	5.4
Madhya Pradesh	18.4	3.7	8.0	6.4	7.0	4.7
East	28.6	6.1	5.8	1.1	7.8	15.0
West Bengal	17.8	8.5	4.2	1.7	7.1	1.8
Jharkhand	35.4	0.8	13.6	0.4	9.2	16.2
Odisha	35.5	12.9	9.6	1.1	12.6	13.2
Bihar	34.6	2.0	2.9	0.6	5.5	29.8
North-East	29.2	15.6	4.7	4.1	1.7	10.1
Sikkim	23.3	4.2	10.9	6.8	0.2	7.5
Arunachal Pradesh	27.7	10.3	13.0	11.4	2.2	16.2
Nagaland	36.6	22.6	17.4	7.4	0.5	15.3
Manipur	37.0	23.8	10.0	3.2	0.3	10.5
Mizoram	49.1	11.7	34.3	6.2	5.6	18.1
Tripura	43.5	38.9	2.4	1.8	0.4	1.7
Meghalaya	35.9	23.4	4.2	1.4	2.6	8.0
Assam	25.3	11.4	2.3	4.1	1.9	10.4
West	16.0	2.8	3.4	2.8	9.6	2.3
Gujarat	11.0	1.1	0.7	3.3	5.0	3.6
Maharashtra	18.9	3.7	4.9	2.5	12.2	1.6
Goa	3.2	1.9	0.3	0.1	0.7	0.5
South	12.2	6.0	2.8	2.2	1.4	2.4
Andhra Pradesh	14.5	2.9	5.5	4.5	1.1	2.5
Karnataka	16.0	9.5	2.9	1.1	2.9	3.2
Kerala	8.5	6.6	1.5	2.1	1.8	2.2
Tamil Nadu	8.4	6.6	0.0	0.3	0.3	1.7
Puducherry	6.3	6.1	0.7	0.3	0.3	0.5

Note: [1] Includes paan masala, betel quid without tobacco and nasal use of snuff..

4.3.7 Frequency of use of smokeless tobacco

The percent distribution of the adult population by daily and occasional use and non-users of smokeless tobacco is shown in Table 4.46. It has been observed that 26 percent of adults in India use smokeless tobacco. Of this 26 percent, 21 percent use the same on a daily basis and the remaining 5 percent only occasionally. Among the 33 percent males who use smokeless tobacco, 27 percent use it every day and the remaining 5 percent occasionally. Similarly, 15 percent females use any of the smokeless products every day and 4 percent only occasionally.

Among both males and females, both daily and occasional users of smokeless tobacco are proportionately more in rural areas than urban areas. The proportion of daily users of smokeless tobacco among males increases with age from 17 percent in the age group of 15–24 to 33 percent in the age group 25-44, but decreases to 29-30 percent among males age 45-64 and 65 and above. The prevalence of daily smokers among females increases from 6 percent in the age group of 15–24 to 30 percent among females age 65 and above. Use of smokeless tobacco is evident even among adolescents age between 15-17. Among those age 15–17, 8 percent of males and 6 percent of females use smokeless tobacco every day and 4 percent of males and 2 percent of females use it occasionally (not shown in table). Daily use of smokeless tobacco among males and females decreases with the rise in their educational level. 8 percent of male students and 4 percent of female students use smokeless tobacco either daily or occasionally.

4.3.8 Frequency of use of smokeless tobacco by region and state/UT

The percent distribution of the adult population by daily and occasional use and non-users of smokeless tobacco by region and state/UT is shown in Table 4.47. In all the regions majority of the smokeless tobacco users are daily users. The proportion of occasional users is quite small in all the regions except North-East. In North-Eastern region 10 percent of adults use smokeless tobacco occasionally. In all the states except Manipur most smokeless tobacco users are daily users, whereas in Manipur the proportion of daily users is equal to that of occasional users. In Manipur 23 percent adults use smokeless tobacco occasionally whereas 21 percent use it on daily basis. Even in Bihar, Sikkim, Arunachal Pradesh, Nagaland and Tripura 10 percent or more adults use smokeless tobacco occasionally.

Table 4.46: Percent distribution of adults age 15 and above by status of use of smokeless tobacco, by gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Status of smokeless tobacco use			Total
	Daily	Occasional[1]	Never user	
Overall	21.4	4.5	74.1	100
Age				
15- 24	11.9	4.2	83.9	100
25- 44	23.8	5.0	71.2	100
45- 64	26.8	4.3	68.8	100
65+	30.2	3.5	66.3	100
Residence				
Urban	14.7	3.0	82.3	100
Rural	24.2	5.1	70.7	100
Education level				
No formal schooling	28.6	4.9	66.5	100
Less than primary	27.5	5.7	66.8	100
Primary but less than secondary	20.5	4.8	74.7	100
Secondary and above	11.5	3.3	85.2	100
Occupation				
Government and non-government employee	27.4	5.1	67.5	100
Self-employed	30.0	5.2	64.8	100
Student	3.6	2.6	93.7	100
Homemaker	14.1	3.8	82.1	100
Retired and unemployed	27.0	6.1	66.9	100
Male	27.4	5.4	67.1	100
Age				
15- 24	17.4	5.7	76.9	100
25- 44	33.2	6.1	60.7	100
45- 64	29.4	4.4	66.2	100
65+	30.3	3.3	66.4	100
Residence				
Urban	19.9	3.7	76.4	100
Rural	30.6	6.2	63.2	100
Education level				
No formal schooling	38.1	4.9	57.0	100
Less than primary	34.7	6.7	58.6	100
Primary but less than secondary	28.9	6.5	64.6	100
Secondary and above	17.0	4.3	78.7	100
Occupation				
Government and non-government employee	29.8	5.5	64.7	100
Self-employed	32.8	5.7	61.5	100
Student	4.2	3.3	92.4	100
Homemaker	25.4	7.8	66.8	100
Retired and unemployed	27.6	7.3	65.1	100
Female	14.9	3.5	81.6	100
Age				
15- 24	5.8	2.5	91.8	100
25- 44	13.8	3.8	82.4	100
45- 64	24.1	4.2	71.6	100
65+	30.2	3.7	66.1	100
Residence				
Urban	9.0	2.2	88.9	100
Rural	17.3	4.0	78.7	100
Education level				
No formal schooling	23.9	4.8	71.2	100
Less than primary	17.9	4.2	77.9	100
Primary but less than secondary	8.8	2.5	88.7	100
Secondary and above	2.1	1.4	96.5	100
Occupation				
Government and non-government employee	21.0	4.1	74.9	100
Self-employed	19.9	3.7	76.4	100
Student	2.7	1.6	95.8	100
Homemaker	13.6	3.6	82.8	100
Retired and unemployed	25.5	3.4	71.1	100

Note: [1] Includes less than daily users of smokeless tobacco.

Table 4.47: Percent distribution of adults age 15 and above by status of use of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Status of smokeless tobacco use			Total
	Daily	Occasional[1]	Never user	
India	21.4	4.5	74.1	100
North	6.1	1.1	92.8	100
Jammu & Kashmir	6.3	1.4	92.4	100
Himachal Pradesh	3.6	1.0	95.5	100
Punjab	5.7	0.8	93.5	100
Chandigarh	4.6	0.8	94.6	100
Uttarakhand	9.3	2.2	88.4	100
Haryana	5.8	0.6	93.6	100
Delhi	10.0	0.5	89.5	100
Central	24.7	4.5	70.8	100
Rajasthan	16.1	2.8	81.1	100
Uttar Pradesh	21.5	3.8	74.7	100
Chhattisgarh	40.3	7.0	52.8	100
Madhya Pradesh	25.9	5.5	68.6	100
East	30.7	6.9	62.4	100
West Bengal	17.4	4.5	78.1	100
Jharkhand	40.7	7.3	52.1	100
Odisha	39.2	3.9	56.9	100
Bihar	37.8	11.0	51.3	100
North-East	24.3	10.3	65.4	100
Sikkim	14.9	10.7	74.4	100
Arunachal Pradesh	22.1	14.1	63.8	100
Nagaland	31.0	13.6	54.7	100
Manipur	21.2	23.3	55.5	100
Mizoram	35.5	5.2	59.3	100
Tripura	31.4	10.0	58.6	100
Meghalaya	19.2	9.0	71.8	100
Assam	23.5	9.2	67.3	100
West	22.1	3.2	74.7	100
Gujarat	16.4	5.2	78.4	100
Maharashtra	25.4	2.2	72.4	100
Goa	4.1	0.5	95.4	100
South	10.5	2.9	86.6	100
Andhra Pradesh	10.9	4.2	84.9	100
Karnataka	16.8	2.6	80.6	100
Kerala	7.0	3.7	89.3	100
Tamil Nadu	6.8	1.3	91.9	100
Puducherry	5.0	1.0	93.9	100

Note: [1] Includes less than daily users of smokeless tobacco.

4.3.9 Age at initiation of use of smokeless tobacco

The percent distribution of ever daily users of smokeless tobacco age 20–34 by age at initiation of daily use of smokeless tobacco is presented in Table 4.48. The age pattern of initiation of smokeless tobacco use is quite similar to that of smoking tobacco use: 16 percent of daily users of smokeless tobacco have started using tobacco on a daily basis by the age of 15; 25 percent started when in the age group 15–17; 18 percent at age 18–19; and the remaining 42 percent started after they had crossed 20.

Two among every five daily users of smokeless tobacco age 20–34 started daily use of smokeless tobacco before the age of 18, i.e. prior to the age of maturity. The mean age of initiation of use of smokeless tobacco is 17.9 years, the same as for initiation of smoking. Female daily users of smokeless tobacco started tobacco use at a much younger age compared to their male counterparts. The mean age of initiation for females is 17.1 compared to 18.2 for males. Similarly daily smokers from rural areas start smoking at an earlier age than smokers from urban areas, though the urban rural differentials in the age of initiation of smokeless tobacco use are not large. In rural areas, 41 percent of smokeless tobacco users started tobacco use before the age of 18 compared to 36 percent in urban areas. Age at initiation of smokeless tobacco use bears an inverse relationship with level of education of the user. The mean age of initiation of smokeless tobacco use is two years higher among those with secondary or more education compared to those with no formal education.

4.3.10 Age at initiation of use of smokeless tobacco by region and state/UT

The percent distribution of ever daily smokeless tobacco users age 20–34 by age at initiation of daily use of smokeless tobacco in different regions and states/UTs is presented in Table 4.49. In the Eastern and Central region, smokeless tobacco use is initiated at a much younger age while in the Southern region it is at a comparatively older age. About 40–44 percent of daily smokeless tobacco users in the Eastern and Central region started such use before the age of 18 compared with 30 percent of such users from the Southern region.

More than half or more daily smokeless tobacco users in West Bengal, Odisha, Chhattisgarh, Rajasthan and Jammu & Kashmir initiated daily use before they turned 18. On the contrary, less than one-fourth of smokeless tobacco users in Tripura and Kerala started daily smokeless tobacco use by that age.

Table 4.48: Percent distribution of ever daily users of smokeless tobacco age 20-34 by age at use of smokeless tobacco initiation, according to selected background characteristics, GATS India, 2009-2010

	Age at smokeless tobacco initiation					
Background characteristic	**<15**	**15-17**	**18–19**	**20-34**	**Total**	**Mean age**
Overall	15.6	24.6	17.9	41.9	100	17.9
Gender						
Male	12.2	25.4	20.0	42.4	100	18.2
Female	26.9	22.0	11.0	40.2	100	17.1
Residence						
Urban	14.3	21.8	19.9	44.0	100	18.3
Rural	16.0	25.4	17.4	41.3	100	17.8
Education level						
No formal schooling	23.4	23.4	12.9	40.4	100	17.0
Less than primary	16.6	27.8	19.3	36.3	100	17.6
Primary but less than secondary	13.2	25.2	20.8	40.8	100	18.0
Secondary and above	8.4	22.7	18.3	50.6	100	19.1
Occupation						
Government and non-government employee	13.0	26.0	20.1	40.9	100	17.9
Self-employed	13.1	25.6	18.5	42.8	100	18.2
Student	21.9	26.8	17.7	33.6	100	16.8
Homemaker	25.0	18.5	13.3	43.2	100	17.6
Retired and unemployed	25.7	24.5	10.3	39.5	100	17.3

Table 4.49: Percent distribution of ever daily users of smokeless tobacco age 20-34 by age at use of smokeless tobacco initiation according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Age at smokeless tobacco initiation				Total	Mean age
	<15	15-17	18-19	20-34		
India	15.6	24.6	17.9	41.9	100	17.9
North	10.1	26.7	19.8	43.5	100	18.7
Jammu & Kashmir	17.7	33.0	7.0	42.4	100	17.5
Himachal Pradesh	0.0*	14.9*	16.3*	68.8*	100	20.9*
Punjab	11.1	24.6	22.7	41.7	100	18.6
Chandigarh	7.8	18.1	49.5	24.7	100	16.6
Uttarakhand	9.6	25.1	16.8	48.6	100	19.6
Haryana	5.9	39.0	23.7	31.4	100	18.1
Delhi	3.4	38.7	20.3	37.6	100	18.7
Central	18.0	23.0	16.6	42.5	100	17.7
Rajasthan	15.9	35.9	21.2	26.9	100	17.1
Uttar Pradesh	10.8	20.4	17.8	51.1	100	18.8
Chhattisgarh	28.9	23.2	15.4	32.4	100	16.2
Madhya Pradesh	18.9	17.3	11.9	51.9	100	18.0
East	16.3	27.2	18.4	38.2	100	17.8
West Bengal	9.7	44.5	17.0	28.8	100	16.9
Jharkhand	23.5	23.3	11.9	41.4	100	17.5
Odisha	21.6	30.5	22.2	25.7	100	16.6
Bihar	14.1	21.3	19.6	45.0	100	18.8
North-East	9.1	27.9	20.8	42.2	100	18.2
Sikkim	14.9	22.4	19.5	43.2	100	17.8
Arunachal Pradesh	15.6	21.3	26.6	36.5	100	17.2
Nagaland	11.7	35.3	11.6	41.4	100	18.8
Manipur	8.5	17.8	12.6	61.1	100	19.4
Mizoram	6.6	31.3	32.1	30.1	100	18.2
Tripura	9.9	12.1	22.5	55.5	100	19.6
Meghalaya	20.8	23.9	14.8	40.5	100	17.6
Assam	8.1	31.3	21.6	38.9	100	17.9
West	12.5	27.3	17.0	43.1	100	18.4
Gujarat	14.4	29.4	13.1	43.1	100	18.0
Maharashtra	11.6	26.2	19.0	43.2	100	18.6
Goa	8.3	32.1	20.4	39.1	100	17.6
South	12.1	17.6	22.6	47.7	100	18.5
Andhra Pradesh	10.4	21.4	17.0	51.2	100	19.0
Karnataka	13.9	12.0	34.2	39.9	100	17.5
Kerala	15.5	6.5	11.6	66.4	100	20.1
Tamil Nadu	9.6	36.3	10.5	43.6	100	18.6
Puducherry	3.8*	19.6*	21.5*	55.0*	100	20.0*

Note: * Based on less than 25 unweighted cases.

4.3.11 Prevalence of former daily use of smokeless tobacco and quit ratio

The quit ratios of use of smokeless tobacco are discussed in this section. Similar to quit ratios of smoking, two different types of ratios are defined here. The first is the percentage of former daily users of smokeless tobacco among all adults and the second is the percentage of former daily smokeless tobacco users among all ever daily smokeless tobacco users.

In India, a little over 1 percent of all adults who were using smokeless tobacco every day have stopped its use completely (Table 4.50). Since the majority of the Indian population does not use smokeless tobacco

the quit ratios, percentages of former daily users of smokeless tobacco among ever daily users of smokeless tobacco are more relevant to understand the extent of success achieved by daily tobacco users in quitting.

The quit ratio for smokeless tobacco use is very low. Only 5 percent or one in every 20 ever daily smokeless tobacco users successfully stopped the use of smokeless tobacco. In other words, in comparison with smokers (13%) very few users of smokeless tobacco could quit such use. The quit ratios of smokeless tobacco use do not differ much by gender, residence or education. The quit ratio among older persons, age 65 and above, is little higher (7%) than that among others (4-5%). It is relatively lower among those employed (4%) or self-employed (5%) than others (6-7%).

Table 4.50: Percentage of adults age 15 and above who were former daily users of smokeless tobacco, percentage of ever daily users of smokeless tobacco who were former daily users of smokeless tobacco, according to background characteristics, GATS India, 2009-2010

Background characteristic	Former daily users of smokeless tobacco[1] (Among all adults)	Former daily users of smokeless tobacco[1] (Among ever daily users of smokeless tobacco)[2]
Overall	1.2	4.8
Age		
15- 24	0.6	4.7
25- 44	1.1	4.1
45- 64	1.6	5.3
65+	2.5	7.3
Gender		
Male	1.4	4.6
Female	0.9	5.2
Residence		
Urban	1.0	5.9
Rural	1.2	4.5
Education level		
No formal schooling	1.5	4.6
Less than primary	1.3	4.4
Primary but less than secondary	1.1	5.0
Secondary and above	0.7	5.5
Occupation		
Government and non-government employee	1.2	3.9
Self-employed	1.5	4.5
Student	0.3	6.8
Homemaker	0.9	5.7
Retired and unemployed	2.3	7.3

Note: [1] Includes current non- users of smokeless tobacco.
[2] Also known as quit ratio for daily use of smokeless tobacco.

4.3.12 Prevalence of former daily use of smokeless tobacco and quit ratio by region and state/UT

Table 4.51 presents the quit ratios of smokeless tobacco by region and state/UT. The quit ratio for smokeless tobacco use is the lowest in the North-East (2%). In all other regions (4%-5%) there is no sizeable variation between the quit ratios for smokeless tobacco use.

Table 4.51: Percentage of adults age 15 and above who were former daily users of smokeless tobacco, percentage of ever daily users of smokeless tobacco who were former daily users of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state\UT	Former daily users of smokeless tobacco[1] (Among all adults)	Former daily users of smokeless tobacco[1] (Among ever daily users of smokeless tobacco)[2]
India	1.2	4.8
North	0.3	4.3
Jammu & Kashmir	0.3	4.0
Himachal Pradesh	0.6	13.3
Punjab	0.2	2.5
Chandigarh	0.1	3.0
Uttarakhand	0.6	6.2
Haryana	0.2	2.7
Delhi	0.2	2.3
Central	1.4	5.2
Rajasthan	1.6	8.2
Uttar Pradesh	1.2	5.1
Chhattisgarh	1.4	3.3
Madhya Pradesh	1.8	6.1
East	1.5	4.4
West Bengal	0.5	2.6
Jharkhand	2.5	5.7
Odisha	0.6	1.5
Bihar	2.6	6.1
North-East	0.6	2.2
Sikkim	1.5	7.5
Arunachal Pradesh	0.3	1.2
Nagaland	2.7	7.5
Manipur	0.8	2.9
Mizoram	0.5	1.5
Tripura	1.4	4
Meghalaya	0.8	3.6
Assam	0.3	1.2
West	1.2	4.9
Gujarat	1.9	9.8
Maharashtra	0.9	3.1
Goa	0.5	10.1
South	0.7	5.7
Andhra Pradesh	0.6	4.4
Karnataka	1.1	5.4
Kerala	1.4	14.4
Tamil Nadu	0.2	3.2
Puducherry	0.8	13.7

Note: [1] Includes current non- users of smokeless tobacco.
[2] Also known as quit ratio for daily use of smokeless tobacco

The quit ratios for smokeless tobacco in most states are much lower than the quit ratios for smoking. In Arunachal Pradesh, Assam, Odisha and Mizoram the quit ratio of smokeless tobacco use are the lowest at

below 2 percent. On the contrary in Gujarat, Goa, Himachal Pradesh, Puducherry and Kerala 10–15 percent of ever daily users of smokeless tobacco could quit the use of smokeless tobacco.

4.3.13 Time since quitting use of smokeless tobacco

The duration for which smokeless tobacco users could refrain from its use is an important dimension of quitting, as there is always a chance of reverting after a short duration of non-use. Table 4.52 shows the percent distribution of former daily users of smokeless tobacco by years since quitting smokeless tobacco. About 29 percent of quitters have stayed away from smokeless tobacco for the last one year, 26 percent have quit between one to five years, about one-fifth have quit for between five to nine years and about one-fourth have stopped use of smokeless tobacco for more than 10 years. In other words, the majority of smokeless tobacco users have stopped using tobacco only for the past five years. Almost equal proportion of both males (26%) and females (25%) who were former daily users of smokeless tobacco have abstained from smokeless tobacco use for more than 10 years. About one-third of former daily users of smokeless tobacco from rural areas and one-fourth from urban areas have abstained from its use for more than 10 years. Almost equal proportion of former daily smokers, both from urban (50%) and rural (48%) areas, have abstained from smoking for more than 10 years. The duration since quitting smoking does not vary consistently across groups of persons classified by education level. Almost half of retired and unemployed persons have abstained from smoking for more than 10 years compared to 22-27 percent of government and non-government employees, self-employed persons and homemakers.

Table 4.52: Percent distribution of former daily users of smokeless tobacco age 15 and above by time since quitting smokeless tobacco, according to selected background characteristics, GATS India, 2009-2010

Background characteristic	Time since quitting smokeless tobacco (in years)				Total
	<1	1–4	5-9	10+	
Overall	29.2	25.9	19.2	25.7	100
Gender					
Male	26.8	25.0	21.9	26.4	100
Female	33.1	27.5	14.9	24.5	100
Residence					
Urban	21.3	27.9	17.4	33.5	100
Rural	31.7	25.3	19.8	23.2	100
Education level					
No formal schooling	33.0	27.2	17.0	22.8	100
Less than primary	22.9	26.7	18.5	31.9	100
Primary but less than secondary	23.1	23.5	25.3	28.1	100
Secondary and above	33.4	27.1	15.4	24.1	100
Occupation					
Government and non-government employee	29.6	24.6	23.5	22.2	100
Self-employed	29.2	27.3	20.5	23.0	100
Student	55.4*	26.6*	18.0*	0.0*	100
Homemaker	28.7	29.1	14.9	27.3	100
Retired and unemployed	21.5	16.4	15.6	46.5	100

Note: * Based on less than 25 unweighted cases.

4.3.14 Time since quitting use of smokeless tobacco by region and state/UT

Table 4.53 presents the percent distribution of former daily users of smokeless tobacco by years since quitting smokeless tobacco for different regions and states/UTs. It was pointed out earlier that the extent of quitting smokeless tobacco use among the daily users in most of the states is quite low. Due to lower quit ratios, the percent distribution of former daily users of smokeless tobacco by years since quitting smokeless tobacco in most of the states is based on very small number of quitters. In most of the states, the majority of smokeless tobacco users have stopped using tobacco only for the past 5 years.

Table 4.53: Percent distribution of former daily users of smokeless tobacco age 15 and above by time since quitting smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

	Time since quitting smokeless tobacco (in years)				
Region and state/UT	**<1**	**1–4**	**5-9**	**10+**	**Total**
India	29.2	25.9	19.2	25.7	100
North	13.3	29.1	23.7	33.8	100
Jammu & Kashmir	0.0*	37.4*	0.0*	62.6*	100
Himachal Pradesh	28.8*	39.3*	20.1*	11.8*	100
Punjab	0.0*	50.1*	26.7*	23.1*	100
Chandigarh	52.0*	33.6*	14.4*	0.0*	100
Uttarakhand	17.0*	0.0*	36.6*	46.4*	100
Haryana	26.0*	41.7*	14.4*	17.9*	100
Delhi	0.0*	13.6*	86.4*	0.0*	100
Central	27.7	24.9	22.4	25.0	100
Rajasthan	16.6	41.0	16.6	25.8	100
Uttar Pradesh	39.1	17.6	28.4	14.8	100
Chhattisgarh	7.9	41.7	13.9	36.5	100
Madhya Pradesh	31.3	11.9	22.7	34.1	100
East	28.1	26.2	19.3	26.4	100
West Bengal	34.8	24.8	13.1	27.3	100
Jharkhand	13.1*	35.0*	51.8*	0.0*	100
Odisha	22.0	22.3	20.5	35.1	100
Bihar	4.9*	38.8*	30.7*	25.5*	100
North-East	23.9	30.2	22.0	23.9	100
Sikkim	8.9*	4.8*	13.0*	73.3*	100
Arunachal Pradesh	0.0*	43.5*	32.5*	24.0*	100
Nagaland	4.0	32.5	21.0	42.5	100
Manipur	35.7*	0.0*	14.3*	50.0*	100
Mizoram	23.1*	52.5*	7.3*	17.1*	100
Tripura	24.4*	39.2*	14.3*	22.1*	100
Meghalaya	4.8*	59.0*	36.2*	0.0*	100
Assam	37.3*	26.2*	27.3*	9.2*	100
West	19.9	32.5	16.9	30.7	100
Gujarat	22.4	26.8	20.2	30.6	100
Maharashtra	16.9	39.5	12.7	30.8	100
Goa	9.1*	29.8*	27.4*	33.8*	100
South	47.7	20.4	11.6	20.3	100
Andhra Pradesh	38.2*	21.2*	13.6*	27.0*	100
Karnataka	54.5*	16.4*	21.4*	7.7*	100
Kerala	43.0	21.7	2.6	32.7	100
Tamil Nadu	75.0*	25.0*	0.0*	0.0*	100
Puducherry	15.6*	55.3*	8.8*	20.3*	100

Note: * Based on less than 25 unweighted cases.

Key findings

- More than one-third (35%) of adults in India use tobacco in some form, 21 percent of adults use only smokeless tobacco, 9 percent only smoke tobacco and 5 percent smoke as well as use smokeless tobacco.
- Tobacco use is high (18%) even among population age 15-24.
- Prevalence of tobacco use decreases with increase in education among both males and females.
- Most of current smokers and smokeless tobacco users use tobacco every day.
- Prevalence of tobacco use is higher among rural (38%) than urban (25%) population.
- *Khaini* or tobacco lime mixture (12%) is the most commonly used tobacco product in India, followed by bidi (9%).
- On an average, daily cigarette smoker smokes 6 cigarette sticks per day and daily bidi smoker smokes 12 bidis per day.
- Two in every five daily tobacco users age 20-34 started using tobacco before attaining age 18.
- One fourth of females initiate tobacco usage before the age of 15.
- Three in every five daily tobacco users use tobacco within half an hour after waking up.
- One in every eight ever daily smokers has completely stopped smoking.
- One in every twenty ever daily users of smokeless tobacco has stopped using smokeless tobacco.

Key messages

- High prevalence of smokeless tobacco among males and females call for targeted interventions.
- Substantial proportion of tobacco users in India initiate its use in early ages and hence the prevention programmes especially need to address the adolescents.

5. TOBACCO CESSATION

Tobacco consumption over a period of time leads to chronic dependence due to highly addictive nature of nicotine. Death and debilitating diseases due to tobacco use can be reduced significantly through an increased emphasis on cessation programmes. WHO MPOWER policy recommends offer to help tobacco users to quit as an important strategy to control tobacco use.[1] Cessation of tobacco use is an established tobacco control measure. Government of India through the GOI-WHO collaborative programme has strengthened 19 Tobacco Cessation Centres (TCCs) across the country since 2002, which are located in various health care facilities.[6] Under the National Tobacco Control Programme, TCCs are being set up at District hospital level with the objective to provide the cessation facilities at the community level. Efforts are also being made to expand the cessation facilities in the country by integrating with the other ongoing National Health Programmes of the government.[6]

This chapter discusses the findings from GATS India on tobacco cessation attempts, cessation method, interest in quitting tobacco use, the extent to which health care providers ask patients about their tobacco use habits and tender advice, as necessary, to quit tobacco use.

5.1 CESSATION ATTEMPTS, HEALTH CARE SEEKING BEHAVIOUR OF TOBACCO USERS AND ADVICE BY HEALTH CARE PROVIDERS

Table 5.1 presents the percentage of current and former tobacco smokers who made an attempt to quit smoking in the past 12 months prior to the survey, irrespective of whether they were successful or not. The table also presents the number of current and former smokers who visited health care providers regarding a health problem and who were asked about their smoking habit and advised to quit. Health care providers are supposed to record the complete history of the lifestyle of a patient and advise quitting the use of tobacco products. These two indicators are very important in the context of tobacco control. Table 5.2 presents the same indicators at the state/UT level. Tables 5.3 and 5.4 present the same indicators for users of smokeless tobacco.

5.1.1 Quit attempts among smokers

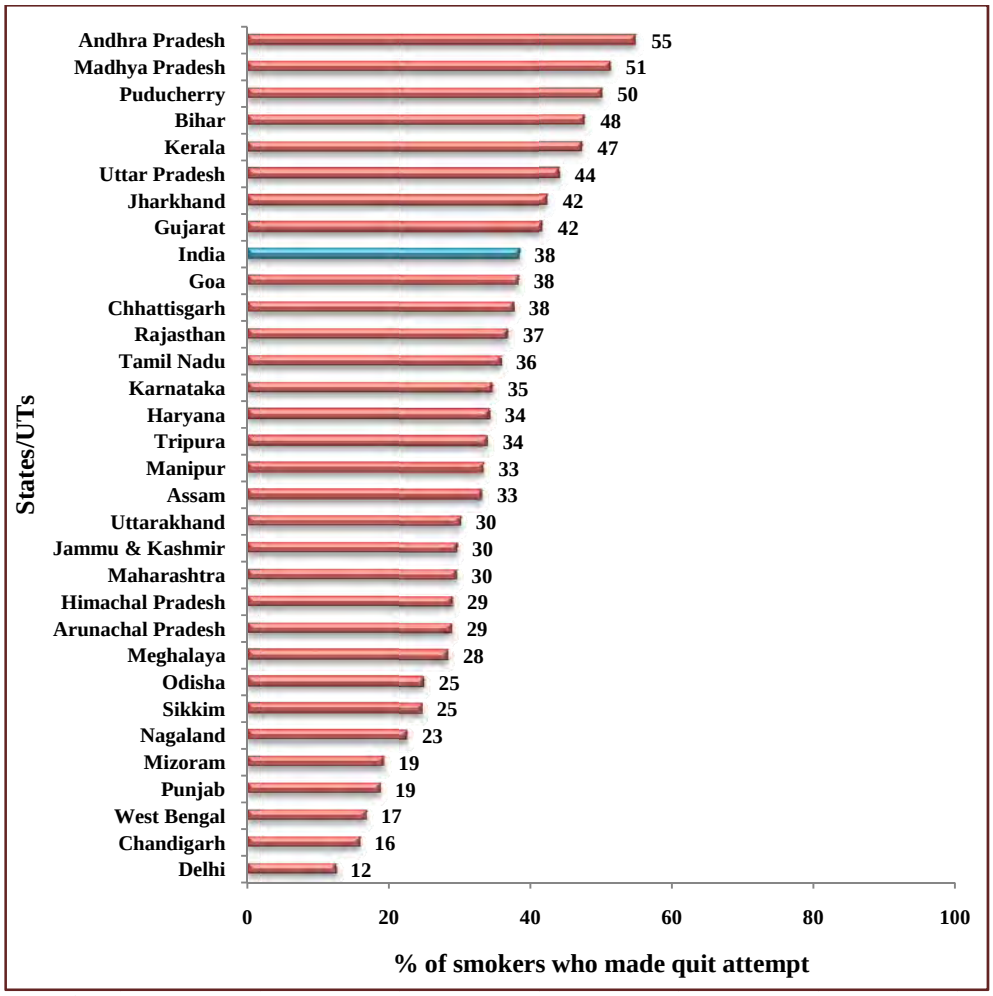
Among current and former smokers 38 percent made an attempt to quit tobacco use in the past 12 months. Almost an equal proportion of male (38%) and female (39%) smokers, and smokers from urban (39%) and rural areas (38%) made quit attempts in the last 12 months prior to the survey. The proportion of current and former smokers, age 15–24 (47%), who made quit attempts is higher than their older counterparts (37%-38%). The proportion of current and former smokers who made quit attempts increases with the level of education, though this increase is not very large. More than one-third of smokers (36%) with no formal education made a quit attempt compared with 42 percent of smokers with secondary and above education. The extent of quit attempts made by students (49%) is higher than that for other occupational groups (36%-41%).

Table 5.1: Percentage of smokers[1] age 15 and above who made a quit attempt, visited a health care provider (HCP), were asked by the HCP about smoking and were advised to quit by the HCP in the past 12 months, according to background characteristics, GATS India, 2009-2010

Background characteristic	Made quit attempt[1]	Smoking cessation and health care seeking behavior		
		Visited an HCP[1]	Asked by HCP if a smoker[2]	Advised to quit by HCP[2]
Overall	38.4	47.2	53.0	46.3
Gender				
Male	38.3	46.6	54.0	47.3
Female	38.9	53.1	45.5	38.9
Age				
15-24	47.2	47.2	31.3	26.1
25-44	37.8	43.2	51.3	43.0
45-64	36.5	50.3	58.5	52.9
65+	36.9	55.4	63.8	57.9
Residence				
Urban	38.7	49.6	57.9	50.6
Rural	38.2	46.5	51.5	44.9
Education level				
No formal schooling	35.7	48.3	53.9	46.7
Less than primary	37.4	45.9	56.3	50.1
Primary but less than secondary	40.9	45.9	52.3	46.3
Secondary and above	41.9	48.6	49.8	42.7
Occupation				
Government and non-government employee	40.6	49.1	52.5	45.7
Self-employed	35.8	43.0	54.9	47.9
Student	49.1	60.8	26.2	21.5
Homemaker	39.4	51.0	49.6	41.7
Retired or unemployed	38.8	54.5	56.8	52.3

Note: [1] Includes current smokers and former smokers who have abstained for less than 12 months.
[2] Among current smokers and former smokers who have abstained for less than 12 months who visited an HCP during the past 12 months.

Figure 5.1 Percentage of smokers[1] who made a quit attempt in the past 12 months, according to states/UTs, GATS India, 2009-2010



Note: [1] Includes current smokers and former smokers who have abstained for less than 12 months.

The proportion of smokers who made a quit attempt in the last 12 months prior to the survey varies across regions and states/UTs. The figure for the Southern region was 46 percent and that for the Central region was 43 percent, whereas it was between 26 to 29 percent for the North and East regions. Among all the states, the highest proportion of quit attempts were made in Andhra Pradesh (55%) with the lowest in Delhi (12%). In Andhra Pradesh, Madhya Pradesh, Puducherry, Bihar, Kerala, Uttar Pradesh, Jharkhand and Gujarat, quit attempts were reported higher than the national average of 38 percent.

Table 5.2: Percentage of smokers[1] age 15 and above who made a quit attempt, visited a health care provider (HCP), were asked by the HCP about smoking and were advised to quit by the HCP in the past 12 months, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Made quit attempt[1]	Smoking cessation and health care seeking behavior		
		Visited an HCP[1]	Asked by HCP if a smoker[2]	Advised to quit by HCP[2]
India	38.4	47.2	53.0	46.3
North	26.3	42.1	58.9	52.6
Jammu & Kashmir	29.6	52.2	56.1	51.0
Himachal Pradesh	28.9	36.8	64.7	54.7
Punjab	18.7	29.8	68.3	64.7
Chandigarh	15.8	35.1	47.3	46.3
Uttarakhand	30.1	39.1	54.0	43.9
Haryana	34.2	59.4	62.1	56.6
Delhi	12.4	53.1	47.3	43.3
Central	43.1	48.6	44.3	37.4
Rajasthan	36.8	28.3	43.8	39.7
Uttar Pradesh	44.1	61.0	46.1	38.4
Chhattisgarh	37.6	34.8	46.4	37.6
Madhya Pradesh	51.3	49.8	38.6	33.4
East	29.4	39.4	46.3	40.4
West Bengal	16.7	34.1	57.0	48.8
Jharkhand	42.4	34.4	24.1	19.1
Odisha	24.9	52.1	32.4	28.6
Bihar	47.7	44.4	43.0	38.7
North-East	31.0	39.8	45.9	41.6
Sikkim	24.6	47.7	51.0	48.2
Arunachal Pradesh	28.8	37.2	59.4	49.6
Nagaland	22.5	24.3	83.6	81.8
Manipur	33.3	20.2	42.2	41.1
Mizoram	19.2	16.9	45.6	34.0
Tripura	33.9	46.1	55.6	51.8
Meghalaya	28.3	33.3	57.6	51.8
Assam	33.1	46.4	38.7	34.7
West	35.2	43.4	51.5	47.0
Gujarat	41.7	41.9	57.5	53.4
Maharashtra	29.5	44.6	46.3	41.5
Goa	38.3	52.8	73.4	64.5
South	45.9	58.0	70.5	62.4
Andhra Pradesh	54.9	56.4	77.5	70.7
Karnataka	34.6	62.2	69.8	58.2
Kerala	47.3	72.2	57.1	49.3
Tamil Nadu	35.8	46.4	68.0	60.5
Puducherry	50.1	58.0	52.5	45.2

Note: [1] Includes current smokers and former smokers who have abstained for less than 12 months.
[2] Among current smokers and former smokers who have abstained for less than 12 months, and who visited an HCP during the past 12 months.

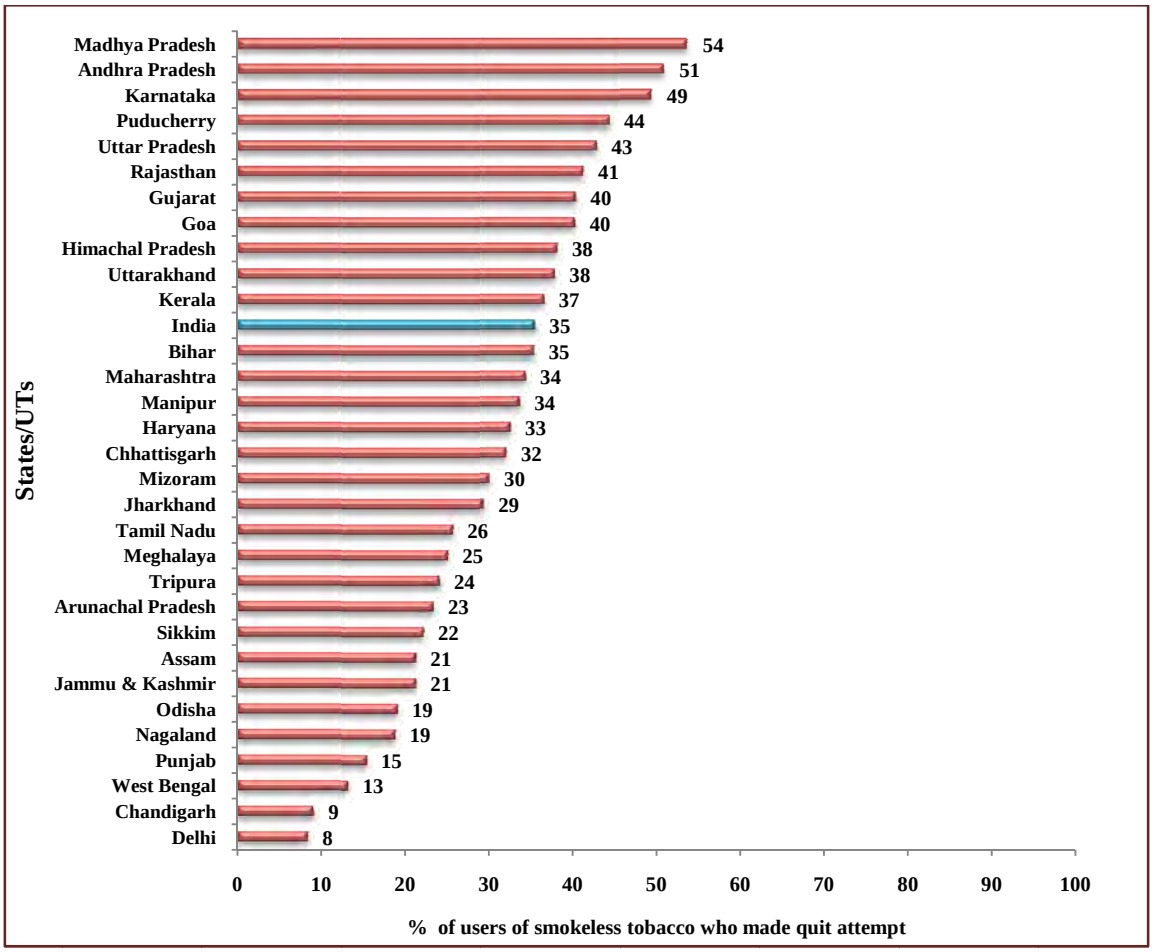
5.1.2 Quit attempts among users of smokeless tobacco

Among current and former users of smokeless tobacco, 35 percent made an attempt to quit tobacco use in the past 12 months. A higher proportion of male (39%) users of smokeless tobacco made quit attempts than female users (29%). Almost an equal proportion of tobacco users from both urban (37%) and rural areas (35%) made quit attempts (Table 5.3).

The proportion of current and former users of smokeless tobacco who made quit attempts was found to decrease with age and increase with the level of education. For example, 44 percent users of smokeless tobacco age 15–24 made a quit attempt as against 26 percent of persons, age 65 and above. Similarly 29 percent of all users of smokeless tobacco who had no formal education had made a quit attempt compared to 44 percent of users of smokeless tobacco with secondary level and higher education. About one-third of homemakers (30%) and 45 percent of students also made quit attempts.

The proportion of users of smokeless tobacco who made a quit attempt in the last 12 months prior to the survey varies across regions and states/UTs (Table 5.4 and Figure 5.2). It ranges from 45 percent in the South to 23 percent in the North-East region. Among all the states, the highest proportion of quit attempts were reported in Madhya Pradesh (54%) and the lowest in Delhi (8%). In Madhya Pradesh, Andhra Pradesh, Karnataka, Puducherry, Uttar Pradesh, Rajasthan, Gujarat, Goa, Himachal Pradesh, Uttarakhand and Kerala quit attempt was reported more than the national average of 35 percent.

Figure 5.2 Percentage of users[1] of smokeless tobacco, age 15 and above, who made a quit attempt in the past 12 months according to states/UTs, GATS India, 2009-2010



Note: [1] Includes current users of smokeless tobacco and former users of smokeless tobacco who have abstained less than 12 months.

5.1.3 Visit to health care provider

Less than half (47%) of both smokers (Table 5.1) and users of smokeless tobacco (Table 5.3) visited a health care provider during the last 12 months prior to the survey. A comparatively higher proportion of female smokers and users of smokeless tobacco, urban smokers and users of smokeless tobacco, and older smokers and users of smokeless tobacco visited health care providers than their respective counterparts. Smokers in the South (58%) were more likely to visit a health care provider than those from other regions (ranging from 39% in the East region to 49% in Central region). Similarly, users of smokeless tobacco in South (56%) were more likely to visit health care providers than other regions (ranging from 43% in North-East to 48% in West).

5.1.4 Health care provider asking tobacco smoking history and providing advice to stop smoking

Among 47 percent of current and former smokers who visited a health care provider in the past 12 months prior to the survey over half (53%) were asked by the health care provider if they smoked and 46 percent were advised to stop smoking. All the smokers whom health care providers had asked about their smoking habits were not advised to quit smoking. A higher proportion of male smokers (54%) were asked about smoking status than female smokers (46%), and also advised about quitting (47% of males and 39% of females). Similarly, a higher proportion of smokers from urban areas (58%, against 52% for rural areas) were asked about smoking status, and 51 percent of urban smokers were advised to quit as against 45 percent of rural smokers (Table 5.1).

The proportion of smokers who were asked about smoking status and advised about quitting was found to increase substantially with age. For example, 64 percent of smokers age 65 and above were asked by the health care provider about smoking and 58 percent were advised about quitting, compared to only 31 percent of young smokers age 15–24 who were asked about smoking and 26 percent from that age group were advised about quitting. The proportion of smokers who were asked about smoking status and advised about quitting does not vary consistently with either education or occupation of the smoker. Only a very small proportion (26%) of students were asked about smoking or advised to stop (22%) (Table 5.1).

Smokers in the South (71%) and North (59%) were more likely to be asked about smoking than those from other regions (44% in Central to 52% in West). Smokers in the South (62%) were more likely to be advised to quit smoking than in other regions (37% in Central to 53% in the North). In every region and state/UT, a lower proportion of smokers were advised to quit than the proportion that was asked about smoking habits. The proportion of smokers who were asked about smoking by health care providers ranged from the highest in Nagaland (84%) to the lowest in Jharkhand (24%). Even the proportion of smokers who were advised to quit smoking was highest in Nagaland (82%) and lowest in Jharkhand (19%). In Punjab (68%), Goa (73%), Karnataka (70%), Andhra Pradesh (78%) and Tamil Nadu (68%) a large proportion of smokers were asked about smoking. In these states a large proportion of smokers (58%-71%) were advised to quit by the health care provider (Table 5.2).

Table 5.3: Percentage of users[1] of smokeless tobacco age 15 and above who made a quit attempt, visited a health care provider(HCP), were asked by the HCP if using smokeless tobacco and were advised to quit by the HCP in the past 12 months, according to background characteristics, GATS India, 2009-2010

Background characteristic	Smokeless cessation and health care seeking behavior			
	Made quit attempt[1]	Visited an HCP[1]	Asked by HCP if a user[2] of smokeless tobacco	Advised to quit by HCP[2]
Overall	35.4	46.5	34.2	26.7
Gender				
Male	38.8	42.4	35.8	28.1
Female	29.0	52.5	31.8	24.5
Age				
15-24	43.7	41.1	30.3	22.4
25-44	36.0	44.4	33.4	26.4
45-64	31.6	51.4	36.7	28.8
65+	26.2	54.4	37.4	29.0
Residence				
Urban	37.0	49.4	39.5	31.9
Rural	35.0	45.8	32.8	25.3
Education level				
No formal schooling	29.1	48.1	34.2	26.1
Less than primary	33.7	46.9	33.0	26.2
Primary but less than secondary	40.9	44.6	34.5	27.6
Secondary and above	43.5	45.3	35.2	27.7
Occupation				
Government and non-government employee	36.8	45.0	35.2	28.3
Self-employed	36.7	42.5	34.9	26.8
Student	45.0	40.5	24.2	19.8
Homemaker	29.6	54.2	33.0	24.8
Retired or unemployed	36.4	49.8	35.6	28.6

Note: [1] Among current users of smokeless tobacco and former users of smokeless tobacco who have abstained for less than 12 months.

[2] Among current and former users of smokeless tobacco who have abstained for less than 12 months, and who visited an HCP during the past 12 months.

5.1.5 Health care provider asking about history of use of smokeless tobacco and providing advice on quitting smokeless tobacco

Among current and former users of smokeless tobacco, 47 percent visited a health care provider, over one-third (34%) were asked by the health care provider if they used smokeless tobacco but, only 27 percent were advised to stop tobacco use. Compared with smokers who visited the health care provider, a smaller proportion of users of smokeless tobacco products were asked about smokeless tobacco use (smokers 53% and smokeless tobacco users 34%) and advised about quitting (smokers 46% and smokeless tobacco users 27%). Among users of smokeless tobacco, males, urban residents and older persons were more likely to be asked about the use of smokeless tobacco and advised about quitting compared to their counterparts in respective categories. However, the differentials in the proportion of

Table 5.4: Percentage of users[1] of smokeless tobacco age 15 and above who made a quit attempt, visited a health care provider (HCP), were asked by HCP if using smokeless tobacco and were advised to quit by the HCP in the past 12 months, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Made quit attempt[1]	Smokeless cessation and health care seeking behavior		
		Visited an HCP[1]	Asked by HCP if a user[2] of smokeless tobacco	Advised to quit by HCP[2]
India	35.4	46.5	34.2	26.7
North	22.8	44.9	36.3	29.1
Jammu & Kashmir	21.2	43.7	44.3	33.3
Himachal Pradesh	38.1	43.3	61.6	52.2
Punjab	15.3	46.3	26.3	21.2
Chandigarh	9.0	33.3	35.9	32.2
Uttarakhand	37.8	43.8	43.3	36.1
Haryana	32.5	55.3	24.8	18.5
Delhi	8.3	38.2	28.1	23.6
Central	41.7	46.1	34.8	26.6
Rajasthan	41.2	35.1	33.4	29.0
Uttar Pradesh	42.8	54.5	35.7	27.1
Chhattisgarh	32.0	36.6	37.6	30.1
Madhya Pradesh	53.7	49.5	30.5	21.0
East	26.6	43.2	24.6	18.1
West Bengal	13.1	47.2	38.1	27.6
Jharkhand	29.3	38.9	22.5	16.7
Odisha	19.0	42.0	18.4	15.7
Bihar	35.3	43.7	21.4	15.0
North-East	22.7	43.1	28.8	24.7
Sikkim	22.1	53.9	29.3	23.1
Arunachal Pradesh	23.3	34.0	53.3	36.6
Nagaland	18.7	24.7	52.3	51.0
Manipur	33.6	21.8	21.7	18.7
Mizoram	30.0	24.9	49.1	33.9
Tripura	24.0	49.0	41.8	34.1
Meghalaya	25.0	56.0	39.8	27.2
Assam	21.2	45.5	23.9	21.4
West	36.1	47.5	34.4	27.3
Gujarat	40.3	32.7	38.7	31.8
Maharashtra	34.3	53.4	33.2	26.0
Goa	40.2	37.0	47.7	43.9
South	44.6	56.1	53.1	43.6
Andhra Pradesh	50.9	55.9	58.5	53.2
Karnataka	49.4	61.0	53.4	40.1
Kerala	36.5	60.9	36.8	28.2
Tamil Nadu	25.6	43.1	53.6	42.0
Puducherry	44.3	56.9	52.1	40.0

Note: [1] Includes current and former users of smokeless tobacco who have abstained for less than 12 months.
[2] Among current users of smokeless tobacco and former users of smokeless tobacco who have abstained for less than 12 months, and who visited an HCP during the past 12 months.

users of smokeless tobacco who were asked by the health care provider about tobacco use and who were advised to quit, classified by gender, residence or age, were quite small. For example, 40 percent users of smokeless tobacco from urban areas were asked about the use of smokeless tobacco and 32 percent were advised to quit. On the other hand 33 percent of users of smokeless tobacco from rural areas were asked

the same and 25 percent advised to quit it. The proportion of users of smokeless tobacco who were asked about tobacco use and who were advised to quit does not vary consistently with either education level or occupation (Table 5.3).

The prevalence of smokeless tobacco is the highest in the Eastern region. However, among all the regions the lowest proportion of users of smokeless tobacco products were asked about tobacco use (25%) and advised about quitting (18%) in the Eastern region. The proportion of users of smokeless tobacco who were asked about smokeless tobacco use by health care providers ranged from the highest in Himachal Pradesh (62%) to the lowest in Odisha (18%). The proportion of users of smokeless tobacco who were advised to quit its use was highest in Andhra Pradesh (53%) and lowest in Bihar (15%). In Arunachal Pradesh, Nagaland, Andhra Pradesh, Karnataka, Tamil Nadu and Puducherry majority of users of smokeless tobacco were asked about its use. However, only in Nagaland and Himachal Pradesh more than 50 percent were advised to quit smokeless tobacco (Table 5.4).

5.2 CESSATION METHOD

All current and former smokers who made a quit attempt in the last 12 months prior to the survey were asked about the method they used for quitting. The question on the cessation method was whether smokers used: (i) counselling, including at a smoking cessation clinic; (ii) nicotine replacement therapy such as the patch or gum; (iii) any prescribed medications such as Bupropion; (iv) traditional medicines, such as Ayurveda, Homeopathy, Unani, etc.; (v) a quit line or a telephone support line; (vi) switch over to smokeless tobacco and; (vii) any other method. Table 5.5 presents the percentage of current and former smokers who made a quit attempt in the past 12 months prior to the survey with the aid of different cessation methods such as counselling, pharmacotherapy, and other methods.

The Table shows that 9 percent used counselling/advice and only a small percentage (4%) of smokers used pharmacotherapy to quit smoking. More than one-fourth (26%) used other methods including the use of traditional medicine and switching over to smokeless tobacco. In other words, few smokers attempted to stop smoking but could not stop tobacco use. Most of the smokers who reported other methods to stop smoking, mentioned that they stopped smoking through sheer will or upon the insistence of family members/friends, etc.

The use of pharmacotherapy and counselling/advice was slightly more among male smokers, smokers from urban areas, smokers with more than primary education and students compared to other occupational categories. The use of pharmacotherapy decreases with the increase in age of the smoker and the use of counselling/advice increases with increase in age. However, differences in the use of these methods in different age groups are quite small. A comparatively higher proportion of male smokers, younger smokers, smokers from rural areas and students resorted to the use of other methods to quit smoking.

Table 5.5: Percentage of smokers[1] age 15 and above who tried to stop smoking in the past 12 months by use of different cessation methods during their last quit attempt, according to background characteristics, GATS India, 2009-2010

Background characteristic	Use of cessation method[1]		
	Pharmacotherapy[2]	Counseling/Advice[3]	Others[4]
Overall	4.1	9.2	26.0
Gender			
Male	4.3	9.2	26.7
Female	1.6	8.1	20.6
Age			
15-24	5.5	9.8	33.9
25-44	4.4	8.8	26.9
45-64	3.3	10.0	23.3
65+	3.0	11.2	19.6
Residence			
Urban	6.7	12.7	25.1
Rural	3.2	8.1	26.3
Education level			
No formal schooling	2.0	7.8	23.0
Less than primary	3.0	6.9	29.4
Primary but less than secondary	5.0	11.3	26.1
Secondary and above	7.4	10.6	27.6
Occupation			
Government and non- government employee	3.9	7.7	25.9
Self-employed	4.2	10.3	26.8
Student	19.6	10.7	37.7
Homemaker	2.6	10.7	21.6
Retired or unemployed	1.7	8.5	25.1

Note: [1] Among current smokers and former smokers who have abstained for less than 12 months.
[2] Pharmacotherapy includes nicotine replacement therapy and prescription medications.
[3] Includes counseling at a cessation clinic and a telephone quit line/helpline
[4] Includes traditional medicines, switching to smokeless tobacco and other products.

The cessation methods used by smokers vary across regions and states/UTs. Among all the regions, use of pharmacotherapy was the highest in the Eastern region (9%) and use of counselling/advice was the highest in the North-Eastern region (27%). Use of other methods for quitting smoking varied from 16 percent in South to 37 percent in the East region. Using pharmacotherapy for quitting smoking varied from 0 percent in Delhi to 27 percent in West Bengal (Table 5.6). In most of the states less than 2 percent of smokers used pharmacotherapy for cessation. However more than 10 percent of smokers used pharmacotherapy in Punjab (11%), West Bengal (27%), Odisha (13%), Sikkim (17%) and Tamil Nadu (11%). Use of counselling for quitting varied from 0 percent in Chandigarh and Goa to 33 percent in Tamil Nadu. In Jammu & Kashmir (25%), Delhi (22%), West Bengal (22%), Odisha (26%), Assam (41%), Tamil Nadu (33%) and Puducherry (25%) more than a fifth of all smokers used counselling/advice. More than a third of smokers from Rajasthan (37%), Chhattisgarh (36%), Bihar (41%), West Bengal (38%), Gujarat (47%), Goa (36%) and Karnataka (34%) used other methods.

Table 5.6: Percentage of smokers[1] age 15 and above who tried to stop smoking in the past 12 months by use of different cessation methods during their last quit attempt, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Use of cessation method[1]		
	Pharmacotherapy[2]	Counseling/Advice[3]	Others[4]
India	4.1	9.2	26.0
North	4.7	12.9	16.1
Jammu & Kashmir	5.8	24.6	29.1
Himachal Pradesh	3.2	3.4	4.2
Punjab	10.5	5.4	14.0
Chandigarh	3.8	0.0	7.2
Uttarakhand	1.7	7.0	9.1
Haryana	0.4	16.5	11.7
Delhi	0.0	21.5	15.7
Central	1.4	4.9	28.2
Rajasthan	1.3	6.1	36.6
Uttar Pradesh	0.9	3.5	24.0
Chhattisgarh	2.4	5.1	36.2
Madhya Pradesh	1.8	6.8	26.5
East	9.4	10.3	36.6
West Bengal	27.1	21.2	37.9
Jharkhand	5.8	10.1	29.3
Odisha	13.2	26.2	12.9
Bihar	0.0	1.9	41.4
North-East	7.4	26.5	23.1
Sikkim	16.6	17.2	24.3
Arunachal Pradesh	7.0	8.6	27.9
Nagaland	6.5	7.7	15.5
Manipur	2.8	2.6	11.3
Mizoram	0.7	1.0	24.2
Tripura	7.4	8.4	8.7
Meghalaya	0.9	12.0	26.8
Assam	9.3	41.0	28.0
West	1.4	14.1	31.4
Gujarat	0.3	14.1	47.1
Maharashtra	2.7	14.3	11.7
Goa	2.8	0.0	35.9
South	4.7	10.3	15.7
Andhra Pradesh	5.4	4.3	13.0
Karnataka	0.0	13.5	33.7
Kerala	1.1	4.8	13.2
Tamil Nadu	10.5	33.4	9.5
Puducherry	6.1	24.9	24.9

Note: [1] Among current smokers and former smokers who have abstained for less than 12 months.
[2] Pharmacotherapy includes nicotine replacement therapy and prescription medications.
[3] Includes counseling at a cessation clinic and a telephone quit line/helpline
[4] Includes traditional medicines, switching to smokeless tobacco and other products.

Table 5.7: Percentage of users[1] of smokeless tobacco age 15 and above who tried to stop use of smokeless tobacco in the past 12 months by use of different cessation methods during their last quit attempt, according to background characteristics, GATS India, 2009-2010

Background characteristic	Use of cessation method[1]	
	Counseling/Advice[2]	Others[3]
Overall	7.6	21.9
Gender		
Male	6.6	20.6
Female	10.0	25.0
Age		
15-24	3.8	22.1
25-44	7.0	21.7
45-64	11.4	24.4
65+	11.5	12.7
Residence		
Urban	8.6	25.0
Rural	7.3	21.0
Education level		
No formal schooling	8.5	19.8
Less than primary	9.1	23.3
Primary but less than secondary	6.8	22.4
Secondary and above	6.2	23.4
Occupation		
Government and non- government employee	5.4	23.5
Self-employed	7.8	21.1
Student	3.4	20.0
Homemaker	12.7	23.0
Retired or unemployed	6.1	17.4

Note: [1] Among current users of smokeless tobacco who made a quit attempt in the past 12 months and former users of smokeless tobacco who have abstained for less than 12 months.
[2] Includes counseling at a cessation clinic and a telephone quit line/helpline.
[3] Includes traditional medicines and other products.

Table 5.7 presents the percentage of current and former users of smokeless tobacco who made a quit attempt in the past 12 months prior to survey who used different cessation methods such as counselling and others. The Table reveals that only a small percentage (8%) of users of smokeless tobacco took the help of counselling/advice to quit. As many as 22 percent reported that they used other methods, including sheer willpower or insistence of family members/friends, etc., along with other traditional methods. The use of counselling/advice was found to be a little higher among females and urban users of smokeless tobacco.

Among regions use of counselling/advice was highest in the North-East (23%) and the lowest in Central region (4%). In most states/UTs less than 5 percent of users of smokeless tobacco used counselling/advice as a cessation method. In Jammu & Kashmir (21%), West Bengal (22%), Assam (35%) and Tamil Nadu (35%) more than one-fifth of users of smokeless tobacco used counselling/advice (Table 5.8).

Table 5.8: Percentage of users[1] of smokeless tobacco age 15 and above who tried to stop use of smokeless tobacco in the past 12 months by use of different cessation methods during their last quit attempt, according to regions and states/UTs, GATS India, 2009-2010

	Use of cessation method[1]	
Region and state/UT	**Counseling/Advice[2]**	**Others[3]**
India	7.6	21.9
North	7.4	17.1
Jammu & Kashmir	20.7	20.4
Himachal Pradesh	0.0	1.6
Punjab	8.5*	35.7*
Chandigarh	0.0*	20.1*
Uttarakhand	1.7	6.2
Haryana	6.6	13.3
Delhi	4.6*	3.5*
Central	3.8	22.8
Rajasthan	4.7	17.4
Uttar Pradesh	3.8	15.9
Chhattisgarh	3.6	35.8
Madhya Pradesh	3.5	26.1
East	6.8	22.8
West Bengal	21.5	16.3
Jharkhand	1.8	33.5
Odisha	16.8	23.1
Bihar	3.4	21.0
North-East	23.2	13.8
Sikkim	15.0	28.5
Arunachal Pradesh	6.6	17.8
Nagaland	2.8	11.8
Manipur	2.0	7.5
Mizoram	0.0	19.4
Tripura	7.6	4.4
Meghalaya	10.3	23.6
Assam	34.5	15.2
West	12.5	28.6
Gujarat	13.7	46.2
Maharashtra	11.9	19.9
Goa	12.3	4.6
South	11.8	12.9
Andhra Pradesh	7.2	8.1
Karnataka	13.5	20.4
Kerala	3.3	4.0
Tamil Nadu	35.1	14.6
Puducherry	12.6	17.5

Note: [1] Among current users of smokeless tobacco who made a quit attempt in the past 12 months and former users of smokeless tobacco who have abstained for less than 12 months.

[2] Includes counseling at a cessation clinic and a telephone quit line/helpline.

[3] Includes traditional medicines and other products.

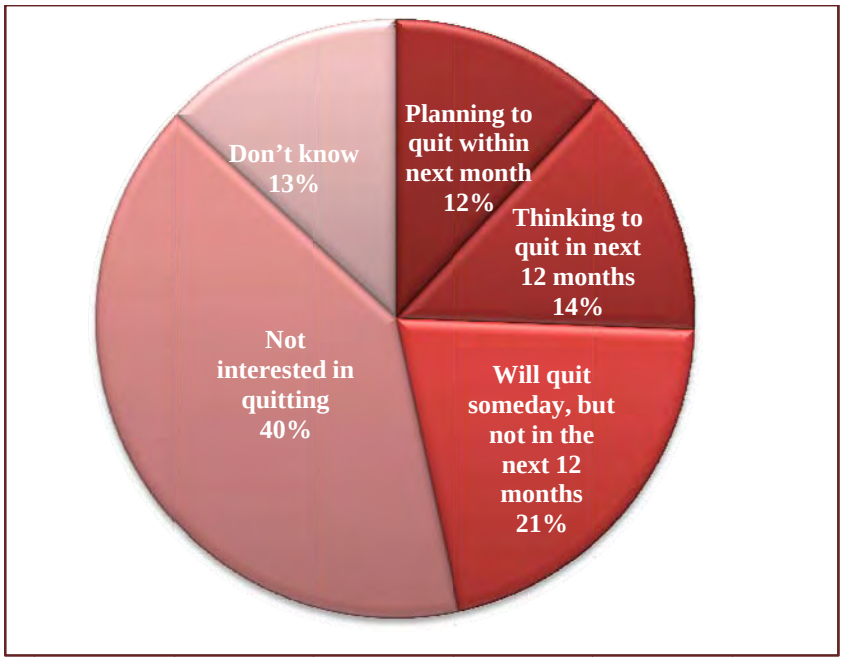
* Based on less than 25 unweighted cases.

5.3 INTEREST IN QUITTING TOBACCO

5.3.1 Interest in quitting smoking

All current smokers, daily as well as occasional, were asked about their plans to quit. They were asked to choose one option from the four that best described their views and thoughts about giving up smoking. The four options included are: (i) planning to quit within the next month; (ii) thinking about quitting within the next 12 months; (iii) will quit some day, but not in the next 12 months; and (iv) not interested in quitting. Table 5.9 presents the percent distribution of current smokers by their interest in quitting smoking by background characteristics.

Figure 5.3 Percent distribution of current smokers by interest in quitting smoking, GATS India, 2009-2010



The findings reveal that about one-eighth (12%) of all current tobacco smokers were planning to quit within the next month; 14 percent wished to quit after one month but within 12 months; 21 percent wanted to quit some day but not within the next 12 months; two among every five current smokers did not wish to quit smoking and the remaining 13 percent said they did not know or in other words, had not thought of quitting. In all, about 47 percent of current smokers planned to quit smoking eventually, either within 12 months or after 12 months, whereas the majority of current smokers (53%) in India had no plan to quit smoking (Figure 5.3). The proportion of smokers who planned to quit smoking within 12 months or who eventually planned (within next month + within 12 month + someday but not within 12 months) to quit, decreased with the age of smoker and increased with increase in educational levels. Younger cohorts of smokers and smokers with higher education are relatively more inclined to quit smoking. For example, one-fifth of smokers age 15–24 planned to quit smoking within the next month and 59 percent planned to quit eventually, compared to only a tenth of smokers age 65 and above who wanted to quit within one

month and 35 percent who wanted to quit. The proportion of smokers who planned to quit did not differ much among different occupational groups. A comparatively higher proportion of students, however, planned to quit smoking either within a month or within a year.

Table 5.9: Percent distribution of current smokers age 15 and above by their interest in quitting smoking, according to background characteristics, GATS India, 2009-2010

Background characteristic	Interest in quitting smoking					
	Planning to quit within next month	Thinking about quitting within next 12 months	Will quit someday, but not in the next 12 months	Not interested in quitting	Don't know	Total
Overall	11.9	13.7	21.0	40.3	13.1	100
Gender						
Male	11.6	13.8	21.9	39.8	12.9	100
Female	14.8	12.8	13.0	44.7	14.7	100
Age						
15-24	20.4	14.7	24.2	29.1	11.7	100
25-44	11.3	15.4	23.0	37.0	13.3	100
45-64	10.5	12.4	18.8	45.3	13.0	100
65+	10.1	9.5	15.3	50.9	14.2	100
Residence						
Urban	12.0	15.5	21.7	39.5	11.3	100
Rural	11.9	13.1	20.7	40.6	13.7	100
Education level						
No formal schooling	10.7	12.1	18.0	45.1	14.1	100
Less than primary	10.4	14.8	21.5	40.2	13.1	100
Primary but less than secondary	12.9	14.0	21.1	37.7	14.2	100
Secondary and above	14.9	15.5	26.7	33.3	9.7	100
Occupation						
Government and non-government employee	12.5	15.1	21.3	37.2	13.9	100
Self-employed	11.2	12.8	21.9	41.8	12.4	100
Student	19.6	23.0	20.5	24.5	12.4	100
Homemaker	11.4	14.0	17.3	43.5	13.8	100
Retired or unemployed	12.0	10.1	18.8	46.3	12.8	100

As seen in Table 5.10, the proportion of smokers who planned to quit smoking either within one year or eventually varied little across the regions but substantially across the states/UTs. The proportion of smokers who planned to quit smoking either within one year or eventually was found to be comparatively lower in the North, East and North-East regions, the highest proportion in Mizoram, where practically no one wanted to quit either within a month or within a year. Less than 10 percent of smokers from both Mizoram and Nagaland planned to quit smoking within one year. On the contrary, more than a quarter of smokers from Haryana (32%), Jharkhand (40%), Bihar (34%), Kerala (27%) and Puducherry (26%) planned to quit smoking within one month. However, except in Jharkhand where 52 percent smokers wanted to quit within a year, in no other state/UT did more than half the smokers plan to quit smoking within a year.

Table 5.10: Percent distribution of current smokers age 15 and above by their interest in quitting smoking, according to regions and states/UTs, GATS India, 2009-2010

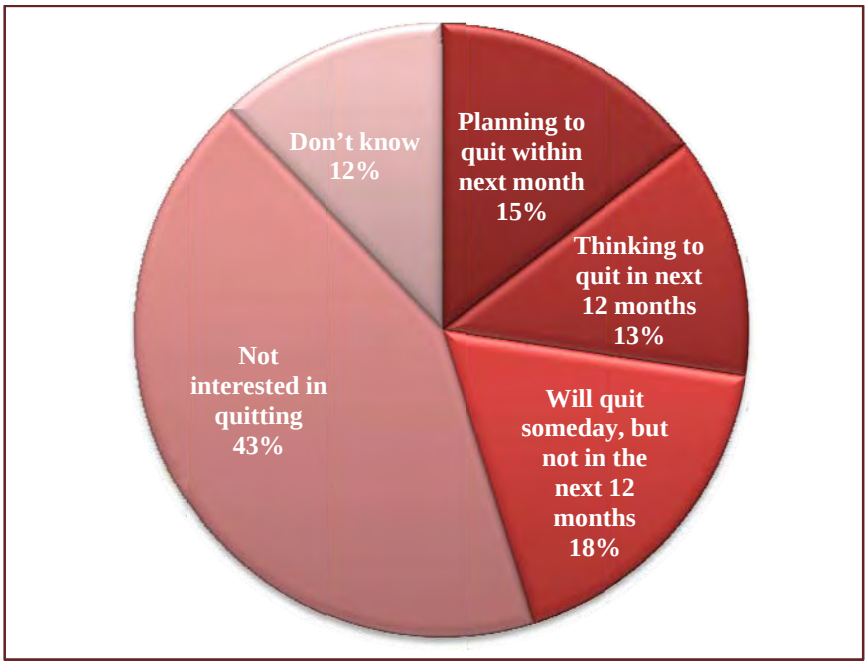
Region and state/UT	Interest in quitting smoking					
	Planning to quit within next month	Thinking about quitting within next 12 months	Will quit someday, but not in the next 12 months	Not interested in quitting	Don't know	Total
India	11.9	13.7	21.0	40.3	13.1	100
North	9.3	10.0	17.5	41.2	22.0	100
Jammu & Kashmir	11.9	7.8	9.8	36.5	33.9	100
Himachal Pradesh	4.1	10.1	33.7	46.5	5.5	100
Punjab	6.2	10.0	13.9	30.0	39.8	100
Chandigarh	6.0	14.0	19.4	42.2	18.3	100
Uttarakhand	4.9	14.6	25.1	52.6	2.8	100
Haryana	32.2	7.3	9.1	43.6	7.8	100
Delhi	16.9	7.4	8.9	64.7	2.1	100
Central	10.9	16.7	22.2	34.1	16.1	100
Rajasthan	11.5	21.3	21.8	42.7	2.6	100
Uttar Pradesh	7.7	20.0	23.3	34.1	14.9	100
Chhattisgarh	10.1	7.3	17.0	35.3	30.3	100
Madhya Pradesh	19.1	10.4	24.1	23.5	22.8	100
East	17.1	10.2	19.9	43.7	9.0	100
West Bengal	5.9	9.4	21.7	49.4	13.6	100
Jharkhand	40.2	11.5	13.1	29.4	5.8	100
Odisha	7.1	12.1	23.5	55.5	1.8	100
Bihar	34.0	10.6	17.3	33.4	4.7	100
North-East	6.9	10.0	24.8	35.4	22.9	100
Sikkim	7.6	12.1	19.2	45.4	15.8	100
Arunachal Pradesh	15.2	8.7	14.6	25.6	35.9	100
Nagaland	3.4	4.1	27.4	43.2	21.9	100
Manipur	11.1	7.0	29.3	34.4	18.3	100
Mizoram	1.1	0.6	15.0	51.7	31.5	100
Tripura	7.1	19.0	21.1	41.3	11.4	100
Meghalaya	4.0	7.1	19.1	28.3	41.4	100
Assam	7.1	10.5	27.7	33.2	21.5	100
West	9.6	11.7	14.8	57.5	6.3	100
Gujarat	12.9	12.0	16.6	54.1	4.3	100
Maharashtra	6.7	11.5	13.1	60.8	7.8	100
Goa	4.7	11.7	30.5	30.6	22.4	100
South	10.6	15.0	22.4	41.1	10.9	100
Andhra Pradesh	5.6	15.1	23.4	49.4	6.5	100
Karnataka	5.5	10.5	21.7	41.0	21.3	100
Kerala	27.4	8.1	35.1	22.8	6.6	100
Tamil Nadu	14.4	24.5	12.1	36.2	12.8	100
Puducherry	25.5	18.3	7.3	21.2	27.6	100

5.3.2 Interest in quitting use of smokeless tobacco

Table 5.11 presents percent distribution of current users of smokeless tobacco classified by their interest in quitting according to background characteristics. About 15 percent of current users of smokeless tobacco planned to quit its use within a month, 13 percent after one month but within a year, and an additional 18 percent wished to quit some day but not within a year. In other words, 28 percent of current

users of smokeless tobacco planned to quit within a year and in all 46 percent wanted to quit use of smokeless tobacco eventually, either within a month, a year, or after a year (Figure 5.4). More than two in five (43%) users of smokeless tobacco did not plan to quit its use and another 12 percent said they do not know or, in other words, they too had not thought of quitting. Therefore, in all 55 percent of current users of smokeless tobacco had not thought of quitting the same.

Figure 5.4 Percent distribution of current users of smokeless tobacco by interest in quitting smokeless tobacco, GATS India, 2009-2010



The proportion of current users of smokeless tobacco who planned to quit smokeless tobacco use either within a month, or within a year, or eventually (within one month + within 12 months + someday but not within 12 month) was almost the same as the corresponding proportions for these responses among smokers. Even the differentials in these proportions across residence, sex, age or educational groups were similar to the corresponding differentials for smokers. The proportion of users of smokeless tobacco who planned to quit within a year (within one month + within one year) was only slightly higher for males (29%) than females (25%), though the proportion of male users who wanted to quit eventually (48%) was higher than those of females (39%). The proportion of users of smokeless tobacco who are planning to quit within 12 months was almost the same in urban (28%) and rural (27%) areas. The proportion of current users of smokeless tobacco who planned to quit the use of tobacco within 12 months and who eventually planned to quit decreased with the age of user and increased with the level of education. Young users of smokeless tobacco and those with a higher education were relatively more inclined to quit such use. For example, 23 percent of users of smokeless tobacco with no formal education planned to quit smoking within the next year and 38 percent eventually, compared with 34 percent with secondary or higher education who wanted to quit within a year and 56 percent of them who wanted to quit eventually. The proportion of users of smokeless tobacco who planned to quit does not differ significantly among

different occupational groups. However, a comparatively higher proportion of students planned to quit use of smokeless tobacco either within a month (31%) or within a year (42%).

Table 5.11: Percent distribution of current users of smokeless tobacco age 15 and above by their interest in quitting smokeless tobacco, according to background characteristics, GATS India, 2009-2010

Background characteristic	Interest in quitting smokeless tobacco					
	Planning to quit within next month	Thinking about quitting within next 12 months	Will quit someday, but not in the next 12 months	Not interested in quitting	Don't know	Total
Overall	14.6	12.8	17.8	42.7	12.2	100
Gender						
Male	14.5	14.1	19.7	39.8	11.9	100
Female	14.6	10.5	14.0	48.2	12.7	100
Age						
15-24	22.0	16.0	21.1	30.3	10.6	100
25-44	14.5	13.6	18.6	41.2	12.1	100
45-64	11.4	10.3	16.7	48.0	13.5	100
65+	8.7	9.8	9.4	60.4	11.7	100
Residence						
Urban	13.0	14.8	17.2	42.2	12.8	100
Rural	14.9	12.4	17.9	42.8	12.0	100
Education level						
No formal schooling	13.0	10.4	14.6	49.3	12.7	100
Less than primary	13.7	12.3	19.0	41.9	13.1	100
Primary but less than secondary	15.8	14.7	19.0	38.6	11.9	100
Secondary and above	17.6	16.2	22.0	33.9	10.4	100
Occupation						
Government or non-government employee	14.2	14.4	18.8	39.8	12.8	100
Self-employed	14.3	12.7	18.5	42.8	11.7	100
Student	31.4	10.7	18.2	26.1	13.6	100
Homemaker	13.3	12.1	15.7	46.6	12.3	100
Retired or unemployed	15.2	9.7	15.2	48.6	11.2	100

In Chapter 4 it was found that among all the regions the prevalence of smokeless tobacco use is highest in the East and North-East regions. However, Table 5.12 shows that the proportion of current users of smokeless tobacco who planned to quit tobacco use within one month (5%) was the lowest in the North-East and highest in the East (21%) regions. Similarly the proportion of users of smokeless tobacco who planned to quit within a year was found to be the lowest in the North-East (13%) and highest in the East (30%). In Mizoram practically nobody wanted to quit the use of smokeless tobacco within a month, and less than 10 percent users of smokeless tobacco in Mizoram, Meghalaya and Nagaland plan to quit within a year. On the contrary, more than a fifth of users of smokeless tobacco from Haryana (29%), Jharkhand (27%), Madhya Pradesh (23%) and Bihar (33%) planned to quit its use within one month. However, it is to be noted that in no other state/UT did more than 42 percent of all users of smokeless tobacco plan to quit within a year.

Table 5.12: Percent distribution of current users of smokeless tobacco age 15 and above by their interest in quitting smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Interest in quitting smokeless tobacco					
	Planning to quit within next month	Thinking about quitting within next 12 months	Will quit someday, but not in the next 12 months	Not interested in quitting	Don't know	Total
India	14.6	12.8	17.8	42.7	12.2	100
North	7.2	12.8	18.4	39.3	22.4	100
Jammu & Kashmir	7.1	4.2	8.7	34.5	45.5	100
Himachal Pradesh	11.1	23.5	26.7	31.5	7.3	100
Punjab	2.6	13.3	18	40.2	25.9	100
Chandigarh	11.8	12.5	19.6	35.4	20.7	100
Uttarakhand	11.3	20.1	29.9	36.6	2.1	100
Haryana	29.0	3.2	9.3	46.1	12.4	100
Delhi	8.0	6.3	10.2	73.6	1.8	100
Central	13.9	15.1	20.3	35.0	15.8	100
Rajasthan	18.3	20.5	18.6	39.9	2.8	100
Uttar Pradesh	11.1	20.1	24.0	33.2	11.6	100
Chhattisgarh	10.9	7.9	16.3	41.8	23.1	100
Madhya Pradesh	22.6	11.6	18.9	25.7	21.3	100
East	20.6	9.4	17.1	46.5	6.4	100
West Bengal	5.3	7.2	19.1	54.0	14.4	100
Jharkhand	27.0	12.4	7.8	48.8	4.0	100
Odisha	4.4	9.6	25.3	58.4	2.4	100
Bihar	32.7	9.5	15.8	37.0	4.9	100
North-East	5.2	7.8	24.5	41.1	21.3	100
Sikkim	5.3	10.6	18.7	48.4	17.1	100
Arunachal Pradesh	7.4	10.1	16.8	31.1	34.6	100
Nagaland	3.9	3.8	37.1	33.0	22.3	100
Manipur	14.5	7.1	23.6	31.8	23.0	100
Mizoram	0.3	1.0	24.5	34.1	40.1	100
Tripura	8.9	8.6	19.7	51.3	11.5	100
Meghalaya	4.8	4.8	19.7	28.9	41.7	100
Assam	3.9	8.5	25.0	42.7	19.8	100
West	10.5	13.2	10.7	55.4	10.2	100
Gujarat	15.0	16.3	14.8	49.4	4.5	100
Maharashtra	8.7	11.9	9.0	57.9	12.5	100
Goa	9.1	12.1	24.7	30.0	24.1	100
South	10.7	16.4	17.5	41.8	13.6	100
Andhra Pradesh	5.1	25.2	21.1	45.2	3.4	100
Karnataka	16.1	9.3	15.6	43.4	15.7	100
Kerala	18.6	10.0	25.3	38.3	7.9	100
Tamil Nadu	7.2	15.1	7.7	33.4	36.6	100
Puducherry	10.8	18.3	4.8	30.2	36.0	100

5.4 DURATION OF STOPPING TOBACCO USE

One of the important dimensions of quitting was the duration for which tobacco users managed to continue without it. To study this, all current tobacco users who made a quit attempt in the 12 months prior to the survey were asked about the duration for which they stopped tobacco use. The percent distribution of current cigarette smokers, bidi smokers and users of smokeless tobacco who made a quit attempt during the past 12 months prior to the survey classified by the duration during for which they could stay away from smoking cigarettes or bidis or from the use of smokeless tobacco is presented in Table 5.13.

All such smokers as above and users of smokeless tobacco resorted to tobacco use (relapse) after a short period of abstinence. A little less than half (47%) of cigarette smokers who made an attempt to stop in the past one year could abstain for less than one month, about a third stopped for 1-3 months and one-fifth could stay away for more than three months. The proportion of female cigarette smokers was much lower than male smokers, but female cigarette smokers who made a quit attempt in the past 12 months prior to the survey abstained from smoking for a shorter duration than male smokers. There was not much difference in the duration of cessation of smoking among smokers from urban and rural areas. Older cigarette smokers could abstain from cigarette smoking for longer durations compared to their younger counterparts. For example, one-third of cigarette smokers age 65 and above abstained from cigarette smoking for more than three months compared to 18 percent smokers age 15–24. The duration of abstinence among cigarette smokers who made a quit attempt during the 12 months prior to the survey does not vary consistently on account of either education of the smoker or his/her occupation.

Compared to cigarette smokers, bidi smokers who attempted to quit smoking bidis could abstain for a comparatively shorter duration. The majority of bidi smokers (56%) could abstain from the bidi for less than one month, 29 percent could stop smoking for 1-3 months and 15 percent could stop for more than three months. The gender, urban-rural, age and educational differentials in the case of duration of abstinence among bidi smokers who made a quit attempt during the past 12 months are almost similar to that in case of the duration of abstinence among cigarette smokers.

The percent distribution of current users of smokeless tobacco who made an attempt to quit use of smokeless tobacco in the last 12 months prior to the survey, classified by duration of stopping tobacco use, shows that 58 percent of users could abstain from tobacco only for less than a month, 29 percent for 1-3 months, and only 14 percent could abstain for three or more months. There are no differentials in the duration of abstinence from smokeless tobacco either by gender, age or residence. The duration of abstinence among users of smokeless tobacco who made a quit attempt in the last 12 months prior to the survey increases with age and education of the tobacco user. However, the increase in the duration of abstinence by either age or education is very small.

In all the regions and states/UTs, 55 percent or more cigarette smokers who made a quit attempt in the past 12 months prior to the survey could abstain from smoking for less than three months. Cigarette smokers from the East and South abstained from smoking for the longest period and those from the North-East for the shortest period. Less than a quarter (22%) of cigarette smokers from the Eastern region abstained for more than three months compared with only 7 percent from the North-East. Only in a few

states, such as Jammu & Kashmir, Chhattisgarh, Jharkhand, Bihar, Maharashtra, Karnataka, Kerala, Tamil Nadu and Puducherry, did more than a fifth of all cigarette smokers manage to abstain for more than three months.

Compared to cigarette smokers, bidi smokers from most of the regions and states who attempted to quit smoking bidis could abstain for a comparatively shorter duration. Among all the regions, bidi smokers from the Eastern region who made a quit attempt abstained from smoking for the longest period and those from the North for the shortest period. One-fifth of bidi smokers from the East abstained for more than three months as against only 10 percent of bidi smokers from the North. The states where more than one-fifth of all bidi smokers who made a quit attempt and abstained from bidis for more than three months are Jammu & Kashmir, Chhattisgarh, Jharkhand, Bihar, Sikkim, Nagaland, Goa, Kerala and Tamil Nadu. In all regions and states/UTs, more than two-third of bidi smokers who made a quit attempt in the last 12 months prior to the survey could abstain from bidis for less than three months.

Users of smokeless tobacco who attempted to quit smokeless tobacco use could abstain for a shorter duration compared to that for cigarette smokers. It is already noted in the previous chapter that the prevalence of smokeless tobacco use is the highest in the North-East and lowest in the North region. Among all the regions, users of smokeless tobacco from the Northern region who made a quit attempt abstained for the longest period and those from the North-Eastern region for the shortest. More than one-fifth (21%) of users of smokeless tobacco from the North could abstain from using smokeless tobacco for more than three months as against only 9 percent from the North-East. In all the regions and states/UTs, 60 percent or more users of smokeless tobacco who made a quit attempt in 12 months prior to the survey could abstain from using smokeless tobacco for less than three months. Only in a few states/UTs such as Jammu & Kashmir, Punjab, Chhattisgarh, Tamil Nadu and Puducherry could one-fifth or more of all users of smokeless tobacco abstain for a period of three months or more.

Table 5.13: Percent distribution of current cigarette smokers, bidi smokers and users of smokeless tobacco age 15 and above who made a quit attempt in the past 12 months by duration of stopping use of tobacco products, according to background characteristics, GATS India, 2009-2010

Background characteristic	Duration of stopping use of tobacco products											
	Cigarette				Bidi				Smokeless tobacco			
	<1 month	1-3 months	>3 months	Total	<1 month	1-3 months	>3 months	Total	<1 month	1-3 months	>3 months	Total
Overall	47.1	32.5	20.4	100	56.2	29.1	14.7	100	57.5	28.6	13.9	100
Gender												
Male	46.2	32.4	21.4	100	55.2	29.8	15.0	100	57.0	29.9	13.2	100
Female	60.9	33.8	5.3	100	65.5	22.6	11.9	100	59.1	25.0	15.9	100
Age												
15-24	42.0	39.8	18.2	100	58.6	34.4	7.0	100	58.1	30.7	11.2	100
25-44	47.2	34.4	18.5	100	61.3	26.1	12.6	100	56.6	28.9	14.5	100
45-64	51.4	25.4	23.3	100	51.8	31.2	17.1	100	59.2	25.8	15.0	100
65+	47.9	19.8	32.3	100	48.2	31.1	20.7	100	55.9	29.4	14.7	100
Residence												
Urban	48.0	29.4	22.6	100	55.4	28.9	15.7	100	58.2	29.7	12.1	100
Rural	46.7	34.1	19.2	100	56.4	29.1	14.5	100	57.3	28.3	14.4	100
Education level												
No formal schooling	54.8	29.8	15.4	100	54.8	27.8	17.4	100	61.7	25.9	12.4	100
Less than primary	38.5	32.2	29.3	100	59.2	27.3	13.5	100	57.2	29.5	13.3	100
Primary but less than secondary	49.3	28.5	22.2	100	56.7	31.1	12.2	100	57.0	30.6	12.4	100
Secondary and above	42.9	38.9	18.2	100	54.9	32.4	12.7	100	52.1	28.9	19.0	100
Occupation												
Government and non-government employee	50.2	32.5	17.3	100	52.2	32.7	15.1	100	56.8	28.8	14.4	100
Self-employed	42.8	34.5	22.7	100	59.4	27.5	13.1	100	58.3	29.4	12.4	100
Student	45.5	31.9	22.6	100	77.1*	22.9*	0.0*	100	61.8	27.0	11.2	100
Homemaker	69.0	22.5	8.4	100	63.7	20.0	16.3	100	58.6	25.1	16.2	100
Retired or unemployed	34.0	30.8	35.2	100	45.2	32.2	22.6	100	51.7	31.8	16.5	100

Note: ***** Based on less than 25 unweighted cases.

Table 5.14: Percent distribution of current cigarette smokers, bidi smokers and users of smokeless tobacco age 15 and above who made quit attempt in past 12 months by duration of stopping use of tobacco products, according to regions and states/UTs, GATS India,2009-2010

Region and state/UT	Duration of stopping use of tobacco products											
	Cigarette				Bidi				Smokeless tobacco			
	<1 month	1-3 months	>3 months	Total	<1 month	1-3 months	>3 months	Total	<1 month	1-3 months	>3 months	Total
India	47.1	32.5	20.4	100	56.2	29.1	14.7	100	57.5	28.6	13.9	100
North	45.6	36.4	18.1	100	63.2	26.4	10.4	100	52.8	25.8	21.3	100
Jammu & Kashmir	39.3	36.8	23.9	100	78.9*	0.0*	21.1*	100	43.4	18.9	37.7	100
Himachal Pradesh	54.0	32.0	14.1	100	62.0	26.5	11.5	100	80.3	17.9	1.8	100
Punjab	34.8*	49.7*	15.5*	100	48.5*	42.7*	8.8*	100	38.4*	22.3*	39.3*	100
Chandigarh	56.2*	43.8*	0.0*	100	66.7*	33.3*	0.0*	100	72.8*	12.9*	14.2*	100
Uttarakhand	54.0*	32.3*	13.7*	100	68.3	22.5	9.2	100	53.1	36.4	10.5	100
Haryana	71.4	22.2	6.4	100	69.9	18.1	11.9	100	81.1	17.2	1.6	100
Delhi	75.4*	24.6*	0.0*	100	45.8	54.2	0.0	100	67.1*	20.8*	12.1*	100
Central	42.7	38.3	19.0	100	58.7	29.0	12.2	100	56.7	29.6	13.7	100
Rajasthan	55.9	33.1	11.0	100	73.8	18.2	8.0	100	64.8	22.3	12.9	100
Uttar Pradesh	39.5	41.9	18.5	100	59.6	31.7	8.8	100	58.3	28.9	12.8	100
Chhattisgarh	45.0	27.8	27.3	100	42.1	33.6	24.3	100	46.7	33.0	20.3	100
Madhya Pradesh	39.1	44.5	16.4	100	52.2	29.5	18.3	100	59.4	31.2	9.4	100
East	42.1	35.5	22.4	100	49.9	30.3	19.8	100	55.9	28.7	15.4	100
West Bengal	57.1	24.4	18.5	100	66.3	24.4	9.3	100	69.5	21.5	9.0	100
Jharkhand	32.2	46.5	21.3	100	34.7	39.1	26.2	100	57.7	27.9	14.4	100
Odisha	69.5*	20.3*	10.2*	100	55.7	44.3	0.0	100	64.0	24.1	11.9	100
Bihar	30.0	42.0	28.0	100	41.3	30.3	28.4	100	51.5	31.1	17.5	100
North-East	68.2	24.7	7.2	100	59.4	27.3	13.3	100	69.5	21.7	8.8	100
Sikkim	69.3	14.8	15.9	100	46.0	22.2	31.8	100	60.5	25.7	13.8	100
Arunachal Pradesh	40.5	43.5	16.0	100	40.3	50.0	9.7	100	59.3	26.0	14.7	100
Nagaland	56.5	29.3	14.1	100	53.3	24.7	22.1	100	65.1	26.6	8.2	100
Manipur	59.9	30.1	10.0	100	53.2	34.6	12.3	100	46.1	34.7	19.2	100
Mizoram	56.1	35.2	8.7	100	80.5*	14.8*	4.6*	100	57.9	30.0	12.1	100
Tripura	62.2	22.9	14.9	100	59.1	28.7	12.3	100	65.8	23.6	10.6	100
Meghalaya	56.2	29.7	14.1	100	60.3	30.0	9.7	100	55.3	32.4	12.3	100
Assam	78.0	19.9	2.1	100	66.1	19.6	14.3	100	77.2	17.0	5.8	100

Table 5.14 Continued

Region and state/UT	Duration of stopping use of tobacco products											
	Cigarette				Bidi				Smokeless tobacco			
	<1 month	1-3 months	>3 months	Total	<1 month	1-3 months	>3 months	Total	<1 month	1-3 months	>3 months	Total
West	60.9	20.2	18.9	100	57.1	27.4	15.5	100	53.9	32.0	14.1	100
Gujarat	53.8	28.5	17.7	100	52.8	29.4	17.8	100	43.1	39.8	17.1	100
Maharashtra	66.7	13.6	19.7	100	65.0	23.6	11.4	100	59.0	28.3	12.6	100
Goa	46.8*	27.7*	25.5*	100	31.7*	40.3*	28.0*	100	75.5	20.9	3.6	100
South	47.4	30.1	22.4	100	51.7	29.8	18.4	100	64.1	23.5	12.5	100
Andhra Pradesh	52.0	33.9	14.2	100	56.3	29.3	14.4	100	73.9	21.2	4.9	100
Karnataka	50.1	23.6	26.4	100	60.6	29.1	10.3	100	61.9	21.1	17.0	100
Kerala	44.5	31.8	23.8	100	38.5	39.4	22.2	100	44.2	43.7	12.1	100
Tamil Nadu	34.6	19.9	45.5	100	38.8	25.5	35.6	100	44.5	24.8	30.7	100
Puducherry	48.1	29.1	22.8	100	47.1	39.5	13.4	100	53.3	16.8	30.0	100

Note: ***** Based on less than 25 unweighted cases.

Key findings

- Nearly two out of every five smokers have made attempts to quit.
- Larger proportion of persons with higher education, especially those using smokeless tobacco, are making quit attempts compared to those with lower education.
- Larger proportion of persons in younger age group, especially those using smokeless tobacco, are making quit attempts compared to those in higher age group.
- Half of the smokers (53%) who visited health care providers in the last 12 months were asked if they smoked tobacco but only 46 percent of them were advised to quit.
- Only one-third of users of smokeless tobacco products (34%) who visited health care providers in the last 12 months were asked if they used smokeless tobacco and only 27 percent were advised to quit.
- Nearly half of current smokers (47%) and smokeless tobacco users (46%) want to quit their tobacco use.

Key messages

- Assistance to quit tobacco use needs to reach those with lower education, and those in higher age groups with special emphasis on smokeless tobacco users.
- Health care providers need to be sensitized and trained for playing a proactive role for behavioural change of tobacco users.
- Cessation facilities need to be widely available and adequately publicized.

6. SECOND-HAND SMOKE

The exposure to second-hand smoke (SHS) is known to cause serious health problems among adults and children.[7] There is established causal association between exposure to SHS and lung cancer. SHS exposure is also associated with other lung diseases and cardiovascular diseases in adults and health problems, including lung diseases, SIDS (Sudden Infant Death Syndrome) and middle-ear diseases among children. The ban on smoking in public places intends to protect non-smokers from the harmful effects of SHS. One of the salient features of COTPA, 2003, is the ban on smoking in public places.[10] As per the Revised Smoke Free Rules, which came into effect from 2 October 2008, smoking is strictly prohibited in all the public places including workplaces in India. Protection from SHS also forms part of WHO MPOWER policy for tobacco control.[1]

This chapter deals with exposure to SHS at home, workplaces and various public places during the last 30 days preceding the survey. This chapter also provides information whether the respondents had seen a designated non-smoking area with clear signages and observed whether someone was smoking in a designated non-smoking area.

6.1 EXPOSURE TO SECOND-HAND SMOKE (SHS) IN INDOOR WORKPLACES

Tables 6.1 and 6.2 provide information on exposure to SHS among adults, age 15 and above, in indoor workplaces during 30 days preceding the survey (among those respondents/non-smoker who usually worked indoors or both indoors and outdoors) with respect to background characteristics and regions and states/UTs respectively.

6.1.1 Exposure to SHS at work by background characteristics

Table 6.1 shows that the exposure to SHS prevalence among all adults, and among non-smokers alone, who usually work indoors or both indoors and outdoors are 30 percent and 26 percent respectively. Males in both categories are more exposed to SHS than their female counterparts. It may be noted that exposure to SHS, among female non-smokers was 19 percent. Younger persons (age 15-24) both in overall (28%) and non-smokers (26%) categories were less exposed to SHS at workplaces as compared to older persons. Rural population was more exposed to SHS at workplaces than their urban counterparts in both categories.

The prevalence of SHS is consistently declining as the educational level increases in both the groups, overall and non-smokers. The prevalence of exposure to SHS was 42 percent among no formal schooling (the lowest educational category) group as compared to 23 percent among secondary and above in the overall category.

Table 6.1: Percentage of adults age 15 and above who work indoors and are exposed to second-hand smoke at work[1] by smoking status, according to background characteristics, GATS India, 2009-2010

	Adults exposed to second-hand smoke at work[1]	
Background characteristic	**Overall**	**Non-smoker**
Overall	29.9	26.1
Gender		
Male	32.2	28.1
Female	19.4	18.9
Age		
15-24	27.7	25.6
25-44	30.6	26.9
45-64	30.3	24.2
65+	31.4	27.2
Residence		
Urban	27.6	24.3
Rural	32.1	27.8
Education level		
No formal schooling	41.6	35.5
Less than primary	38.6	33.7
Primary but less than secondary	34.4	30.5
Secondary and above	23.1	20.8
Occupation		
Government and non-government employee	26.7	23.4
Self-employed	35.4	30.9
Student	13.8	13.8
Homemaker	37.0	31.3
Retired or unemployed	47.6	47.1

Note: [1] In the past 30 days among those respondents who work outside of the home who usually work indoors or both indoors and outdoors.

While examining the difference in prevalence of exposure to SHS among various occupational groups, it is worthwhile to note that it is lowest among students in both the overall and non-smokers categories. One may recall that the levels of SHS are also lowest among the youngest age group 15-24 in both the overall and non-smoker categories.

6.1.2 Exposure to SHS at work classified by region and state/UT of residence of the respondents

The data presented in Table 6.2 shows that the prevalence of exposure to SHS at workplaces varies from 27 percent in North and West region to 35 percent in East and North-East regions. Among non-smoker group, exposure to SHS at workplace varies from 21 percent in North to 30 percent in East and North-East region.

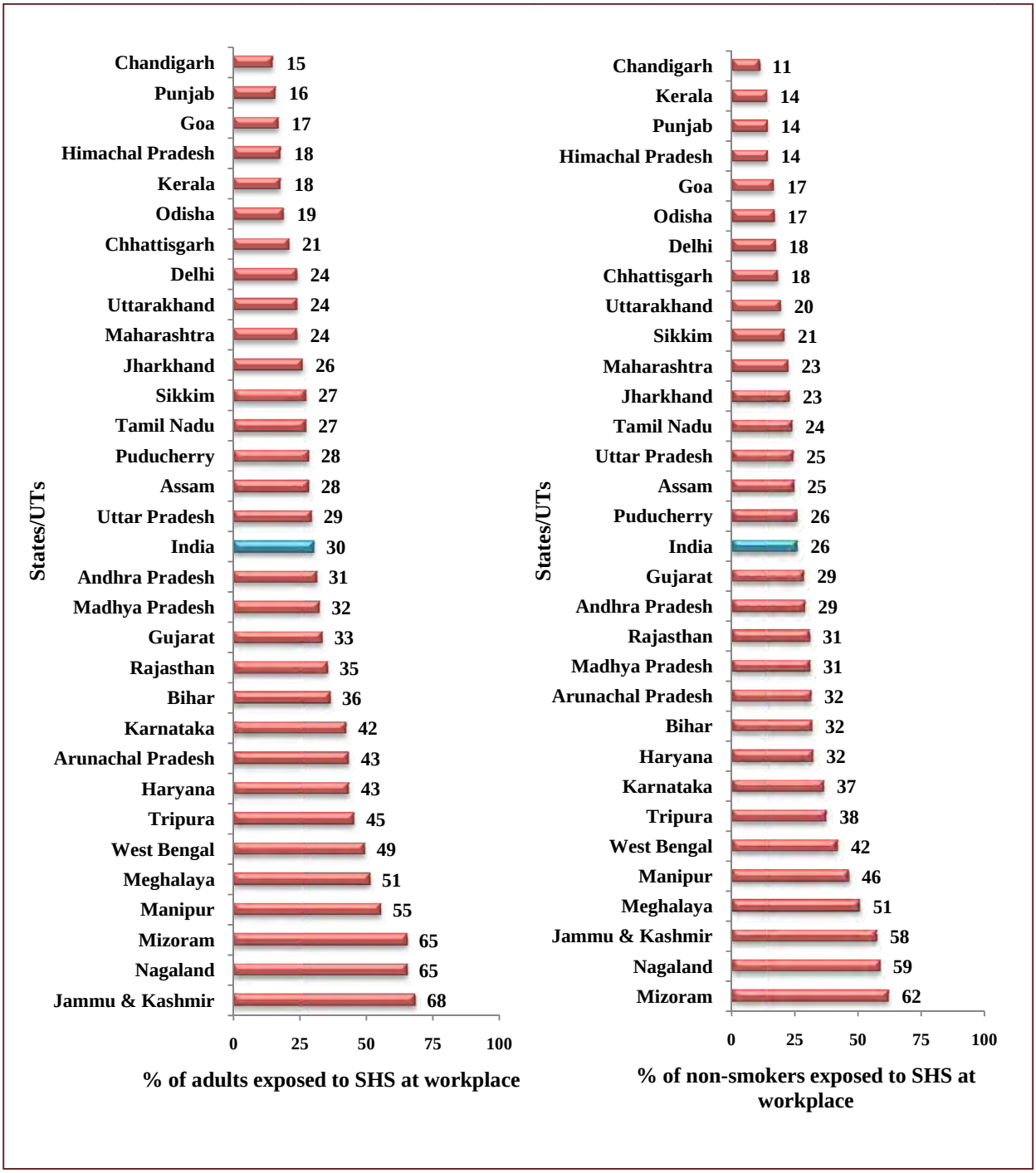
Within the Overall category of adult exposure to second-hand smoke, it is found that Chandigarh (15%) is having the lowest level of exposure to SHS, whereas the highest level of exposure is found in Jammu & Kashmir (68%). At a glance assessment of the state/UT level variation in the prevalence of exposure to SHS graphs are presented in the Figure 6.1 which shows that exposure to SHS among non-smokers varies from 11 percent in Chandigarh to 62 percent in Mizoram.

Table 6.2: Percentage of adults age 15 and above who work indoors and are exposed to second-hand smoke at work[1] by smoking status, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Adults exposed to second-hand smoke at work[1]	
	Overall	Non-smoker
India	29.9	26.1
North	26.6	20.6
Jammu & Kashmir	67.9	57.5
Himachal Pradesh	17.8	14.4
Punjab	16.0	14.4
Chandigarh	15.4	11.0
Uttarakhand	24.2	19.6
Haryana	42.7	32.3
Delhi	24.4	17.6
Central	29.5	25.9
Rajasthan	34.6	30.9
Uttar Pradesh	28.9	24.5
Chhattisgarh	20.6	18.3
Madhya Pradesh	32.0	31.1
East	35.4	30.0
West Bengal	49.1	42.1
Jharkhand	25.6	23.0
Odisha	18.6	17.1
Bihar	35.5	31.9
North-East	35.2	30.4
Sikkim	27.0	21.1
Arunachal Pradesh	42.8	31.6
Nagaland	64.6	58.8
Manipur	55.1	46.4
Mizoram	64.6	62.3
Tripura	45.4	37.6
Meghalaya	50.7	50.8
Assam	27.7	24.8
West	26.6	24.4
Gujarat	32.8	28.7
Maharashtra	23.8	22.5
Goa	17.4	16.9
South	29.4	26.4
Andhra Pradesh	31.0	29.1
Karnataka	42.0	36.5
Kerala	17.5	14.1
Tamil Nadu	26.9	24.0
Puducherry	27.9	26.1

Note: [1] In the past 30 days, among those respondents who work outside o the home and who usually work indoors or both indoors and outdoors.

Figure 6.1 Exposure to SHS among adults at work place according to states/UTs, GATS India, 2009-2010



6.2 EXPOSURE TO SECOND-HAND SMOKE AT HOME

Tables 6.3 and 6.4 provide exposure to second-hand smoke at home among adults age 15 and above during 30 days preceding the survey with respect to some background characteristics and regions and states/UTs respectively.

6.2.1 Exposure to second-hand smoke at home by background characteristics

Table 6.3 clearly shows that on the whole about 60 percent of the adults under the overall category reported that smoking is allowed at home whereas among the non-smoker category, about 57 percent reported the same at home.

On an average under the overall category, the respondents reported that about 52 percent are exposed to the second-hand smoke at home, whereas among the non-smoker category around 48 percent of the respondents reported the same at home.

While considering gender differential, under the overall category, about 60 percent of the females reported that smoking is permitted at home as against 61 percent among males. The corresponding figures under the non-smoker category are 59 percent and 54 percent respectively. While dealing with gender differential with respect to the level of exposure to SHS at home, it is found that the differential is rather insignificant under the overall category (including smokers and non-smokers). However, under the non-smoker category there is a distinct gender differential with respect to the level of exposure to SHS, being 51 percent among females against 44 percent among males.

Under the overall category, among the adults who reported that smoking is allowed at home, a much lower proportion (45%) of those with educational level secondary and above reported that smoking is permitted at home in contrast to those with no formal education (71%). Among the non-smoker category also, similar trend has been observed with reference to the adults who reported that smoking is allowed at home.

While focusing our attention to the level of SHS exposure at home among adults**,** it is observed that under the overall category a much lower proportion of adults with educational level secondary and above (37%) reported exposure to SHS at home in contrast to those with no formal education (63%). The similar trend is also observed under non-smoking category.

Table 6.3: Percentage of adults age 15 and above who reported smoking is allowed at home and are exposed to second-hand smoke at home by smoking status, according to background characteristics, GATS India, 2009-2010

Background characteristic	Adults who reported that smoking is allowed in home		Adults exposed to second-hand smoke at home	
	Overall	Non-smoker	Overall	Non-smoker
Overall	60.4	56.6	52.3	48.0
Gender				
Male	61.0	54.1	52.2	43.9
Female	59.7	58.7	52.5	51.3
Age				
15-24	59.9	59.2	51.9	50.9
25-44	60.4	56.5	52.2	47.8
45-64	61.0	53.3	53.0	44.3
65+	60.5	53.9	52.7	44.9
Residence				
Urban	46.7	43.0	38.5	34.5
Rural	66.1	62.5	58.0	53.7
Education level				
No formal schooling	70.5	66.5	63.2	58.5
Less than primary	65.6	60.5	56.9	50.7
Primary but less than secondary	61.6	58.8	53.2	49.9
Secondary and above	45.4	42.7	37.0	34.1
Occupation				
Government and non-government employee	58.4	52.5	50.5	43.7
Self-employed	65.4	59.5	56.7	49.8
Student	52.5	52.4	44.7	44.6
Home maker	59.9	58.8	52.3	50.9
Retired or unemployed	61.5	55.7	53.2	45.8

6.2.2 Second-hand smoking exposure at home by region and state/UT

Table 6.4 provides the prevalence of exposure to second-hand smoke among adults age 15 and above, classified according to smoking status and regions and states/UTs.

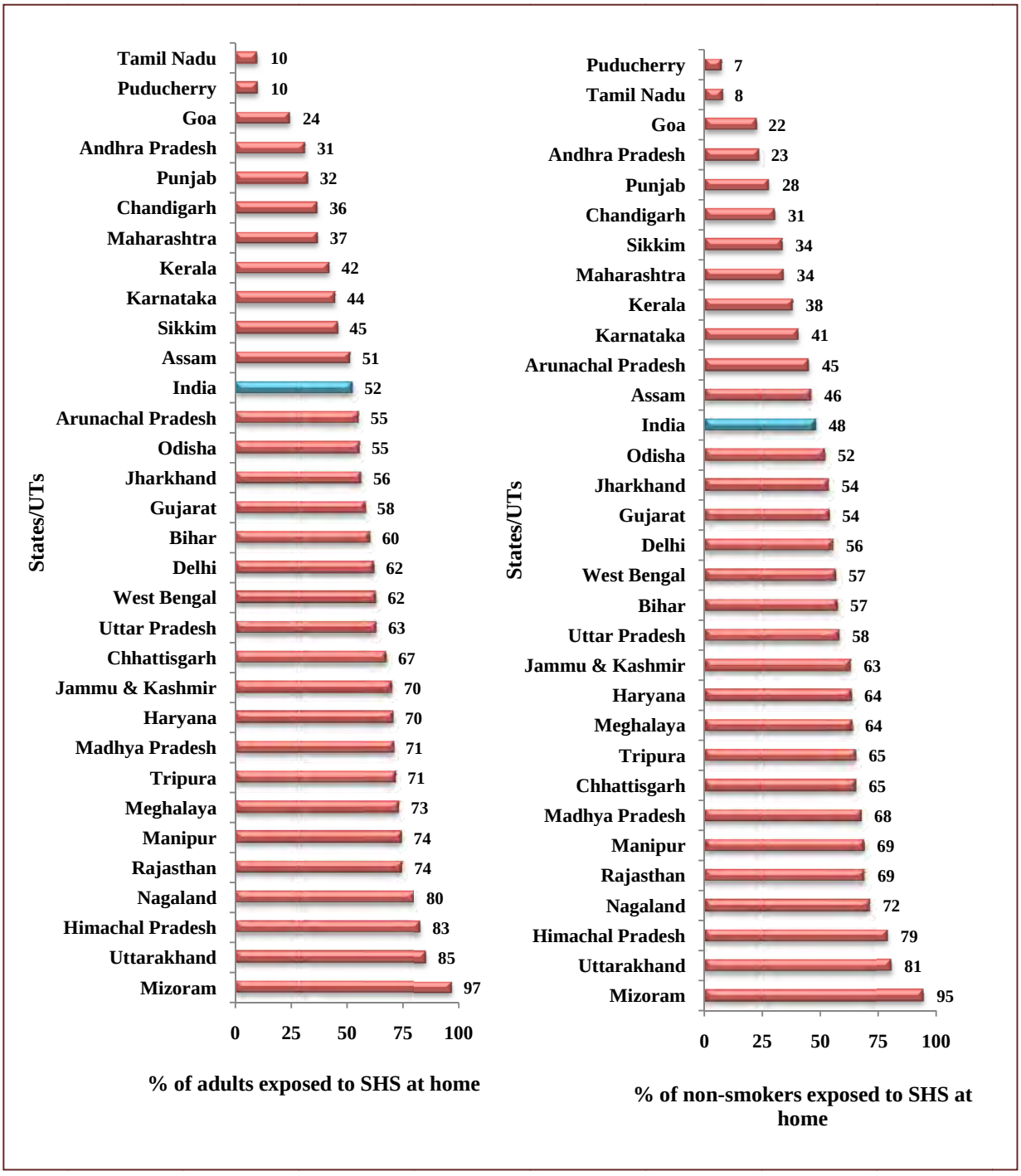
Adults who reported that smoking is allowed in their homes, among them it ranged from 37 percent in South to 72 percent in Central region. Among non-smokers category, this response varied from 32 percent in South to 69 percent in Central region. Adults who reported that smoking is allowed in their homes, among them it ranged from 11 percent in Tamil Nadu to 98 percent in Mizoram. Among non-smokers category, this response varied from 8 percent in Tamil Nadu to 97 percent in Mizoram.

Adults who reported that they were exposed to SHS at home varied from 30 percent in South to 67 percent in Central region. Among non-smokers category, this response varied from 25 percent in South to 63 percent in Central region. Adults who reported that they were exposed to SHS at home ranged from 10 percent in Tamil Nadu to 97 percent in Mizoram. Among non-smokers category, this response varied from 7 percent in Puducherry to 95 percent in Mizoram. The state level variations are presented graphically in Figures 6.2.

Table 6.4: Percentage of adults age 15 and above who reported smoking is allowed at home and are exposed to second-hand smoke at home by smoking status, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Adults who reported that smoking is allowed in home		Adults exposed to second-hand smoke at home	
	Overall	Non-smoker	Overall	Non-smoker
India	60.4	56.6	52.3	48.0
North	61.6	56.3	54.1	47.7
Jammu & Kashmir	82.4	79.0	69.7	63.2
Himachal Pradesh	84.3	81.5	82.5	79.2
Punjab	41.3	37.7	32.1	28.0
Chandigarh	44.7	39.8	36.4	30.5
Uttarakhand	86.8	83.1	85.0	80.8
Haryana	72.3	66.2	70.2	63.5
Delhi	62.6	56.6	61.7	55.6
Central	72.1	68.9	66.7	62.9
Rajasthan	77.6	73.2	74.3	69.2
Uttar Pradesh	69.4	65.7	62.7	58.2
Chhattisgarh	72.0	70.9	67.1	65.4
Madhya Pradesh	74.5	71.8	70.5	67.8
East	69.8	67.2	59.6	55.7
West Bengal	73.9	70.2	62.4	56.7
Jharkhand	66.8	65.7	56.0	53.7
Odisha	68.9	66.4	55.2	52.0
Bihar	67.0	65.2	59.9	57.4
North-East	66.1	60.6	57.5	51.1
Sikkim	54.1	44.9	45.4	33.7
Arunachal Pradesh	69.5	58.7	54.8	45.2
Nagaland	86.7	82.4	79.7	71.5
Manipur	82.6	79.2	74.1	69.0
Mizoram	98.0	97.2	96.5	94.7
Tripura	77.2	71.5	71.4	65.4
Meghalaya	78.2	71.7	72.9	63.8
Assam	60.3	55.9	51.0	46.2
West	55.5	53.0	43.4	40.4
Gujarat	76.5	74.4	57.8	53.9
Maharashtra	45.0	42.8	36.6	34.4
Goa	33.3	31.4	24.4	22.1
South	36.8	31.7	29.6	24.8
Andhra Pradesh	39.4	31.4	30.9	23.2
Karnataka	52.0	48.1	44.3	40.7
Kerala	56.2	53.5	41.8	38.2
Tamil Nadu	11.2	8.3	9.9	7.5
Puducherry	13.4	10.1	10.1	7.3

Figure 6.2 Exposure to SHS among adults at home according to states/UTs, GATS India, 2009-2010



6.3 EXPOSURE TO SECOND-HAND SMOKE AT VARIOUS PUBLIC PLACES

Tables 6.5 and 6.6 provide exposure to second-hand smoke at various public places among adults age 15 and above during 30 days preceding the survey with respect to background characteristics and regions and states/UTs respectively.

6.3.1 Exposure to SHS at various public places by the background characteristics

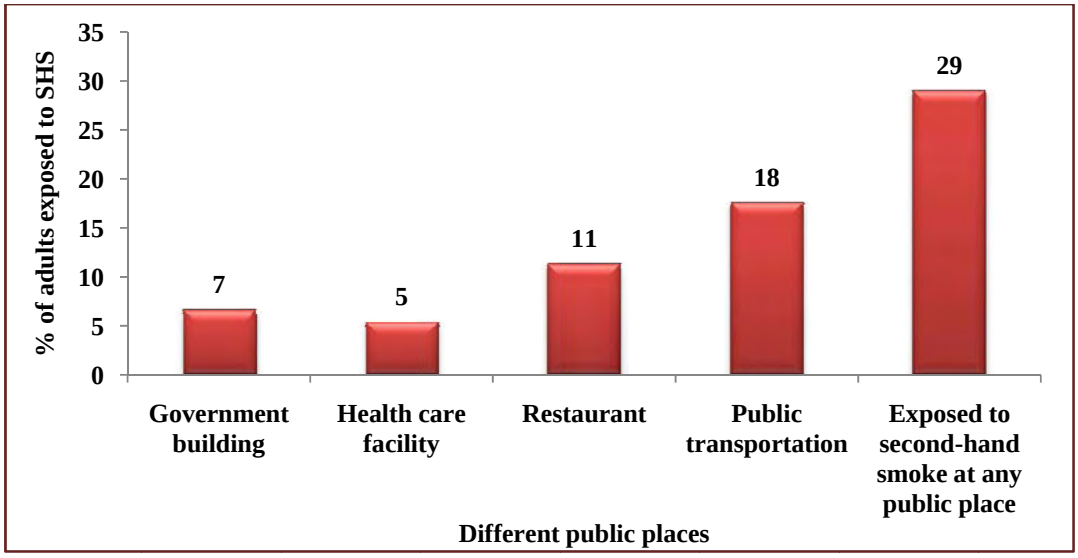
In the GATS India 2009-2010 questions were asked to the respondents whether they found anyone smoking while visiting some public places, such as, government buildings, health care facilities, restaurants, and public transportation. The relevant data are presented in Table 6.5 which clearly indicates that smaller proportions were exposed to second-hand smoke at government buildings (7%) and heath care facilities (5%) as compared to the public transportation (18%) and restaurants (11%). The bar diagram in Figure 6.3 provides comparison.

Table 6.5: Percentage of adults[1] age 15 and above who visited any public place and exposed to second-hand smoke in public places in the past 30 days, according to background characteristics, GATS India, 2009-2010

Background characteristic	Adults[1] exposed to second-hand smoke at				Adults[1] who	
	Government building	Health care facility	Restaurant	Public transportation	Visited any public place	Exposed to second-hand smoke at any public place
Overall	6.6	5.4	11.3	17.5	68.0	29.0
Gender						
Male	10.3	6.0	19.2	22.0	77.8	39.5
Female	2.6	4.8	2.8	12.6	57.5	17.8
Age						
15-24	6.5	4.3	13.1	19.7	70.5	32.0
25-44	7.0	6.1	12.4	18.1	68.9	30.1
45-64	6.8	5.9	9.0	15.3	66.8	26.1
65+	3.9	4.7	4.2	10.8	54.9	18.5
Residence						
Urban	7.9	5.8	14.0	17.9	76.7	31.6
Rural	6.1	5.3	10.2	17.3	64.3	27.9
Education level						
No formal schooling	3.1	4.8	5.5	13.3	52.7	20.3
Less than primary	5.3	4.9	10.9	17.0	66.1	28.1
Primary but less than secondary	6.7	5.5	12.0	19.3	71.2	31.3
Secondary and above	11.0	6.2	17.2	20.4	82.4	36.6
Occupation						
Government and non-government employee	9.6	6.0	18.4	19.8	77.4	36.8
Self-employed	7.7	5.6	13.1	20.0	69.9	32.5
Student	9.6	5.0	15.7	21.7	80.3	36.6
Home maker	2.3	5.0	2.8	12.4	55.2	17.7
Retired or unemployed	5.4	5.0	8.5	13.3	61.7	24.2

Note: [1] Those who have visited in the past 30 days.

Figure 6.3 Exposure to SHS among adults at different public places, GATS India, 2009-2010



Males (40%) were more exposed to second-hand smoke compared to females (18%) in any or all public places. People in urban areas (32%) were more exposed to second-hand smoke compared to people in rural areas (28%) in any or all public places. Findings show that exposure to SHS in any public place decreases with increasing age categories. Nearly one-third (32%) of young population was exposed to SHS in any public places. Exposure to SHS in any public places increases with increasing education categories.

6.3.2 Exposure to SHS at various public places by the region and state/UT

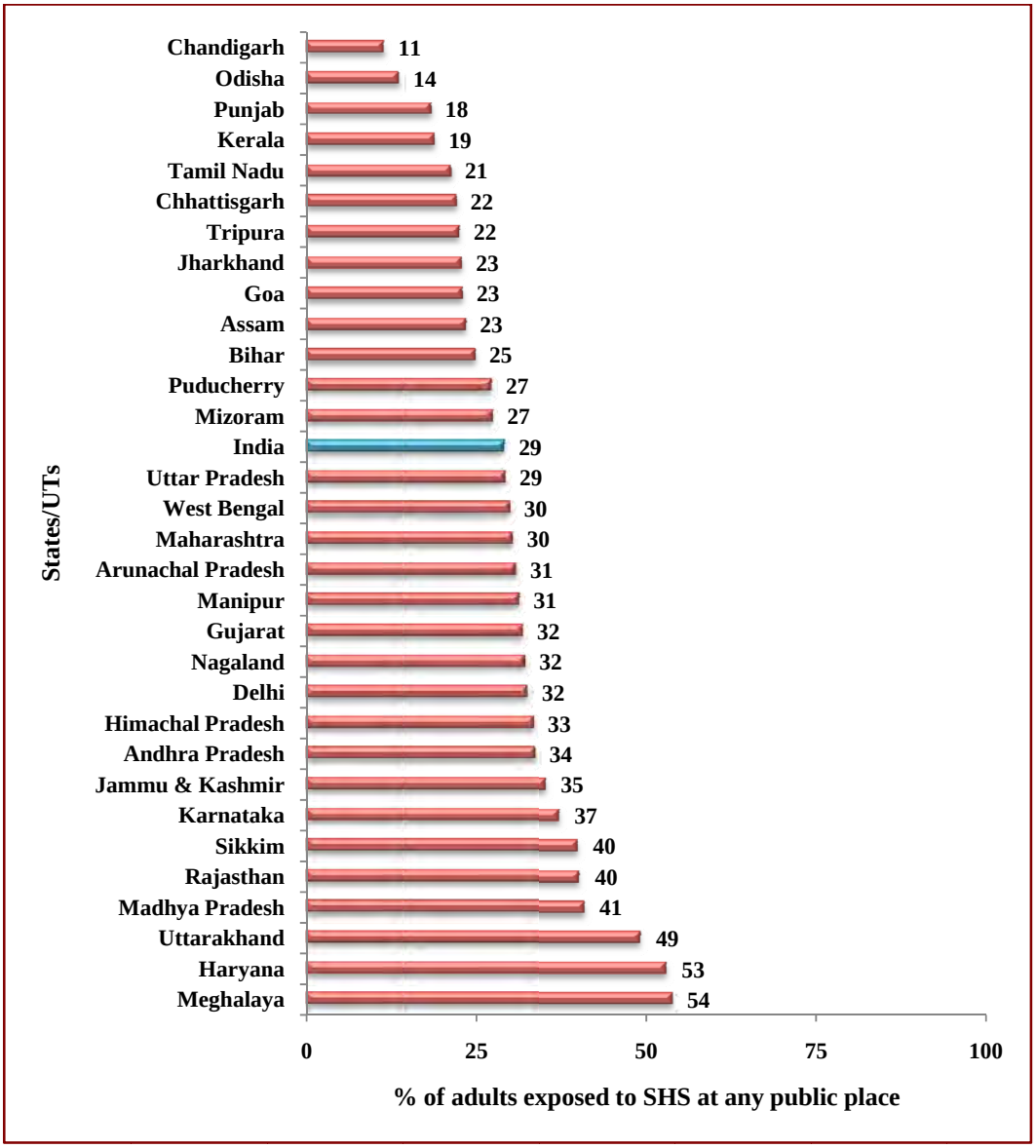
Exposure to SHS at any public places varies from 25% in the East region to 32% in the Central region (Table 6.6.). This has also been shown, at states/UTs level with respect to those exposed to SHS at any public place, in Figure 6.4. It varied from 11 percent in Chandigarh to 54 percent in Meghalaya.

Table 6.6: Percentage of adults[1] age 15 and above who visited any public place and exposed to second-hand smoke in public places in the past 30 days, according to regions and states/UTs, GATS India, 2009 -2010

Region and state/UT	Adults[1] exposed to second-hand smoke at				Adults[1] who	
	Government building	Health care facility	Restaurant	Public transportation	Visited any public place	Exposed to second-hand smoke at any public place
India	6.6	5.4	11.3	17.5	68.0	29.0
North	8.4	4.8	12.2	16.6	69.6	28.6
Jammu & Kashmir	12.2	5.9	11.9	21.6	72.1	35.2
Himachal Pradesh	6.1	2.7	23.3	12.4	79.3	33.3
Punjab	6.7	4.1	3.3	11.9	62.3	18.2
Chandigarh	4.5	2.0	3.0	4.6	74.6	11.3
Uttarakhand	9.4	4.1	36.6	24.2	80.7	49.2
Haryana	16.7	15.7	14.5	43.4	69.4	53.0
Delhi	9.2	8.1	19.0	20.0	84.4	32.4
Central	7.3	7.3	5.9	23.1	59.1	31.8
Rajasthan	10.4	10.3	8.3	29.3	57.2	40.2
Uttar Pradesh	6.8	8.5	6.2	20.0	59.4	29.1
Chhattisgarh	4.7	2.4	3.3	14.7	51.2	21.9
Madhya Pradesh	8.6	6.1	5.4	34.1	67.6	40.9
East	6.1	4.1	11.4	14.6	59.4	24.5
West Bengal	9.4	5.5	10.9	21.1	61.2	29.8
Jharkhand	4.1	1.5	13.8	10.2	62.9	22.7
Odisha	5.3	4.7	9.4	6.6	48.6	13.5
Bihar	3.6	3.2	12.2	12.9	61.5	24.7
North-East	9.2	5.7	12.3	16.4	69.2	26.2
Sikkim	5.3	3.5	28.8	14.1	78.6	39.9
Arunachal Pradesh	5.1	3.0	18.4	10.9	78.3	30.7
Nagaland	14.3	3.1	12.1	19.6	68.9	32.0
Manipur	7.2	1.7	10.4	21.5	66.0	31.2
Mizoram	10.6	2.8	16.8	8.3	54.6	27.3
Tripura	7.6	3.5	3.6	13.8	71.0	22.4
Meghalaya	8.3	7.9	27.1	37.0	87.4	53.8
Assam	9.4	6.6	11.7	15.1	67.8	23.3
West	5.6	4.6	14.0	17.9	73.3	30.6
Gujarat	4.2	5.3	8.2	23.1	66.6	31.7
Maharashtra	6.3	4.3	17.0	15.4	76.8	30.2
Goa	3.8	2.2	15.8	8.3	77.1	22.8
South	5.8	4.6	16.8	12.1	84.4	28.7
Andhra Pradesh	6.0	4.3	22.6	13.7	77.1	33.5
Karnataka	7.6	5.2	24.5	15.5	85.0	37.2
Kerala	3.0	4.0	9.2	7.3	90.6	18.7
Tamil Nadu	5.5	4.6	7.3	9.9	89.7	21.1
Puducherry	8.1	8.1	11.9	11.5	85.8	27.1

Note: [1] Those who have visited in the past 30 days.

Figure 6.4 Exposure to SHS among adults at any public places according to states/UTs, GATS India, 2009-2010



6.4 DESIGNATED NON-SMOKING AREA AND SMOKING IN DESIGNATED NON-SMOKING AREA

Table 6.7 shows that out of 24 percent of the adults who have visited any restaurant during the last 30 days, about 51 percent had seen a designated non-smoking area in the restaurant. Among these people who visited restaurants during the last thirty days, about 16 percent had observed someone smoking in the designated non-smoking area. In the subsequent discussions, two phrases, designated non-smoking area and smoking in the designated non-smoking area will be henceforth abbreviated in short by DNSA and SDNSA respectively. There is considerable gender differential with respect to those having seen a DNSA

(52% males against 45% females) and those having observed someone SDNSA (17% males against 10% females).

Table 6.7: Percentage of adults[1] age 15 and above who have visited any restaurant and seen a designated non-smoking area with clear sign inside the restaurant and observed smoking in designated non-smoking areas in the past 30 days, according to background characteristics, GATS India, 2009-2010

Background characteristic	Adults[1] who have visited any restaurant	Adults seen a designated non-smoking area in the restaurant	Observed smoking in designated non-smoking area
Overall	23.5	50.8	16.1
Gender			
Male	37.5	52.1	17.4
Female	8.6	44.9	10.1
Age			
15-24	27.0	52.1	16.2
25-44	25.6	51.2	16.5
45-64	19.1	49.0	15.5
65+	9.8	40.3	10.6
Residence			
Urban	32.5	60.9	17.3
Rural	19.8	44.0	15.2
Education level			
No formal schooling	10.0	28.5	11.6
Less than primary	20.5	39.5	14.4
Primary but less than secondary	24.7	48.5	16.0
Secondary and above	38.8	61.4	17.7
Occupation			
Government and non-government employee	35.9	53.7	18.1
Self-employed	26.9	47.3	14.7
Student	33.9	58.6	17.8
Home maker	7.9	42.3	11.3
Retired or unemployed	17.7	43.2	14.4

Note: [1] Those who have visited in the past 30 days

There is also urban-rural differential with respect to those having seen a DNSA (61% urban area against 44% rural area) and those having observed someone SDNSA (17% for urban area against 15% for rural area). It is interesting to note that both the proportions of adults who had seen a DNSA and observed SDNSA increases with level of education. Though there is no specific pattern of the proportions of adults who had seen a DNSA and observed someone SDNSA over the various occupational categories, the student category showed the highest proportions in having seen DNSA (59%) and having observed someone SDNSA (18%) followed by government and non-government employees (54% and 18%) and self-employed category (47% and 15%).

6.4.1 Designated non-smoking area and smoking in designated non-smoking area by region and state/UT

Table 6.8 provides percentage of adults who visited any restaurant and seen a designated non-smoking area with clear sign inside the restaurant and observed someone smoking in a designated non-smoking

area by region and state/UT. The percentage of adults who noticed DNSA with clear sign inside the restaurant varied from 26 percent in East region to 64 percent in South region.

In ascending order, one may observe that the South region possesses the highest rank (6) followed by West region (5), farther down Central region (2) and the lowest rank is occupied by the East region (1). However while ranking the percentage of adults, age 15 and above, who had observed someone SDNSA while visiting any restaurant, it is clearly seen that the regions – East, North-East and West preserved their respective ranks. However, the ranks of the North, Central and South regions become 1, 3 and 5 from 3, 5 and 1. The variations in the levels of DNSA and SDNSA according to states/UTs are presented in Figures 6.7 and 6.8 for a quick visual comparison.

Figure 6.5 Adults seen a designated non-smoking area in the restaurant and observed someone smoking in the designated non-smoking area, GATS India, 2009-2010

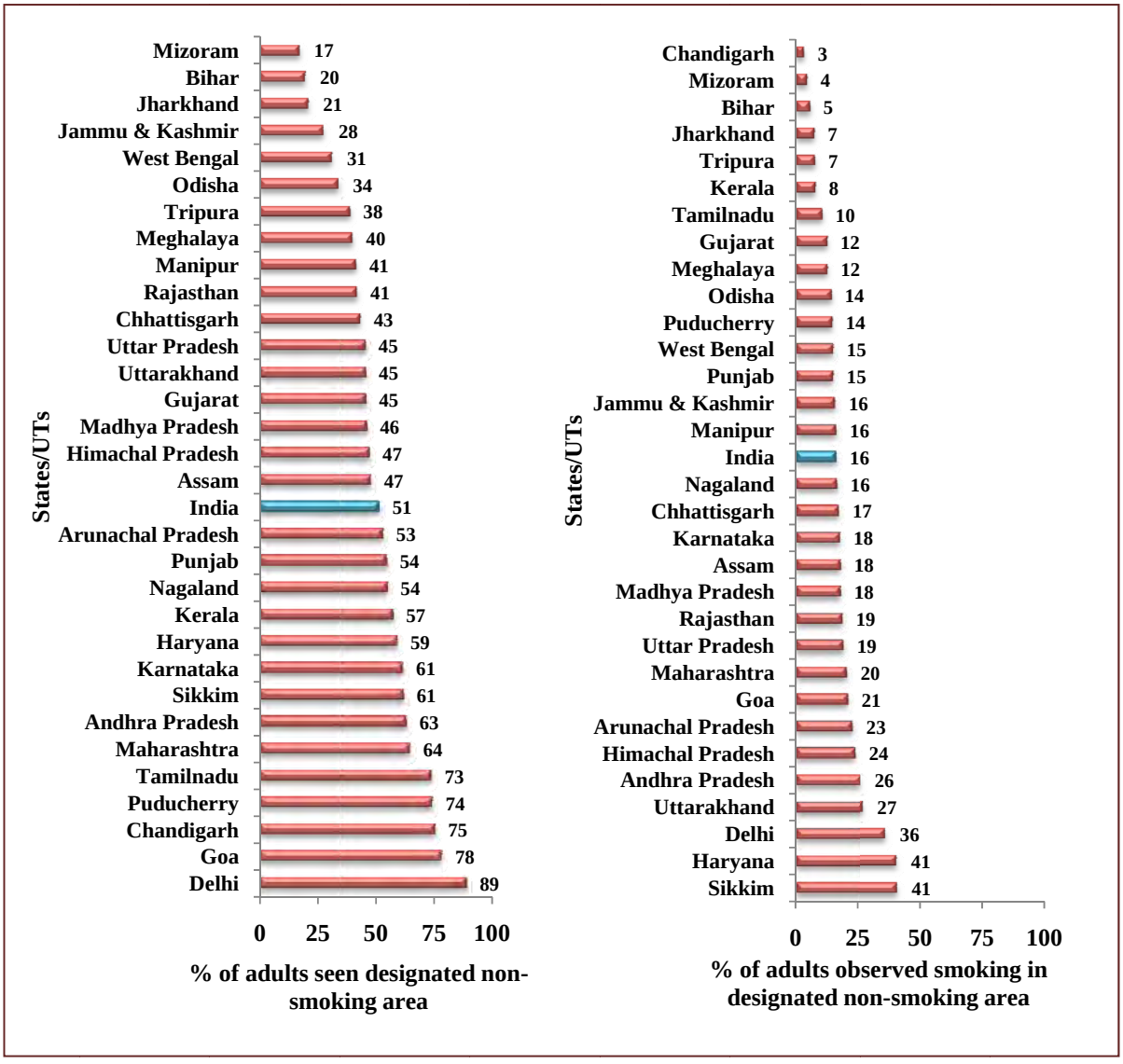


Table 6.8: Percentage of adults[1] age 15 and above who have visited any restaurant seen a designated non-smoking area with clear signs inside the restaurant and observed smoking in designated non-smoking area in the past 30 days, according to regions and states/UTs, GATS India, 2009- 2010

Region and state/UT	Adults[1] who have visited any restaurant	Adults seen a designated non-smoking area in the restaurant	Observed smoking in designated non-smoking area
India	23.5	50.8	16.1
North	21.9	48.3	21.7
Jammu & Kashmir	18.9	27.6	15.6
Himachal Pradesh	36.2	46.6	23.7
Punjab	11.5	54.1	14.8
Chandigarh	25.6	74.8	3.1
Uttarakhand	50.9	45.0	27.0
Haryana	17.5	58.6	40.6
Delhi	40.4	88.5	36.1
Central	9.5	44.1	18.4
Rajasthan	11.4	41.4	18.5
Uttar Pradesh	10.0	44.9	18.9
Chhattisgarh	5.5	42.8	17.1
Madhya Pradesh	10.6	45.5	17.8
East	24.3	26.0	10.2
West Bengal	22.5	31.3	14.8
Jharkhand	30.9	21.0	7.1
Odisha	21.6	33.8	14.0
Bihar	25.4	19.6	5.4
North-East	32.1	46.1	17.3
Sikkim	44.2	61.3	40.8
Arunachal Pradesh	43.1	52.5	22.6
Nagaland	22.9	54.4	16.3
Manipur	17.9	40.9	16.0
Mizoram	31.8	17.1	4.3
Tripura	9.4	38.3	7.4
Meghalaya	54.4	39.5	12.4
Assam	34.2	47.2	17.8
West	28.7	60.2	18.6
Gujarat	18.4	45.1	12.3
Maharashtra	33.8	64.1	20.3
Goa	38.7	77.9	20.7
South	38.6	64.1	16.5
Andhra Pradesh	33.8	62.5	26.0
Karnataka	45.5	61.1	17.6
Kerala	43.3	56.8	7.6
Tamil Nadu	36.1	73.3	10.3
Puducherry	39.7	73.8	14.4

Note: [1] Those who have visited in the past 30 days.

Key findings

- One in four (26%) non-smokers is exposed to second-hand smoke at workplace.
- More than half (52%) of the adults are exposed to the second-hand smoke at home.
- Three in ten adults who visited any public place in last 30 days are exposed to second-hand smoke.
- About one in five (18%) adults who used public transport is exposed to second-hand smoke.
- About one in nine (11%) adults who visited restaurants in last 30 days is was exposed

Key messages

- Focused public awareness campaigns highlighting ill effects of Second-hand smoke at home and in public places to be undertaken.
- There is a need of stricter enforcement of the existing smoke free policies.

7. ECONOMIC ASPECT OF TOBACCO USE

The consumption and prevalence of tobacco is associated with the cost of tobacco products available in the country. To a large extent the price can be influenced by the level of taxation on tobacco products. Therefore, study of affordability of tobacco products and raising taxes on tobacco products is an established tobacco control strategy and has been recommended by WHO MPOWER policy[1]. Although taxation on some tobacco products has increased over the years, tobacco products are still easily affordable even by the poor. In addition, there is a lot of disparity in the tax structure for different tobacco products.

This chapter focuses on different brands of cigarettes and bidis purchased by current smokers. It also discusses the source of the last purchase of the cigarette, bidi and smokeless tobacco products. The important economic components, namely average tobacco expenditure in the last purchase and average monthly expenditure on cigarettes and bidis, are also discussed to assess the economic liability on the tobacco users.

7.1 SOURCE OF LAST PURCHASE OF SMOKING AND SMOKELESS TOBACCO

7.1.1 Source of last purchase of cigarette

Table 7.1 contains information on the sources of cigarettes purchased during the last time according to selected background characteristics. Figure 7.1 shows that in India, more than half of the current cigarette smokers have purchased cigarettes from the store followed by 31 percent from kiosk and 16 percent from street vendor. A similar pattern is found, both among male and female cigarette smokers, where more than half of each category bought cigarettes from the store.

Among current cigarette smokers age 15-17, the most preferred source of purchasing cigarettes is the kiosk (51%) whiles those who are 18 and above prefer to buy the same from the store. The store is the most popular source from where cigarettes are purchased, among both urban as well as rural smokers, followed by kiosk and street vendor. Kiosk and street vendor are respectively the second and the third most-preferred choice for purchasing cigarettes.

Table 7.1: Percent distribution of current cigarette smokers age 15 and above by source of last purchase of cigarette, according to background characteristics, GATS India, 2009-2010

Background characteristic	Store	Street vendor	Kiosk	Others[1]	Total
Overall	50.5	16.4	30.6	2.5	100
Gender					
Male	50.4	16.5	30.6	2.5	100
Female	56.8	12.6	27.1	3.5	100
Age					
15-17	34.1	12.9	50.9	2.1	100
18-24	51.5	12.9	33.1	2.6	100
25+	50.4	17.3	29.8	2.5	100
Residence					
Urban	44.6	21.9	31.5	2.0	100
Rural	54.5	12.7	29.9	2.9	100
Education level					
No formal schooling	51.5	12.8	32.1	3.5	100
Less than primary	46.9	9.8	40.9	2.4	100
Primary but less than secondary	53.6	16.1	28.3	2.0	100
Secondary and above	48.0	21.1	28.3	2.7	100
Occupation					
Government and non-government employee	54.3	13.8	29.5	2.5	100
Self-employed	46.3	18.5	32.9	2.3	100
Student	40.8	22.6	34.7	1.8	100
Homemaker	53.8	20.5	20.4	5.2	100
Retired or unemployed	54.3	16.3	26.7	2.8	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, from other person or any other place.

Table 7.2 displays information on sources of cigarettes purchased during the last purchase by region and state/UT. Smokers across India, with the exception of Central region, in all the other five regions prefer to purchase cigarettes from the store. The highest proportion of such smokers is found in the North (73%) and the lowest in the North-East (46%) closely followed by East region. While street vendor are the second most-preferred source of purchasing cigarettes in the North, North-Eastern and Western regions, kiosk are the second most-preferred source in the East and South regions. The states where more than 90 percent of current cigarette smokers purchased cigarettes from the store are Mizoram (99%), Rajasthan (97%), Odisha (96%), Karnataka (95%), Punjab (91%) and Kerala (91%). The states/UTs having a very low proportion of smokers who buy cigarettes from the store are Arunachal Pradesh (12%), Gujarat (15%), Tamil Nadu (16%), Madhya Pradesh (21%) and Puducherry (23%). The street vendor is the most preferred choice of buying cigarettes in Arunachal Pradesh (83%), Tripura (58%), Tamil Nadu (51%), Assam (47%) and Nagaland (44%).

It appears that in some states, such as Bihar, Odisha, Madhya Pradesh and Chhattisgarh, very few cigarette smokers buy cigarettes from street vendor. Similarly, states/UTs where many smokers go to the kiosk as their first choice to buy cigarettes are Gujarat (79%), Madhya Pradesh (79%), Jharkhand (65%), Sikkim (54%), Chhattisgarh (52%), Uttar Pradesh (51%), Puducherry (46%), West Bengal (44%) and Andhra Pradesh (44%). The states where smokers hardly use kiosk at all for buying cigarettes are Maharashtra, Goa, Assam, Mizoram, Rajasthan, Uttarakhand, Himachal Pradesh and Jammu & Kashmir.

Table 7.2: Percent distribution of current cigarette smokers age 15 and above by source of last purchase of cigarette, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Store	Street vendor	Kiosk	Others[1]	Total
India	50.5	16.4	30.6	2.5	100
North	73.1	20.8	4.3	1.8	100
Jammu & Kashmir	61.0	34.6	0.0	4.5	100
Himachal Pradesh	81.9	18.1	0.0	0.0	100
Punjab	91.0	3.0	6.0	0.0	100
Chandigarh	86.5	2.2	11.4	0.0	100
Uttarakhand	65.1	34.9	0.0	0.0	100
Haryana	85.2	2.7	12.2	0.0	100
Delhi	52.9	4.8	41.9	0.4	100
Central	46.7	1.9	48.5	2.9	100
Rajasthan	96.7	2.7	0.0	0.7	100
Uttar Pradesh	39.5	3.4	50.8	6.3	100
Chhattisgarh	47.9	0.0	52.1	0.0	100
Madhya Pradesh	20.9	0.0	78.6	0.5	100
East	46.3	9.7	42.6	1.5	100
West Bengal	39.1	15.1	43.5	2.4	100
Jharkhand	31.3	3.3	64.8	0.6	100
Odisha	96.2	0.0	2.3	1.4	100
Bihar	49.3	4.0	46.7	0.0	100
North-East	46.2	41.8	5.1	6.8	100
Sikkim	36.6	3.3	54.3	5.8	100
Arunachal Pradesh	11.6	82.9	0.8	4.7	100
Nagaland	35.2	43.8	0.3	20.8	100
Manipur	43.6	17.3	37.9	1.2	100
Mizoram	98.6	1.4	0.0	0.0	100
Tripura	33.3	58.0	4.7	4.0	100
Meghalaya	72.1	27.1	0.9	0.0	100
Assam	46.5	46.4	0.0	7.0	100
West	45.8	38.3	14.3	1.6	100
Gujarat	15.0	2.7	78.6	3.7	100
Maharashtra	52.6	46.3	0.0	1.1	100
Goa	58.0	40.1	0.0	1.9	100
South	54.2	17.5	25.8	2.6	100
Andhra Pradesh	40.1	12.5	43.8	3.6	100
Karnataka	94.5	0.7	3.8	1.0	100
Kerala	90.7	3.0	2.4	3.9	100
Tamil Nadu	16.2	51.2	32.1	0.5	100
Puducherry	22.5	31.2	45.7	0.6	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, from other person or any other place.

7.1.2 Source of last purchase of bidi

The information on the source of last purchase of bidi classified by background characteristics is presented in Table 7.3. As per Figure 7.1, about half of the bidi smokers in India purchase bidi from the store and another two out of every five buy it from the kiosk. The gender differential of bidi smokers shows that for both males and females, the store is the most preferred source for purchasing bidis followed by the kiosk. Those belonging to the age group 15-17 mostly buy bidis from the kiosk while for all other age groups, the store is the most popular place for purchasing the same. In comparison with

urban smokers, a higher proportion of rural smokers purchase bidis from the store, while purchase from street vendor is more common in urban (15%) as compared to rural (11%) areas. Going by educational levels of the respondent, it is observed that across all educational categories, the store is the most preferred source for buying bidis followed by the kiosk. A higher proportion of users with an education level of less than primary buy the product from the kiosk than those with higher education. The source of purchase of bidi by occupational categories of bidi smokers shows that the store is the most popular source among government and non-government employees, the self-employed and retired or unemployed, while students prefer to buy the same from street vendors, and homemakers from the kiosk.

Table 7.3: Percent distribution of current bidi smokers age 15 and above by source of last purchase of bidi, according to background characteristics, GATS India, 2009-2010

Background characteristic	Store	Street vendor	Kiosk	Others[1]	Total
Overall	48.5	11.4	39.4	0.7	100
Gender					
Male	48.2	12.2	39.4	0.3	100
Female	52.2	3.3	39.8	4.8	100
Age					
15-17	26.9*	15.5*	53.3*	4.3*	100
18-24	45.7	13.8	40.5	0.1	100
25+	48.8	11.2	39.2	0.7	100
Residence					
Urban	44.2	15.2	40.1	0.5	100
Rural	49.4	10.6	39.2	0.7	100
Education level					
No formal schooling	47.2	8.9	42.8	1.1	100
Less than primary	50.5	8.3	40.6	0.6	100
Primary but less than secondary	49.0	13.6	37.1	0.3	100
Secondary and above	45.8	23.5	30.7	0.1	100
Occupation					
Government and non-government employee	49.8	10.1	39.8	0.3	100
Self-employed	48.5	12.7	38.6	0.2	100
Student	20.4	45.1	34.5	0.0	100
Homemaker	37.7	10.3	48.5	3.5	100
Retired or unemployed	55.8	8.0	33.8	2.5	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, from other person or any other place.

The distribution of current bidi smokers by source of last purchase of bidi in various regions and states/UTs is presented in Table 7.4. Excluding the West region where the kiosk is the most popular, the store is the most preferred source for buying bidi in all other regions. But states/UTs exhibit wide variations in so far as sources of purchase of bidi are concerned. The states/UTs showing a high proportion of smokers who purchase bidi from the store are Odisha (98%), Karnataka (98%), Kerala (93%), Punjab (92%) and Rajasthan (90%). Purchase of bidi from the street vendor is common in Arunachal Pradesh (88%), Goa (56%) and Tamil Nadu (47%), whilst the kiosk is widely used as an important source in Gujarat (86%), Uttar Pradesh (64%), Puducherry (57%), Andhra Pradesh (57%) and Bihar (53%), Delhi (50%), Sikkim (48%) and West Bengal (47%).

Table 7.4: Percent distribution of current bidi smokers age 15 and above by source of last purchase of bidi, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Store	Street vendor	Kiosk	Others[1]	Total
India	48.5	11.4	39.4	0.7	100
North	78.1	17.0	4.2	0.7	100
Jammu & Kashmir	61.4	36.8	0.0	1.8	100
Himachal Pradesh	73.3	25.1	0.0	1.5	100
Punjab	92.2	5.0	2.8	0.0	100
Chandigarh	79.3	2.9	17.1	0.7	100
Uttarakhand	77.9	21.5	0.0	0.6	100
Haryana	80.1	1.3	18.6	0.0	100
Delhi	39.0	10.8	50.2	0.0	100
Central	47.2	7.8	44.0	0.9	100
Rajasthan	90.4	9.3	0.3	0.0	100
Uttar Pradesh	23.3	11.2	64.0	1.5	100
Chhattisgarh	58.5	1.9	39.2	0.4	100
Madhya Pradesh	54.8	0.0	44.4	0.7	100
East	49.0	7.4	43.1	0.4	100
West Bengal	41.5	11.7	46.6	0.2	100
Jharkhand	49.6	10.9	36.9	2.5	100
Odisha	98.2	0.0	1.8	0.0	100
Bihar	45.8	0.6	52.8	0.7	100
North-East	51.3	39.3	7.1	2.2	100
Sikkim	44.8	2.4	47.5	5.3	100
Arunachal Pradesh	4.0	87.5	3.3	5.3	100
Nagaland	34.8	38.4	0.0	26.8	100
Manipur	42.6	21.3	36.1	0.0	100
Mizoram	87.4	12.6	0.0	0.0	100
Tripura	44.3	45.2	10.4	0.2	100
Meghalaya	71.0	26.5	2.4	0.2	100
Assam	60.7	37.2	2.2	0.0	100
West	28.1	16.3	54.7	0.9	100
Gujarat	9.9	2.9	86.1	1.0	100
Maharashtra	59.9	39.5	0.0	0.6	100
Goa	37.1	55.7	0.0	7.2	100
South	52.4	17.0	30.5	0.0	100
Andhra Pradesh	28.1	15.0	56.8	0.0	100
Karnataka	98.1	0.9	1.1	0.0	100
Kerala	92.9	7.1	0.0	0.0	100
Tamil Nadu	10.1	47.2	42.7	0.0	100
Puducherry	13.6	29.8	56.6	0.0	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, other person or any other place.

7.1.3 Source of last purchase of smokeless tobacco

Table 7.5 displays information on current users of smokeless tobacco in the country by source of last purchase of smokeless tobacco product classified according to background characteristics. It is found that 55 percent of the users of smokeless tobacco in India purchase it from the store followed by 32 percent from the kiosk and only 10 percent buy from the street vendor (Figure 7.1). The gender differential of the users shows that in comparison to males (50%), a higher proportion of females (64%) purchase smokeless tobacco product from the store while more males (37%) visit the kiosk than females (22%) to buy the

same product. For the respondents across all age groups the store is the most popular source of purchasing smokeless tobacco.

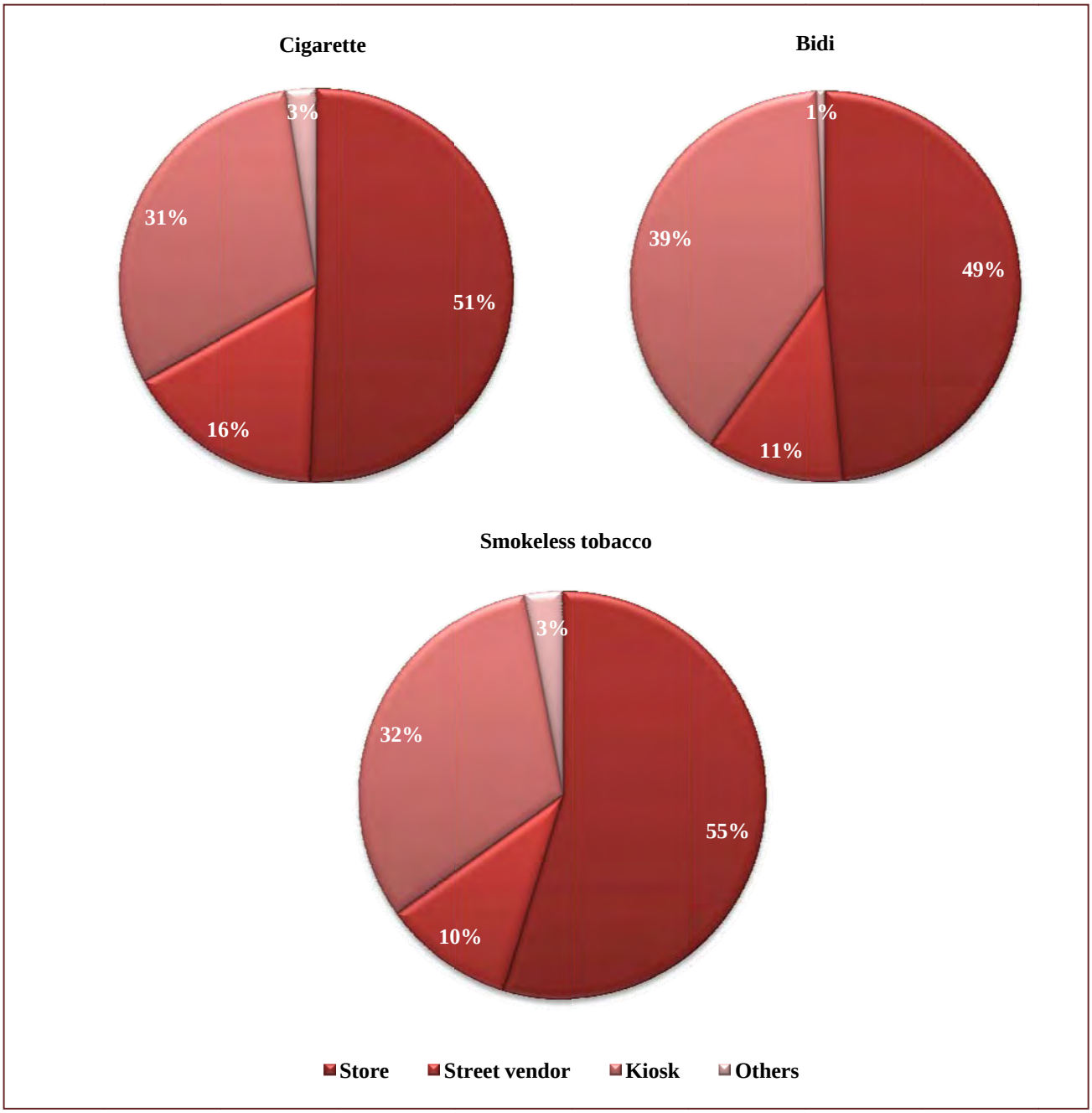
Table 7.5: Percent distribution of current users of smokeless tobacco age 15 and above by source of last purchase of smokeless tobacco, according to background characteristics, GATS India, 2009-2010

Background characteristic	Store	Street vendor	Kiosk	Others[1]	Total
Overall	54.7	10.4	31.9	3.0	100
Gender					
Male	49.7	12.2	37.3	0.9	100
Female	64.3	7.1	21.6	7.0	100
Age					
15-17	65.2	6.1	26.0	2.7	100
18-24	55.0	10.5	33.0	1.6	100
25+	54.3	10.6	31.9	3.2	100
Residence					
Urban	46.9	16.9	34.5	1.7	100
Rural	56.7	8.8	31.3	3.3	100
Education level					
No formal schooling	55.3	7.8	32.1	4.9	100
Less than primary	59.6	10.0	28.2	2.3	100
Primary but less than secondary	55.9	11.5	31.0	1.7	100
Secondary and above	45.7	15.9	37.6	0.9	100
Occupation					
Government and non-government employee	52.3	9.7	36.2	1.8	100
Self-employed	53.8	12.1	31.7	2.3	100
Student	62.7	12.9	23.2	1.2	100
Homemaker	60.4	7.9	25.9	5.7	100
Retired or unemployed	49.5	10.8	35.6	4.1	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, from other person or any other place.

In comparison with other age groups, more users of smokeless tobacco age 15-17 prefer to buy the product from the store. Store is the most preferred place among rural residents (57%) than urban residents (47%) to buy smokeless tobacco products. Kiosk is the second most preferred place among urban residents (35%) and rural resident (31%) to buy smokeless tobacco product. In India, 32 percent of the current users of smokeless tobacco but it from kiosk followed by 10 percent from street vendor.

Figure: 7.1 Percent distribution of current users of cigarettes, bidis and smokeless tobacco by source of their last purchase, GATS India, 2009-2010



Data pertaining to current users of smokeless tobacco by source of last purchase of smokeless tobacco in different regions and states/UTs of India is presented in Table 7.6. Across all the six regions, store is the most popular source for purchasing smokeless tobacco products. The second most reported source is the kiosk in four regions namely Central, East, West and South and street vendor in the North and North-

East. The states/UTs level pattern of source of last purchase of smokeless tobacco shows that the store is the most popular source for buying the product in 20 states/ UTs. It is highest in Mizoram (98%) and lowest in Tamil Nadu (6%). Similarly, kiosk is the most preferred source for buying smokeless tobacco products in eight states (Delhi, Uttar Pradesh, West Bengal, Sikkim, Gujarat, Andhra Pradesh, Tamil Nadu, and Puducherry). Arunachal Pradesh (85%) has the highest proportion of users buying the smokeless tobacco products from street vendors followed by Nagaland (47%).

Table 7.6: Percent distribution of current users of smokeless tobacco age 15 and above by source of last purchase of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Store	Street vendor	Kiosk	Others[1]	Total
India	54.7	10.4	31.9	3.0	100
North	75.8	17.1	6.8	0.3	100
Jammu & Kashmir	57.5	42.5	0.0	0.0	100
Himachal Pradesh	72.7	24.3	0.0	2.9	100
Punjab	90.3	3.4	6.3	0.0	100
Chandigarh	70.6	6.0	23.4	0.0	100
Uttarakhand	76.9	22.5	0.1	0.5	100
Haryana	68.0	1.5	30.4	0.0	100
Delhi	32.5	10.9	56.3	0.3	100
Central	52.3	5.9	37.0	4.8	100
Rajasthan	88.8	11.1	0.1	0.0	100
Uttar Pradesh	27.1	10.9	57.1	5.0	100
Chhattisgarh	74.3	0.1	19.5	6.1	100
Madhya Pradesh	55.0	0.5	39.7	4.9	100
East	56.7	4.3	36.3	2.6	100
West Bengal	41.4	7.7	49.5	1.4	100
Jharkhand	51.3	5.9	38.4	4.4	100
Odisha	88.8	3.5	1.1	6.7	100
Bihar	50.8	2.5	46.0	0.7	100
North-East	50.5	42.2	5.3	2.0	100
Sikkim	37.1	2.5	58.0	2.4	100
Arunachal Pradesh	6.2	84.8	5.5	3.5	100
Nagaland	32.4	47.0	0.0	20.6	100
Manipur	35.1	28.6	34.4	1.9	100
Mizoram	97.6	1.7	0.0	0.7	100
Tripura	49.5	38.5	10.7	1.3	100
Meghalaya	65.1	29.5	3.6	1.8	100
Assam	53.5	45.0	1.2	0.4	100
West	56.5	20.0	22.3	1.2	100
Gujarat	17.2	2.8	78.8	1.2	100
Maharashtra	72.0	26.8	0.0	1.2	100
Goa	70.2	24.8	0.0	5.0	100
South	53.9	14.2	30.7	1.1	100
Andhra Pradesh	28.1	14.1	56.6	1.2	100
Karnataka	93.7	4.2	0.6	1.5	100
Kerala	94.5	2.2	2.1	1.2	100
Tamil Nadu	5.9	42.7	51.4	0.0	100
Puducherry	6.8	39.9	53.3	0.0	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, from other person or any other place.

7.2 BRANDS OF SMOKING TOBACCO

7.2.1 Use of different brands of manufactured cigarettes during the last purchase

GATS India collected information from cigarette smokers about the brand of cigarettes they purchased last. Cigarette smokers in India use various brands of cigarettes. Respondents across the country reported more than 350 different brands of cigarettes which they bought during the last purchase. Table 7.7 portrays information on the brands of manufactured cigarettes last purchased by smokers classified by background characteristics. The five most preferred brands are labeled as Brand 1, Brand 2, Brand 3, Brand 4 and Brand 5. Information on these five brands is tabulated separately and the remaining brands have been clubbed under the all others category. The data reveals that about 3 in 5 (59%) cigarette smokers use two most popular brands and about three-quarters of all smokers in India use only five most popular brands of cigarettes and the remaining smoke an assortment of other brands. Of the total current cigarette smokers in India, about 35 percent use Brand 1 followed by 24 percent use Brand 2. Users of

Table 7.7: Percent distribution of current smokers of manufactured cigarette age 15 and above by brand of cigarette purchased last, according to background characteristics, GATS India, 2009-2010

Background characteristic	Brand of cigarette purchased last						
	Brand 1	Brand 2	Brand 3	Brand 4	Brand 5	All others	Total
Overall	34.8	23.8	8.5	4.4	4.2	24.3	100
Gender							
Male	35.1	23.7	8.4	4.4	4.2	24.3	100
Female	11.2	36.3	11.4	11.8	3.7	25.5	100
Age							
15-17	57.8	17.4	4.5	0.0	0.1	20.2	100
18-24	41.0	19.8	9.8	3.6	2.1	23.7	100
25+	33.2	24.8	8.2	4.7	4.7	24.5	100
Residence							100
Urban	40.4	23.2	9.5	3.1	5.6	18.1	100
Rural	30.8	24.2	7.8	5.4	3.1	28.6	100
Education level							
No formal schooling	22.9	16.6	10.2	8.8	5.5	36.0	100
Less than primary	33.1	19.7	7.3	7.0	3.0	30.0	100
Primary but less than secondary	36.5	26.8	8.1	4.7	3.3	20.6	100
Secondary and above	38.4	24.4	8.7	1.6	5.2	21.7	100
Occupation							
Government and non-government employee	34.7	23.5	8.5	4.5	4.2	24.6	100
Self-employed	30.6	25.5	11.1	4.2	2.9	25.8	100
Student	54.0	29.4	4.8	2.0	2.4	7.5	100
Home maker	20.2	48.9	8.1	12.1	2.6	8.0	100
Retired or unemployed	29.9	25.5	6.8	13.2	2.6	22.0	100

Note: The Brand 1 to Brand 5 are the five top most reported brands of cigarette.

Brand 3, 4 and 5 together constitute about 17 percent of the total number of cigarette smokers in India. There is gender differential in brand preference for cigarette. Among male smokers, the pattern of brand use is exactly similar to that of overall users in India. But females exhibit a different choice of cigarette brands. The most popular brand among females is Brand 2 (36%) followed by Brand 4 (12%).

Table 7.8: Percent distribution of current smokers of manufactured cigarette age 15 and above by brand of cigarette purchased last, according to regions and states/UTs, GATS India, 2009-2010

	Brand of cigarette purchased last						
Region and state/UT	**Brand 1**	**Brand 2**	**Brand 3**	**Brand 4**	**Brand 5**	**All others**	**Total**
India	34.8	23.8	8.5	4.4	4.2	24.3	100
North	20.4	3.7	52.6	6.4	1.5	15.3	100
Jammu & Kashmir	7.7	3.4	63.7	10.1	1.1	14.0	100
Himachal Pradesh	28.6	5.7	56.1	3.9	1.7	4.0	100
Punjab	21.7	1.5	58.8	3.1	0.0	14.9	100
Chandigarh	63.7	3.4	16.8	1.1	3.8	11.3	100
Uttarakhand	16.1	6.5	23.1	11.7	3.0	39.7	100
Haryana	44.5	8.8	9.1	0.0	4.8	32.8	100
Delhi	62.9	4.4	7.1	0.0	7.2	18.3	100
Central	30.1	7.9	14.0	7.7	5.2	35.1	100
Rajasthan	15.0	11.8	62.3	1.4	5.4	4.1	100
Uttar Pradesh	32.7	7.5	1.0	11.0	9.4	38.3	100
Chhattisgarh	17.7	6.1	7.2	5.2	0.7	63.1	100
Madhya Pradesh	50.7	7.2	6.6	9.0	0.9	25.5	100
East	26.5	42.1	3.7	5.5	3.6	18.7	100
West Bengal	23.7	52.8	5.6	2.1	5.1	10.8	100
Jharkhand	36.3	33.5	0.0	13.2	0.0	17.0	100
Odisha	27.1	63.3	3.0	0.0	2.4	4.3	100
Bihar	30.2	5.9	0.0	14.5	1.4	47.9	100
North-East	29.2	56.5	0.3	0.6	3.5	9.9	100
Sikkim	24.3	45.6	1.5	5.7	9.5	13.4	100
Arunachal Pradesh	36.9	48.6	0.3	3.1	3.6	7.4	100
Nagaland	32.3	51.0	1.0	0.7	0.8	14.2	100
Manipur	29.2	38.8	0.5	1.1	3.7	26.8	100
Mizoram	8.7	44.1	0.5	0.0	1.4	45.2	100
Tripura	19.5	53.8	0.0	0.0	0.0	26.7	100
Meghalaya	59.8	36.9	0.0	0.0	0.0	3.3	100
Assam	26.4	65.2	0.2	0.2	4.7	3.4	100
West	31.0	27.2	16.9	3.4	2.4	19.0	100
Gujarat	30.3	9.9	17.5	14.1	0.0	28.3	100
Maharashtra	31.4	31.4	16.1	1.0	3.0	17.1	100
Goa	21.1	17.8	51.4	3.4	0.9	5.3	100
South	49.9	10.1	1.1	2.7	5.4	30.8	100
Andhra Pradesh	41.9	6.6	2.4	3.9	8.7	36.5	100
Karnataka	66.4	14.4	0.0	0.0	4.5	14.7	100
Kerala	32.9	12.2	0.0	3.7	0.6	50.6	100
Tamil Nadu	67.2	10.6	0.9	1.8	5.2	14.2	100
Puducherry	70.3	11.6	0.0	1.2	3.8	13.1	100

Note: The Brand 1 to Brand 5 are the five top most reported brands of cigarette.

Brand 1 is the most popular across all age groups though it has the highest (58%) preference among smokers age 15–17. Brand 1 is relatively more popular among urban smokers than rural smokers while brands of other categories are more popular in rural areas than urban areas. Relatively higher proportion of smokers having no formal schooling use cigarettes belonging to brands other than the five listed brands while for those from other educational categories, Brand 1 is the most preferred cigarette. The percentage of current cigarette smokers from occupational groups reveals that Brand 2 is the most popular cigarette

among homemakers (49%) and Brand 1 is the most popular cigarette among smokers of the remaining occupations.

The spatial variation in the preferred brand of manufactured cigarettes during the last purchase across various regions and states/UTs is presented in Table 7.8. There is wide variation in the use of various cigarette brands across the six regions in India. Brand 1 is most popular in the West and South, Brand 2 is the most preferred in the East and North-East, Brand 3 is the most popular in the North and cigarettes of other brands are more widely used in Central region. All the states/UTs also exhibit wide variations in terms of brands preference of cigarettes. Brand 1 is most popular in Puducherry (70%), Tamil Nadu (67%), Karnataka (66%), Chandigarh (64%) and Delhi (63%). Cigarette smokers in the states of Assam (65%), Odisha (63%), West Bengal (53%), and all the states from North-Eastern region except Meghalaya and Manipur mostly prefer Brand 2. It was also observed that Brand 3 is widely used only in Jammu & Kashmir (64%), Rajasthan (62%), Punjab (59%), Himachal Pradesh (56%) and Goa (51%).

7.2.2 Use of brand of bidis during last purchase

The data from the present study reveals that there are more than two thousand different brands of bidi available in different states/UTs of the country. Table 7.9 presents information on current bidi smokers by last brand of bidi purchased according to selected background characteristics. There is wide regional variation in the brand of the bidi as it is mostly manufactured locally. There are a large number of locally manufactured brands of bidi*s* in the Indian market which makes it difficult to analyze bidi brand preference in terms of these characteristics. The five most preferred brands are labeled as Brand 1, Brand 2, Brand 3, Brand 4 and Brand 5. It may be noted that though they are labeled like cigarette brands as Brand 1 to Brand 5, the bidi brands are entirely different from cigarette brands. The information for five most commonly used brands is given separately and remaining all brands are clubbed together as ‘All others’. About 11 percent of total bidi smokers use Brand 1 followed by 3 percent using Brand 2.

More than four-fifths of the total bidi smokers in India use bidis of other brands. More males than females use Brand 1 and Brand 2. Brand 3 is most popular among smokers in the age group 15–17 and Brand 1 is most popular among the remaining age groups (18 and above). Relatively higher proportion of urban smokers use Brand 1 and Brand 2 than their rural counterparts, while rural smokers prefer all other bidi brands excluding Brand 4 to Brand 5. Brand 1 is most popular among all educational groups followed by Brand 2. In comparison with students among whom Brand 1 is most popular, it is least popular among the self-employed and homemakers.

Table 7.9: Percent distribution of current bidi smokers age 15 and above by brand[1] of bidi purchased last, according to background characteristics, GATS India, 2009-2010

Background Characteristics	Brand of bidi purchased last						
	Brand 1	Brand 2	Brand 3	Brand 4	Brand 5	All others	Total
Overall	11.4	3.3	1.4	0.8	0.9	82.2	100
Gender							
Male	11.6	3.4	1.4	0.8	0.9	82.0	100
Female	9.4	2.4	2.0	1.3	0.7	84.2	100
Age							
15-17	0.2	0.0	13.4	0.0	0.0	86.5	100
18-24	10.1	2.0	1.0	0.9	1.0	85.0	100
25+	11.6	3.4	1.4	0.8	0.9	81.9	100
Residence							
Urban	16.2	8.2	1.5	1.6	0.9	71.5	100
Rural	10.4	2.3	1.4	0.6	0.9	84.5	100
Education level							
No formal schooling	11.2	2.3	1.5	0.8	0.8	83.4	100
Less than primary	12.9	4.1	0.9	0.5	0.9	80.8	100
Primary but less than secondary	9.6	3.5	1.6	1.0	1.2	83.0	100
Secondary and above	13.5	5.4	1.8	1.0	0.5	77.8	100
Occupation							
Government and non-government employee	14.0	3.4	0.8	0.4	1.2	80.1	100
Self-employed	9.9	3.3	1.1	0.8	0.8	84.0	100
Student	33.1	5.6	0.2	0.0	0.0	61.0	100
Homemaker	8.5	3.3	2.9	1.6	0.0	83.7	100
Retired or unemployed	11.0	2.6	4.6	1.6	0.7	79.5	100

Note: The Brand 1 to Brand 5 are the top five most reported brands of bidi.

The information on current bidi smokers by brand of last bidi purchased in various geographical regions and states/UTs of India is presented in Table 7.10. Brand 1 is the most popular brand of bidi in all regions of India except Central where Brand 2 is more preferred. About 43 percent of bidi smokers in the South use Brand 1 followed by 12 percent in the North. The various states/UTs exhibit wide variations in the use of various bidi brands due to the significance of local production. The states/UTs having the highest proportion of users of Brand 1 are Puducherry (86%), Tamil Nadu (64%), Jammu & Kashmir (59%), Andhra Pradesh (45%) and Karnataka (39%). Brand 2 is most popular in Delhi (55%) and Haryana (25%). The Table further reveals that two states, namely Mizoram (14%) and Jammu & Kashmir (11%), have the highest proportion of bidi smokers using Brand 3.

Table 7.10: Percent distribution of current bidi smokers age 15 and above by brand of bidi purchased last, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Last brand of bidi purchased						
	Brand 1	Brand 2	Brand 3	Brand 4	Brand 5	All others	Total
India	11.4	3.3	1.4	0.8	0.9	82.2	100
North	12.0	10.9	1.2	0.5	0.2	75.3	100
Jammu & Kashmir	59.0	15.3	11.3	0.0	0.0	14.4	100
Himachal Pradesh	4.3	8.7	0.2	0.7	0.3	85.9	100
Punjab	17.3	8.4	0.0	1.0	0.0	73.2	100
Chandigarh	37.2	22.7	3.1	0.0	0.9	36.1	100
Uttarakhand	0.0	3.3	0.2	0.0	0.4	96.1	100
Haryana	3.1	25.4	0.0	0.5	0.0	71.0	100
Delhi	8.4	55.3	0.0	1.4	0.0	34.9	100
Central	1.2	3.0	0.4	0.4	0.3	94.8	100
Rajasthan	1.5	3.5	0.0	0.7	0.3	94.0	100
Uttar Pradesh	1.3	4.1	0.9	0.2	0.0	93.5	100
Chhattisgarh	0.6	0.0	0.0	0.0	0.3	99.2	100
Madhya Pradesh	0.8	0.8	0.0	0.7	0.9	96.8	100
East	9.0	5.9	3.3	1.6	0.7	79.6	100
West Bengal	10.1	9.0	1.8	2.3	0.3	76.5	100
Jharkhand	5.7	0.0	0.0	1.5	0.0	92.8	100
Odisha	14.9	0.4	0.0	0.0	2.5	82.2	100
Bihar	4.0	1.1	9.0	0.5	0.9	84.4	100
North-East	8.5	0.9	1.1	0.7	0.2	88.5	100
Sikkim	13.1	5.6	0.0	2.6	0.0	78.7	100
Arunachal Pradesh	35.7	6.8	10.3	0.3	0.0	46.8	100
Nagaland	9.7	0.0	1.0	0.0	0.0	89.3	100
Manipur	0.0	0.0	0.4	0.0	0.0	99.6	100
Mizoram	1.9	1.3	14.0	7.6	1.7	73.6	100
Tripura	4.3	0.5	0.0	0.0	0.0	95.1	100
Meghalaya	0.0	0.0	0.0	0.0	0.0	100.0	100
Assam	10.1	0.6	0.5	1.2	0.4	87.2	100
West	7.8	0.0	3.6	1.2	0.5	86.8	100
Gujarat	6.7	0.0	0.0	0.9	0.0	92.5	100
Maharashtra	9.9	0.0	10.1	1.8	1.4	76.8	100
Goa	1.6	3.9	1.6	2.4	0.0	90.5	100
South	43.4	0.7	0.5	0.7	3.4	51.4	100
Andhra Pradesh	45.2	1.5	1.3	1.8	7.6	42.5	100
Karnataka	39.1	0.0	0.0	0.0	0.5	60.4	100
Kerala	5.3	0.0	0.0	0.0	1.7	93.0	100
Tamil Nadu	63.8	0.5	0.0	0.0	1.4	34.3	100
Puducherry	85.9	0.0	0.0	0.0	0.0	14.1	100

Note: The Brand 1 to Brand 5 are the five top most reported brands of bidi.

7.3 EXPENDITURE ON SMOKING AND SMOKELESS TOBACCO

7.3.1 Average expenditure on tobacco during last purchase

Data on expenditure incurred during the last purchase of tobacco was collected from respondents during the field survey and provides the basis to calculate average expenditure on different tobacco products. Information on average expenditure incurred on tobacco products during the last purchase by the current tobacco users according to selected background characteristics is presented in Table 7.11. The amount spent on purchasing three tobacco products, namely cigarette, bidi and smokeless tobacco, are given separately. On an average, a tobacco user in India spends ₹ 11.50, 5.60 and 6.00 for buying cigarettes, bidis and smokeless tobacco respectively during the last purchase.

The information was collected from the respondents on the amount of money spent on tobacco products during the last purchase. Based on this information, the average expenditure on smoking and smokeless tobacco products was calculated. Accordingly, it is found that females spent more money on buying cigarette and smokeless tobacco products than their male counterparts, while the males spent more amount in buying bidi than females during the last purchase. Respondents in the age group of 25 and above spend more money on buying each of cigarettes, bidis and smokeless tobacco products than the other age groups. The average expenditure incurred by an urban respondent in buying cigarettes and smokeless tobacco products is higher than their rural counterparts (Figure 7.2) while it is almost same in the case of bidis. The educational level of the respondents reveals that across all levels of education categories, the highest amount of money is spent in buying cigarettes followed by smokeless tobacco and bidis. Those who have secondary and above education incur more expenditure in buying cigarettes than those from other levels of education categories. Students spend the highest amount of money (₹ 12.60) in buying cigarettes in the last purchase than all other occupational categories while homemakers incur the highest expenditure (₹ 8.50) in the last purchase of smokeless tobacco.

Figure: 7.2 Average expenditure (in ₹) incurred by current cigarette, bidi and users of smokeless tobacco during the last purchase, according to residence, GATS India, 2009-2010

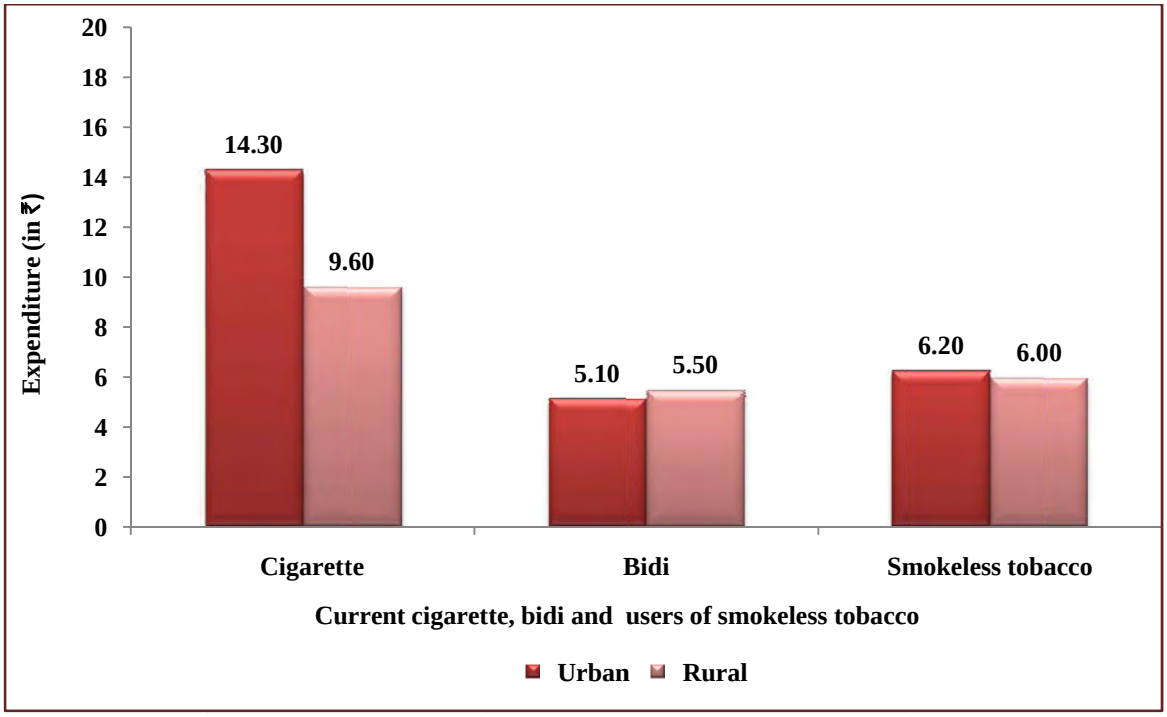


Table 7.11: Average tobacco expenditures (in ₹) in the last purchase incurred by current cigarette smoker, bidi smoker and user of smokeless tobacco, according to background characteristics, GATS India, 2009-2010

Background characteristic	Tobacco expenditure in the last purchase (in ₹)		
	Cigarette	Bidi	Smokeless tobacco
Overall	11.50	5.60	6.00
Gender			
Male	11.40	5.50	4.70
Female	18.20	4.50	8.50
Age			
15-17	7.70	1.80	6.10
18-24	8.20	5.00	5.50
25+	12.30	5.50	6.10
Residence			
Urban	14.30	5.10	6.20
Rural	9.60	5.50	6.00
Education level			
No formal schooling	8.30	5.10	6.40
Less than primary	10.40	5.80	6.50
Primary but less than secondary	10.20	5.50	5.60
Secondary and above	13.80	5.30	5.40
Occupation			
Government and non-government employee	11.30	4.60	5.40
Self-employed	11.80	6.20	5.30
Student	12.60	4.70	6.20
Homemaker	10.30	4.70	8.50
Retired or unemployed	11.10	5.20	5.70

Information on average expenditures on tobacco incurred in the last purchase by current cigarette smokers, bidi smokers and smokeless tobacco users for different regions and states/UTs of India is presented in Table 7.12. The average amount of expenditure in purchasing tobacco products namely cigarettes, bidis and smokeless tobacco is highest in North-East region. The lowest amount of expenditure incurred in the purchase of cigarettes as well as bidis per transaction occurs in the East region while that for smokeless tobacco products, it is the South region. Among the states/UTs, (Figure 7.3) the average expenditure on purchase of cigarettes during the last transaction prior to the survey is highest in Arunachal Pradesh (₹ 52.00) and lowest in Jharkhand (₹ 3.10). Similarly in case of bidi, (Figure 7.3) the corresponding highest and lowest expenditures are found in Arunachal Pradesh (₹ 19.70) and Jharkhand (₹ 2.60) respectively. Again, Arunachal Pradesh (₹ 13.10) and Tripura (₹ 1.80) record the highest and lowest amount of money (Figure 7.4) spent on buying smokeless tobacco products respectively.

Figure: 7.3 Average expenditure (in ₹) incurred by cigarette and bidi smokers in their last purchase according to states/UTs, GATS India, 2009-2010

Figure: 7.4 Average expenditure (in ₹) incurred by users of smokeless tobacco in their last purchase according to states/UTs, GATS India, 2009-2010

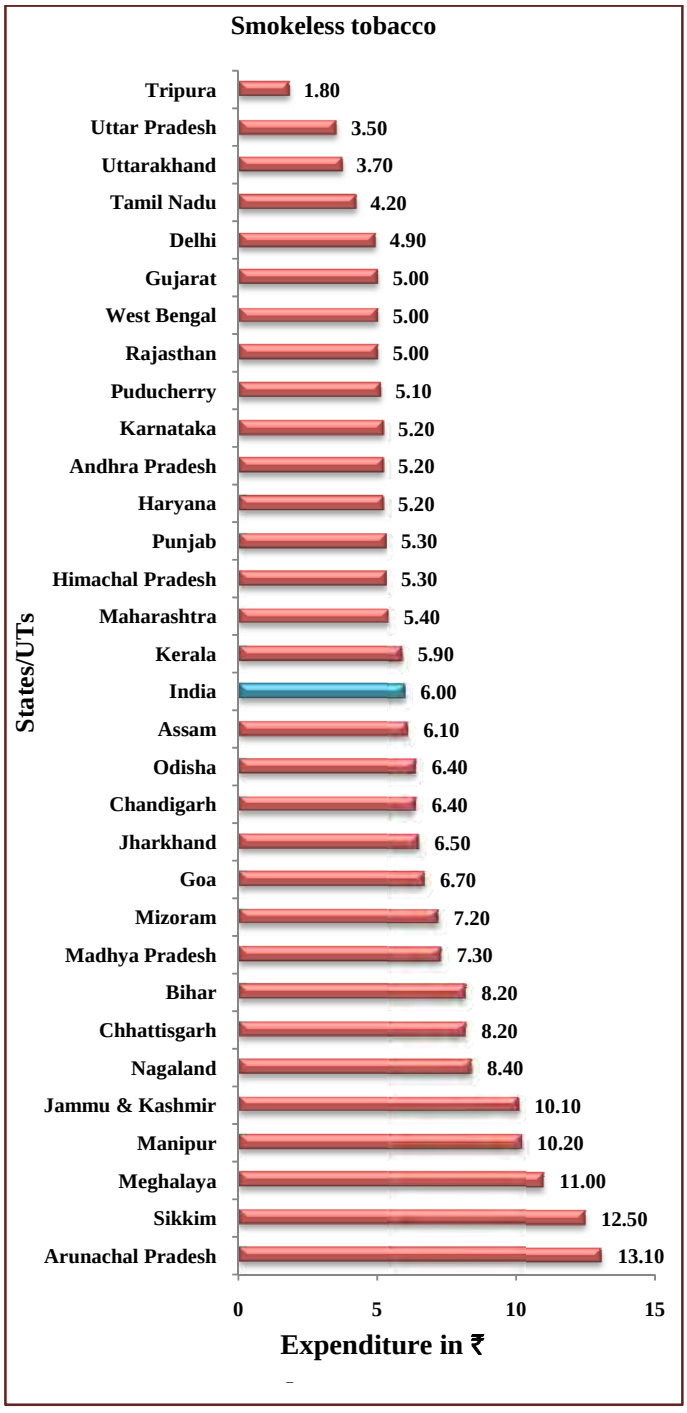


Table 7.12: Average tobacco expenditure (in ₹) in the last purchase incurred by current cigarette smoker, bidi smoker and user of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

	Tobacco expenditure in the last purchase(in ₹)		
Region and state/UTs	**Cigarette**	**Bidi**	**Smokeless tobacco**
India	11.50	5.60	6.00
North	17.30	7.20	6.00
Jammu & Kashmir	17.20	5.70	10.10
Himachal Pradesh	15.60	8.80	5.30
Punjab	20.10	5.90	5.30
Chandigarh	18.40	6.00	6.40
Uttarakhand	15.30	8.30	3.70
Haryana	12.40	5.60	5.20
Delhi	15.70	5.50	4.90
Central	9.20	5.60	5.70
Rajasthan	12.50	9.30	5.00
Uttar Pradesh	8.30	3.50	3.50
Chhattisgarh	7.60	6.00	8.20
Madhya Pradesh	9.70	7.00	7.30
East	8.90	3.60	6.90
West Bengal	12.60	4.00	5.00
Jharkhand	3.10	2.60	6.50
Odisha	6.40	3.90	6.40
Bihar	4.10	2.80	8.20
North-East	17.70	7.40	7.60
Sikkim	27.90	14.00	12.50
Arunachal Pradesh	52.00	19.70	13.10
Nagaland	24.10	7.10	8.40
Manipur	15.60	6.20	10.20
Mizoram	21.20	7.30	7.20
Tripura	12.80	6.40	1.80
Meghalaya	24.70	9.80	11.00
Assam	12.30	5.10	6.10
West	10.30	6.30	5.30
Gujarat	9.70	7.20	5.00
Maharashtra	10.20	4.80	5.40
Goa	21.60	6.40	6.70
South	12.70	6.20	5.10
Andhra Pradesh	12.40	7.30	5.20
Karnataka	11.80	5.90	5.20
Kerala	9.90	4.80	5.90
Tamil Nadu	16.90	5.30	4.20
Puducherry	12.00	8.30	5.10

7.3.2 Average monthly expenditure on cigarette and bidi

GATS India survey did not include direct question on monthly expenditure on cigarette or bidi. The average monthly expenditure is estimated with the help of reporting on three questions: (i) average number of cigarettes/bidis smoked per day by daily smoker of cigarette/bidi, (ii) the number of cigarettes/bidis bought during last purchase and (iii) the amount of money spent on cigarettes/bidis during last purchase.

Information on average monthly expenditures incurred by current daily cigarette and bidi smokers according to selected background characteristics is provided in Table 7.13. The monthly expenditure on cigarette or bidi depends on daily frequency of cigarettes/bidis smoked and the unit cost of cigarette/bidi. The average monthly expenditure by current smokers on cigarettes and bidis is ₹ 399.20 and ₹ 93.40 respectively (Figure 7.5). The gender differential for the cost shows that the monthly spending by males on both, cigarettes as well as bidis, is much higher than that by females. In case of cigarettes, the average monthly expenditure (₹ 669.80) of respondents in the age group 15–17 is more than double than those from the age group 18–24. The monthly expenditure (₹ 95.20) of bidi smokers in the age group 25 and above is more than double than that of the age group 15–17. The monthly spending of an urban cigarette smoker is higher than his/her rural counterpart while the reverse is true in the case of bidi. Studies of educational levels of the cigarette smokers show that as the level of education increases, the monthly expenditure on cigarettes also increases. Among the different occupational categories, the highest monthly expenditure on cigarettes is incurred by students while homemakers spend the lowest amount of money on cigarettes. In case of bidi, government or non-government employees and self-employed incur the highest monthly expenditure as compared to all other occupational categories.

Figure: 7.5 Average monthly expenditure (in ₹) incurred by current cigarette and bidi smokers by background characteristics, GATS India, 2009-2010

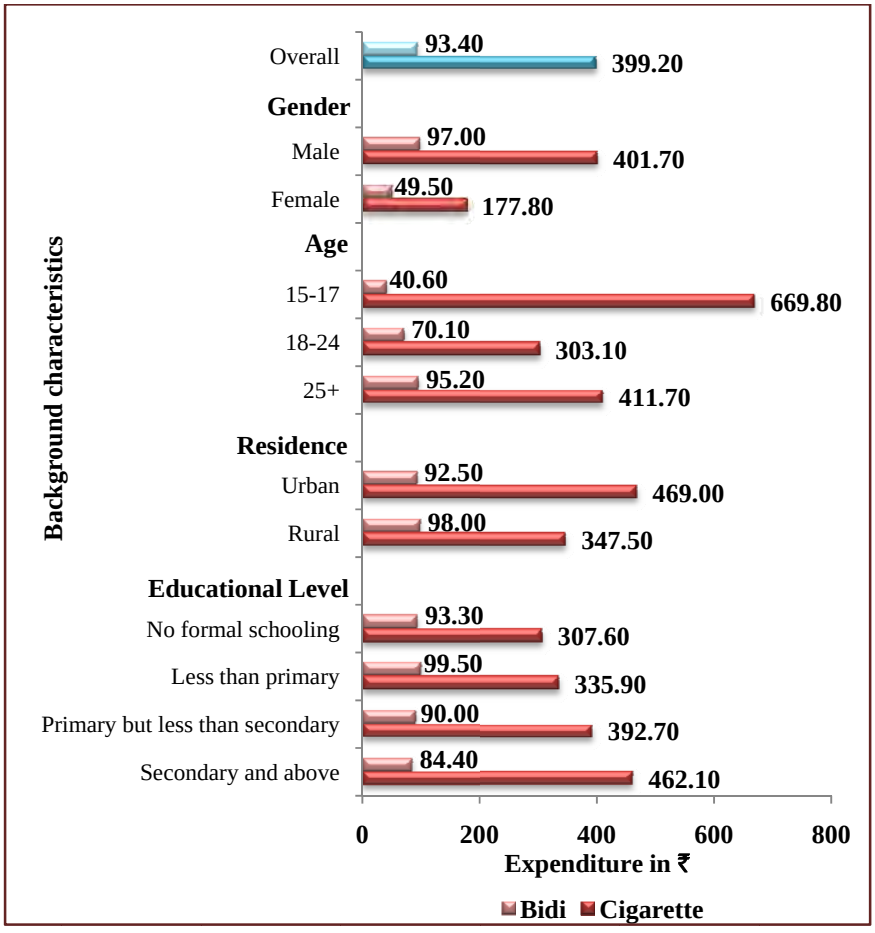


Table 7.13: Average monthly expenditure (in ₹) incurred by daily smoker of manufactured cigarette and bidi, according to background characteristics, GATS India, 2009-2010

Background characteristic	Monthly expenditure incurred by current smokers of manufactured cigarette and bidi	
	Cigarette	Bidi
Overall	399.20	93.40
Gender		
Male	401.70	97.00
Female	177.80	49.50
Age		
15-17	669.80	40.60
18-24	303.10	70.10
25+	411.70	95.20
Residence		
Urban	469.00	92.50
Rural	347.50	98.00
Education level		
No formal schooling	307.60	93.30
Less than primary	335.90	99.50
Primary but less than secondary	392.70	90.00
Secondary and above	462.10	84.40
Occupation		
Government and non-government employee	418.40	97.70
Self-employed	391.30	98.00
Student	495.70	68.40
Homemaker	212.00	65.30
Retired or unemployed	419.40	70.90

Note: Extreme values (in ₹) for the last purchase of cigarettes and bidis have been excluded from the analysis.

Data pertaining to average monthly expenditure incurred by current smokers of manufactured cigarettes and bidis in different regions and states/UTs is presented in Table 7.14. The table exhibits wide regional variation in the average monthly expenditure incurred by the current smoker on cigarettes and bidis. In case of cigarettes, the highest (₹ 549.50) and lowest (₹ 242.70) average monthly expenditure is observed in the North-East and East regions respectively. However in case of bidi, the highest (₹ 125.70) monthly expenditure is found in the South region and the lowest (₹ 58.60) is found in the East region. Among the states/UTs (Figure 7.6), Arunachal Pradesh incurs the highest (₹ 1264.90) monthly expenditure on cigarettes while Jharkhand spends the lowest (₹ 181.70). The states/UTs having highest and lowest monthly expenditure on bidi are Rajasthan (₹ 147.80) and Bihar (₹ 42.70) respectively.

Figure: 7.6 Average monthly expenditure (in ₹) incurred by current cigarette and bidi smokers according to states/UTs, GATS India, 2009-2010

Table 7.14: Average monthly expenditure (in ₹) incurred by daily smoker of manufactured cigarette and bidi, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Monthly expenditure incurred by current manufactured cigarette and bidi smokers	
	Cigarette	Bidi
India	399.20	93.40
North	453.60	93.90
Jammu & Kashmir	513.60	134.20
Himachal Pradesh	393.60	75.80
Punjab	396.50	93.30
Chandigarh	514.30	109.90
Uttarakhand	316.20	93.30
Haryana	393.40	93.00
Delhi	513.40	110.40
Central	414.70	94.20
Rajasthan	340.90	147.80
Uttar Pradesh	498.90	72.50
Chhattisgarh	388.50	79.70
Madhya Pradesh	325.10	94.90
East	242.70	58.60
West Bengal	253.90	66.60
Jharkhand	181.70	46.60
Odisha	203.30	59.40
Bihar	229.50	42.70
North-East	549.50	88.40
Sikkim	616.10	62.70
Arunachal Pradesh	1264.90	103.50
Nagaland	412.10	69.50
Manipur	404.90	83.50
Mizoram	718.00	113.40
Tripura	475.40	77.00
Meghalaya	810.00	119.80
Assam	495.50	89.50
West	448.60	109.20
Gujarat	350.90	113.40
Maharashtra	465.00	101.70
Goa	402.80	71.10
South	440.00	125.70
Andhra Pradesh	363.70	113.30
Karnataka	384.10	126.50
Kerala	483.90	139.20
Tamil Nadu	589.30	145.60
Puducherry	553.90	104.30

Note: Extreme values (in ₹) for average monthly expenditure of cigarettes and bidis have been excluded from the analysis.

Key findings

- More than four in five minors (age 15-17) are purchasing cigarettes either from stores or kiosks.
- The bidi market is highly fragmented with a large number of locally available brands.
- The average monthly expenditure of the current smoker on cigarette is ₹ 399 and on bidi is ₹ 93.
- The monthly spending by males on both cigarettes as well as bidis is much higher than that by females.

Key Messages

- The provisions to ban sale of tobacco products to minors need to be strictly enforced.
- Uniform increase in taxes on all tobacco products (including cigarettes, bidis and smokeless tobacco products) is required in view of low cost and easy affordability of bidi and smokeless tobacco products, especially by minors.

8. MEDIA

Media plays an extremely important role in advertising, sponsorship and promotion of tobacco products. Media campaigns are an effective means of disseminating information on the ill effects of tobacco and discouraging the use of tobacco products. COTPA, 2003, provides for ban on direct and indirect advertising (with the exception of at point-of-sale) of tobacco product and the mandatory display of 'pictorial health warnings' on all tobacco products covering 40 percent of the principal display area of the front panel of the tobacco products packages.[10] The mass media campaign under National Tobacco Control Programme focuses on dissemination of information regarding ill effects of tobacco use (both smoking and smokeless) as well as second-hand smoke.[6]

This chapter presents the exposure to anti-tobacco and pro-tobacco information. It is organized into three sections: the first section deals with coverage of anti-tobacco information among users and non-users of various tobacco products; the second section gives the coverage as well as effectiveness of health warning on packages of tobacco products; and the third section presents the awareness levels about marketing of different tobacco products along with the role of different forms of media in the marketing of these products.

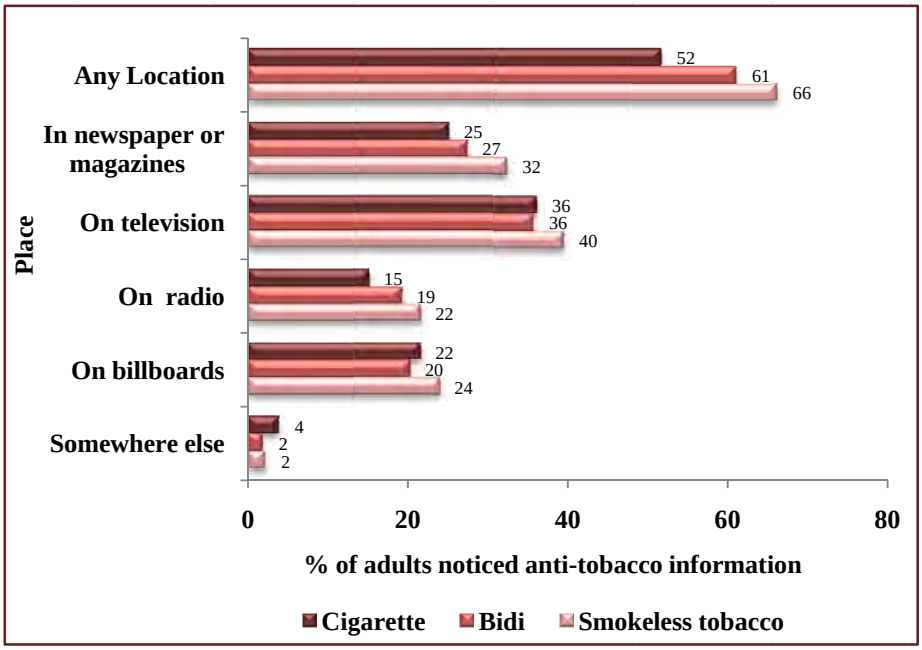
8.1 NOTICED ANTI-TOBACCO INFORMATION IN VARIOUS MEDIA

In GATS India, all respondents were asked whether they noticed any anti-cigarette message during the last 30 days prior to the survey. The question was asked separately for each form of media, such as newspaper, magazine, television, radio, internet, wall hoardings, posters and any other. The same set of questions was repeated for anti-bidi and anti-smokeless tobacco information. This section presents the exposure to anti-cigarette, anti-bidi and anti-smokeless tobacco messages on different forms of mass media among males and females in urban and rural areas across different states/UTs in India. While interpreting these tables one point that needs to be mentioned is that the exposure to anti-cigarette, anti-bidi and anti-smokeless tobacco message depends on two factors: exposure of individuals to different mass media as well as the extent of display of anti-tobacco messages on each media.

It is evident from Table 8.1 and Figure 8.1 that over half (52%) of all adults in India noticed anti-cigarette information at some location in the last 30 days prior to the survey. The proportion of adults who noticed anti-cigarette information is a little higher (53%) among non-smokers than smokers (47%). Compared to anti-cigarette information, anti-bidi warning (61%) was noticed by a higher proportion of respondents. In the case of bidi also, a higher proportion of non-smokers noticed anti-bidi information than smokers (62% non-smokers against 58% smokers). Two-thirds of adults in India (66%) noticed anti-smokeless tobacco information in the last 30 days prior to the survey with a marginal variation among smokeless tobacco-users (69%) and non-users of smokeless tobacco (66%).

Little less than two-thirds of adults noticed anti tobacco information on radio or television. Slightly lower proportion of tobacco users noticed the same. Almost equal proportion of men noticed anti tobacco information on radio or television. Comparatively higher proportion of adults in urban areas (72%) noticed it compared to adults in rural areas (59%) (data not shown in table).

Figure 8.1 Percentage of adults who noticed anti-tobacco information during the last 30 days in various places, GATS India, 2009-2010



The highest proportion of adults noticed anti-tobacco information on television (anti-cigarette 36%, anti-bidi 36%, anti-smokeless tobacco 40%), followed by newspaper/magazine (anti-cigarette 25%, anti-bidi 27%, anti-smokeless tobacco 32%). Over one-fifth of adults noticed anti-tobacco information on billboard (anti-cigarette 22%, anti-bidi 20%, anti-smokeless tobacco 24%).

Table 8.2 presents variations in the proportion of adults who noticed anti-tobacco information for different tobacco products at any location in the last 30 days prior to the survey classified by some selected background characteristics. A higher proportion of males, young respondents age 15–24 and urban residents noticed anti-cigarette, anti-bidi and anti-smokeless tobacco information as against their respective counterparts. These differentials in the exposure to anti-tobacco information are evident among both smokers and non-smokers. About 58 percent of males noticed anti-cigarette information compared with 45 percent of females. The corresponding gender differentials in noticing anti-bidi and anti-smokeless tobacco messages are relatively narrower. The proportion of urban residents who noticed anti-cigarette information is 22 percent points higher than rural residents. The corresponding differences in case of anti-bidi information and anti-smokeless tobacco information are 8 percent points each. Lower proportion of smokers/smokeless tobacco-users from each gender, residence and age group noticed anti-cigarette, anti-bidi and anti-smokeless tobacco information than non-smokers/non-users of smokeless tobacco in the respective categories.

Table 8.3 presents the percent of adults who noticed anti-tobacco (cigarettes, bidi, smokeless tobacco products) information in the last 30 days prior to the survey classified by their current status of smoking and using smokeless tobacco in different regions and states/UTs of India. The proportion of adults who noticed anti-cigarette information is the highest in the Northern region (76% adults) and lowest in the

Table 8.1: Percentage of adults age 15 and above who noticed anti -tobacco information during the last 30 days in various places by status of smoking and use of smokeless tobacco, GATS India, 2009-2010

	Anti-cigarette information			Anti-bidi information			Anti-smokeless tobacco information		
Place	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker	Overall	Current user of smokeless tobacco	Current non user of smokeless tobacco
In newspaper or magazine	25.1	23.0	25.5	27.4	25.7	27.7	32.4	31.5	32.6
On television or radio	41.4	35.4	42.4	47.7	43.0	48.4	52.3	52.9	52.1
On television	36.1	29.0	37.2	35.7	30.5	36.5	39.5	37.2	40.2
On radio	15.1	15.0	15.1	19.2	19.9	19.1	21.5	25.5	20.2
On billboard	21.5	19.2	21.8	20.2	17.5	20.6	23.9	21.7	24.6
Somewhere else	3.9	3.4	4.0	1.9	2.0	1.9	2.2	2.4	2.2
Any Location	51.7	47.1	52.5	61.1	57.9	61.7	66.2	68.7	65.5

Table 8.2: Percentage of adults age 15 and above who noticed anti-tobacco information during the last 30 days at any location by status of smoking and use of smokeless tobacco, according to selected background characteristics GATS India, 2009-2010

	Anti-cigarette information			Anti-bidi information			Anti-smokeless tobacco information		
Background characteristic	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker	Overall	Current user of smokeless tobacco	Current non user of smokeless tobacco
Overall	51.7	47.1	52.5	61.1	57.9	61.7	66.2	68.7	65.5
Gender									
Male	58.1	50.0	60.7	63.0	58.9	64.2	68.5	70.9	67.4
Female	45.0	22.5	45.6	58.8	43.6	59.1	63.3	63.0	63.3
Age									
15-24	59.1	56.4	59.3	64.0	57.1	64.3	69.6	72.6	69.1
25+	48.6	46.0	49.2	59.8	58.0	60.2	64.6	67.7	63.5
Residence									
Urban	67.6	65.3	67.9	66.2	64.7	66.4	71.5	73.5	71.1
Rural	45.2	41.6	45.8	58.4	55.1	59.0	63.4	67.1	62.0

Eastern region (40%). With the exception of the East and North-East, in all other regions, a higher proportion of non-smokers than smokers noticed anti-cigarette information. The proportion of adults who noticed anti-bidi information varied from the highest of 75 percent in the North to the lowest of 40 percent in the North-East, and the figures for those who noticed anti-smokeless tobacco information ranged from the highest of 79 percent in the Central region to the lowest of 47 percent in the North-East.

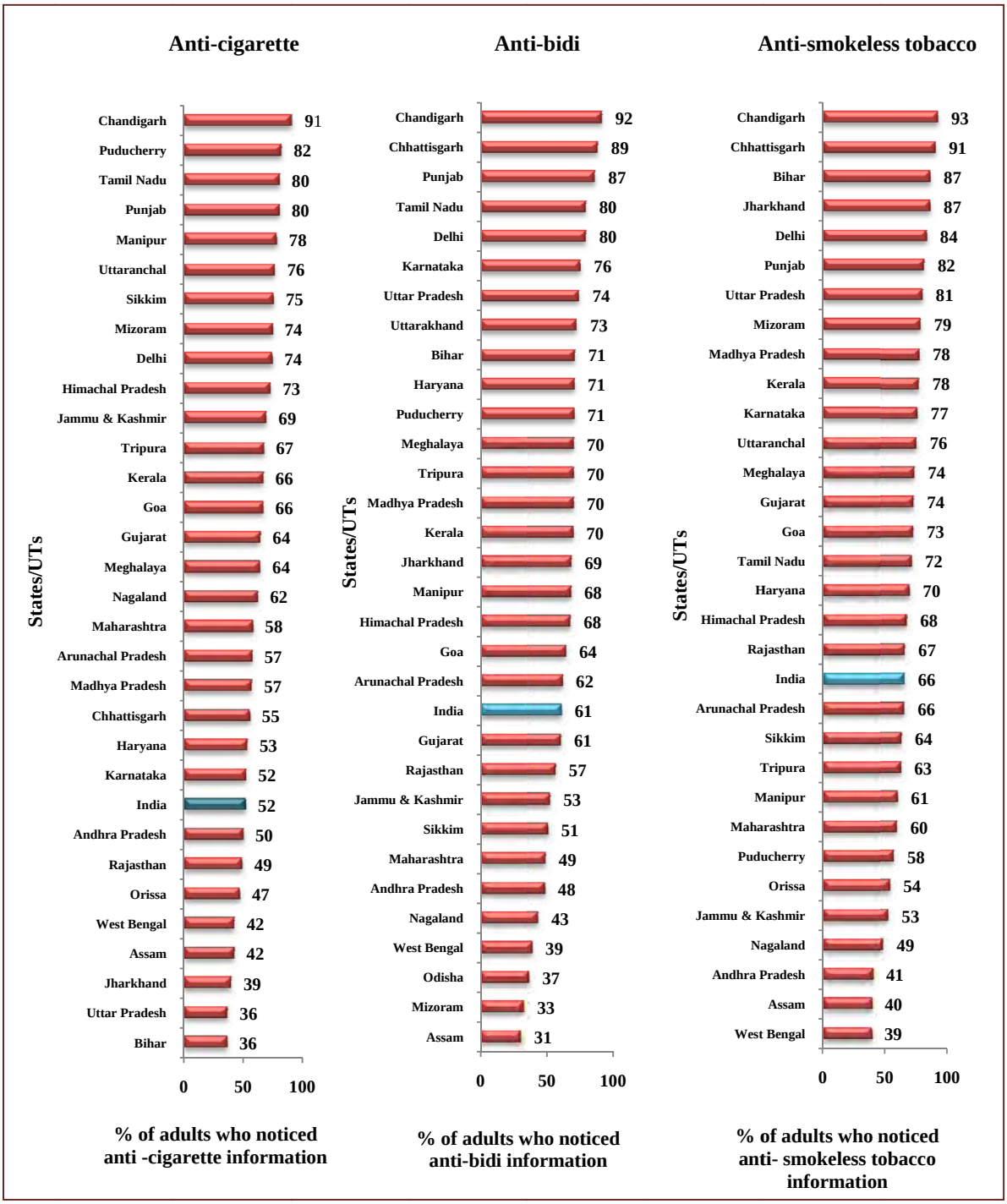
Among all states/UTs, the proportion of those who noticed anti-cigarette information is the highest in Chandigarh (91%) and the lowest in Bihar and Uttar Pradesh (36% each) (Figure 8.2). Other states where less than half of the adults had noticed anti-cigarette information are Odisha (47%) and Rajasthan (49%). With the exception of Jammu & Kashmir, Delhi, Madhya Pradesh, West Bengal, Jharkhand, Bihar, Arunachal Pradesh, Nagaland, Assam, Gujarat, Maharashtra, in most states, a higher proportion of non-smokers than smokers noticed anti-cigarette information.

The proportion of adults who noticed anti-bidi information is the highest in Chandigarh (92%) and lowest in Assam (31%). Other states/UTs where less than half of the adults noticed anti-bidi information are Maharashtra (49%) and Andhra Pradesh (48%). In many states a higher proportion of smokers had noticed anti-bidi messages than non-smokers. States/UTs wise variation in the proportion of adults who noticed anti-smokeless tobacco product information in the last 30 days prior to the survey also reveals a similar pattern, with the highest proportion in Chandigarh (93%) and lowest in West Bengal (39%) (Figure 8.2). Though only a small proportion of adults from Bihar and Jharkhand noticed anti- cigarette or anti-bidi information, a large proportion of adults from these two states (87%) noticed anti- smokeless tobacco product information. There is no substantial difference in the state wise variation in these proportions even if analyzed by current use of smokeless tobacco.

Table 8.3: Percentage of adults age 15 and above who noticed anti-tobacco information during the last 30 days at any location by status of smoking and use of smokeless tobacco, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Anti-cigarette information			Anti-bidi information			Anti-smokeless tobacco information		
	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker	Overall	Current user of smokeless tobacco	Current non user of smokeless tobacco
India	51.7	47.1	52.5	61.1	57.9	61.7	66.2	68.7	65.5
North	75.6	68.2	76.8	75.4	67.6	76.6	73.7	67.2	74.2
Jammu & Kashmir	69.0	72.7	67.9	52.5	55.6	51.6	53.2	51.9	53.3
Himachal Pradesh	72.5	70.9	72.9	67.9	73.9	66.6	68.1	57.8	68.7
Punjab	80.1	62.4	81.5	86.5	67.9	87.9	82.0	68.3	83.1
Chandigarh	90.9	89.0	91.1	91.7	92.8	91.5	92.9	89.5	93.1
Uttarakhand	76.3	67.0	79.0	72.7	71.5	73.0	75.7	76.5	75.6
Haryana	52.9	48.9	53.9	70.9	80.7	69.0	70.2	84.9	69.3
Delhi	73.9	83.2	71.9	79.5	91.3	76.9	83.9	84.5	83.8
Central	45.2	41.7	45.8	72.2	70.0	72.6	78.9	81.5	77.8
Rajasthan	48.6	38.4	50.9	56.7	40.0	60.6	66.5	67.4	66.3
Uttar Pradesh	36.2	33.7	36.7	74.4	89.6	72.1	80.6	85.6	78.9
Chhattisgarh	55.0	51.7	55.5	88.6	84.4	89.2	91.1	91.2	91.0
Madhya Pradesh	56.7	57.6	56.5	70.2	70.7	70.1	78.0	75.1	79.3
East	40.4	42.5	40.0	44.6	41.4	45.3	54.8	64.5	50.0
West Bengal	42.1	43.5	41.7	39.1	33.8	40.7	39.3	44.6	37.9
Jharkhand	39.4	47.7	38.5	68.6	73.4	68.0	86.9	88.3	85.9
Odisha	46.5	42.5	46.9	36.6	36.4	36.6	54.4	55.4	53.6
Bihar	35.9	39.7	35.3	71.3	83.6	69.0	86.9	89.0	84.7
North-East	49.7	57.3	47.9	39.8	49.9	37.5	46.8	52.4	43.9
Sikkim	75.1	70.3	76.8	50.8	50.2	51.1	63.7	61.8	64.3
Arunachal Pradesh	57.0	60.2	55.6	62.0	62.8	61.6	66.0	67.0	65.2
Nagaland	61.8	62.6	61.5	43.3	52.3	39.1	49.1	53.6	45.3
Manipur	77.8	74.3	79.1	68.4	66.9	68.9	60.7	62.5	59.2
Mizoram	74.2	68.6	78.0	32.8	36.3	30.7	79.2	80.6	78.3
Tripura	66.7	57.5	70.1	70.2	69.7	70.4	63.3	64.5	62.5
Meghalaya	63.8	59.5	66.2	70.2	66.1	72.4	74.1	72.1	74.9
Assam	41.9	52.0	40.2	30.5	40.5	28.8	39.5	46.0	36.4
West	59.9	57.4	60.1	53.5	52.7	53.5	65.1	63.1	65.7
Gujarat	64.0	58.4	64.7	60.7	61.2	60.6	73.5	68.9	74.7
Maharashtra	57.6	56.3	57.7	49.1	44.4	49.5	60.1	60.3	60.1
Goa	66.4	74.8	66.0	64.4	69.2	64.1	73.2	71.8	73.2
South	61.2	49.7	63.0	67.4	61.7	68.2	63.5	59.8	64.0
Andhra Pradesh	49.5	35.1	52.6	48.4	42.1	49.4	40.6	43.2	40.2
Karnataka	51.9	40.4	53.5	75.6	67.7	76.5	76.5	70.2	77.8
Kerala	66.4	66.9	66.4	69.8	67.4	70.2	77.7	71.9	78.3
Tamil Nadu	80.2	78.2	80.4	79.6	79.9	79.5	71.9	71.6	71.9
Puducherry	81.8	78.6	82.2	70.7	77.1	70.0	57.5	52.4	57.8

Figure 8.2: Percentage of adults who noticed anti-cigarette, anti-bidi and anti-smokeless tobacco information at any location according to states/UTs, GATS India, 2009–2010



8.2 NOTICING HEALTH WARNING ON VARIOUS TOBACCO PRODUCTS AND THINKING OF QUITTING

This section deals with the extent of awareness in terms of coverage as well as effectiveness of health warning on packages of different tobacco products in discouraging smokers and users of smokeless tobacco from using tobacco products and motivating them to quit. WHO MPOWER policy package recommends display of warnings on tobacco products packages to discourage tobacco users from consumption of tobacco and motivating them to quit.[1] Global evidence supports the fact that strong and effective pictorial warnings are an essential component of any anti-tobacco strategy and have resulted in motivating tobacco users to quit in many countries.

Table 8.4 presents the percentage of cigarette smokers who noticed health warning on cigarette packages, and who thought of quitting because of the warning labels on such packages in the last 30 days prior to the survey classified by some selected background characteristics. It is evident from the table as well as from Figure 8.3 that 71 percent of cigarette smokers noticed health warning on the packet. However, the point to be noted is that almost three out of every ten adult cigarette smokers did not notice any of the health warning placed on cigarette packages in the last 30 days prior to the survey. Among current cigarette smokers, males are over four times more likely to notice such warning on cigarette packages than their female counterparts.

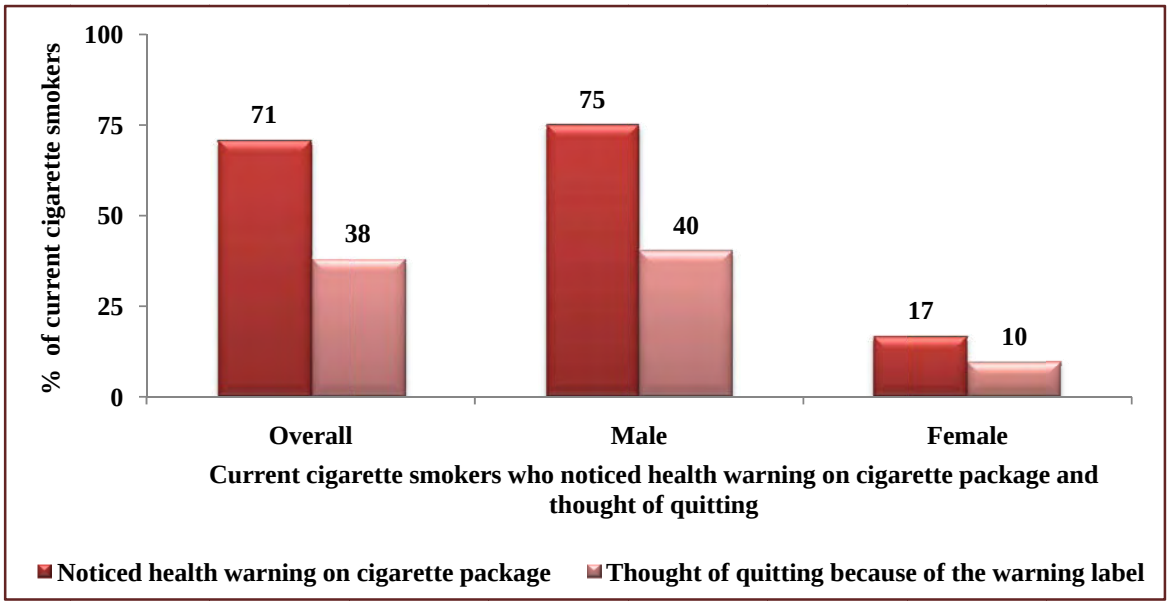
Table 8.4: Percentage of current cigarette smokers age 15 and above who noticed health warning on cigarette package and thought of quitting because of the warning label on cigarette packages during the last 30 days by gender, according to background characteristics, GATS India, 2009–2010

	Current cigarette smoker who:					
	Noticed health warning on cigarette package			Thought of quitting because of the warning label		
Background characteristic	Overall	Male	Female	Overall	Male	Female
Overall	70.8	74.9	16.6	38.0	40.2	9.5
Age						
15–24	79.0	79.9	31.6	53.6	54.1	28.9
25–44	73.5	75.7	20.6	37.1	38.1	12.8
45–64	66.7	73.0	17.1	33.5	36.8	7.3
65+	43.7	56.3	7.1	19.9	25.0	5.4
Residence						
Urban	82.6	84.4	21.9	46.1	47.0	17.5
Rural	64.2	69.2	15.7	33.5	36.1	8.1
Education level						
No formal schooling	41.0	50.5	13.1	21.9	27.0	7.1
Less than primary	67.4	68.4	19.4	33.9	34.3	13.7
Primary but less than secondary	78.7	79.3	46.4	42.5	42.8	27.6
Secondary and above	87.1	87.3	49.6	47.8	47.9	32.5
Occupation						
Government and non-government employee	75.4	79.8	7.5	40.6	43.0	3.4
Self-employed	71.0	71.8	10.7	37.1	37.6	4.7
Student	79.4	79.5	66.0*	48	48.1	25.6*
Homemaker	39.2	61.3	21.6	21.8	30.1	15.2
Retired or unemployed	66.0	66.9	45.9	37.1	38.6	2.1

Note:* Based on less than 25 unweighted cases.

Among both male and female cigarette smokers, the proportion of cigarette smokers who noticed health warning on cigarette packages decreases with age and increases with education. For example, 56 percent of males and 7 percent of females age 65 or above noticed such warning compared with 80 percent males and 32 percent females age 15–24. Similarly, 87 percent of males and 50 percent of females with secondary or higher education noticed health warning on cigarette packages as against 51 percent males and 13 percent females with no formal education. Cigarette smokers, both males and females, living in rural areas are less likely to notice such warning than their urban counterparts.

Figure 8.3: Percentage of current cigarette smokers who noticed health warning on cigarette package and who thought of quitting because of the same, according to gender, GATS India, 2009-2010

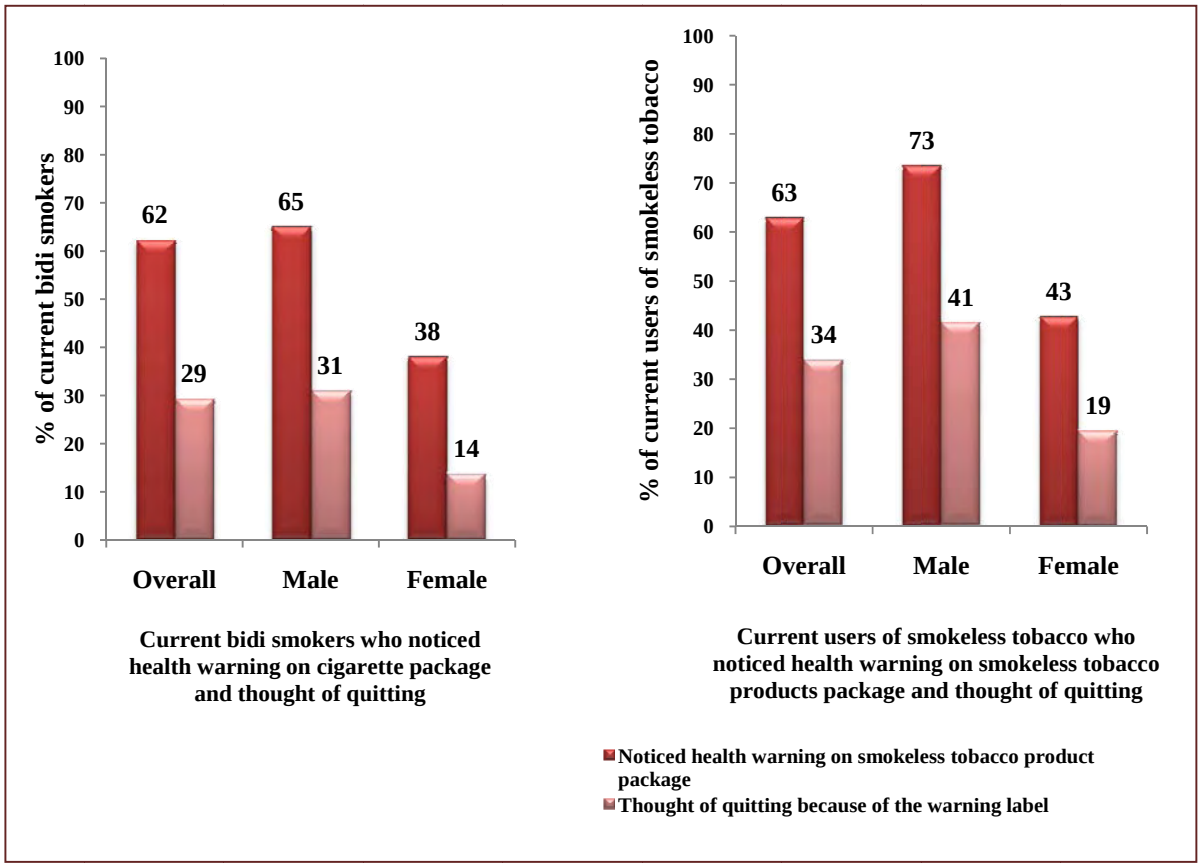


It is evident from the table that almost two-fifths of adult cigarette smokers (38%) who noticed such warning thought of quitting because of the warning. A very small proportion of female cigarette smokers (10%) in comparison with male smokers (40%) thought of quitting because of these health warnings. The pattern of variation in proportions of adult males and females who thought of quitting after seeing such warning on cigarette packages classified by age, residence, education and occupation remains by and large the same as with the proportion of adults from the same categories who had noticed such warning on cigarette packages in the first place.

Tables 8.5 and 8.6 present the percentage of current bidi smokers and users of smokeless tobacco respectively who had noticed health warning on packages of these tobacco products and had thought of quitting on account of the warning labels in the last 30 days prior to the survey. About three in five bidi smokers and users of smokeless tobacco products had noticed any health warning on packages of these products in the last 30 days prior to the survey. In other words, two in five bidi smokers and users of smokeless tobacco products did not notice such health warning on packages of these products. Among both, bidi smokers and users of smokeless tobacco, males are over 1.7 times more likely to notice health

warning on packages than females. Among both, male and female bidi smokers, younger smokers, those living in rural areas and those educated up to secondary and above were significantly more likely than their respective counterparts to notice health warning on bidi packages. A similar pattern has been noticed in case of current users of smokeless tobacco products.

Figure 8.4: Percentage of current bidi smokers and users of smokeless tobacco who noticed health warning on bidi and smokeless tobacco product package and who thought of quitting because of the same, according to gender, GATS India, 2009-2010



It is evident from the Table and Figure 8.4 that about three in ten of bidi smokers (29%) and one-third (34%) of users of smokeless tobacco products thought of quitting because of such health warning. The proportion of such bidi smokers is much lower (14%) among females than among males (31%). The corresponding differentials among current users of smokeless tobacco products remain the same: 41 percent of male but only 19 percent of female smokeless tobacco users thought of quitting tobacco use after noticing the health warning. The variation in the proportion of adult male and female bidi smokers and users of smokeless tobacco who thought of quitting after noticing the health warning on packages, classified by age, residence, level of education and occupational status remain by and large the same as with the variation in proportion of those who noticed the health warning on such packages in the first place.

Little less than one-third of any tobacco users (37% males and 18% females) thought of quitting tobacco use because of warning label on the tobacco packages. Higher proportion of tobacco users from urban areas (39%) than from rural areas (29%) thought of quitting tobacco use because of warning label on the tobacco packages (data not shown in table).

Table 8.5: Percentage of current bidi smokers age 15 and above who noticed health warning on bidi package and thought of quitting because of the warning label on bidi package during the last 30 days by gender, according to background characteristics, GATS India, 2009-2010

	Current bidi smoker who:					
	Noticed health warning on bidi package			Thought of quitting because of the warning label		
Background characteristic	Overall	Male	Female	Overall	Male	Female
Overall	62.3	64.9	38.0	29.3	30.9	13.7
Age						
15-24	71.1	72.5	32.2*	30.8	31.6	1.3*
25-44	65.1	67.4	35.6	31.2	32.4	14.6
45-64	61.7	63.6	45.9	30.1	31.3	18.4
65+	46.9	52.2	28.9	18.1	21.3	6.0
Residence						
Urban	74.0	75.7	48.5	38.4	40.1	11.3
Rural	59.9	62.6	36.7	27.5	28.9	14.0
Education level						
No formal schooling	52.2	55.9	37.2	22.6	24.6	13.3
Less than primary	63.5	64.0	50.0	31.7	31.9	24.7
Primary but less than secondary	72.8	73.2	46.6	35.6	35.9	11.8
Secondary and above	76.7	76.7	60.3*	40.4	40.4	1.8*
Occupation						
Government and non-government employee	65.5	69.1	19.4	30.4	32.4	3.1
Self-employed	64.9	65.2	51.2	31.2	31.3	29.4
Student	81.6	81.5	100.0*	38.8	38.8	0.0*
Homemaker	48.5	52.0	46.4	25.3	36.6	17.5
Retired or unemployed	46.4	49.6	25.5	16.7	30.9	5.7

Note:* Based on less than 25 unweighted cases.

Table 8.6: Percentage of current users of smokeless tobacco age 15 and above who noticed health warning on smokeless tobacco products package and thought of quitting because of the warning label on smokeless tobacco products packages during the last 30 days by gender, according to background characteristics, GATS India, 2009-2010

Background characteristic	Current user of smokeless tobacco who:					
	Noticed health warning on smokeless tobacco products packages			Thought of quitting because of the warning label		
	Overall	Male	Female	Overall	Male	Female
Overall	62.9	73.4	42.6	33.8	41.4	19.4
Age						
15-24	76.6	84.1	53.2	48.2	54.4	28.9
25-44	67.3	75.9	46.9	35.3	40.9	22.1
45-64	53.4	65.1	38.6	26.8	35.0	16.3
65+	38.6	48.6	29.0	17.1	25.1	9.5
Residence						
Urban	70.8	81.1	46.7	40.7	47.4	25.2
Rural	60.9	71.4	41.7	32.1	39.8	18.2
Education level						
No formal schooling	49.0	59.7	41.1	22.4	29.8	16.9
Less than primary	64.4	72.2	44.9	35.0	40.0	22.4
Primary but less than secondary	72.7	78.5	47.2	42.2	45.7	26.8
Secondary and above	79.3	82.1	49.6	47.2	49.2	26.1
Occupation						
Government and non-government employee	71.1	77.7	46.7	36.2	40.5	20.2
Self-employed	69.0	72.1	51.4	39.8	42.5	24.9
Student	75.0	85.6	45.1	36.9	41.6	23.7
Homemaker	40.8	49.4	40.1	19.6	30.9	18.7
Retired or unemployed	54.5	64.8	25.1	31.9	41.4	4.6

8.3 NOTICED MARKETING OF DIFFERENT TOBACCO PRODUCTS IN VARIOUS PLACES

This section presents the proportion of adults who noticed advertisement or promotion of cigarettes, bidis and smokeless tobacco products on different media and at different places. It needs to be mentioned before the tables are studied that the exposure to advertisement on cigarettes, bidis and smokeless tobacco products depends on both the exposure of the individual to different media as well as the extent of the tobacco product advertisement in the said media.

Table 8.7 and Figure 8.5 present the percentage of adults who noticed the marketing of tobacco products at various places in the last 30 days prior to the survey classified by their smoking status. It is evident from the table that a quarter of all adults in India noticed some advertisement of cigarettes in the last 30 days prior to the survey. Another 7 percent adults noticed any promotion of cigarettes. Thus in all 28 percent of adults reported noticing either advertisement or promotion. The proportion of such adults is a little higher among smokers (33%) than non-smokers (28%). A relatively higher proportion of adults noticed any advertisement or promotion of bidis (47%) and smokeless tobacco products (55%) than advertisement or promotion of cigarettes (28%). As in the case of cigarette marketing, a higher proportion of smokers (52%) than non-smokers (46%) noticed any advertisement or promotion of bidis. Similarly, a higher proportion of users of smokeless tobacco products (62%) noticed any advertisement or promotion compared with non-users of smokeless tobacco products (53%). A larger proportion of adults, irrespective

of their smoking status, noticed cigarette advertisement in stores (11%), on posters (9%) and billboard (7%), and on public transport (7%) and television (6%). The same pattern was observed for the advertisement of bidi and smokeless tobacco products.

In all about two-thirds of adults (69% of males and 59% of females) noticed marketing of any tobacco product. Almost equal proportion of adults from urban and rural areas noticed tobacco marketing. The proportion of adults who noticed tobacco marketing in electronics media was 26 percent and those who noticed it outdoor was 28 percent. The proportion of males, females, rural residents and urban residents who noticed tobacco marketing on electronics media varied in a narrow range of 24-28 percent, whereas who noticed it outdoor ranges from 21-34 percent (data not shown in table).

Figure 8.5 Percentage of adults who noticed cigarette, bidi and smokeless tobacco product marketing during the last 30 days at various places, GATS India, 2009-2010

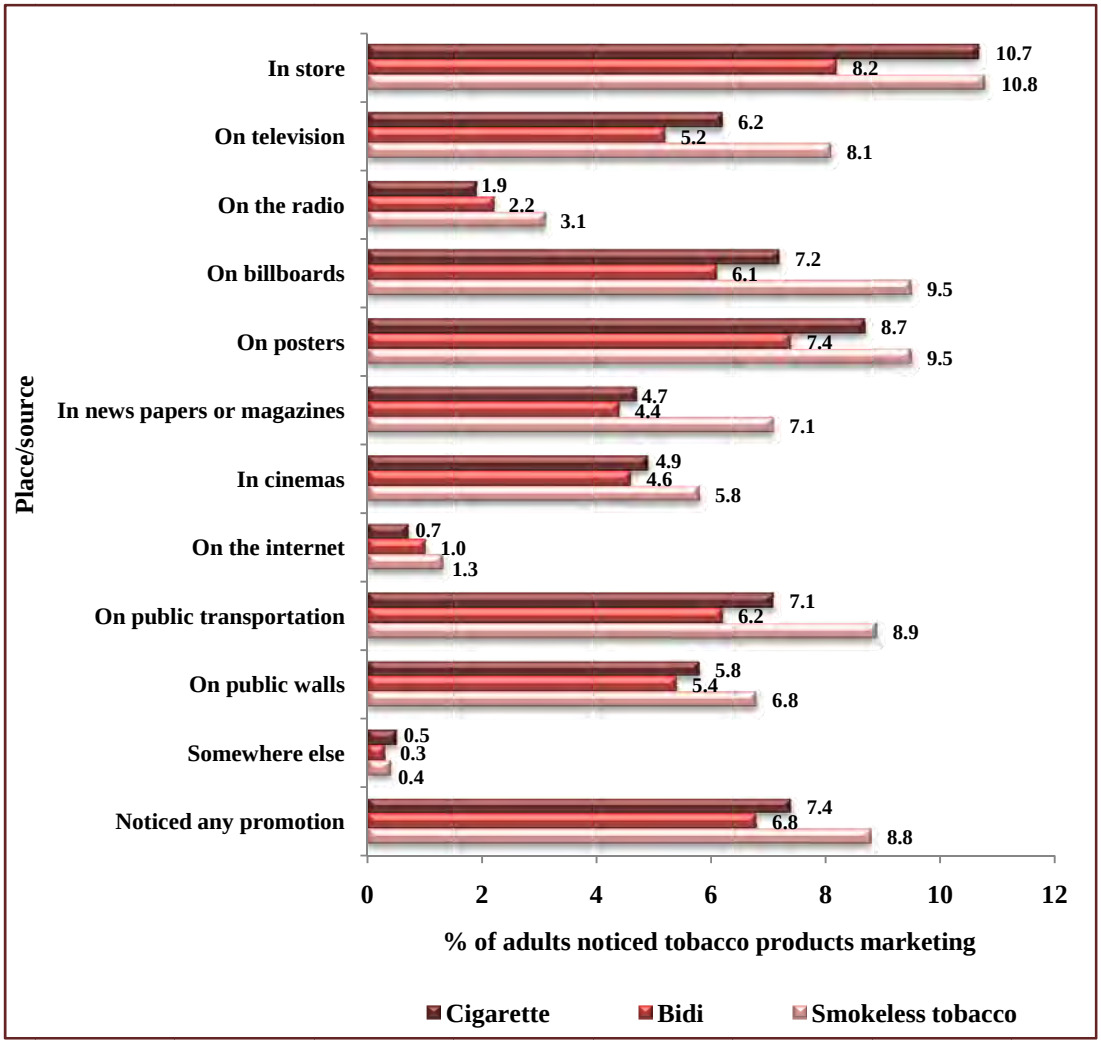


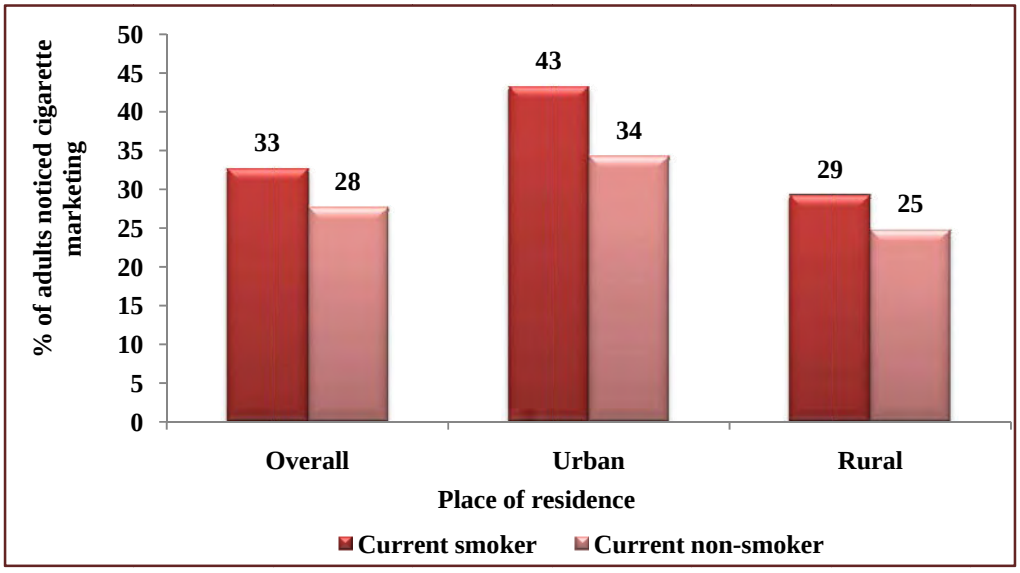
Table 8.7: Percentage of adults age 15 and above who noticed cigarette, bidi and smokeless tobacco products marketing during the last 30 days at various places by status of smoking and use of smokeless tobacco, GATS India, 2009-2010

	Cigarette marketing			Bidi marketing			Smokeless tobacco marketing		
Place/Source	**Overall**	**Current smoker**	**Current non-smoker**	**Overall**	**Current smoker**	**Current non-smoker**	**Overall**	**Current user of smokeless tobacco**	**Current non-user of smokeless tobacco**
Noticed any advertisement	25.3	28.1	24.9	41.2	42.6	41.0	49.6	55.4	48.0
In stores	10.7	14.1	10.1	8.2	10.9	7.8	10.8	11.6	10.5
On television	6.2	5.9	6.3	5.2	4.3	5.3	8.1	6.7	8.5
On radio	1.9	2.1	1.9	2.2	2.2	2.2	3.1	2.9	3.1
On billboard	7.2	8.0	7.1	6.1	6.1	6.1	9.5	9.1	9.7
On posters	8.7	10.2	8.5	7.4	8.5	7.2	9.5	9.4	9.5
In newspaper or magazine	4.7	4.2	4.7	4.4	3.2	4.6	7.1	6.6	7.2
In cinemas	4.9	4.7	4.9	4.6	4.6	4.6	5.8	6.2	5.7
On the internet	0.7	0.5	0.8	1.0	0.9	1.0	1.3	0.8	1.4
On public transportation	7.1	6.7	7.1	6.2	6.6	6.2	8.9	8.6	9.0
On public walls	5.8	5.3	5.9	5.4	5.0	5.5	6.8	6.5	6.9
Somewhere else	0.5	0.4	0.5	0.3	0.5	0.2	0.4	0.6	0.3
Noticed any promotion	7.4	9.7	7.0	6.8	10.8	6.1	8.8	9.4	8.6
Free samples	1.0	1.8	0.9	1.2	2.5	1.0	1.4	2.3	1.1
Sale prices	1.8	3.6	1.5	1.7	3.9	1.3	2.1	2.7	1.8
Coupons	1.0	1.7	0.9	1.7	3.1	1.5	1.5	1.8	1.4
Free gifts/discounts on other products	0.9	1.1	0.9	0.9	1.5	0.8	1.0	1.1	1.0
Clothing/item with brand name or logo	3.0	3.1	3.0	2.3	2.6	2.3	4.0	3.8	4.1
Mail promotion	0.4	0.5	0.4	0.3	0.4	0.3	0.4	0.2	0.4
Surrogate advertisement	1.5	1.6	1.5	0.9	1.2	0.8	1.4	1.2	1.5
Noticed any advertisement or promotion	28.4	32.6	27.7	47.0	51.5	46.2	54.7	61.6	52.7

Table 8.8 and Figure 8.6 portray that males, respondents age15–24 and urban residents are more likely to notice any advertisement or promotion of cigarettes on each form of media than their counterparts in these categories. Similar differentials prevail even among smokers and non-smokers. Though, in general a higher proportion of smokers than non-smokers noticed cigarette advertisement or promotion, among males and females, higher proportion of non-smokers than smokers have noticed cigarette advertisement or promotion.

Table 8.8 further reveals that the sex differentials among those who noticed cigarette marketing remain by and large the same for smokers and non-smokers. A larger proportion of adults noticed cigarette advertisement outdoors (16%) including billboard/hoardings/posters, vehicles for public transport or stations/public walls followed by the electronic media (12%) and at the point of sale (11%). The pattern remains almost the same when analysed by smoking status. Males are more likely to notice cigarette advertisement/promotion at the point of sale (16%) and outdoors (22%) than females (5% at point of sale and 10% outdoors). Among adults, both smokers and non-smokers, age 15-24, 20 percent noticed cigarette advertisement outdoors as against adults age 25 and above (15%). Similarly, adults in urban areas are more likely to notice such advertisement outdoors (21%) and on the electronic media (17%) than adults in rural areas (14% for outdoors, 10% for electronic media).

Figure 8.6 Percentage of adults who noticed cigarette marketing by status of smoking and place of residence, GATS India, 2009-2010



It is evident from Table 8.9 that the proportion of adults, both smokers and non-smokers, who noticed cigarette advertisement or promotion, ranged from the highest in the Western region (36%) to the lowest in the Eastern region (19%). Except for the North, in all other regions, more smokers than non-smokers noticed cigarette advertisement or promotion. In a few states/UTs, Karnataka and Chandigarh (57% each), Gujarat (52%), Kerala (44%) and Punjab (41%), more than two-fifths of adults noticed cigarette advertisement or promotion. On the other hand, in Mizoram (8%), Jharkhand (10%), Bihar (12%) and Tamil Nadu (13%), less than 15 percent adults noticed the same. In most states/UTs, a higher proportion of smokers than non-smokers noticed cigarette advertisement or promotion.

Table 8.8: Percentage of adults age 15 and above who noticed cigarette marketing during the last 30 days at various places by status of smoking, according to background characteristics, GATS India, 2009-2010

		Gender		Age		Residence	
Place/Source	**Overall**	**Male**	**Female**	**15 -24**	**25+**	**Urban**	**Rural**
Overall							
Point of sale[1]	10.7	15.8	5.3	12.4	9.9	13.7	9.4
Electronic media[2]	12.0	14.1	9.8	15.7	10.5	17.1	9.9
Outdoor[3]	16.3	22.1	10.1	20.0	14.7	21.1	14.3
Print media[4]	4.7	6.4	2.9	5.9	4.1	7.2	3.6
Other[5]	0.5	0.6	0.4	0.6	0.4	0.7	0.4
Noticed advertisement in any location	25.3	32.5	17.6	30.9	23.0	31.9	22.6
Noticed any promotion[6]	7.4	9.9	4.6	9.2	6.6	9.8	6.3
Noticed any advertisement or promotion	28.4	36.3	19.8	34.2	25.9	35.3	25.5
Current smoker							
Point of sale[1]	14.1	14.8	8.0	16.2	13.9	19.7	12.4
Electronic media[2]	11.3	11.8	7.3	16.9	10.6	18.7	9.0
Outdoor[3]	18.0	19.4	5.5	21.4	17.6	25.2	15.8
Print media[4]	4.2	4.6	0.9	5.6	4.0	7.3	3.2
Other[5]	0.4	0.3	1.0	0.1	0.4	0.6	0.4
Noticed advertisement in any location	28.0	29.6	13.6	33.1	27.3	37.6	25.0
Noticed any promotion[6]	9.7	10.3	4.3	10.7	9.5	15.2	8.0
Noticed any advertisement or promotion	32.7	34.6	15.8	37.8	32.0	43.3	29.3
Current non-smoker							
Point of sale[1]	10.1	16.0	5.2	12.2	9.1	12.9	8.9
Electronic media[2]	12.2	14.9	9.9	15.7	10.4	16.9	10.1
Outdoor[3]	16.0	22.9	10.3	19.9	14.1	20.6	14.1
Print media[4]	4.7	6.9	2.9	5.9	4.2	7.2	3.7
Other[5]	0.5	0.7	0.3	0.6	0.4	0.7	0.4
Noticed advertisement in any location	24.9	33.5	17.7	30.7	22.1	31.2	22.2
Noticed any promotion[6]	7.0	9.8	4.6	9.1	5.9	9.2	6.0
Noticed any advertisement or promotion	27.7	36.9	19.9	34.0	24.6	34.3	24.8

Note: [1] Point of sale includes stores.

[2] Electronic media includes TV/radio/internet/cinemas.

[3] Outdoor includes billboard/hoardings/posters/public transportation vehicles or stations/public walls.

[4] Print media includes newspaper and magazine.

[5] Others include anywhere else.

[6] Includes free samples/at sale prices/free gifts or special discount offers/brand name or logo/promos in the mail/surrogate advertisement promoting other products.

Table 8.9: Percentage of adults age 15 and above who noticed cigarette marketing during the last 30 days at any place by status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Overall			Current smoker			Current non-smoker		
	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion
India	25.3	7.4	28.4	28.1	9.7	32.6	24.9	7.0	27.7
North	31.3	8.6	33.7	26.1	9.1	30.2	32.1	8.6	34.3
Jammu & Kashmir	20.7	6.5	23.0	26.1	11.3	31.6	19.3	5.2	20.7
Himachal Pradesh	12.9	6.3	16.6	13.2	8.6	18.0	12.9	5.8	16.2
Punjab	39.6	8.8	41.0	28.8	3.2	29.7	40.4	9.2	41.8
Chandigarh	55.5	10.3	56.6	44.3	5.5	45.0	56.9	10.8	58.0
Uttarakhand	29.9	14.2	35.5	24.8	15.7	31.8	31.3	13.8	36.6
Haryana	27.9	8.5	30.4	38.1	5.4	40.4	25.5	9.2	28.0
Delhi	26.5	5.6	29.2	38.7	5.1	40.6	23.9	5.7	26.8
Central	24.8	5.4	26.9	27.4	4.5	29.4	24.3	5.5	26.4
Rajasthan	34.7	4.5	36.2	30.6	2.7	31.9	35.7	4.9	37.2
Uttar Pradesh	17.1	4.7	19.1	21.0	4.2	23.2	16.4	4.8	18.4
Chhattisgarh	29.3	5.1	32.0	40.6	5.3	42.4	27.8	5.1	30.5
Madhya Pradesh	32.3	8.3	34.5	30.3	6.4	32.5	32.7	8.6	34.9
East	16.6	5.6	19.3	20.2	8.1	23.5	16.1	5.2	18.5
West Bengal	24.5	10.6	28.6	28.5	12.6	32.7	23.4	10.0	27.4
Jharkhand	8.7	2.5	10.4	16.0	4.1	18.4	8.1	2.3	9.5
Odisha	20.6	1.0	20.8	21.5	0.3	21.5	20.5	1.1	20.7
Bihar	8.8	3.6	11.5	5.3	4.5	9.9	9.6	3.5	11.7
North-East	21.1	8.0	24.6	26.6	12.7	31.7	19.8	6.9	23.0
Sikkim	18.3	21.1	33.6	19.8	22.4	35.9	17.7	20.6	32.8
Arunachal Pradesh	26.5	14.8	33.7	24.1	24.5	36.9	27.4	10.6	32.4
Nagaland	10.8	12.5	19.9	7.4	12.6	17.5	12.4	12.4	21.0
Manipur	8.7	21.6	26.7	11.0	24.8	32.2	8.3	20.5	24.8
Mizoram	5.9	1.7	7.5	3.1	1.7	4.8	7.7	1.7	9.2
Tripura	33.3	9.3	37.2	27.1	9.9	31.4	35.7	9.1	39.3
Meghalaya	13.5	6.4	17.0	19.2	9.1	23.8	10.2	5.0	13.2
Assam	22.1	6.2	23.8	35.4	11.9	37.0	19.9	5.3	21.6
West	34.2	6.2	36.4	45.2	8.4	47.9	33.3	6.0	35.4
Gujarat	50.3	7.2	51.8	58.1	6.1	58.1	49.4	7.4	51.0
Maharashtra	26.1	5.6	28.6	34.5	10.4	39.5	25.4	5.2	27.8
Goa	18.5	5.8	21.7	15.1	2.5	17.0	18.7	6.0	21.9
South	27.7	12.1	32.9	31.6	31.6	42.6	27.1	10.9	31.4
Andhra Pradesh	19.3	15.3	28.4	21.3	23.0	37.0	18.9	13.6	26.6
Karnataka	54.4	18.6	56.8	52.4	25.6	58.5	54.7	17.6	56.6
Kerala	41.8	7.6	44.2	65.8	10.7	67.1	38.1	7.1	40.8
Tamil Nadu	8.4	5.4	12.7	9.3	14.1	21.7	8.3	4.5	11.8
Puducherry	10.3	7.7	16.3	10.9	19.1	28.0	10.2	6.3	14.9

Table 8.10 shows that a higher proportion of males (51%) than females (41%) noticed bidi advertisement or promotion. However, an almost equal proportion of males and females smokers noticed any bidi advertisement or promotion. Respondents age 15–24 are more likely to notice any advertisement or promotion of bidi than their older counterparts, though a lower proportion of smokers age 15–24 noticed any bidi advertisement or promotion compared to older smokers age 25 and above. Almost an equal proportion of respondents, both smokers and non-smokers, from rural and urban areas noticed bidi

advertisement or promotion. A greater proportion of adults noticed bidi advertisement on the electronic media (21%) followed by those outdoors (16%) and at the point of sale (8%).

Table 8.10: Percentage of adults age 15 and above who noticed bidi marketing during the last 30 days at various places by status of smoking, according to background characteristics, GATS India, 2009-2010

		Gender		Age		Residence	
Place/Source	**Overall**	**Male**	**Female**	**15 -24**	**25+**	**Urban**	**Rural**
Overall							
Point of sale[1]	8.2	11.1	4.6	9.2	7.8	9.9	7.5
Electronic media[2]	20.9	20.9	20.8	24.1	19.3	20.3	21.8
Outdoor[3]	16.1	19.0	12.1	17.6	15.4	17.0	15.6
Print media[4]	4.4	4.9	3.5	5.2	4.0	5.7	3.6
Other[5]	0.3	0.3	0.2	0.2	0.3	0.3	0.2
Noticed advertisement in any location	41.2	45.0	35.6	43.7	40.1	40.9	41.4
Noticed any promotion[6]	6.8	8.8	4.6	7.6	6.4	7.6	6.5
Noticed any advertisement or promotion	47.0	50.9	41.1	49.2	46.0	46.0	47.6
Current smoker							
Point of sale[1]	10.9	11.1	8.8	11.0	10.8	13.6	10.0
Electronic media[2]	17.8	17.4	23.5	22.6	17.2	19.7	16.9
Outdoor[3]	17.7	18.3	10.7	17.3	17.7	19.1	17.2
Print media[4]	3.2	3.3	1.5	4.0	3.1	4.7	2.6
Other[5]	0.5	0.4	0.9	0.1	0.5	0.4	0.5
Noticed advertisement in any location	42.6	42.9	39.5	42.7	42.6	42.7	42.6
Noticed any promotion[6]	10.8	11.0	9.6	8.4	11.1	10.0	13.4
Noticed any advertisement or promotion	51.5	51.4	53.0	49.5	51.8	51.1	51.7
Current non-smoker							
Point of sale[1]	7.8	11.1	4.5	9.1	7.1	9.4	7.0
Electronic media[2]	21.4	22.0	20.7	24.2	19.8	22.1	20.9
Outdoor[3]	15.8	19.3	12.1	17.6	14.9	16.8	15.3
Print media[4]	4.6	5.4	3.6	5.3	4.2	5.9	3.8
Other[5]	0.2	0.3	0.2	0.2	0.2	0.3	0.2
Noticed advertisement in any location	41.0	45.6	35.5	43.7	39.4	40.6	41.2
Noticed any promotion[6]	6.1	8.1	4.5	7.6	5.4	6.9	5.8
Noticed any advertisement or promotion	46.2	50.8	40.8	49.2	44.5	45.3	46.7

Note: [1] Point of sale includes stores.
[2] Electronic media includes TV/radio/internet/cinemas.
[3] Outdoor includes billboard/hoardings/posters/public transportation vehicles or stations/public walls.
[4] Print media includes newspaper and magazine.
[5] Others include anywhere else.
[6] Includes free samples/at sale prices/free gifts or special discount offers/brand name or logo/promos in the mail/surrogate advertisement promoting other products.

The proportion of adults who noticed bidi advertisement or promotion ranged from the highest in the Central region (63%) to the lowest in North-Eastern region (24%). Except in the North and East, all other regions had a higher proportion of smokers than non-smokers noticing bidi advertisement or promotion. More than two-thirds of adults from Karnataka (89%), Chhattisgarh (78%), Bihar (77%), Uttar Pradesh (74%), Kerala (71%) and Jharkhand (68%) noticed bidi advertisement or promotion. On the contrary,

Table 8.11: Percentage of adults age 15 and above who noticed bidi marketing during the last 30 days at any place by status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Overall			Current smoker			Current non-smoker		
	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion
India	41.2	6.8	47.0	42.6	10.8	51.5	41.0	6.1	46.2
North	35.0	8.5	38.9	25.1	9.7	31.5	36.5	8.4	40.1
Jammu & Kashmir	10.2	2.8	12.4	11.2	3.6	14.3	10.0	2.6	11.9
Himachal Pradesh	12.0	7.7	20.0	14.8	8.8	24.3	11.3	7.4	18.9
Punjab	49.1	9.0	51.4	30.4	8.8	36.9	50.5	9.0	52.5
Chandigarh	59.1	11.6	60.4	50.7	11.1	54.9	60.1	11.7	61.1
Uttarakhand	29.6	14.3	38.6	34.8	20.0	42.3	28.0	12.7	37.4
Haryana	47.8	16.7	57.9	69.7	17.1	76.6	42.9	16.6	53.4
Delhi	32.5	4.6	37.2	42.9	3.2	46.4	30.4	4.9	35.3
Central	56.2	8.1	62.9	57.2	10.7	65.0	55.9	7.6	62.4
Rajasthan	45.6	5.8	47.4	40.0	5.5	43.3	47.0	5.9	48.4
Uttar Pradesh	63.3	8.2	73.8	84.2	12.6	91.2	59.9	7.4	70.1
Chhattisgarh	72.7	6.3	77.8	73.4	9.1	76.3	72.5	5.8	78.2
Madhya Pradesh	51.9	11.7	58.0	48.6	12.4	54.3	52.6	11.6	58.8
East	23.4	4.9	30.2	23.1	7.2	30.2	23.5	4.5	30.2
West Bengal	24.1	9.9	31.1	25.1	11.6	31.4	23.7	9.4	31.0
Jharkhand	58.5	1.7	68.3	70.0*	4.5	85.9*	57.6	1.4	66.1
Odisha	12.1	0.6	12.9	2.7	0.3	2.7	13.2	0.6	14.1
Bihar	65.6	2.6	77.2	86.3*	2.9	94.7*	64.5	2.5	75.5
North-East	19.3	7.2	24.2	27.4	11.8	34.7	17.4	6.1	21.8
Sikkim	10.6	8.9	18.7	13.4	16.4	29.1	9.6	6.2	14.9
Arunachal Pradesh	31.4	7.8	38.5	32.1	17.4	46.6	31.1	3.8	34.6
Nagaland	4.4	2.4	8.3	5.4	2.3	9.1	3.9	2.5	7.9
Manipur	4.9	17.2	23.9	8.1	19.1	30.5	3.9	16.6	21.8
Mizoram	2.6	0.4	4.7	3.5	0.9	9.0	2.1	0.0	2.1
Tripura	41.9	18.3	51.9	45.4	19.7	57.9	40.8	17.8	50.0
Meghalaya	18.6	4.6	25.6	27.0	8.0	37.3	13.7	2.7	18.7
Assam	18.9	5.7	21.5	30.3	11.4	33.6	16.7	4.7	19.3
West	44.8	3.1	46.7	56.8	4.8	58.5	43.6	2.9	45.5
Gujarat	59.9	4.8	61.2	72.6	7.1	73.5	58.2	4.6	59.5
Maharashtra	34.0	2.2	36.3	38.2	2.8	41.1	33.7	2.1	36.0
Goa	20.1	2.2	22.9	33.2	3.5	37.5	19.6	2.2	22.4
South	44.9	8.6	51.5	49.1	17.6	63.7	44.3	7.3	49.3
Andhra Pradesh	27.3	7.7	37.2	37.4	16.2	60.9	25.7	5.9	32.7
Karnataka	86.5	18.2	88.5	85.6	33.9	90.9	86.7	16.1	88.1
Kerala	68.3	2.9	70.9	71.5	5.2	74.2	67.4	2.5	70.0
Tamil Nadu	11.7	4.9	22.1	11.7	12.8	31.2	11.7	4.1	20.6
Puducherry	9.3	5.3	17.0	14.5	14.8	41.3	8.8	4.2	14.7

Note: * Based on less than 25 unweighted cases.

less than one-fifth of adults from Mizoram (5%), Nagaland (8%), Jammu & Kashmir (12%), Odisha (13%) and Puducherry (17%) noticed bidi advertisement or promotion. In most of the states/UTs, a higher proportion of smokers than non-smokers noticed bidi advertisement or promotion (Table 8.11).

It is evident from Table 8.12 that among both users and non-users of smokeless tobacco products a higher proportion of males than females noticed any advertisement or promotion of such products in the last 30 days prior to the survey. Similarly, a higher proportion of respondents age 15–24 among both users as

Table 8.12: Percentage of adults age 15 and above who noticed smokeless tobacco marketing during the last 30 days at various places by status of smokeless tobacco use, according to background characteristics, GATS India, 2009-2010

		Gender		Age		Residence	
Place/Source	**Overall**	**Male**	**Female**	**15 -24**	**25+**	**Urban**	**Rural**
Overall							
Point of sale[1]	10.8	14.8	5.8	12.2	10.2	13.0	9.9
Electronic media[2]	22.2	23.4	20.7	26.7	20.1	25.8	20.2
Outdoor[3]	21.6	26.0	15.5	24.4	20.3	23.6	20.5
Print media[4]	7.1	8.6	4.8	8.5	6.4	9.4	5.8
Other[5]	0.4	0.5	0.2	0.5	0.3	0.4	0.4
Noticed advertisement in any location	49.6	53.6	43.5	53.8	47.6	50.4	49.2
Noticed any promotion[6]	8.8	11.5	5.9	10.7	8.0	10.8	8.0
Noticed any advertisement or promotion	54.7	58.6	48.7	58.7	52.8	55.2	54.5
Current user of smokeless tobacco							
Point of sale[1]	11.6	14.1	5.8	12.3	11.4	16.5	10.3
Electronic media[2]	22.8	23.9	19.9	28.8	21.2	29.3	20.4
Outdoor[3]	22.1	25.8	11.6	24.8	21.4	26.6	20.6
Print media[4]	6.6	8.1	2.1	10.4	5.7	10.1	5.5
Other[5]	0.6	0.7	0.3	1.5	0.4	0.7	0.6
Noticed advertisement in any location	55.4	58.9	44.6	61.7	53.9	60.3	53.7
Noticed any promotion[6]	9.4	11.6	5.2	11.6	0.9	8.3	13.9
Noticed any advertisement or promotion	61.6	64.9	51.6	67.4	60.2	66.7	59.8
Current non-user of smokeless tobacco							
Point of sale[1]	10.5	15.1	5.8	12.2	9.7	12.2	9.7
Electronic media[2]	22.1	23.2	20.8	26.4	19.7	25.2	20.1
Outdoor[3]	21.4	26.1	16.1	24.3	19.8	23.0	20.5
Print media[4]	7.2	8.9	5.2	8.2	6.6	9.2	5.9
Other[5]	0.3	0.4	0.2	0.3	0.3	0.3	0.3
Noticed advertisement in any location	48.0	51.6	43.3	52.7	45.3	48.5	47.6
Noticed any promotion[6]	8.6	11.4	6.1	10.5	7.6	7.8	10.1
Noticed any advertisement or promotion	52.7	56.1	48.2	57.4	50.0	52.9	52.6

Note: [1] Point of sale includes stores.
[2] Electronic media includes TV/radio/internet/cinemas.
[3] Outdoor includes billboard/hoardings/posters/public transportation vehicles or stations/public walls.
[4] Print media includes newspaper and magazine.
[5] Others include anywhere else.
[6] Includes free samples/at sale prices/free gifts or special discount offers/brand name or logo/promos in the mail/surrogate advertisement promoting other products.

well as non-users of smokeless tobacco products noticed any such advertisement or promotion in comparison with those age 25 and above. An equal proportion of respondents from urban and rural areas (55%) noticed any such advertisement or promotion. However, a slightly greater proportion of smokeless

tobacco users from urban areas (67%) noticed marketing of smokeless tobacco products than those from rural areas (60%).

Among all categories of media, a relatively higher proportion of males and females noticed smokeless tobacco product advertisement or promotion on the electronic media, followed by outdoor advertisement and those at the point of sale. Almost similar pattern is observed among respondents from urban and rural areas or young respondents age 15–24 and older respondents age 25 and above.

The proportion of adults who noticed smokeless tobacco product advertisement or promotion is the highest in the Central region (72%) and lowest in North-Eastern region (27%). The same pattern prevails among both users and non-users of smokeless tobacco. In every region, a higher proportion of users than non-users of smokeless tobacco products noticed their advertisement or promotion. More than four-fifths of respondents from Jharkhand (90%), Karnataka (87%), Bihar (86%), Uttar Pradesh (82%) and Chhattisgarh (81%) noticed smokeless tobacco products being advertised or promoted, and less than one-fifth of adults from Jammu & Kashmir (14%), Puducherry (14%), Mizoram (15%) and Himachal Pradesh (18%), Nagaland (18%) noticed smokeless tobacco product advertisement or promotion. In most of the states/UTs, a higher proportion of users of smokeless tobacco products noticed their advertisement or promotion than non-users (Table 8.13).

Table 8.13: Percentage of adults age 15 and above who noticed smokeless tobacco products marketing during the last 30 days at any place by status of smokeless tobacco use, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Overall			Current user of smokeless tobacco			Current non-user of smokeless tobacco		
	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion	Noticed any advertisement	Noticed any promotion	Noticed any advertisement or promotion
India	49.6	8.8	54.7	55.4	9.4	61.6	48.0	8.6	52.7
North	36.2	6.7	39.5	36.6	10.1	42.7	36.2	6.4	39.2
Jammu & Kashmir	12.1	3.1	14.1	12.0	4.5	16.7	12.1	3.0	13.9
Himachal Pradesh	13.7	4.1	18.3	7.7	8.2	18.2	14.1	3.9	18.3
Punjab	47.6	6.8	49.9	46.3	8.0	50.5	47.7	6.7	49.9
Chandigarh	59.6	10.3	60.7	51.1	9.9	52.3	60.0	10.3	61.1
Uttarakhand	37.9	12.4	45.5	40.2	19.6	50.3	37.6	11.4	44.8
Haryana	55.5	10.7	59.5	78.5	20.7	84.0	54.1	10.0	57.8
Delhi	51.1	7.7	55.2	69.9	9.9	72.6	49.0	7.5	53.4
Central	68.1	9.9	72.2	69.7	10.9	74.9	67.5	9.5	71.2
Rajasthan	58.2	9.4	60.7	64.8	11.7	68.0	56.4	8.9	58.8
Uttar Pradesh	79.3	8.0	82.4	84.4	8.9	86.5	77.6	7.7	81.1
Chhattisgarh	77.3	10.4	81.4	74.2	9.8	80.1	79.6	10.8	82.3
Madhya Pradesh	57.3	15.1	63.3	53.8	16.4	61.7	59.0	14.5	64.0
East	33.2	7.0	40.1	40.8	6.0	48.2	30.4	7.5	37.0
West Bengal	29.5	12.4	36.2	38.5	13.8	45.2	27.3	12.1	34.0
Jharkhand	83.5	5.3	89.5	87.9	5.7	92.5	80.2	5.0	86.8
Odisha	24.6	0.8	25.5	25.7	1.1	26.8	23.8	0.5	24.5
Bihar	79.2	4.5	85.7	81.7	4.4	87.7	77.2	4.6	84.0
North-East	21.9	6.9	27.3	26.6	7.9	33.1	19.5	6.4	24.4
Sikkim	14.9	17.8	30.8	17.8	22.8	36.7	13.9	16.1	28.8
Arunachal Pradesh	38.1	13.4	49.0	33.8	22.5	54.6	40.8	8.2	45.1
Nagaland	11.0	5.1	18.4	9.3	9.0	21.6	12.5	1.8	15.5
Manipur	4.7	21.7	28.8	6.2	24.2	33.6	3.6	19.6	25.2
Mizoram	11.4	0.6	14.5	10.9	0.9	17.1	11.5	0.4	13.4
Tripura	36.5	7.5	41.4	43.2	8.0	47.7	32.3	7.1	37.5
Meghalaya	23.6	4.6	31.0	21.8	5.6	30.9	24.6	4.2	31.1
Assam	22.1	5.7	25.2	28.7	5.5	31.2	19.1	5.8	22.5
West	57.3	9.3	60.8	63.6	9.5	67.5	55.6	9.3	59.0
Gujarat	73.9	16.4	76.4	76.3	18.3	78.6	73.2	15.9	75.9
Maharashtra	45.3	5.7	49.3	54.6	5.9	59.5	42.5	5.6	46.4
Goa	25.0	1.9	26.8	25.8	6.2	34.3	25.0	1.7	26.5
South	44.5	9.4	50.7	50.8	14.3	60.4	43.5	8.7	49.1
Andhra Pradesh	27.3	9.2	36.8	24.7	8.9	35.5	27.8	9.2	37.0
Karnataka	84.4	20.8	87.3	81.4	24.9	87.7	85.2	19.8	87.2
Kerala	71.6	1.5	72.3	61.6	1.5	61.9	72.6	1.6	73.3
Tamil Nadu	10.9	4.4	20.1	21.1	14.3	50.0	10.2	3.6	17.4
Puducherry	7.5	4.3	14.2	13.6	7.7	23.5	7.1	4.1	13.6

Key findings

- Advertisement and promotion of smokeless tobacco was noticed by over half of the adults (55%), of bidi nearly by half of adults (47%) and of cigarette by over one-fourth (28%).
- Seven in ten (69%) adults noticed anti-smokeless tobacco information. Nearly three in five (61%) noticed anti-bidi information and little more than one half of adults (52%) noticed anti- cigarette information.
- The highest proportion of adults noticed anti-tobacco (smokeless, bidi and cigarette) information on television followed by newspapers or magazines.
- Seventy-one percent of cigarette smokers, and 60 percent of bidi smokers and users of smokeless tobacco noticed health warning on the packages of respective products.
- Thirty-eight percent of cigarette smokers, 29 percent of bidi smokers and 34 percent of users of smokeless tobacco thought of quitting because of health warning on the packages.

Key messages

- Health warnings on the packages of tobacco products are strong means to motivate users to quit tobacco use.
- Health warning on packages of all tobacco products needs to be made stronger since they are highly effective in enhancing people's awareness to the health risks of tobacco use.

9. KNOWLEDGE, ATTITUDES AND PERCEPTIONS

Use of tobacco is greatly influenced by the level of knowledge of ill effects of tobacco products, individual attitude towards use of tobacco and perceptions about the social acceptance. Research over the decades has revealed harmful effects of tobacco products, both smoking and smokeless on various organs and systems of human body. As per Indian Council of Medical research (ICMR), almost 50 percent of cancers among males and 25 percent of cancers among females are related to use of tobacco in India,[29] in addition to cardiovascular and lung diseases. India shares the highest burden of oral cancer in the world, which is mostly associated with use of chewing tobacco. It is important to make tobacco users aware about the harmful effects of tobacco on their health. The Government of India has initiated several interventions to enhance the knowledge about ill effects of tobacco use through different media campaigns and awareness programmes under National Tobacco Control Programme and also as part of other national health programmes.

This chapter presents the knowledge of adults about the health effects of smoking and smokeless tobacco use with special reference that smoking causes stroke, heart attack and lung cancer. It also discusses the prevalent perceptions about the health impact of second-hand smoke.

9.1 BELIEFS ABOUT THE HEALTH EFFECTS OF SMOKING

It is evident from Table 9.1 that nine out of every ten adults in India believe that smoking causes serious illness. Both, smokers and non-smokers, perceive severity of smoking to be a cause of serious illnesses by and large to the same degree. Though a large proportion of adults believe that smoking causes serious illness, only half (49%) of adults think that smoking causes stroke and a little less than two-third (64%) believe it triggers heart attacks. A larger segment (85%) in comparison, however, believes that smoking causes lung cancer. As shown in Figure 9.1 relatively greater proportion of current non-smokers perceive that smoking causes lung cancer than current smokers (86% non-smokers; 81% smokers), heart attack (65% non-smokers; 58% smokers) and stroke (50% non-smokers; 44% smokers).

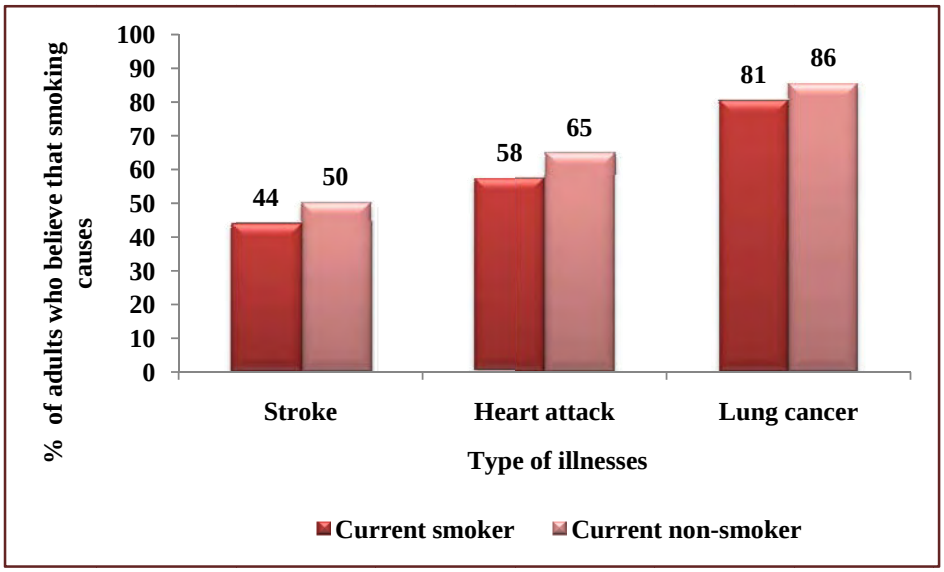
The proportion of adults who perceive that smoking causes serious illness varies considerably according to background characteristics. It is evident from Table 9.1 that perceptions about the adverse health effects of smoking lessen with increasing age. For example, 92 percent persons age 15–24 believe that smoking causes serious illness as against 82 percent of those age 65 and above. The table further reveals that adults living in urban areas and those who are students or are working as government or non-government employees, are relatively more likely to believe that smoking causes serious illness. The pattern of variation in the proportion of adults who believe that smoking causes serious illness when categorized by these background characteristics does not alter much when analyzed by their current smoking status.

Table 9.1: Percentage of adults age 15 and above who believe that smoking causes serious illness, stroke, heart attack and lung cancer by status of smoking, according to background characteristics, GATS India, 2009-2010

Background characteristic	Who believe that smoking causes:											
	Overall				Current smoker				Current non-smoker			
	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer
Overall	90.2	49.4	63.9	84.9	87.4	44.0	57.6	80.7	90.7	50.2	65.0	85.6
Age												
15-24	92.4	52.5	67.3	88.7	87.6	46.3	58.0	85.4	92.7	52.9	67.9	88.9
25-44	91.1	49.7	64.6	85.6	90.1	44.8	59.2	83.3	91.3	50.6	65.6	86.0
45-64	88.1	46.9	61.1	81.5	85.7	42.9	57.1	78.8	88.7	48.0	62.2	82.3
65+	82.0	41.5	54.3	75.3	80.3	41.1	51.8	69.8	82.4	41.5	55.0	76.7
Residence												
Urban	93.8	54.2	72.0	90.0	90.3	51.6	68.2	87.2	94.2	54.5	72.4	90.3
Rural	88.7	47.4	60.6	82.8	86.5	41.6	54.4	78.7	89.1	48.4	61.7	83.6
Education level												
No formal schooling	82.3	38.0	50.0	73.8	81.5	35.2	45.8	72.4	82.5	38.6	50.8	74.1
Less than primary	88.5	45.4	58.6	81.8	86.2	41.8	55.0	79.0	89.0	46.3	59.5	82.5
Primary but less than secondary	93.6	51.9	67.1	89.2	92.4	49.6	64.7	87.1	93.8	52.2	67.4	89.5
Secondary and above	96.3	61.3	78.6	94.4	93.4	56.9	74.9	90.2	96.6	61.7	79.0	94.8
Occupation												
Government and non-government employee	91.6	48.8	64.4	87.0	89.7	42.8	59.0	83.4	92.1	50.3	65.8	88.0
Self-employed	89.1	47.9	61.3	84.0	87.6	44.6	57.6	81.5	89.6	48.8	62.3	84.7
Student	95.7	58.9	74.8	93.5	85.7	51.1	68.1	83.6	95.9	59.1	74.9	93.7
Homemaker	88.8	48.5	62.7	82.2	82.7	48.0	54.2	74.5	89.0	48.5	63.0	82.5
Retired or unemployed	86.6	45.4	61.0	78.6	81.4	39.5	54.0	70.2	87.9	47.0	62.9	80.9

Adults from urban areas are more likely to perceive the health impact of smoking. A relatively higher proportion of adults from urban areas are likely to believe, in comparison with those from rural areas, that smoking causes lung cancer (90% urban vs 83% rural), heart attack (72% urban vs 61% rural) and stroke (54% urban vs 47% rural). The pattern in the urban-rural differences in the perceived severity of smoking in terms of the above three serious illnesses remains unaltered when analyzed separately for smokers and non-smokers. The pattern of variation in the proportion of adults who believe that smoking causes serious illnesses in terms of the three major ailments, namely lung cancer, heart attack and stroke, is similar to the pattern observed in the case of the overall serious illnesses by variation in the age of respondent, their level of education and occupation across current smokers as well as non-smokers.

Figure 9.1 Percentage of adults who believe that smoking causes stroke, heart attack and lung cancer by smoking status, GATS India, 2009–2010



Tables 9.2 and 9.3 reveals that a marginally higher proportion of males (92%) than females (89%) believe that smoking causes serious illness. Among smokers and non-smokers also there are gender differentials in the perception of the health impact of smoking, especially in the case of the perception about the impact of smoking on lung cancer and heart attack. The difference in the proportion of males and females who believe that smoking causes lung cancer and heart attack is 11 percent points each among smokers, while these differences reduce to 6 and 4 percent points in case of lung cancer and heart attack respectively among non-smokers (Figure 9.2). The gender differentials in the perceived severity of smoking for the serious illnesses of lung cancer, heart attack and stroke may be better reflected among females and males with different background characteristics and hence presented separately for males and females in Tables 9.2 and 9.3.

Table 9.2: Percentage of males age 15 and above who believe that smoking causes serious illness, stroke, heart attack and lung cancer by status of smoking, according to background characteristics, GATS India, 2009-2010

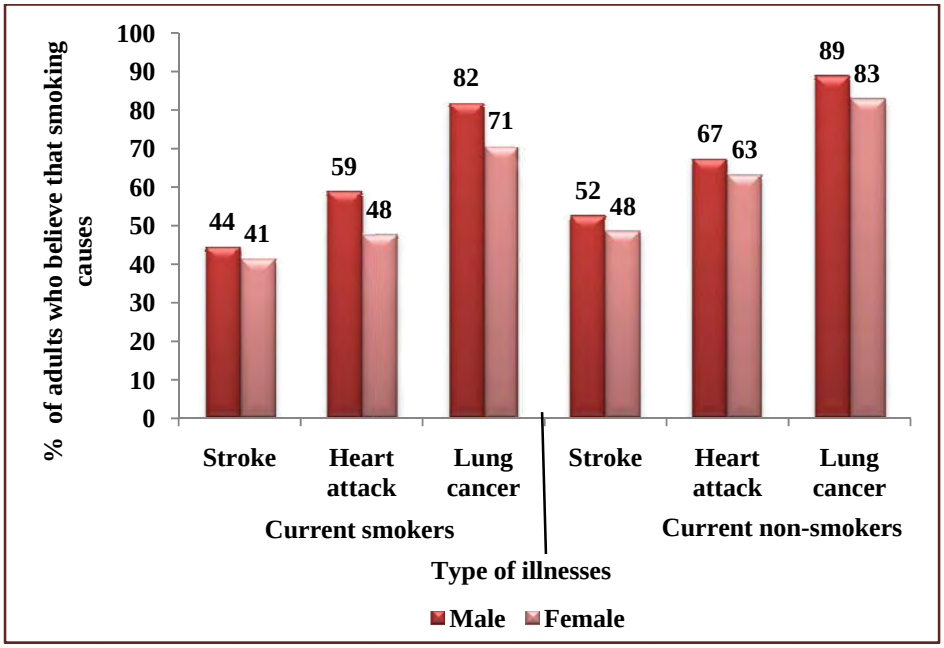
Background characteristic	Who believe that smoking causes:											
	Overall				Current smoker				Current non-smoker			
	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer
Overall	91.5	50.5	65.1	87.2	88.2	44.3	58.8	81.8	92.6	52.4	67.2	88.9
Age												
15-24	92.8	52.0	66.9	90.4	87.8	46.1	57.8	85.7	93.3	52.6	67.8	90.9
25-44	92.3	50.2	65.1	87.7	90.7	44.8	59.4	83.9	92.9	52.2	67.2	89.1
45-64	89.9	49.7	64.5	84.2	86.0	43.6	59.7	79.7	92.2	53.4	67.4	86.9
65+	86.3	47.4	59.3	79.1	82.9	41.2	52.9	72.7	87.8	50.2	62.2	82.0
Residence												
Urban	93.7	54.6	72.8	91.3	90.8	52.3	69.0	87.8	94.5	55.2	73.7	92.2
Rural	90.6	48.7	61.9	85.4	87.3	41.6	55.4	79.8	91.8	51.2	64.2	87.4
Education level												
No formal schooling	82.9	35.9	48.5	75.1	82.2	33.7	45.9	73.2	83.3	37.4	50.2	76.3
Less than primary	87.3	43.6	55.7	81.3	86.5	41.9	55.1	79.4	87.7	44.4	56.0	82.3
Primary but less than secondary	94.3	51.6	66.6	90.1	92.3	49.3	64.5	87.0	94.8	52.2	67.2	90.9
Secondary and above	95.7	60.6	77.1	93.8	93.4	57.0	74.9	90.3	96.1	61.2	77.5	94.4
Occupation												
Government and non-government employee	92.3	49.3	66.3	88.3	90.0	42.7	59.8	83.6	93.1	51.7	68.6	89.9
Self-employed	90.5	49.4	62.2	85.7	87.7	44.7	57.6	81.7	91.6	51.2	64.0	87.2
Student	95.6	57.1	72.8	93.6	85.5	51.4	67.8	83.5	96.0	57.3	73.0	93.9
Homemaker	85.7	54.2	62.3	80.7	89.7	57.0	64.4	81.0	83.5	52.6	61.1	80.5
Retired or unemployed	88.8	48.7	64.2	81.8	83.2	41.7	57.2	74.3	90.9	51.3	66.7	84.6

Table 9.3: Percentage of females age 15 and above who believe that smoking causes serious illness, stroke, heart attack and lung cancer by status of smoking, according to background characteristics, GATS India, 2009-2010

Background characteristic	Who believe that smoking causes:											
	Overall				Current smoker				Current non- smoker			
	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer
Overall	88.8	48.2	62.7	82.5	80.2	41.2	47.5	70.5	89.0	48.4	63.1	82.9
Age												
15-24	91.9	53.1	67.9	86.8	81.3	52.8	63.7	75.5	92.0	53.1	67.9	86.9
25-44	89.8	49.2	64.1	83.4	81.1	44.1	56.9	75.0	90.0	49.3	64.2	83.6
45-64	86.2	43.8	57.4	78.6	83.7	38.3	39.2	72.1	86.3	44.2	58.5	79.0
65+	77.9	35.7	49.6	71.6	72.5	40.9	48.3	61.3	78.5	35.2	49.7	72.7
Residence												
Urban	93.9	53.7	71.1	88.4	81.1	38.2	52.9	74.9	94.0	53.9	71.3	88.6
Rural	86.7	46.0	59.3	80.1	80.0	41.5	46.9	70.0	87.0	46.1	59.7	80.5
Education level												
No formal schooling	82.0	39.0	50.7	73.2	79.4	40.0	45.4	69.9	82.2	38.9	51.1	73.4
Less than primary	90.0	47.9	62.5	82.4	76.0	39.8	51.8	68.1	90.3	48.1	62.7	82.7
Primary but less than secondary	92.6	52.3	67.7	87.9	96.5	70.0	77.0	89.9	92.6	52.2	67.7	87.9
Secondary and above	97.3	62.4	81.3	95.4	80.5	34.8	74.5	81.8	97.3	62.5	81.3	95.5
Occupation												
Government and non-government employee	89.9	47.3	59.5	83.8	85.9	44.7	47.9	79.9	90.1	47.5	60.1	84.0
Self-employed	84.2	42.5	58.2	78.1	84.3	40.6	57.7	74.7	84.2	42.5	58.2	78.1
Student	95.8	61.9	77.9	93.3	97.5*	22.1*	91.7*	97.5*	95.8	61.9	77.9	93.3
Homemaker	88.9	48.3	62.7	82.2	79.0	43.3	48.9	71.1	89.2	48.4	63.1	82.5
Retired or unemployed	81.3	37.6	53.6	71.1	67.6	22.4	26.6	36.5	82.5	38.9	55.8	74.0

Note:*Based on less than 25 unweighted cases.

Figure 9.2 Percentage of adults who believe that smoking causes stroke, heart attack and lung cancer by smoking status and gender, GATS India, 2009-2010



The proportion of males and females who believe that smoking causes serious illness shows a declining trend with age, and the pace of that decline with age is faster among females than males. It is evident from Table 9.2 that 93 percent of males age 15–24 believe that smoking causes serious illness, which declines to 86 percent among males age 65 and above. The corresponding proportions among females are 92 percent and 78 percent respectively (Table 9.3). Education seems to play a prominent role in increasing the level of belief and perception that smoking causes serious illness. Among both, smoking and non-smoking males and females, the proportion that believes that smoking causes serious illness such as stroke, heart attacks and lung cancer increases with education: 96 percent of males with secondary and higher education believe that smoking causes serious illness while only 83 percent of males with no education believe the same. The difference in the proportion that believes that smoking causes stroke and in the proportion that believes that smoking causes heart attacks among those with the lowest and the highest levels of education is 25 and 28 percent points, whereas in case of belief that smoking causes lung cancer the difference is 19 percent points.

These findings highlight that a majority of males as well as females, irrespective of smoking status, believe that smoking causes serious illness and lung cancer. However, not many are aware that smoking also causes heart attacks and stroke. Therefore, all tobacco control initiatives should prioritize the message of health challenges of smoking by adopting non-generic approaches to intervention.

Table 9.4 presents the percentage of adults who believe that smoking causes serious illness, stroke, heart attack and lung cancer classified by region and state/UT. Among all the regions, the highest proportion of adults from the North region reported that smoking causes serious illness, stroke, heart attack and lung cancer, and the lowest proportion was reported by adults from the Western region.

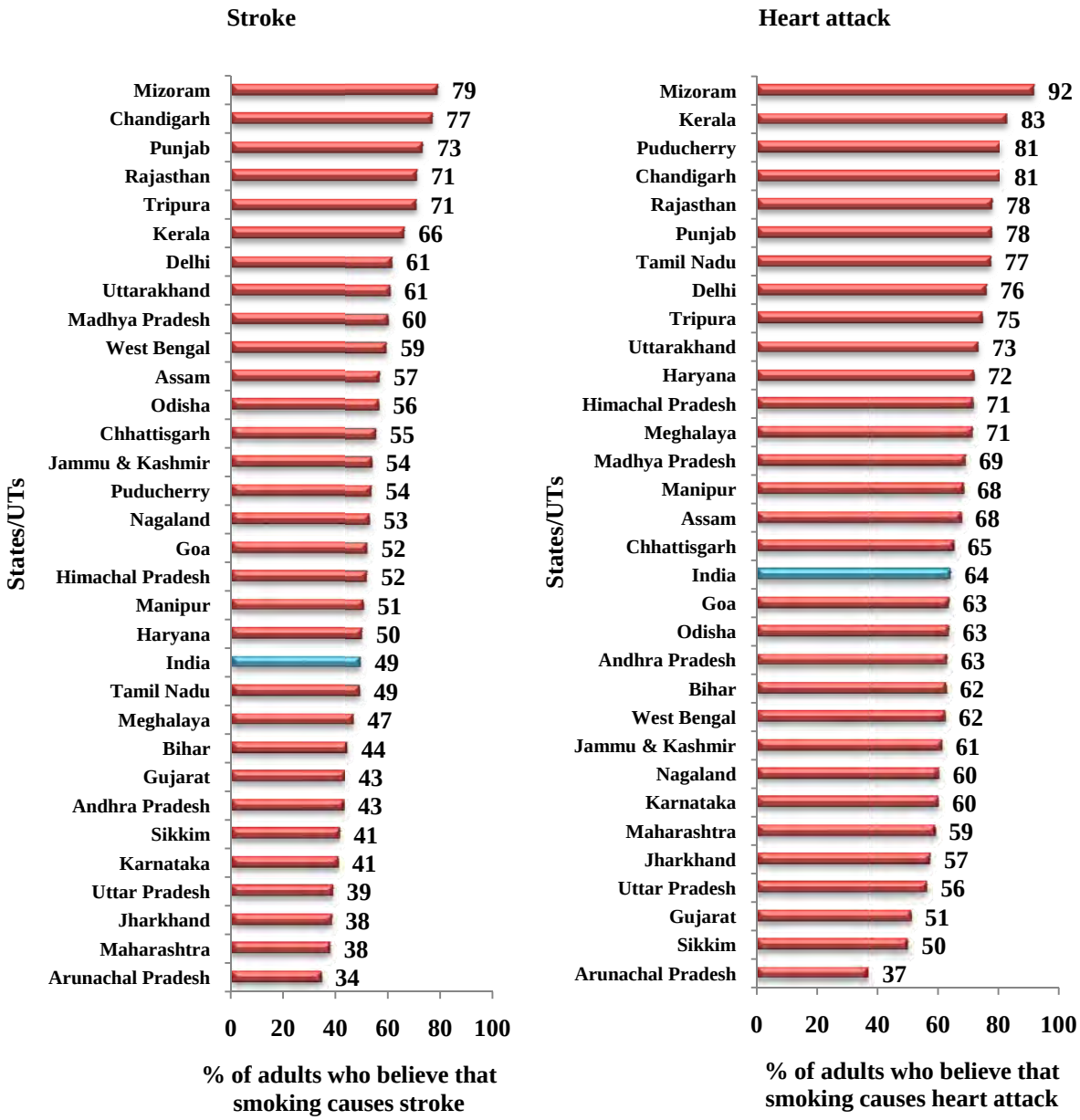
Table 9.4: Percentage of adults age 15 and above who believe that smoking causes serious illness, stroke, heart attack and lung cancer by status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Who believe that smoking causes:											
	Overall				Current smoker				Current non-smoker			
	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer
India	90.2	49.4	63.9	84.9	87.4	44.0	57.6	80.7	90.7	50.2	65.0	85.6
North	94.0	64.2	73.0	92.2	91.7	47.0	57.9	88.3	94.4	67.0	75.4	92.8
Jammu & Kashmir	88.2	53.8	61.0	84.0	91.2	46.5	61.2	85.3	87.3	55.8	60.9	83.6
Himachal Pradesh	96.4	51.8	71.3	95.6	92.9	41.3	63.3	90.5	97.1	54.1	73.1	96.8
Punjab	94.6	73.2	77.7	93.4	90.0	53.5	52.2	87.7	94.9	74.6	79.6	93.9
Chandigarh	97.4	76.8	80.5	96.7	97.0	70.8	73.9	97.2	97.4	77.5	81.3	96.6
Uttarakhand	96.5	60.7	73.1	95.9	90.5	43.8	53.0	89.5	98.2	65.5	78.8	97.7
Haryana	95.8	50.0	71.7	91.3	96.3	35.8	56.9	90.8	95.7	53.4	75.3	91.4
Delhi	98.1	61.4	75.8	95.3	97.5	53.2	62.2	94.0	98.2	63.1	78.7	95.5
Central	88.8	50.7	63.4	83.9	88.5	43.9	56.7	81.9	88.9	51.9	64.7	84.3
Rajasthan	92.8	70.9	77.8	91.9	89.9	53.1	63.4	88.0	93.5	75.1	81.2	92.7
Uttar Pradesh	87.7	38.8	56.1	81.6	89.8	37.3	52.2	83.8	87.4	39.0	56.7	81.2
Chhattisgarh	85.2	55.3	65.0	82.0	82.5	50.7	64.7	75.4	85.6	56.0	65.0	82.9
Madhya Pradesh	91.7	59.9	68.8	84.9	88.4	45.0	54.5	76.3	92.4	62.9	71.7	86.6
East	90.0	51.3	61.9	83.4	87.9	52.5	61.0	81.0	90.4	51.0	62.0	83.9
West Bengal	85.7	59.3	62.1	83.2	85.4	60.7	62.8	82.2	85.8	59.0	61.9	83.5
Jharkhand	89.7	38.3	57.2	83.6	89.1	45.2	64.4	90.1	89.8	37.6	56.5	82.9
Odisha	95.3	56.4	63.4	88.5	95.2	53.8	57.9	80.7	95.3	56.7	64.1	89.4
Bihar	92.2	44.3	62.4	81.1	89.3	40.4	58.4	77.1	92.7	45.0	63.1	81.8
North-East	91.2	56.5	67.5	88.4	88.4	55.7	65.6	85.8	91.8	56.7	67.9	89.0
Sikkim	88.5	41.4	49.8	87.4	85.2	33.1	38.8	86.1	89.7	44.4	53.7	87.9
Arunachal Pradesh	81.1	34.3	36.7	77.7	79.6	26.2	28.1	79.2	81.7	37.7	40.2	77.1
Nagaland	87.8	52.8	60.1	86.1	80.4	50.1	55.0	79.8	91.1	54.1	62.5	89.0
Manipur	89.1	50.5	68.2	86.1	82.5	39.2	57.4	79.4	91.3	54.3	71.9	88.5
Mizoram	98.4	78.9	91.7	97.5	97.8	73.3	90.9	96.4	98.7	82.5	92.3	98.2

Table 9.4: Continued

Region and state/UT	Who believe that smoking causes:											
	Overall				Current smoker				Current non-smoker			
	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer	Serious illness	Stroke	Heart attack	Lung cancer
Tripura	93.0	70.7	74.5	88.5	92.4	71.0	76.5	88.8	93.2	70.6	73.7	88.4
Meghalaya	88.3	46.7	71.2	78.2	86.0	47.4	70.0	77.0	89.5	46.3	71.9	78.9
Assam	91.8	56.7	67.5	89.6	90.0	58.6	66.7	88.1	92.1	56.4	67.7	89.9
West	87.3	39.7	56.1	82.6	78.4	32.9	45.4	72.9	88.1	40.3	57.1	83.5
Gujarat	89.0	43.2	50.9	84.3	79.8	34.2	38.3	74.4	90.1	44.3	52.4	85.6
Maharashtra	86.4	37.7	58.8	81.7	77.2	31.8	51.4	71.4	87.1	38.1	59.3	82.4
Goa	90.0	52.0	63.4	86.7	84.9	33.2	51.6	82.0	90.2	53.0	64.0	87.0
South	93.3	47.6	69.1	87.1	87.2	35.8	58.6	78.3	94.2	49.4	70.7	88.4
Andhra Pradesh	92.8	43.0	62.7	86.0	85.2	24.9	47.2	72.1	94.4	46.8	66.0	89.0
Karnataka	92.1	40.8	59.9	83.6	82.9	27.6	49.2	75.4	93.3	42.6	61.3	84.7
Kerala	95.0	66.1	82.7	90.8	92.0	50.8	76.8	86.2	95.5	68.5	83.6	91.5
Tamil Nadu	93.9	49.1	77.3	89.3	92.5	57.2	80.0	88.9	94.1	48.3	77.0	89.3
Puducherry	94.3	53.6	80.6	91.1	92.1	44.1	72.8	87.1	94.5	54.7	81.5	91.6

Figure 9.3 Percentage of adults who believe that smoking causes stroke, heart attack according to states/UTs, GATS India, 2009–2010



The percentage of adults who believe that smoking causes serious illness is the highest in Delhi and Mizoram (98% each) followed by Uttarakhand and Chandigarh (97% each), Haryana and Himachal Pradesh (96%), Odisha, Punjab and Kerala (95%). The pattern of variation in the proportion of adults who believe that smoking causes serious illness by the current smoking status of respondents remains unaltered.

In most of the states/UTs at least 50 percent of adults believe that smoking causes stroke and heart attack and at least 80 percent are aware that smoking causes lung cancer (Figure 9.3). In most of the states/UTs smokers are relatively less likely to believe than non-smokers that smoking causes stroke, heart attacks and lung cancer. What may be programmatically important is the large gap in the proportion of adults who believe that smoking causes stroke, heart attacks and lung cancer across different states. State level variations also highlight the importance of designing suitable programmes and interventions to enhance the knowledge and awareness of people that smoking causes stroke and heart attacks.

9.2 HEALTH EFFECTS OF USING SMOKELESS TOBACCO

In India, where use of smokeless tobacco, especially tobacco in chewing form is common in addition to bidi smoking, a substantial proportion of users of smokeless tobacco products suffer from the ill effects of tobacco use on the oral cavity, pharynx and oesophagus. This together account for a large proportion of the morbidity related to smokeless tobacco use, primarily cancer.[30] It is against this backdrop that GATS India collected information on the beliefs and perceptions of people regarding the health effects of smokeless tobacco use.

Table 9.5 presents the percentage of adults, overall and categorized as males and females, who believe that use of smokeless tobacco products causes serious illness by some selected background characteristics. It is evident from the table that almost nine in ten adults in India believe that use of smokeless tobacco causes serious illness. A marginally higher proportion of non-users of smokeless tobacco (90%) compared to smokeless tobacco users (87%) have this belief. It is observed that a substantially higher proportion of males (90%) as well as females (87%) in India believe that smokeless tobacco use causes serious illness. A slightly higher proportion of non-users compared with users of smokeless tobacco products perceive that use of smokeless tobacco causes serious illness, though the difference in the proportion of non-smokers and smokers reporting such adverse health impact of smokeless tobacco use is quite small (7 percent points among females and 2 percent points among males).

Like smoking, younger adults age 15–24 are more likely to believe that smokeless tobacco use causes serious illness (92%) than those who are age 65 and above (80%). Differentials by age are observed among both male and female users and non-users of smokeless tobacco. Adults in urban areas (93%) are more likely to believe that use of smokeless tobacco causes serious illness compared with those from rural areas (87%). When analysed by status of smokeless tobacco use the urban-rural differentials regarding such perception remain unaltered.

Table 9.5: Percentage of adults age 15 and above who believe that use of smokeless tobacco causes serious illness by gender and status of smokeless tobacco use, according to background characteristics, GATS India, 2009-2010

Background characteristic	Who believe that smokeless tobacco causes serious illness								
	Overall			Male			Female		
	Overall	Current user of smokeless tobacco	Current non-user of smokeless tobacco	Overall	Current user of smokeless tobacco	Current non-user of smokeless tobacco	Overall	Current user of smokeless tobacco	Current non-user of smokeless tobacco
Overall	88.8	86.5	89.6	90.1	88.8	90.8	87.3	82.0	88.5
Age									
15-24	91.6	90.4	91.8	92.8	91.8	93.1	90.2	86.0	90.6
25-44	89.6	87.9	90.3	90.8	89.7	91.5	88.3	83.8	89.3
45-64	86.1	84.5	86.8	87.4	86.0	88.2	84.6	82.7	85.4
65+	79.8	76.4	81.5	82.3	81.8	82.6	77.3	71.2	80.4
Residence									
Urban	93.0	90.3	93.5	93.4	92.2	93.8	92.5	85.9	93.3
Rural	87.0	85.5	87.6	88.8	87.9	89.3	85.2	81.2	86.3
Education level									
No formal schooling	80.1	79.2	80.5	79.9	80.4	79.6	80.1	78.4	80.9
Less than primary	86.9	88.2	86.3	85.2	87.9	83.3	89.3	88.9	89.4
Primary but less than secondary	92.0	90.9	92.3	92.6	91.5	93.1	91.2	88.3	91.5
Secondary and above	95.9	95.1	96.0	95.7	95.2	95.9	96.2	94.0	96.2
Occupation									
Government and non-government employee	90.1	90.7	89.9	91.0	91.5	90.7	87.9	87.5	88.0
Self-employed	87.7	86.4	88.4	89.0	87.5	89.9	83.1	79.8	84.1
Student	94.9	94.3	94.9	94.9	95.2	94.9	94.8	91.7	94.9
Homemaker	87.3	81.5	88.6	84.3	77.6	87.7	87.5	81.8	88.7
Retired or unemployed	83.9	81.1	85.3	86.2	85.1	86.8	78.5	69.7	82.1

A relatively larger proportion of urban males (93%) than rural (89%) believe that smokeless tobacco use causes serious illness. The corresponding figures for females from urban and rural areas are 93 percent and 85 percent respectively. However, among males and females, urban-rural differentials are not significant when observed by their status of smokeless tobacco use.

Individual level of education has been considered a catalyst in the shaping of perceptions and attitudes. The proportion of adults who believe that use of smokeless tobacco products causes serious illness increases monotonically with education. The same trend by education is observed among both males and females who either use or do not use smokeless tobacco. For example, adults having secondary and above education (96%) are more likely to believe that smokeless tobacco use causes serious illness compared to their counterparts with no formal education (80%). Similar to the pattern of variation in the perceived severity of smoking tobacco, the perception about use of smokeless tobacco reveals an encouraging scenario whereby almost all (96%) adults with secondary and above education believe that smokeless tobacco use causes serious illness. It is observed that 95 percent of students, both males and females, believe that smokeless tobacco use causes serious illness.

Table 9.6 presents the variation in perceptions about the health impact of the use of smokeless tobacco across regions and states/UTs of India. The regional differentials in the proportion of all adults and non-users of smokeless tobacco who believe that smokeless tobacco use causes serious illness are quite small. Only users of smokeless tobacco from the Western (83%) and Southern regions (81%) are little less likely to believe that smokeless tobacco causes serious illness compared with their counterparts from other regions (87%–91%).

In every state/UT, more than three out of every four adults, both users and non-users of smokeless tobacco, believe that use of smokeless tobacco causes serious illness. In Delhi and Chandigarh (both 97%), Odisha (96%), Punjab and Mizoram (both 95%), Rajasthan, Haryana and Tamil Nadu (94% each), Uttarakhand, Puducherry (93% each), and Himachal Pradesh, Karnataka and Kerala (92% each) more than 90 percent of all adults have the perception that use of smokeless tobacco causes serious illness. The level is lowest in Meghalaya (79%), followed by Arunachal Pradesh and Jammu & Kashmir (82% each), Nagaland and Andhra Pradesh (84% each). Overall, in 17 states/UTs the proportion of adults who perceive that use of smokeless tobacco causes serious illness is higher than the national average (89%). The state/UT level differentials in the perception about the health impact of use of smokeless tobacco are by and large the same when analyzed separately for users and non-users of smokeless tobacco. The proportion of smokeless tobacco users who believe that smokeless tobacco use causes serious illness exceeds 90 percent in Mizoram, Chandigarh and Odisha (96% each), Rajasthan (94%), Punjab, and Haryana (93% each), Goa (92%),Uttarakhand (91%) and Bihar (90%). The proportion of non-users of smokeless tobacco, who believe that its use causes serious illness is the highest in Delhi (98%) followed by Chandigarh and Odisha (97% each), Tamil Nadu, Mizoram and Punjab (95% each) and Rajasthan (94%). In most of the states and UTs a comparatively higher proportion of non-users than users of smokeless tobacco believe that its use has serious health impact.

Table 9.6: Percentage of adults age 15 and above who believe that use of smokeless tobacco causes serious illness by gender and status of smokeless tobacco use, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Who believe that smokeless tobacco causes serious illness		
	Overall	Current user of smokeless tobacco	Current non-user of smokeless tobacco
India	88.8	86.5	89.6
North	92.0	90.8	92.0
Jammu & Kashmir	82.0	89.1	81.4
Himachal Pradesh	92.4	82.3	92.9
Punjab	95.0	92.8	95.2
Chandigarh	97.3	95.5	97.4
Uttarakhand	92.6	91.3	92.7
Haryana	93.6	93.2	93.6
Delhi	96.8	86.7	97.9
Central	88.5	87.3	88.9
Rajasthan	94.1	94.0	94.2
Uttar Pradesh	86.9	87.7	86.6
Chhattisgarh	86.5	84.5	88.2
Madhya Pradesh	89.4	86.9	90.6
East	88.3	88.9	88.0
West Bengal	85.4	82.9	86.1
Jharkhand	86.6	85.3	87.8
Odisha	96.4	95.9	96.8
Bihar	88.2	90.1	86.5
North-East	88.8	87.1	89.7
Sikkim	88.7	85.7	89.7
Arunachal Pradesh	82.2	82.9	81.8
Nagaland	83.5	80.1	86.4
Manipur	86.6	86.8	86.4
Mizoram	95.2	95.7	94.8
Tripura	90.0	89.1	90.5
Meghalaya	79.1	77.5	79.8
Assam	90.0	88.0	90.9
West	87.5	82.8	89.1
Gujarat	90.6	89.2	91.0
Maharashtra	85.9	80.1	88.0
Goa	90.6	91.8	90.5
South	89.7	81.1	91.0
Andhra Pradesh	83.7	73.4	85.6
Karnataka	92.0	88.1	93.0
Kerala	91.9	82.4	93.1
Tamil Nadu	93.6	83.7	94.5
Puducherry	92.9	84.8	93.4

9.3 HEALTH EFFECTS OF SECOND-HAND SMOKE (SHS)

With growing evidence on the increased health risks of second-hand smoke or passive smoking, a number of recent studies have focused on the importance of SHS for any tobacco control initiative or programme.[31] There are also a number of recent studies demonstrating the fact that maternal exposure to SHS decreases the birth weight of infants and increases the number of premature deliveries.[32-34] GATS

India collected information on the perception of people about the adverse health impact of exposure to second-hand smoke. The results are presented in this section.

Table 9.7 presents the percentage of adults, both males and females, who believe that breathing in other people's smoke causes serious illness in non-smokers. Overall, 83 percent of adults believe that SHS causes serious illness in non-smokers. It is evident from Table 9.7 that non-smokers are relatively more likely to perceive that SHS exposure causes serious illness among non-smokers (84%) compared with smokers (78%). A relatively higher proportion of males (85%) perceive that SHS causes serious illness in non-smokers compared with females (81%). Among males, a relatively higher proportion of non-smokers (87%) than smokers (79%) perceive that SHS leads to serious illness, and this difference by smoking status among females is 14 percent points.

The proportion of adults, both males and females as well as smokers and non-smokers, who perceive that exposure to SHS leads to serious illness among non-smokers decreases with increase in age. For example, 88 percent of males age 15–24 perceive that SHS causes serious illness in non-smokers compared with 77 percent males age 65 and above. The corresponding figures among females age 15–24 are 86 percent and for those age 65 and above are 69 percent.

Figure 9.4 Percentage of adults who believe that SHS causes serious illness in non-smokers by gender and according to education level, GATS India, 2009–2010

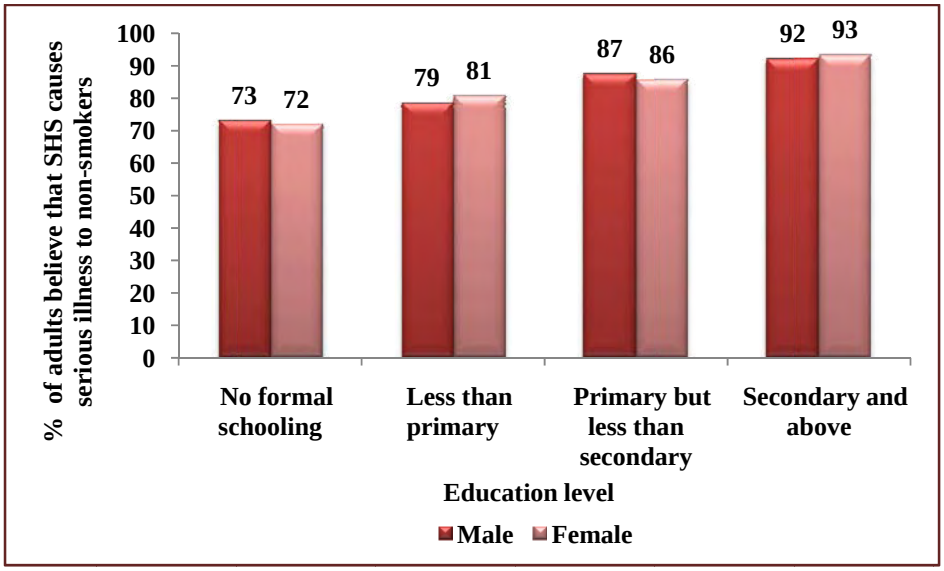


Table 9.7: Percentage of adults age 15 and above who believe that breathing other people's smoke causes serious illness among non-smokers by gender and status of smoking, according to background characteristics, GATS India, 2009-2010

Background characteristic	Who believe that second-hand smoke causes serious illness in non-smoker								
	Overall			Male			Female		
	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker
Overall	82.9	77.9	83.7	84.9	79.2	86.8	80.8	66.9	81.2
Age									
15-24	86.6	81.7	86.9	87.7	82.1	88.3	85.5	68.8	85.5
25-44	83.5	80.8	84.0	85.1	81.1	86.5	81.9	77.1	82.0
45-64	79.8	76.0	80.9	83.1	77.4	86.5	76.4	66.6	77.0
65+	72.9	67.1	74.3	77.3	71.4	79.9	68.6	54.1	70.2
Residence									
Urban	88.0	82.6	88.7	88.9	83.2	90.4	87.0	71.4	87.2
Rural	80.8	76.5	81.6	83.2	77.9	85.1	78.2	66.3	78.7
Education level									
No formal schooling	72.2	68.9	72.8	73.0	70.0	74.9	71.8	65.6	72.2
Less than primary	79.4	76.5	80.2	78.5	76.6	79.4	80.7	72.8	80.8
Primary but less than secondary	86.6	83.6	87.1	87.4	83.6	88.4	85.6	87.0	85.6
Secondary and above	92.6	90.2	92.8	92.1	90.3	92.4	93.3	81.0	93.4
Occupation									
Government and non-government employee	83.6	80.3	84.4	85.7	81.1	87.3	78.1	69.0	78.5
Self-employed	82.1	77.7	83.3	83.3	77.8	85.5	77.6	74.2	77.7
Student	90.6	86.2	90.7	89.7	86.1	89.9	91.9	93.2*	91.9
Homemaker	81.1	72.3	81.4	82.4	80.9	83.3	81.0	67.8	81.4
Retired or unemployed	79.3	73.0	81.0	83.2	76.3	85.7	70.2	47.5	72.2

The proportion of adults who perceive that exposure to second-hand smoke leads to serious illness among non-smokers is found to be higher in urban areas (88%) than rural areas (81%). The pattern of urban-rural differentials is the same for all males and females, and smokers and non-smokers. In each group–cross-classified by gender and smoking status, the proportion of adults who perceive that exposure to SHS leads to serious illness among non-smokers increases with education. For example, 93 percent of adults with secondary and above education perceive that exposure to second-hand smoke leads to serious illness among non-smokers compared with 72 percent of adults having no formal schooling. A relatively higher proportion of students (91%) believe that exposure to SHS causes serious illness in non-smokers than retired or unemployed persons (79%). Smoking status does not seem to make any profound difference on the perception. The proportion of males who believe that SHS causes serious illness among non-smokers varies from 90 percent among students to 82 percent among homemakers. Differentials by occupation remain unaltered irrespective of smoking status. The proportion of females who believe that SHS causes serious illness among non-smokers varies from 92 percent among students to 70 percent among the retired or unemployed.

Table 9.8 provides regional and state/UT level variations in the proportion of adults who perceive the adverse health impact of SHS in non-smokers. The table shows that a higher proportion of adults from the Northern region (91%) believe that SHS exposure causes serious illness compared to all other regions (81%–84%). A relatively lower proportion of smokers than non-smokers think thus in every region.

The percentage of adults who believe that second-hand smoke causes serious illness in non-smokers is the highest in Chandigarh (95%) followed by Delhi (94%), Kerala, Mizoram and Puducherry (93% each), Punjab and Rajasthan (92% each), Himachal Pradesh, Tripura and Tamil Nadu (91% each). The level is the lowest in Andhra Pradesh (63%) followed by Arunachal Pradesh (73%) and West Bengal (78%). The perceived severity of SHS does not differ across current smokers and non-smokers. The percentage of current smokers who believe that SHS exposure causes serious illness in non-smokers is highest in Chandigarh (93%) followed by Delhi (92%), Jammu & Kashmir and Mizoram (both 91%), Tamil Nadu, Puducherry and Kerala (90% each). The level is lowest in Andhra Pradesh (52%) followed by Goa (66%), Maharashtra (72%), Arunachal Pradesh (73%) and Gujarat (75%). The percentage of non-smokers who believe that SHS exposure causes serious illness in non-smokers is highest in Delhi, Chandigarh and Mizoram (95% each) followed by Puducherry (94%), Rajasthan and Kerala (93% each), Himachal Pradesh and Punjab (92% each), and Tripura and Tamil Nadu (91% each). In most states/UTs, a relatively lower proportion of smokers than non-smokers believe that SHS exposure causes serious illness in non-smokers.

Table 9.8: Percentage of adults age 15 and above who believe that breathing other people's smoke causes serious illness among non-smokers by status of smoking, according to regions and states/UTs, GATS India, 2009-2010

Region and state/UT	Who believe that breathing other people's smoke causes serious illness in non-smokers		
	Overall	Current smoker	Current non-smoker
India	82.9	77.9	83.7
North	90.6	85.3	91.5
Jammu & Kashmir	89.0	90.5	88.5
Himachal Pradesh	91.1	85.8	92.3
Punjab	91.5	83.1	92.1
Chandigarh	94.9	93.1	95.1
Uttarakhand	87.9	76.8	91.0
Haryana	89.4	86.7	90.1
Delhi	94.1	91.7	94.7
Central	83.8	81.7	84.2
Rajasthan	92.3	87.7	93.4
Uttar Pradesh	82.3	82.0	82.4
Chhattisgarh	79.0	76.7	79.3
Madhya Pradesh	84.8	78.8	86.1
East	81.6	78.4	82.2
West Bengal	77.9	76.4	78.3
Jharkhand	82.5	84.9	82.3
Odisha	86.4	83.4	86.7
Bihar	83.0	78.5	83.8
North-East	82.6	81.3	82.9
Sikkim	87.2	78.9	90.2
Arunachal Pradesh	73.2	73.6	73.1
Nagaland	81.0	75.4	83.6
Manipur	84.7	75.6	87.9
Mizoram	93.4	90.5	95.3
Tripura	90.5	88.3	91.4
Meghalaya	85.5	79.2	89.0
Assam	81.3	81.6	81.2
West	83.0	73.0	83.8
Gujarat	84.7	74.5	86.0
Maharashtra	82.0	71.8	82.8
Goa	83.6	66.4	84.5
South	81.1	70.5	82.7
Andhra Pradesh	63.2	52.1	65.5
Karnataka	87.7	77.2	89.1
Kerala	92.6	89.7	93.0
Tamil Nadu	91.1	90.0	91.2
Puducherry	93.2	90.1	93.5

Key findings

- Though 85 percent of the adults believe that smoking causes lung cancer, only one-half of the adults think that smoking causes stroke and little less than two-thirds believe that it causes heart attack.
- Smaller proportion of persons with lower education, are aware about ill effects of tobacco compared to those with higher education.
- Smaller proportion of persons in older age group is aware about ill effects of tobacco compared to those in younger age group.
- Over four-fifths of adults believe that second-hand smoke causes serious illness among non-smokers. More non-smokers compared to smokers believe that exposure to second-hand smoke causes serious illness among non-smokers.

Key messages

- Innovative media strategies focused on specific target groups for disseminating information on all adverse health effects of tobacco use (smokeless as well as smoking) should be a part of anti-tobacco mass media campaigns at national and sub national level.
- Targeted interventions among current smokers should reinforce messages on health risks of second-hand smoke.

10. CONCLUSION AND RECOMMENDATIONS

10.1 CONCLUSION

GATS India provides baseline national and regional estimates for tobacco use, both smoking and smokeless, classified by residence and gender as well as state estimates by gender. GATS India also provides indicators on various dimension of tobacco control—such as exposure to second-hand smoke (SHS), media exposure to anti-tobacco information, exposure to tobacco advertisement, expenditures related to tobacco, the extent to which health care providers collect tobacco use history of their patients and advise them to quit tobacco use when they access health care facilities/health professionals to seek treatment for health problems, impact of pictorial health messages on tobacco products and the extent of willingness to quit tobacco use.

SALIENT FINDINGS OF THE SURVEY:

1. The prevalence of tobacco use in India is very high with nearly half of the adult male population and over one-fifth of the adult female population using tobacco in some form.
2. Prevalence of tobacco use is higher among rural population as compared to urban and prevalence is found to decrease with increase in education level.
3. There is significant variation in prevalence of both smoking and smokeless tobacco use in different regions and states.
4. *Khaini* or tobacco lime mixture is the most commonly used tobacco product followed by bidi.
5. Tobacco addiction starts at a young age with a large proportion of users initiating tobacco use before the age of 18.
6. Among females, smokeless tobacco usage has been found to be most prevalent with more than one-fourth of females starting tobacco use before the age of 15.
7. A large proportion of smokers and smokeless tobacco users plan to quit or have thought about quitting tobacco use. Fewer users of smokeless tobacco quit their habit as compared to smokers.
8. In majority of cases, health care providers do not ask patients about their habit of tobacco use or advise them to quit.
9. A sizeable proportion of non-smokers are exposed to second-hand smoke at the work place and in public places, particularly in public transport and restaurants.
10. More than half of adults are exposed to second-hand smoke at home.
11. Adolescents age 15-17 have access to purchase tobacco products from store or kiosk.
12. The average monthly expenditure of daily bidi smokers is lower in comparison to cigarette smokers but the number of bidis smoked by a daily bidi smoker is almost double than the number of cigarettes smoked by a daily cigarette smoker .
13. A very large proportion of adults are exposed to advertisement or promotion of tobacco products.
14. Health warnings on packages of different tobacco products are noticed by a sizeable proportion of tobacco users, but only one-third of current tobacco users thought of quitting because of the health warning.
15. Large numbers of adults believe that smoking causes lung cancer, while only a small proportion is aware that smoking also causes stroke and heart attack.

10.2 RECOMMENDATIONS

The high prevalence of tobacco use in India calls for urgent action, taking into consideration its implications on public health, including the huge health-cost burden.

The Government of India enacted Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (COTPA) to prohibit the consumption of cigarettes and other tobacco products which are injurious to health with a view to achieve improvement of public health in general and also to prohibit the advertisement of and provide for regulation of trade, commerce, production, supply and distribution of cigarettes and other tobacco products in the country. The government is also supporting strategies to reduce the supply of tobacco including projects to grow alternate crops to tobacco and provide alternate livelihoods to tobacco workers/bidi rollers.

Based on the findings of GATS India, following recommendations are made to further strengthen tobacco control initiatives in India:

1. Measures for effective implementation of COTPA and tobacco control strategies mandated by the WHO- FCTC and MPOWER policy package need to be strengthened at the national and state level. States need to focus on capacity building for effective enforcement of provisions under the law, with special attention on strict implementation and monitoring of smoke-free rules and a comprehensive ban on all tobacco products advertisement including surrogate advertisement and promotion and sponsorship activities of the tobacco industry.
2. Although the overall prevalence of tobacco use is high in the country, there is significant difference in the prevalence of both smoking and smokeless tobacco among different regions and states. Focused tobacco control initiatives targeting these areas, taking into consideration the existing socio-economic and cultural factors associated with tobacco use need to be implemented.
3. Programmes and interventions targeting high prevalence of tobacco use among females, especially smokeless forms of tobacco need to be developed and implemented through ongoing national health programmes and females oriented schemes.
4. Strict enforcement of provisions under the law to prevent minors from accessing tobacco products is required.
5. Tobacco has a strong causal association with a number of diseases including tuberculosis and non-communicable diseases. The effective implementation of tobacco control in development agenda will help the country achieve the Millennium Development Goals (MDG) targets. It is therefore, important to mainstream tobacco control work with other national health programmes and the National Rural Health Mission (NRHM).
6. Effective implementation of tobacco control strategies calls for intersectoral coordination and greater involvement of relevant ministries/departments, e.g. Human Resource Development (Education), Information and Broadcasting, Finance, Commerce, Agriculture, Labour, Rural Development, Youth Affairs, Women and Child Development etc., which are major stakeholders in tobacco control initiatives besides Ministry of Health and Family Welfare as also the Panchayati Raj Institutions, academic/public health institutions, civil society groups, etc.

7. Planning and formulation of supply reduction strategies for tobacco, e.g. alternate crops to tobacco by Ministry of Agriculture and alternate livelihoods to tobacco workers/bidi rollers by the Ministries of Rural Development, Labour, Women and Child Development is required for a multi-pronged approach to control the multifaceted tobacco problem in the country.
8. Currently the taxation on various tobacco products is not uniform. The adoption of a uniform taxation policy covering all tobacco products and raising taxes on tobacco products will reduce affordability and discourage non-users, especially youth from taking up tobacco use as well as dissuade current tobacco users from continuing use.
9. Health warnings on tobacco products packages need to be stronger and clearer to ensure that the message is effectively conveyed to the target population.
10. The health professionals in the country need to be sensitized and trained on importance of asking all patients about habit of tobacco use and offering help to quit tobacco use.
11. Strengthening of tobacco cessation services is needed to make the same available across the various levels of the health care delivery system in the country.
12. The progress under the National Tobacco Control Programme (NTCP) launched in 2007-08, needs to be carefully evaluated at the end of the 11th Five Year Plan (2007-2012) and a comprehensive NTCP should be expanded to cover all districts extending across all states and Union Territories during the 12th Five Year Plan.

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APPENDIX A. SAMPLE DESIGN

INTRODUCTION

The sampling procedure for GATS India was designed in the light of overall objectives of the survey. The main aim of the GATS India was to carry out an Adult Tobacco Survey in India in all the 29 states (including Delhi) and 2 Union Territories (UTs) of Chandigarh and Puducherry, with the help of a representative household survey of all non-institutionalized, men and women age 15 and above. The major objectives of the survey were to obtain estimates of prevalence of tobacco use (smoking and smokeless tobacco), exposure to second-hand smoke, cessation etc., for males and females at the national level and for each of the six geographical regions cross-classified by place of residence of the respondents (urban/rural). The survey was also designed to provide estimates of all the indicators for both males and females at state/UT level.

A.1 SAMPLE SIZE

For the purpose of GATS India, all the states/UTs in India are divided into 6 geographical regions as follows:

Region	States/UTs	Population (2001 Census)	
		In million	% to India's total population
India	29 states and 2 UTs	1028	100.0
North	Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh, Delhi (7 states/UT)	85	8.3
Central	Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh (4 states)	304	29.6
East	Bihar, Jharkhand, West Bengal, Odisha (4 states)	227	22.1
North-East	Assam, Meghalaya, Mizoram, Sikkim, Arunachal Pradesh, Manipur, Nagaland, Tripura (8 states)	40	3.9
West	Gujarat, Maharashtra, Goa (3 states)	149	14.5
South	Andhra Pradesh, Karnataka, Puducherry, Tamil Nadu, Kerala (5 states/UT)	223	21.8

The GATS sampling design manual has advocated a minimum sample size of 8,000 respondents to support country-level estimates. The overall sample size of 8,000 at national level or 2,000 for each of the male and female groups by the cross of urban/rural areas is determined with the assumption that, 1) the estimates computed at the national level should have a margin of error of 3 percentage points or less for

tobacco use rates of 40 percent with 95 percent confidence and 2) since a multi-stage design is to be employed it should compensate for an increase in the variance to the extent of having a design effect of 2.00.

Following GATS sampling guidelines, the sample size for each region was fixed at 8,000. The regional level sample was distributed by each state/UT within it in proportion to their population. However, such allocation of regional level sample to state/UT sample led to quite a small sample size in some smaller states. To all the states/UTs which got a sample size of lesser than 2,000, a minimum sample size of 2,000 was allocated. The exceptions were states in the North-Eastern region. Considering the small population size of these states and higher levels of tobacco use in these states, a minimum sample of 1,500 was fixed for each of these states. The state level sample sizes adjusted this way are shown in Table A.1.

The state/UT level sample was further allocated to urban and rural areas of the states/UTs in the proportion of urban/rural population as per 2001 census, within each state/UT.

It was decided to draw a sample of average of 30 households from each primary sampling unit (PSU). With an assumption of a sample of 30 per PSU, the number of PSUs to be selected from each state and urban/rural areas of each state was estimated.

A.2 SAMPLING FRAME

A.2.1 Urban sampling frame

In urban areas, a list of all wards of all cities/towns in a state/UT according to Census of India, 2001 formed a sampling frame. The Primary Census Abstract (PCA) provides details of all the wards in each town in urban areas. The list was arranged by geographical regions and then by female literacy.

A.2.2 Rural sampling frame

In rural areas, a list of all census villages in a state/UT according to Census of India, 2001 forms the sampling frame. Villages with less than 5 households are all removed from this frame, and villages with 5-49 households are all linked with nearby village. This way, each village (or group of villages) in the sampling frame has at least 50 households.

A.2.3 Stratification

To ensure the inclusion of villages and in turn households with different socio-economic characteristics in the sample, stratified sampling was adopted at first stage of sample selection. All the villages (or group of villages) were stratified by a number of variables. The first level of stratification was geographic, with districts being subdivided into contiguous regions in a state/UT. Within each of these regions in a state/UT, villages were further stratified using selected variables from the following list: village size, and percentage of the population belonging to scheduled castes or scheduled tribes. Female literacy was used for implicit stratification, i.e. in each stratum villages were arranged by the level of female literacy.

A.3 SAMPLING PROCEDURE

For GATS survey, sampling is done independently in each state/UT and within state/UT, independently in urban and rural areas.

A.3.1 Sampling procedure in urban areas

In urban areas, three stage sampling was adopted. At first level, city/town wards (PSUs) are selected using probability proportional to size (PPS) sampling. At second level, one census enumeration block (CEB) is selected at random from each selected ward, and at the third level, required number of households are selected from each CEB.

The list of all the wards of all the cities/towns is arranged according to contagious geographical regions and within the regions it is arranged according to female literacy rates. From the sampling frame of all the wards of all the cities/towns, a required number of PSUs are selected using probability proportional to size (PPS) sampling.

Most of the wards are quite large with thousands of households. Hence rather than selecting households directly from the ward, it was decided to have a smaller part of the ward for the purpose of selection of households. For the convenience of census operation, all the wards are further divided into census enumeration blocks (CEBs) by Census of India. Each CEB is of almost equal size comprising of about 125-150 households. From all the CEBs of the selected ward, one CEB is selected by PPS sampling.

A.3.2 Sampling procedure in rural areas

In rural areas, two stage sampling was adopted. At the first stage, required number of villages is selected using PPS sampling from each stratum of villages. At the second stage, required number of households is selected from each village.

All the villages are first stratified into different strata by using geographical regions, and further stratified by village size, proportion of scheduled caste, scheduled tribe population and female literacy. The required number of primary sample units (PSUs)-(villages) is distributed across the strata, according to the proportion of population within each stratum.

A.3.3 Selection of individual respondent

Selection of an individual for the interview involves three stages, 1) selection of the households in a sampled PSU 2) selection of a male/female household, i.e. household for an interview with a male/female member and 3) selection of a respondent from the household.

A.3.4 Selection of the household

A household listing operation carried out in each sample area, i.e. CEB in urban area provided the necessary frame for selecting households in the urban areas and in village/group of village in rural areas

provided the necessary frame for selecting households in rural areas. The house-listing operation involved preparing up-to-date location and layout sketch maps, assigning number to each structure, recording addresses of these structures, identifying residential structures, and then listing the names of heads of household. Listing of all households in large villages with 300 or more households was a huge task and involves errors due to omission or duplication. Hence large villages with 300 or more households were segmented into three or more segments (depending on village size) of almost equal segments each of about 100-200 households. From all the segments in each large village, two segments were selected by using PPS sampling. House-listing in the large PSUs was done only in the selected two segments. In all such large villages, sampling design became a three-stage design.

From each of the selected village and CEB, an equal number of households was not selected. The basic reason for this was to ensure self weighting design in terms of selection of households within urban or rural areas in a state/UT.

The number of households selected from each PSU was determined by the overall probability of selection of household in a rural area and the probability of selection of a PSU. The number of households selected in a rural PSU (segments of PSU) was the product of number of households listed in the PSU (segments of PSU) and the probability of selection of a household in the selected rural PSU.

f is the domain sampling fraction, i.e., the probability of selecting a household/person in rural area of a state/UT and is computed as:

$$f = \frac{n}{N}$$

where n = number of adults age 15 years and above to be interviewed (after adjusting upward to account for non-response and other loss),

N = projected rural population age 15 years and above in the state as on October, 2009 (midpoint of survey period).

The probability of selecting a PSU from rural area of a state (f_1) was computed as:

$$f_1 = \frac{a \times s_i}{\sum s_i}$$

where a = number of rural PSUs selected from the state,
s_i = population (HHs) size of the i^{th} PSU,
Σs_i = total rural population (HHs) of the state.

The probability of selecting a household from the total number of households listed in a selected rural PSU (f_2) is computed as:

$f_2 = f / f_1$

The probabilities f, f_1 and f_2 are estimated at the time of selection of PSUs.

However for rural PSUs, which needs segmentation, f_2 will be estimated after house-listing operation. In segmented PSU, f_2 is estimated as,

f_2 = f / (f_1 * fraction of a PSU selected for the survey).

The fraction of PSU selected for the survey is the ratio of number of households in two selected segments and total number of households in a PSU.

The number of households selected from each urban PSU is determined by the overall probability of selection of a household in an urban area and the probability of selection of a PSU. The number of households selected in an urban PSU is the product of number of households listed in the selected CEB and the probability of selection of a household in the selected CEB.

f is the domain sampling fraction, i.e., the probability of selecting a person in urban area of a state and is computed as:

$$f = \frac{n}{N}$$

where n = number of adults age 15 years and above to be interviewed (after adjusting upward to account for non-response and other loss),
N = projected urban population age 15 years and above in the state as on October, 2009 (midpoint of survey period).

The probability of selecting a PSU from urban area of a state (f_1) was computed as:

$$f_1 = \frac{a \times s_i}{\sum s_i}$$

where a = number of urban PSUs selected from the state,
s_i = population (HHs) size of the i^{th} PSU,
Σs_i = total urban population (HHs) of the state.

The probability of selecting a CEB from the selected ward (f_2) is computed as:

f_2 = is the ratio of population (HHs) of selected CEB and population (HHs) of ward

The probabilities f, and f_1 are estimated at the time of selection of PSUs but f_2 will be estimated only after the selection of CEB.

The probability of selecting household in a CEB is f_3 estimated as

f_3= f /(f_1* f_2).

Number of households to be selected in an urban PSU is estimated by applying probability of selecting household in a CEB - f_3 to the number of households listed in a CEB.

A.3.5 Selection of a male/female household:

Whether to select a male or a female respondent from a selected household was predetermined. From the sample of households in a PSU, starting from the first household as a male household (household from which a male member to be interviewed) alternate households were designated as male and female households.

A.4. WEIGHTS

The basic objective of weighting sample data is to improve representativeness of the sample in terms of the size, distribution and characteristics of the study population.

The weighting process for GATS India involved three steps:

1. the base weight or design weight
2. an adjustment for non-response by sample households and sample individuals eligible for the survey
3. a post-stratification adjustment (calibration) of sample totals to the population totals on survey period

1) Base weight

The inverse of the probability of selection of an individual respondent is the base weight. The probability of selection of an individual respondent for the survey in urban/rural area of any state/UT is the product of two probabilities; the first one is a probability of selecting a household in urban/rural area of any state/UT (same for all the households in urban/rural area of a state/UT). The second is a probability of selecting a male/female respondent. The second probability differed from a PSU to PSU depending on the number of households selected for male and female interviews in that PSU, which is estimated as the ratio of households selected for male/female interviews and total households selected in a PSU.

2) Non-response adjustment

Non-response adjustment is required at two stages, first non-response at household level and second, non-response at individual interview level. In each state/UT household level non-response is considered separately in urban and rural areas, and within rural area separately within each geographical region.

The non-response at individual level in each state/UT is computed separately for urban and rural area, and within urban/rural area separately for male and female interviews.

3) Post-stratification calibration

Similar to non-response adjustment, the post-stratification calibration is done in urban and rural area of each state/UT. Within urban/rural area of each state the total sample population of males and females in each of the four age-groups of 15-24, 25-44, 45-64 and 65+ is adjusted upward to match with projected sex-age group wise population in urban and rural area of each state as on October 2009, a mid-survey period.

Ultimately, the final weight (W) for an individual respondent was computed as the product of the base weights, the non-response adjustment and post-stratification calibration adjustment. The final weights were used in all analyses to produce estimates of population parameters.

Table A.1.: Sample design implementation and number of households and PSUs selected, GATS India, 2009-2010

Region and state/UT	Population counts (2001 census)			Target sample size			Non response adjusted/inflated sample size					No. of sampled PSUs
	Total	Rural	Urban	Total	Rural	Urban	Total	Male	Female	Rural	Urban	
India	1,027,814,832	741,946,119	285,868,713	70,802	42,647	28,155	79,719	39,982	39,737	47,978	31,741	2,366
North	84,965,654	51,582,251	33,383,403	14,238	7,651	6,587	16,190	8,103	8,087	8,973	7,217	477
Jammu & Kashmir	10,143,700	7,627,062	2,516,638	2,000	1,504	496	2,178	1,090	1,088	1,675	503	67
Himachal Pradesh	6077900	5,482,319	595,581	2,000	1,804	196	2,392	1,196	1,196	2,151	241	67
Punjab	24358999	16,096,488	8,262,511	2,238	1,248	990	2,540	1,268	1,272	1,405	1,135	75
Chandigarh	900635	92,120	808,515	2,000	205	1,795	2,271	1,140	1,131	243	2,028	67
Uttarakhand	8489349	6,310,275	2,179,074	2,000	1,487	513	2,315	1,159	1,156	1,744	571	67
Haryana	21144564	15,029,260	6,115,304	2,000	1,267	733	2,246	1,126	1,120	1,537	709	67
Delhi	13850507	944,727	12,905,780	2,000	136	1,864	2,248	1,124	1,124	218	2,030	67
Central	303,886,935	235,980,086	67,906,849	10,267	6,111	4,156	11,541	5,787	5,754	7,024	4,517	343
Rajasthan	56507188	43,292,813	13,214,375	2,000	1,222	778	2,243	1,134	1,109	1,349	894	67
Uttar Pradesh	166197921	131,658,339	34,539,582	4,267	2,232	2,035	4,670	2,337	2,333	2,518	2,152	142
Chhattisgarh	20833803	16,648,056	4,185,747	2,000	1,598	402	2,371	1,189	1,182	1,929	442	67
Madhya Pradesh	60348023	44,380,878	15,967,145	2,000	1,059	941	2,257	1,127	1,130	1,228	1,029	67
East	226,925,195	184,305,165	42,620,030	9,786	5,785	4,001	11,011	5,508	5,503	6,390	4,621	327
West Bengal	80176197	57,748,946	22,427,251	3,358	1,253	2,105	3,668	1,832	1,836	1,318	2,350	111
Jharkhand	26945829	20,952,088	5,993,741	2,000	1,437	563	2,371	1,184	1,187	1,678	693	67
Odisha	36804660	31,287,422	5,517,238	2,000	1,482	518	2,261	1,133	1,128	1,636	625	67
Bihar	82998509	74,316,709	8,681,800	2,428	1,613	815	2,711	1,359	1,352	1,758	953	81
North-East	38,857,769	32,771,156	6,086,613	15,594	12,508	3,086	17,614	8,802	8,812	14,023	3,591	520
Sikkim	540851	480,981	59,870	1,500	1,334	166	1,707	852	855	1,509	198	50
Arunachal Pradesh	1097968	870,087	227,881	1,500	1,189	311	1,730	864	866	1,433	297	50
Nagaland	1990036	1,647,249	342,787	1,500	1,241	259	1,720	859	861	1,377	343	50
Manipur	2166788	1,590,820	575,968	1,500	1,101	399	1,664	830	834	1,177	487	50
Mizoram	888573	447,567	441,006	1,500	756	744	1,693	846	847	852	841	50
Tripura	3199203	2,653,453	545,750	1,500	1,244	256	1,661	831	830	1,381	280	50
Meghalaya	2318822	1,864,711	454,111	1,500	1,206	294	1,740	869	871	1,416	324	50
Assam	26655528	23,216,288	3,439,240	5,094	4,437	657	5,699	2,851	2,848	4,878	821	170
West	148,897,312	88,195,505	60,701,807	9,925	4,975	4,950	10,945	5,553	5,392	5,143	5,802	332
Gujarat	50671017	31,740,767	18,930,250	2,687	1,440	1,247	3,002	1,531	1,471	1,455	1,547	90
Maharashtra	96878627	55,777,647	41,100,980	5,238	2,530	2,708	5,782	2,942	2,840	2,626	3,156	175
Goa	1347668	677,091	670,577	2,000	1,005	995	2,161	1,080	1,081	1,062	1,099	67
South	224,281,967	149,111,956	75,170,011	10,992	5,617	5,375	12,418	6,229	6,189	6,425	5,993	367
Andhra Pradesh	76210007	55,401,067	20,808,940	2,593	1,486	1,107	2,916	1,458	1,458	1,588	1,328	86
Karnataka	52850562	34,889,033	17,961,529	2,000	1,044	956	2,300	1,150	1,150	1,148	1,152	67
Kerala	31841374	23,574,449	8,266,925	2,000	1,481	519	2,299	1,150	1,149	1,655	644	67
Tamil Nadu	62405679	34,921,681	27,483,998	2, 399	937	1,462	2,670	1,337	1,333	1,214	1,456	80
Puducherry	974,345	325,726	648,619	2,000	669	1,331	2,233	1,134	1,099	820	1,413	67

Note: The following Union Territories (UTs) were excluded from India: Daman & Diu; Dadra Nagar Haveli; Andaman and Nicobar Islands; and Lakshadweep.

APPENDIX B: ESTIMATES OF SAMPLING ERRORS

The estimates from a sample survey are affected by two types of error: (1) non-sampling errors, and (2) sampling errors. *Non-sampling errors* are the result of errors or mistakes that cannot be attributable to sampling and were made in implementing data collection and data processing, such as errors in coverage, response errors, non-response errors, faulty questionnaires, interviewer recording errors, data processing errors, etc. Although numerous efforts were made during the implementation of GATS in India to minimize those errors, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

The sample of respondents selected in the GATS India was only one of the samples that could have been selected from the same population, using the same design and sample size. Each of these samples would yield results that differed somewhat from the results of the actual sample selected. *Sampling errors* are a measure of the variability between all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey results.

The following sampling error measures are presented for each of the selected indicator:

- *Standard error (SE):* Sampling errors are usually measured in terms of standard errors for particular estimate or indicator (R). Standard error of an estimate is thus simply the square root of the variance of that estimate, and is computed in the same units as the estimate.

- *Design effect (DEFT)* shows the efficiency of the sample design and is calculated for each estimate as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a DEFT value above 1.0 indicates the increase in the standard error due to the use of a more complex sample design. In general, for a well designed study, DEFT usually ranges from 1 to 3. It is common, however, for DEFT to be much larger, up to 7 or 8.

- *Relative standard error (SE/R)* is the ratio of the standard error to the value of the indicator.

- *Confidence limits* (R±1.96SE) are calculated to show the interval within which the true value for the population can be reasonably assumed to fall. For any given statistic calculated from the survey, the value of that statistics will fall within a range of plus or minus two times the standard error of the statistic in 95 percent of all possible samples of identical size and design.

Calculation of standard error

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the GATS 2009-2010 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. For the calculation of sampling errors from GATS India data, SPSS Version 17 with complex

samples module was used. The Taylor linearization method of variance estimation was used for survey estimates that are means or proportions.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below:

$$SE^2(r) = \text{var}(r) = \frac{1-f}{x^2}\sum_{h=1}^{2}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} Z_{hi}^2 - \frac{Z_h^2}{m_h}\right)\right]$$

$$\text{in which, } Z_{hi} = y_{hi} - rx_{hi}, \text{ and } Z_h = y_h - rx_h$$

where h *(=1 or 2)* represents the stratum which is urban or rural,
m_h is the total number of PSUs selected in the hth stratum,
y_{hi} is the sum of the weighted values of variable y in the ith PSU in the hth stratum,
x_{hi} is the sum of the weighted number of cases in the ith PSU in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The results are presented in this appendix for the country as a whole, for urban and rural areas, and for gender. For each variable or indicator, the type of statistic (mean, proportion, or rate) and the base population are given in **Table B.1**. In addition to the standard error (SE) described above, the tables (**Tables B.2** to **B.6**) include the value of the estimate (R), the number of un-weighted and weighted counts, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits.

APPENDIX B.1 LIST OF INDICATOR FOR SAMPLING ERRORS. GATS INDIA 2009-2010

Indicators	Estimate	Base Population
Current tobacco users	Proportion	Adults age 15 and above
Current tobacco smokers	Proportion	Adults age 15 and above
Current cigarette smokers	Proportion	Adults age 15 and above
Current bidi smokers	Proportion	Adults age 15 and above
Current users of smokeless tobacco	Proportion	Adults age 15 and above
Daily tobacco users	Proportion	Adults age 15 and above
Daily tobacco smoker	Proportion	Adults age 15 and above
Daily cigarette smokers	Proportion	Adults age 15 and above
Daily bidi smokers	Proportion	Adults age 15 and above
Daily users of smokeless tobacco	Proportion	Adults age 15 and above
Former daily tobacco users among all adults	Proportion	Adults age 15 and above
Former tobacco users among ever daily tobacco users	Proportion	Ever daily tobacco users age 15 and above
Former daily tobacco smokers among all adults	Proportion	Adults age 15 and above
Former tobacco smokers among ever daily smokers	Proportion	Ever daily tobacco smokers age 15 and above
Former daily users of smokeless tobacco among all adults	Proportion	Adults age 15 and above
Former daily users of smokeless tobacco among ever daily users of smokeless tobacco	Proportion	Ever daily users of smokeless tobacco age 15 and above
Time to first tobacco use within 5 minutes of waking	Proportion	Daily tobacco users age 15 and above
Time to first tobacco use within 6-30 minutes of waking	Proportion	Daily tobacco users age 15 and above
Smoking quit attempt in the past 12 months	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Smokeless tobacco quit attempt in the past 12 months	Proportion	Current and former users of smokeless tobacco who have been abstinent for less than 12 months
Health care provider asked about smoking	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Health care provider asked about use of smokeless tobacco	Proportion	Current and former users of smokeless tobacco who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Health care provider advised quitting smoking	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Health care provider advised quitting the use of smokeless tobacco	Proportion	Current and former users of smokeless tobacco who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Use of pharmacotherapy for smoking cessation	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Use of counselling/advice or quit lines for smoking cessation	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Use of counselling/advice or quit lines for smokeless tobacco cessation	Proportion	Current and former users of smokeless tobacco who have been abstinent for less than 12 months
Planning to quit, thinking about quitting, or will quit smoking	Proportion	Current smokers age 15 and above
Planning to quit, thinking about quitting, or will quit smokeless tobacco	Proportion	Current users of smokeless tobacco age 15 and above
Exposure to SHS at home	Proportion	Adults age 15 and above

Appendix B.1: Continued

Indicators	Estimate	Base Population
Exposure to SHS at workplace	Proportion	Adults who works indoors
Exposure to SHS in Government buildings/offices	Proportion	Adults age 15 and above
Exposure to SHS in health care facilities	Proportion	Adults age 15 and above
Exposure to SHS in restaurants	Proportion	Adults age 15 and above
Exposure to SHS on public transportation	Proportion	Adults age 15 and above
Exposure to SHS at any public place	Proportion	Adults age 15 and above
Last cigarette purchase in store	Proportion	Current manufactured smokers age 15 and above
Last cigarette purchase at street vendor	Proportion	Current manufactured smokers age 15 and above
Last cigarette purchase in kiosk	Proportion	Current manufactured smokers age 15 and above
Last bidi purchase in store	Proportion	Current bidi smokers age 15 and above
Last bidi purchase at street vendor	Proportion	Current bidi smokers age 15 and above
Last bidi purchase in kiosk	Proportion	Current bidi smokers age 15 and above
Last smokeless tobacco purchase in store	Proportion	Current users of smokeless tobacco age 15 and above
Last smokeless tobacco purchase at street vendor	Proportion	Current users of smokeless tobacco age 15 and above
Last smokeless tobacco purchase in kiosk	Proportion	Current users of smokeless tobacco age 15 and above
Noticed anti-tobacco information on radio or television	Proportion	Adults age 15 and above
Noticed health warning labels on cigarette packages	Proportion	Current cigarette smokers age 15 and above
Noticed health warning labels on bidi packages	Proportion	Current bidi smokers age 15 and above
Noticed health warning labels on smokeless tobacco packages	Proportion	Current users of smokeless tobacco age 15 and above
Thinking of quitting because of health warning labels on cigarette package	Proportion	Current cigarette smokers age 15 and above
Thinking of quitting because of health warning labels on bidi package	Proportion	Current bidi smokers age 15 and above
Thinking of quitting because of health warning labels on smokeless tobacco package	Proportion	Current users of smokeless tobacco age 15 and above
Noticed any cigarette advertisement or promotion	Proportion	Adults age 15 and above
Noticed any bidi advertisement or promotion	Proportion	Adults age 15 and above
Noticed any smokeless tobacco advertisement or promotion	Proportion	Adults age 15 and above
Believes that tobacco smoking causes serious illness	Proportion	Adults age 15 and above
Believes that tobacco smoking causes strokes	Proportion	Adults age 15 and above
Believes that tobacco smoking causes heart attacks	Proportion	Adults age 15 and above
Believes that tobacco smoking causes lung cancer	Proportion	Adults age 15 and above
Believes that using smokeless tobacco causes serious illness	Proportion	Adults age 15 and above
Believes that SHS causes serious illness in non-smokers	Proportion	Adults age 15 and above
Number of cigarettes smoked per day (by daily smokers)	Mean	Current cigarette smokers age 15 and above
Number of bidis smoked per day (by daily smokers)	Mean	Current bidi smokers age 15 and above
Time since quitting smoking (in years)	Mean	Former smokers age 15 and above
Time since quitting smokeless tobacco (in years)	Mean	Former users of smokeless tobacco age 15 and above
Monthly expenditures on manufactured cigarettes	Mean	Current cigarette smokers age 15 and above
Monthly expenditures on bidis	Mean	Current bidi smokers age 15 and above
Age at daily smoking initiation	Mean	Ever daily smokers age 15 and above
Age at daily smokeless tobacco initiation	Mean	Ever daily users of smokeless tobacco age 15 and above

Appendix B.2 Sampling errors for national sample, GATS India 2009-2010

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted Count (000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R-1.96 SE)	Upper Limit (R+ 1.96 SE)
Current tobacco users	0.346	0.005	69,296	795,534	2.618	0.014	0.336	0.355
Current tobacco smokers	0.140	0.003	69,296	795,534	2.226	0.021	0.134	0.146
Current cigarette smokers	0.057	0.002	69,296	795,534	2.100	0.032	0.054	0.061
Current bidi smokers	0.092	0.003	69,296	795,534	2.459	0.029	0.086	0.097
Current users of smokeless tobacco	0.259	0.005	69,296	795,534	3.046	0.020	0.249	0.269
Daily tobacco users	0.291	0.004	69,296	795,534	2.473	0.015	0.283	0.300
Daily tobacco smoker	0.107	0.003	69,296	795,534	2.260	0.025	0.101	0.112
Daily cigarette smokers	0.035	0.002	69,296	795,534	2.145	0.042	0.033	0.038
Daily bidi smokers	0.075	0.002	69,296	795,534	2.400	0.032	0.071	0.080
Daily users of smokeless tobacco	0.214	0.004	69,296	795,534	2.880	0.021	0.205	0.223
Former daily tobacco users among all adults	0.026	0.001	69,296	795,534	1.887	0.044	0.024	0.029
Former tobacco users among ever daily tobacco users	0.437	0.014	4,501	48,109	1.918	0.032	0.409	0.465
Former daily tobacco smokers among all adults	0.017	0.001	69,296	795,534	1.870	0.055	0.015	0.018
Former tobacco smokers among ever daily smokers	0.126	0.007	11,050	104,915	2.092	0.052	0.113	0.139
Former daily users of smokeless tobacco among all adults	0.012	0.001	69,296	795,534	1.735	0.061	0.010	0.013
Former daily users of smokeless tobacco among ever daily users of smokeless tobacco	0.048	0.003	15,028	190,092	1.619	0.059	0.043	0.054
Time to first tobacco use within 5 minutes of waking	0.213	0.006	20,269	231,621	2.202	0.030	0.200	0.225
Time to first tobacco use within 6-30 minutes of waking	0.389	0.007	20,269	231,621	2.020	0.018	0.375	0.402
Smoking quit attempt in the past 12 months	0.384	0.011	11,754	114,204	2.398	0.028	0.362	0.405
Smokeless tobacco quit attempt in the past 12 months	0.354	0.008	17,064	210,646	2.135	0.022	0.339	0.370
Health care provider asked about smoking	0.530	0.014	5,079	54,249	1.973	0.026	0.503	0.558
Health care provider asked about use of smokeless tobacco	0.342	0.009	7,436	96,920	1.708	0.027	0.324	0.361
Health care provider advised quitting smoking	0.463	0.014	5,076	54,243	1.974	0.030	0.436	0.490
Health care provider advised quitting the use of smokeless tobacco	0.267	0.009	7,432	96,867	1.711	0.033	0.250	0.284
Use of pharmacotherapy for smoking cessation	0.041	0.005	3,750	43,654	1.607	0.128	0.030	0.051
Use of counseling/advice or quit lines for smoking cessation	0.092	0.008	3,747	43,574	1.677	0.086	0.076	0.107
Use of counseling/advice or quit lines for smokeless tobacco cessation	0.076	0.006	5,093	74,396	1.627	0.080	0.064	0.088
Planning to quit, thinking about quitting, or will quit smoking	0.466	0.010	11,505	110,447	2.201	0.022	0.446	0.486
Planning to quit, thinking about quitting, or will quit smokeless tobacco	0.452	0.009	16,670	204,720	2.258	0.019	0.435	0.469
Exposure to SHS at home	0.523	0.008	67,255	782,378	3.919	0.014	0.509	0.538
Exposure to SHS at workplace	0.299	0.009	14,073	124,961	2.297	0.030	0.281	0.316
Exposure to SHS in government buildings/offices	0.066	0.002	68,619	790,866	2.231	0.032	0.062	0.070
Exposure to SHS in health care facilities	0.054	0.002	68,786	791,091	2.334	0.037	0.050	0.058
Exposure to SHS in restaurants	0.113	0.004	68,872	792,439	2.929	0.031	0.106	0.120
Exposure to SHS on public transportation	0.175	0.004	68,919	792,945	2.900	0.024	0.166	0.183

Appendix B.2 Continued

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted Count (000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R-1.96 SE)	Upper Limit (R+ 1.96 SE)
Exposure to SHS at any Public Place	0.290	0.005	68,299	787,398	2.717	0.016	0.281	0.299
Last cigarette purchase in store	0.505	0.018	4,885	36,687	2.462	0.035	0.470	0.539
Last cigarette purchase at street vendor	0.164	0.012	4,885	36,687	2.212	0.071	0.141	0.187
Last cigarette purchase in kiosk	0.306	0.017	4,885	36,687	2.626	0.057	0.272	0.340
Last bidi purchase in store	0.485	0.018	6,271	68,963	2.793	0.036	0.451	0.520
Last bidi purchase at street vendor	0.114	0.009	6,271	68,963	2.225	0.078	0.097	0.132
Last bidi purchase in kiosk	0.394	0.018	6,271	68,963	2.959	0.046	0.358	0.430
Last smokeless tobacco purchase in store	0.547	0.012	15,902	195,156	3.007	0.022	0.524	0.570
Last smokeless tobacco purchase at street vendor	0.104	0.006	15,902	195,156	2.412	0.056	0.093	0.116
Last smokeless tobacco purchase in kiosk	0.319	0.011	15,902	195,156	3.046	0.035	0.297	0.341
Noticed anti-tobacco information on radio or television	0.634	0.007	54,366	551,911	3.563	0.012	0.620	0.649
Noticed health warning labels on cigarette packages	0.708	0.013	6,008	45,550	2.292	0.019	0.681	0.734
Noticed health warning labels on bidi packages	0.623	0.014	6,289	71,342	2.292	0.022	0.595	0.650
Noticed health warning labels on smokeless tobacco packages	0.629	0.009	16,737	205,389	2.391	0.014	0.611	0.646
Thinking of quitting because of health warning labels on cigarette package	0.380	0.013	5,984	45,513	2.077	0.034	0.355	0.406
Thinking of quitting because of health warning labels on bidi package	0.293	0.014	5,912	67,158	2.335	0.047	0.266	0.320
Thinking of quitting because of health warning labels on smokeless tobacco package	0.338	0.008	16,689	204,961	2.173	0.024	0.323	0.354
Noticed any cigarette advertisement or promotion	0.284	0.006	68,239	783,985	3.505	0.021	0.272	0.295
Noticed any bidi advertisement or promotion	0.470	0.011	35,989	350,851	4.040	0.023	0.449	0.491
Noticed any smokeless tobacco advertisement or promotion	0.547	0.010	38,147	385,227	4.107	0.019	0.527	0.568
Believes that tobacco smoking causes serious illness	0.902	0.003	69,143	794,169	2.549	0.003	0.896	0.908
Believes that tobacco smoking causes strokes	0.494	0.006	69,120	793,957	3.155	0.012	0.482	0.505
Believes that tobacco smoking causes heart attacks	0.639	0.005	69,107	793,907	2.945	0.008	0.629	0.650
Believes that tobacco smoking causes lung cancer	0.849	0.004	69,127	793,958	2.643	0.004	0.842	0.856
Believes that using smokeless tobacco causes serious illness	0.888	0.003	69,144	794,094	2.659	0.004	0.881	0.894
Believes that SHS causes serious illness in non-smokers	0.829	0.004	69,239	794,875	2.927	0.005	0.821	0.837
Number of cigarettes smoked per day (by daily smokers)	6.204	0.186	4,145	28,207	1.925	0.030	5.838	6.569
Number of bidis smoked per day (by daily smokers)	11.617	0.262	5,525	59,990	2.060	0.023	11.104	12.130
Time since quitting smoking (in years)	11.353	0.679	1,130	13,018	1.896	0.060	10.023	12.684
Time since quitting smokeless tobacco (in years)	5.977	0.391	677	8,885	1.406	0.065	5.210	6.744
Monthly expenditures on manufactured cigarettes	399.163	14.719	2,960	20,266	1.758	0.037	370.313	428.012
Monthly expenditures on bidis	93.431	2.819	4,662	49,707	2.127	0.030	87.906	98.957
Age at daily smoking initiation	17.936	0.204	2,299	21,764	2.037	0.011	17.536	18.336
Age at daily smokeless tobacco initiation	17.942	0.135	4,508	62,070	1.629	0.008	17.678	18.206

Appendix B.3 Sampling errors for males, GATS India 2009-2010

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted Count(000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R-1.96SE)	Upper Limit (R+1.96 SE)
Current tobacco users	0.479	0.006	33,767	411,149	2.274	0.013	0.467	0.491
Current tobacco smokers	0.243	0.005	33,767	411,149	2.176	0.021	0.233	0.253
Current cigarette smokers	0.103	0.003	33,767	411,149	2.050	0.033	0.096	0.110
Current bidi smokers	0.160	0.005	33,767	411,149	2.404	0.030	0.151	0.169
Current users of smokeless tobacco	0.329	0.007	33,767	411,149	2.617	0.020	0.316	0.342
Daily tobacco users	0.408	0.006	33,767	411,149	2.197	0.014	0.396	0.419
Daily tobacco smoker	0.183	0.005	33,767	411,149	2.227	0.026	0.174	0.193
Daily cigarette smokers	0.063	0.003	33,767	411,149	2.083	0.044	0.058	0.068
Daily bidi smokers	0.131	0.004	33,767	411,149	2.345	0.033	0.122	0.139
Daily users of smokeless tobacco	0.274	0.006	33,767	411,149	2.564	0.023	0.262	0.287
Former daily tobacco users among all adults	0.038	0.002	33,767	411,149	1.784	0.049	0.034	0.042
Former tobacco users among ever daily tobacco users	0.396	0.015	3,678	39,395	1.912	0.039	0.366	0.426
Former daily tobacco smokers among all adults	0.027	0.002	33,767	411,149	1.756	0.057	0.024	0.030
Former tobacco smokers among ever daily smokers	0.121	0.007	9,748	92,464	2.017	0.055	0.108	0.134
Former daily users of smokeless tobacco among all adults	0.014	0.001	33,767	411,149	1.669	0.076	0.012	0.016
Former daily users of smokeless tobacco among ever daily users of smokeless tobacco	0.046	0.003	9,283	124,582	1.583	0.075	0.039	0.053
Time to first tobacco use within 5 minutes of waking	0.213	0.007	14,489	167,445	2.188	0.035	0.198	0.228
Time to first tobacco use within 6-30 minutes of waking	0.408	0.008	14,489	167,445	1.990	0.020	0.392	0.424
Smoking quit attempt in the past 12 months	0.383	0.011	10,394	102,410	2.333	0.029	0.361	0.405
Smokeless tobacco quit attempt in the past 12 months	0.388	0.010	10,391	137,973	2.029	0.025	0.369	0.407
Health care provider asked about smoking	0.540	0.014	4,491	47,992	1.944	0.027	0.512	0.569
Health care provider asked about use of smokeless tobacco	0.358	0.012	4,206	59,070	1.610	0.033	0.335	0.381
Health care provider advised quitting smoking	0.473	0.014	4,490	47,992	1.940	0.031	0.445	0.501
Health care provider advised quitting the use of smokeless tobacco	0.281	0.011	4,205	59,019	1.570	0.039	0.259	0.302
Use of pharmacotherapy for smoking cessation	0.043	0.006	3,312	39,073	1.592	0.130	0.032	0.055
Use of counselling/advice or quit lines for smoking cessation	0.093	0.008	3,308	38,988	1.629	0.088	0.077	0.109
Use of counselling/advice or quit lines for smokeless tobacco cessation	0.066	0.007	3,268	53,362	1.558	0.102	0.053	0.080
Planning to quit, thinking about quitting, or will quit smoking	0.473	0.011	10,174	99,181	2.218	0.023	0.451	0.494
Planning to quit, thinking about quitting, or will quit smokeless tobacco	0.483	0.010	10,179	134,451	2.100	0.022	0.463	0.504
Exposure to SHS at home	0.522	0.008	32,880	404,150	3.018	0.016	0.506	0.538
Exposure to SHS at workplace	0.322	0.010	11,115	102,378	2.260	0.031	0.302	0.342
Exposure to SHS in Government buildings/offices	0.103	0.004	33,410	408,212	2.126	0.034	0.096	0.110
Exposure to SHS in health care facilities	0.060	0.003	33,477	408,020	2.244	0.048	0.054	0.066
Exposure to SHS in restaurants	0.192	0.006	33,555	409,590	2.825	0.032	0.180	0.204
Exposure to SHS on public transportation	0.220	0.006	33,600	409,615	2.679	0.028	0.208	0.232

Appendix B.3 Continued

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted Count(000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R -1.96SE)	Upper Limit (R+1.96 SE)
Exposure to SHS at any public place	0.395	0.007	33,272	406,206	2.586	0.018	0.382	0.409
Last cigarette purchase in store	0.504	0.018	4,696	36,193	2.425	0.035	0.469	0.539
Last cigarette purchase at street vendor	0.165	0.012	4,696	36,193	2.186	0.072	0.142	0.188
Last cigarette purchase in kiosk	0.306	0.017	4,696	36,193	2.585	0.057	0.272	0.340
Last bidi purchase in store	0.482	0.018	5,620	63,090	2.717	0.038	0.446	0.517
Last bidi purchase at street vendor	0.122	0.010	5,620	63,090	2.209	0.079	0.103	0.141
Last bidi purchase in kiosk	0.394	0.019	5,620	63,090	2.925	0.048	0.356	0.431
Last smokeless tobacco purchase in store	0.497	0.013	9,717	128,398	2.652	0.027	0.470	0.523
Last smokeless tobacco purchase at street vendor	0.122	0.008	9,717	128,398	2.319	0.063	0.107	0.137
Last smokeless tobacco purchase in kiosk	0.373	0.013	9,717	128,398	2.746	0.036	0.347	0.399
Noticed Anti-tobacco Information on radio or television	0.636	0.009	27,314	298,830	3.094	0.014	0.618	0.653
Noticed health warning labels on cigarette packages	0.749	0.013	5,498	42,358	2.185	0.017	0.724	0.774
Noticed health warning labels on bidi packages	0.649	0.014	5,571	64,283	2.159	0.021	0.622	0.677
Noticed health warning labels on smokeless tobacco packages	0.734	0.009	10,220	134,941	2.071	0.012	0.717	0.752
Thinking of quitting because of health warning labels on cigarette package	0.402	0.013	5,476	42,321	2.016	0.033	0.375	0.428
Thinking of quitting because of health warning labels on bidi package	0.309	0.015	5,268	61,002	2.318	0.048	0.280	0.338
Thinking of quitting because of health warning labels on smokeless tobacco package	0.414	0.010	10,193	134,689	2.024	0.024	0.395	0.433
Noticed any cigarette advertisement or promotion	0.363	0.008	33,319	406,293	3.160	0.023	0.347	0.380
Noticed any bidi advertisement or promotion	0.509	0.012	19,327	211,105	3.469	0.024	0.485	0.534
Noticed any smokeless tobacco advertisement or promotion	0.586	0.012	20,737	233,344	3.505	0.020	0.563	0.610
Believes that tobacco smoking causes serious illness	0.915	0.003	33,691	410,554	2.226	0.004	0.909	0.922
Believes that tobacco smoking causes strokes	0.505	0.008	33,675	410,502	2.844	0.015	0.489	0.520
Believes that tobacco smoking causes heart attacks	0.651	0.007	33,670	410,465	2.569	0.010	0.638	0.664
Believes that tobacco smoking causes lung cancer	0.872	0.005	33,690	410,501	2.506	0.005	0.863	0.881
Believes that using smokeless tobacco causes serious illness	0.901	0.004	33,691	410,495	2.393	0.004	0.894	0.909
Believes that shs causes serious illness in non-smokers	0.849	0.005	33,728	410,823	2.638	0.006	0.839	0.859
Number of cigarettes smoked per day (by daily smokers)	6.130	0.190	3,794	25,901	1.896	0.031	5.758	6.502
Number of bidis smoked per day (by daily smokers)	12.223	0.272	4,900	53,689	2.008	0.022	11.689	12.757
Time since quitting smoking (in years)	11.153	0.729	983	11,064	1.926	0.065	9.724	12.582
Time since quitting smokeless tobacco (in years)	6.462	0.524	398	5,495	1.429	0.081	5.436	7.489
Monthly expenditures on manufactured cigarettes	401.663	14.876	2,878	20,040	1.769	0.037	372.506	430.819
Monthly expenditures on bidis	96.988	2.955	4,229	45,982	2.111	0.030	91.196	102.781
Age at daily smoking initiation	18.140	0.199	2,130	20,460	2.046	0.011	17.750	18.531
Age at daily smokeless tobacco initiation	18.217	0.141	2,975	47,133	1.636	0.008	17.940	18.494

Appendix B.4 Sampling errors for females, GATS India 2009-2010

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted count(000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R-1.96 SE)	Upper Limit (R+1.96 SE)
Current tobacco users	0.203	0.005	35,529	384,384	2.526	0.027	0.192	0.213
Current tobacco smokers	0.029	0.002	35,529	384,384	2.400	0.073	0.025	0.034
Current cigarette smokers	0.008	0.001	35,529	384,384	2.280	0.132	0.006	0.010
Current bidi smokers	0.019	0.002	35,529	384,384	2.454	0.094	0.015	0.022
Current users of smokeless tobacco	0.184	0.005	35,529	384,384	2.587	0.029	0.174	0.194
Daily tobacco users	0.167	0.005	35,529	384,384	2.388	0.028	0.158	0.176
Daily tobacco smoker	0.024	0.002	35,529	384,384	2.363	0.079	0.021	0.028
Daily cigarette smokers	0.006	0.001	35,529	384,384	2.353	0.161	0.004	0.008
Daily bidi smokers	0.016	0.002	35,529	384,384	2.410	0.099	0.013	0.020
Daily users of smokeless tobacco	0.149	0.005	35,529	384,384	2.470	0.031	0.140	0.158
Former daily tobacco users among all adults	0.014	0.001	35,529	384,384	1.973	0.088	0.012	0.016
Former tobacco users among ever daily tobacco users	0.620	0.035	823	8,714	2.063	0.056	0.552	0.689
Former daily tobacco smokers among all adults	0.005	0.001	35,529	384,384	2.001	0.146	0.004	0.007
Former tobacco smokers among ever daily smokers	0.162	0.021	1,302	12,451	2.063	0.130	0.121	0.203
Former daily users of smokeless tobacco among all adults	0.009	0.001	35,529	384,384	1.815	0.101	0.007	0.011
Former daily users of smokeless tobacco among ever daily users of smokeless tobacco	0.052	0.005	5,745	65,510	1.748	0.098	0.042	0.063
Time to first tobacco use within 5 minutes of waking	0.212	0.012	5,780	64,177	2.196	0.056	0.189	0.235
Time to first tobacco use within 6-30 minutes of waking	0.339	0.012	5,780	64,177	1.989	0.037	0.315	0.363
Smoking quit attempt in the past 12 months	0.389	0.028	1,360	11,794	2.150	0.073	0.333	0.445
Smokeless tobacco quit attempt in the past 12 months	0.290	0.011	6,673	72,673	1.913	0.037	0.269	0.311
Health care provider asked about smoking	0.455	0.041	588	6,257	2.009	0.091	0.374	0.536
Health care provider asked about use of smokeless tobacco	0.318	0.015	3,230	37,850	1.781	0.046	0.290	0.347
Health care provider advised quitting smoking	0.389	0.039	586	6,251	1.947	0.101	0.312	0.466
Health care provider advised quitting the use of smokeless tobacco	0.245	0.013	3,227	37,847	1.770	0.055	0.219	0.272
Use of pharmacotherapy for smoking cessation	0.016	0.007	438	4,582	1.079	0.402	0.003	0.029
Use of counseling/advice or quit lines for smoking cessation	0.081	0.025	439	4,587	1.918	0.308	0.032	0.130
Use of counseling/advice or quit lines for smokeless tobacco cessation	0.100	0.011	1,825	21,034	1.611	0.113	0.078	0.122
Planning to quit, thinking about quitting, or will quit smoking	0.406	0.031	1,331	11,266	2.266	0.075	0.346	0.465
Planning to quit, thinking about quitting, or will quit smokeless tobacco	0.391	0.013	6,491	70,269	2.072	0.032	0.367	0.416
Exposure to SHS at home	0.525	0.009	34,375	378,228	3.458	0.018	0.507	0.543
Exposure to SHS at workplace	0.194	0.016	2,958	22,582	2.216	0.083	0.162	0.225
Exposure to SHS in Government buildings/offices	0.026	0.002	35,209	382,654	1.838	0.060	0.023	0.029
Exposure to SHS in health care facilities	0.048	0.002	35,309	383,071	2.130	0.051	0.043	0.053
Exposure to SHS in restaurants	0.028	0.002	35,317	382,849	2.315	0.072	0.024	0.032

Appendix B.4 Continued

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted count(000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R-1.96 SE)	Upper Limit (R+1.96 SE)
Exposure to SHS on public transportation	0.126	0.004	35,319	383,329	2.443	0.034	0.118	0.135
Exposure to SHS at any public place	0.178	0.005	35,027	381,192	2.408	0.028	0.168	0.188
Last cigarette purchase in store	0.568	0.103	189	493	2.859	0.182	0.365	0.770
Last cigarette purchase at street vendor	0.126	0.052	189	493	2.146	0.412	0.024	0.228
Last cigarette purchase in kiosk	0.271	0.097	189	493	2.982	0.357	0.082	0.460
Last bidi purchase in store	0.522	0.046	651	5,873	2.372	0.089	0.431	0.613
Last bidi purchase at street vendor	0.033	0.009	651	5,873	1.245	0.266	0.016	0.050
Last bidi purchase in kiosk	0.398	0.047	651	5,873	2.438	0.118	0.306	0.489
Last smokeless tobacco purchase in store	0.643	0.017	6,185	66,758	2.715	0.026	0.610	0.675
Last smokeless tobacco purchase at street vendor	0.071	0.007	6,185	66,758	2.084	0.096	0.058	0.085
Last smokeless tobacco purchase in kiosk	0.216	0.015	6,185	66,758	2.839	0.069	0.187	0.245
Noticed anti-tobacco information on radio or television	0.633	0.009	27,052	253,081	3.156	0.015	0.615	0.651
Noticed health warning labels on cigarette packages	0.166	0.035	510	3,192	2.119	0.210	0.098	0.235
Noticed health warning labels on bidi packages	0.380	0.045	718	7,059	2.499	0.119	0.291	0.468
Noticed health warning labels on smokeless tobacco packages	0.426	0.015	6,517	70,448	2.442	0.035	0.397	0.455
Thinking of quitting because of health warning labels on cigarette package	0.095	0.027	508	3,192	2.048	0.281	0.042	0.147
Thinking of quitting because of health warning labels on bidi package	0.137	0.029	644	6,156	2.173	0.215	0.080	0.195
Thinking of quitting because of health warning labels on smokeless tobacco package	0.194	0.010	6,496	70,272	1.993	0.050	0.175	0.213
Noticed any cigarette advertisement or promotion	0.198	0.006	34,920	377,692	2.956	0.032	0.185	0.210
Noticed any bidi advertisement or promotion	0.411	0.014	16,662	139,746	3.587	0.033	0.385	0.438
Noticed any smokeless tobacco advertisement or promotion	0.487	0.013	17,410	151,883	3.516	0.027	0.461	0.513
Believes that tobacco smoking causes serious illness	0.888	0.004	35,452	383,615	2.629	0.005	0.879	0.896
Believes that tobacco smoking causes strokes	0.482	0.008	35,445	383,455	3.062	0.017	0.466	0.498
Believes that tobacco smoking causes heart attacks	0.627	0.007	35,437	383,442	2.901	0.012	0.612	0.641
Believes that tobacco smoking causes lung cancer	0.825	0.006	35,437	383,458	2.783	0.007	0.814	0.836
Believes that using smokeless tobacco causes serious illness	0.873	0.005	35,453	383,598	2.675	0.005	0.864	0.882
Believes that SHS causes serious illness in non-smokers	0.808	0.006	35,511	384,052	2.634	0.007	0.797	0.818
Number of cigarettes smoked per day (by daily smokers)	7.028	0.751	351	2,307	2.024	0.107	5.555	8.500
Number of bidis smoked per day (by daily smokers)	6.454	0.456	625	6,301	1.658	0.071	5.561	7.348
Time since quitting smoking (in years)	12.486	1.830	147	1,954	1.758	0.147	8.899	16.074
Time since quitting smokeless tobacco (in years)	5.189	0.563	279	3,389	1.344	0.108	4.087	6.292
Monthly expenditures on manufactured cigarettes	177.795	49.794	82	226	0.644	0.280	80.199	275.391
Monthly expenditures on bidis	49.518	4.626	433	3,725	1.610	0.093	40.451	58.586
Age at daily smoking initiation	14.735	1.129	169	1,304	1.827	0.077	12.522	16.948
Age at daily smokeless tobacco initiation	17.076	0.328	1,533	14,937	1.581	0.019	16.433	17.718

Appendix B.5 Sampling errors for urban, GATS India 2009-2010

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted count(000s) (WN)	Design Efect (Deft)	Relative Standard Error (RSE)	Lower Limit (R -1.96 SE)	Upper Limit (R+1.96SE)
Current tobacco users	0.253	0.006	27,471	232,551	2.270	0.024	0.241	0.265
Current tobacco smokers	0.112	0.003	27,471	232,551	1.793	0.030	0.106	0.119
Current cigarette smokers	0.070	0.003	27,471	232,551	1.799	0.040	0.065	0.075
Current bidi smokers	0.055	0.003	27,471	232,551	1.922	0.048	0.049	0.060
Current users of smokeless tobacco	0.177	0.006	27,471	232,551	2.462	0.032	0.165	0.188
Daily tobacco users	0.211	0.006	27,471	232,551	2.271	0.027	0.200	0.222
Daily tobacco smoker	0.084	0.003	27,471	232,551	1.865	0.037	0.078	0.090
Daily cigarette smokers	0.045	0.002	27,471	232,551	1.902	0.053	0.041	0.050
Daily bidi smokers	0.047	0.002	27,471	232,551	1.879	0.051	0.042	0.051
Daily users of smokeless tobacco	0.147	0.005	27,471	232,551	2.425	0.035	0.137	0.157
Former daily tobacco users among all adults	0.021	0.001	27,471	232,551	1.564	0.065	0.018	0.023
Former tobacco users among ever daily tobacco users	0.469	0.022	1,314	10,319	1.628	0.048	0.425	0.513
Former daily tobacco smokers among all adults	0.012	0.001	27,471	232,551	1.474	0.080	0.010	0.014
Former tobacco smokers among ever daily smokers	0.118	0.009	3,451	24,326	1.672	0.078	0.100	0.136
Former daily users of smokeless tobacco among all adults	0.010	0.001	27,471	232,551	1.472	0.089	0.008	0.012
Former daily users of smokeless tobacco among ever daily users of smokeless tobacco	0.059	0.005	4,510	38,984	1.437	0.086	0.049	0.068
Time to first tobacco use within 5 minutes of waking	0.166	0.009	6,198	48,969	1.821	0.052	0.149	0.183
Time to first tobacco use within 6-30 minutes of waking	0.393	0.011	6,198	48,969	1.718	0.027	0.372	0.414
Smoking quit attempt in the past 12 months	0.387	0.016	3,717	26,667	1.982	0.041	0.356	0.418
Smokeless tobacco quit attempt in the past 12 months	0.370	0.012	5,004	41,780	1.781	0.033	0.346	0.394
Health care provider asked about smoking	0.579	0.021	1,695	13,291	1.744	0.036	0.538	0.620
Health care provider asked about use of smokeless tobacco	0.395	0.016	2,277	20,511	1.560	0.040	0.364	0.426
Health care provider advised quitting smoking	0.506	0.021	1,694	13,288	1.699	0.041	0.466	0.547
Health care provider advised quitting the use of smokeless tobacco	0.319	0.015	2,274	20,508	1.527	0.047	0.290	0.348
Use of pharmacotherapy for smoking cessation	0.067	0.013	1,213	10,296	1.780	0.190	0.042	0.093
Use of counseling/advice or quit lines for smoking cessation	0.127	0.016	1,211	10,276	1.720	0.130	0.095	0.159
Use of counseling/advice or quit lines for smokeless tobacco cessation	0.086	0.010	1,627	15,383	1.451	0.118	0.066	0.105
Planning to quit, thinking about quitting, or will quit smoking	0.492	0.015	3,655	25,968	1.860	0.031	0.462	0.522
Planning to quit, thinking about quitting, or will quit smokeless tobacco	0.450	0.012	4,886	40,720	1.731	0.027	0.426	0.474
Exposure to SHS at home	0.385	0.010	26,791	227,663	3.424	0.026	0.365	0.405
Exposure to SHS at workplace	0.276	0.011	7,685	60,962	2.090	0.039	0.255	0.297
Exposure to SHS in government buildings/offices	0.079	0.004	27,271	231,069	2.162	0.045	0.072	0.086
Exposure to SHS in health care facilities	0.058	0.003	27,359	231,525	2.013	0.049	0.052	0.063
Exposure to SHS in restaurants	0.140	0.005	27,326	231,442	2.487	0.037	0.130	0.151

Appendix B.5 Continued

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted count(000s) (WN)	Design Efect (Deft)	Relative Standard Error (RSE)	Lower Limit (R -1.96 SE)	Upper Limit (R+1.96SE)
Exposure to SHS on public transportation	0.179	0.006	27,354	231,566	2.640	0.034	0.167	0.191
Exposure to SHS at any public place	0.317	0.007	27,172	230,281	2.469	0.022	0.303	0.330
Last cigarette purchase in store	0.446	0.022	2,130	14,842	2.055	0.050	0.402	0.489
Last cigarette purchase at street vendor	0.219	0.019	2,130	14,842	2.155	0.088	0.182	0.257
Last cigarette purchase in kiosk	0.315	0.021	2,130	14,842	2.123	0.068	0.273	0.357
Last bidi purchase in store	0.442	0.026	1,531	12,026	2.015	0.058	0.392	0.492
Last bidi purchase at street vendor	0.152	0.018	1,531	12,026	2.012	0.121	0.116	0.188
Last bidi purchase in kiosk	0.401	0.026	1,531	12,026	2.088	0.065	0.350	0.452
Last smokeless tobacco purchase in store	0.469	0.017	4,701	39,377	2.332	0.036	0.435	0.502
Last smokeless tobacco purchase at street vendor	0.169	0.013	4,701	39,377	2.455	0.079	0.143	0.196
Last smokeless tobacco purchase in kiosk	0.345	0.018	4,701	39,377	2.614	0.052	0.310	0.381
Noticed anti-tobacco information on radio or television	0.720	0.009	23,261	190,901	3.024	0.012	0.703	0.737
Noticed health warning labels on cigarette packages	0.826	0.015	2,388	16,275	1.886	0.018	0.797	0.855
Noticed health warning labels on bidi packages	0.740	0.019	1,548	12,176	1.686	0.025	0.703	0.776
Noticed health warning labels on smokeless tobacco packages	0.708	0.012	4,914	40,973	1.827	0.017	0.684	0.731
Thinking of quitting because of health warning labels on cigarette package	0.461	0.019	2,384	16,261	1.823	0.040	0.425	0.498
Thinking of quitting because of health warning labels on bidi package	0.384	0.023	1,426	11,256	1.798	0.060	0.338	0.429
Thinking of quitting because of health warning labels on smokeless tobacco package	0.407	0.013	4,899	40,830	1.847	0.032	0.382	0.433
Noticed any cigarette advertisement or promotion	0.353	0.010	27,192	230,229	3.477	0.029	0.334	0.373
Noticed any bidi advertisement or promotion	0.460	0.014	15,523	125,094	3.582	0.031	0.432	0.489
Noticed any smokeless tobacco advertisement or promotion	0.552	0.015	16,798	138,550	3.791	0.026	0.523	0.580
Believes that tobacco smoking causes serious illness	0.938	0.003	27,421	232,171	1.992	0.003	0.932	0.944
Believes that tobacco smoking causes strokes	0.542	0.009	27,413	232,129	2.967	0.016	0.524	0.559
Believes that tobacco smoking causes heart attacks	0.720	0.007	27,414	232,188	2.658	0.010	0.706	0.734
Believes that tobacco smoking causes lung cancer	0.900	0.004	27,420	232,195	2.133	0.004	0.892	0.907
Believes that using smokeless tobacco causes serious illness	0.930	0.003	27,425	232,221	2.040	0.003	0.923	0.936
Believes that SHS causes serious illness in non-smokers	0.880	0.005	27,460	232,461	2.659	0.006	0.870	0.890
Number of cigarettes smoked per day (by daily smokers)	6.375	0.221	1,686	10,518	1.409	0.035	5.941	6.809
Number of bidis smoked per day (by daily smokers)	11.733	0.436	1,382	10,881	1.404	0.037	10.878	12.588
Time since quitting smoking (in years)	12.361	1.031	337	2,833	1.343	0.083	10.339	14.382
Time since quitting smokeless tobacco (in years)	7.519	0.757	234	2,176	1.205	0.101	6.036	9.002
Monthly expenditures on manufactured cigarettes	468.971	20.289	1,356	8,615	1.501	0.043	429.204	508.737
Monthly expenditures on bidis	92.455	3.281	3,511	40,901	2.238	0.035	86.025	98.885
Age at daily smoking initiation	18.468	0.268	853	5,712	1.401	0.014	17.943	18.993
Age at daily smokeless tobacco initiation	18.326	0.204	1,457	13,047	1.166	0.011	17.926	18.726

Appendix B.6 Sampling errors for rural, GATS India 2009-2010

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted count (000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R -1.96 SE)	Upper Limit (R+1.96SE)
Current tobacco users	0.384	0.006	41,825	562,983	2.516	0.016	0.372	0.395
Current tobacco smokers	0.151	0.004	41,825	562,983	2.195	0.025	0.144	0.159
Current cigarette smokers	0.052	0.002	41,825	562,983	2.152	0.045	0.047	0.057
Current bidi smokers	0.107	0.004	41,825	562,983	2.347	0.033	0.100	0.114
Current users of smokeless tobacco	0.293	0.007	41,825	562,983	2.969	0.023	0.280	0.306
Daily tobacco users	0.325	0.005	41,825	562,983	2.349	0.017	0.314	0.335
Daily tobacco smoker	0.116	0.003	41,825	562,983	2.221	0.030	0.109	0.123
Daily cigarette smokers	0.031	0.002	41,825	562,983	2.197	0.060	0.028	0.035
Daily bidi smokers	0.087	0.003	41,825	562,983	2.306	0.036	0.081	0.093
Daily users of smokeless tobacco	0.242	0.006	41,825	562,983	2.795	0.024	0.230	0.253
Former daily tobacco users among all adults	0.029	0.002	41,825	562,983	1.863	0.053	0.026	0.032
Former tobacco users among ever daily tobacco users	0.428	0.017	3,187	37,790	1.936	0.040	0.395	0.461
Former daily tobacco smokers among all adults	0.018	0.001	41,825	562,983	1.848	0.066	0.016	0.021
Former tobacco smokers among ever daily smokers	0.129	0.008	7,599	80,589	2.120	0.063	0.113	0.145
Former daily users of smokeless tobacco among all adults	0.012	0.001	41,825	562,983	1.723	0.076	0.010	0.014
Former daily users of smokeless tobacco among ever daily users of smokeless tobacco	0.045	0.003	10,518	151,108	1.629	0.073	0.039	0.052
Time to first tobacco use within 5 minutes of waking	0.225	0.008	14,071	182,652	2.175	0.034	0.210	0.240
Time to first tobacco use within 6-30 minutes of waking	0.388	0.008	14,071	182,652	2.018	0.021	0.371	0.404
Smoking quit attempt in the past 12 months	0.382	0.013	8,037	87,537	2.431	0.034	0.357	0.408
Smokeless tobacco quit attempt in the past 12 months	0.350	0.009	12,060	168,866	2.136	0.026	0.332	0.369
Health care provider asked about smoking	0.515	0.017	3,384	40,958	1.974	0.033	0.481	0.548
Health care provider asked about use of smokeless tobacco	0.328	0.011	5,159	76,409	1.687	0.034	0.307	0.350
Health care provider advised quitting smoking	0.449	0.017	3,382	40,955	1.987	0.038	0.416	0.483
Health care provider advised quitting the use of smokeless tobacco	0.253	0.010	5,158	76,358	1.698	0.041	0.233	0.273
Use of pharmacotherapy for smoking cessation	0.032	0.005	2,537	33,358	1.536	0.167	0.022	0.043
Use of counseling/advice or quit lines for smoking cessation	0.081	0.009	2,536	33,299	1.646	0.110	0.064	0.099
Use of counselling/advice or quit lines for smokeless tobacco cessation	0.073	0.007	3,466	59,013	1.610	0.097	0.059	0.087
Planning to quit, thinking about quitting, or will quit smoking	0.458	0.013	7,850	84,479	2.224	0.027	0.433	0.482
Planning to quit, thinking about quitting, or will quit smokeless tobacco	0.452	0.010	11,784	164,000	2.274	0.023	0.432	0.472
Exposure to SHS at home	0.580	0.009	40,464	554,714	3.791	0.016	0.562	0.599
Exposure to SHS at workplace	0.321	0.014	6,388	63,998	2.399	0.044	0.293	0.348
Exposure to SHS in Government buildings/offices	0.061	0.003	41,348	559,798	2.216	0.043	0.056	0.066
Exposure to SHS in health care facilities	0.053	0.003	41,427	559,566	2.365	0.049	0.048	0.058
Exposure to SHS in restaurants	0.102	0.004	41,546	560,997	3.002	0.044	0.093	0.110
Exposure to SHS on public transportation	0.173	0.005	41,565	561,378	2.891	0.031	0.162	0.183
Exposure to SHS at any public place	0.279	0.006	41,127	557,117	2.716	0.022	0.267	0.291

Appendix B.6 Continued

Indicators	Estimate (R)	Standard Error (SE)	Unweighted Sample Size (N)	Weighted count (000s) (WN)	Design Effect (Deft)	Relative Standard Error (RSE)	Lower Limit (R -1.96 SE)	UpperLimit (R+1.96SE)
Last cigarette purchase in store	0.545	0.025	2,755	21,845	2.653	0.046	0.496	0.594
Last cigarette purchase at street vendor	0.127	0.014	2,755	21,845	2.199	0.110	0.100	0.154
Last cigarette purchase in kiosk	0.299	0.025	2,755	21,845	2.890	0.084	0.250	0.349
Last bidi purchase in store	0.494	0.021	4,740	56,936	2.852	0.042	0.454	0.535
Last bidi purchase at street vendor	0.106	0.010	4,740	56,936	2.240	0.094	0.086	0.126
Last bidi purchase in kiosk	0.392	0.021	4,740	56,936	3.022	0.055	0.350	0.434
Last smokeless tobacco purchase in store	0.567	0.014	11,201	155,779	3.044	0.025	0.539	0.594
Last smokeless tobacco purchase at street vendor	0.088	0.006	11,201	155,779	2.354	0.072	0.076	0.100
Last smokeless tobacco purchase in kiosk	0.313	0.013	11,201	155,779	3.054	0.043	0.286	0.339
Noticed anti-tobacco information on radio or television	0.589	0.010	31,105	361,010	3.541	0.017	0.570	0.608
Noticed health warning labels on cigarette packages	0.642	0.019	3,620	29,275	2.337	0.029	0.605	0.678
Noticed health warning labels on bidi packages	0.599	0.017	4,741	59,166	2.322	0.028	0.566	0.631
Noticed health warning labels on smokeless tobacco packages	0.609	0.011	11,823	164,416	2.393	0.018	0.588	0.630
Thinking of quitting because of health warning labels on cigarette package	0.335	0.017	3,600	29,252	2.173	0.051	0.301	0.368
Thinking of quitting because of health warning labels on bidi package	0.275	0.016	4,486	55,902	2.378	0.058	0.244	0.306
Thinking of quitting because of health warning labels on smokeless tobacco package	0.321	0.009	11,790	164,131	2.182	0.029	0.303	0.340
Noticed any cigarette advertisement or promotion	0.255	0.007	41,047	553,756	3.399	0.029	0.240	0.269
Noticed any bidi advertisement or promotion	0.476	0.014	20,466	225,757	4.153	0.030	0.447	0.504
Noticed any smokeless tobacco advertisement or promotion	0.545	0.014	21,349	246,677	4.152	0.026	0.517	0.572
Believes that tobacco smoking causes serious illness	0.887	0.004	41,722	561,998	2.462	0.004	0.880	0.895
Believes that tobacco smoking causes strokes	0.474	0.008	41,707	561,828	3.095	0.016	0.459	0.489
Believes that tobacco smoking causes heart attacks	0.606	0.007	41,693	561,718	2.854	0.011	0.593	0.620
Believes that tobacco smoking causes lung cancer	0.828	0.005	41,707	561,763	2.552	0.006	0.819	0.838
Believes that using smokeless tobacco causes serious illness	0.870	0.004	41,719	561,872	2.577	0.005	0.862	0.879
Believes that shs causes serious illness in non-smokers	0.808	0.005	41,779	562,414	2.806	0.007	0.797	0.819
Number of cigarettes smoked per day (by daily smokers)	6.102	0.265	2,459	17,689	2.158	0.044	5.581	6.622
Number of bidis smoked per day (by daily smokers)	11.592	0.305	4,143	49,109	2.191	0.026	10.994	12.189
Time since quitting smoking (in years)	11.073	0.819	793	10,185	2.026	0.074	9.468	12.679
Time since quitting smokeless tobacco (in years)	5.476	0.444	443	6,709	1.463	0.081	4.606	6.347
Monthly expenditures on manufactured cigarettes	347.550	19.074	1,604	11,652	1.832	0.055	310.164	384.935
Monthly expenditures on bidis	97.967	4.481	1,151	8,806	1.448	0.046	89.183	106.750
Age at daily smoking initiation	17.747	0.259	1,446	16,052	2.206	0.015	17.240	18.254
Age at daily smokeless tobacco initiation	17.840	0.162	3,051	49,023	1.725	0.009	17.523	18.157

APPENDIX C: GLOSSARY OF TERMS

Questionnaire and Indicator Terminology	
Areca nut	Areca nut is obtained from the fruit of the *Areca catechu* tree. The outer pericarp of the ripe fruit, which is orange-yellow, is removed to separate the nut, which is used fresh in Kerala, Karnataka, West Bengal and Assam and after sun-dying, curing or baking elsewhere in India.
ASHA	Accredited Social Health Activists
ATS	Adult Tobacco Survey
Betel leaves	Betel leaves are an indispensible part of paan. The betel vine is a creeper, and it is often grown next to areca-nut trees, which provide support, or on wooden scaffoldings.
Beliefs about the dangers of tobacco smoking	Respondents who believe that tobacco smoking causes serious illness and specific diseases, i.e., stroke, heart attack, and lung cancer.
Beliefs about the dangers of using smokeless tobacco	Respondents who believe that use of smokeless tobacco causes serious illness
Beliefs about the dangers of secondhand smoking	Respondents who believe that secondhand smoking causes serious illness
Bidi	It is made by rolling a dried, rectangular piece of temburni leaf (Diaspyrosmelanoxylon) with 0.15-0.25 g of sun dried, flaked tobacco into a conical shape and securing the roll with a thread.
CAD	Coronary Artery Disease
CAD/CHD	Coronary artery disease or coronary heart disease involves narrowing of arteries supplying the heart muscles due to fatty deposits (atherosclerosis) in the coronary arteries.
CDC	U.S. Centers for Disease Control and Prevention
CEB	Census Enumeration Block
Cheroot	It is like a cigar with two closed ends.
Chillum	Local smoking form of tobacco product, which is made of a straight, conical pipe of clay, and is about 10-14 cm long.
Chutta	A hand-rolled cigar smoked in reverse with the lit end inside the mouth. The name *chutta* in Telugu (spoken in Andhra Pradesh) may have come from the Tamil (spoken in Tamil Nadu) word *shruttu*, meaning 'to roll'.
COLD	Chronic Obstructive Lung Disease
Confidence interval	The range of possible values within which true population value could lie with a known degree of probability.
COPD	Chronic Obstructive Pulmonary Disease

COPD/COLD	Chronic obstructive pulmonary disease or chronic obstructive lung disease is a group of lung diseases involving limited airflow and varying degrees of air sac enlargement, airway inflammation and lung tissue destruction.
COTPA	The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation , Supply and Distribution) Act, 2003
Counselling	Behavioural counselling used for assisting tobacco users to quit
Current smokeless tobacco user	Person who currently uses any smokeless tobacco product, either daily or occasionally.
Current tobacco smoker	Person who currently smokes any tobacco product, either daily or occasionally.
Daily smokeless tobacco user	Person who currently uses any smokeless tobacco product every day.
Daily tobacco smoker	Person who currently smokes any tobacco product every day.
DALY	Disability-Adjusted Life Year is a measure of the burden of disease; it reflects the total amount of healthy life lost from premature mortality or from some degree of disability during a period of time.
Dhumti	It is a kind of a conical cigar made by rolling tobacco in the leaf of a jack-fruit tree (*Artocarpusintegrefolia* L.), occasionally in a dried leaf of a banana plant (*Musaparadisiaca* L.) or in the green leaf of a *hansali*plant (*Grewiamicrocos* L.).
DNSA	Designated Non-Smoking Area
ETS	Environmental tobacco smoke (second-hand smoke) is a complex mixture of chemical constituents and particulates released into the atmosphere from the burning tip of a cigarette, pipe or cigar including the smoke exhaled by the smoker.
Ever daily smoker	Person may or may not be a current smoker. Includes persons that are ‘current daily smokers’, ‘current occasional smokers, formerly daily’ or ‘current non-smokers, formerly daily smokers’
Exposure	In this document 'exposure' refers to tobacco use, passive smoking or skin contact with green tobacco.
Exposure to anti-bidi information	Respondents who have noticed any information about the dangers of bidi or that encourages quitting of bidi, in the last 30 days, in the areas of interest: newspapers/ magazines, television, radio, billboards, public transportation, stores and/or elsewhere.
Exposure to anti-cigarette information	Respondents who have noticed any information about the dangers of cigarettes or that encourages quitting of cigarette, in the last 30 days, in the areas of interest: newspapers/ magazines, television, radio, billboards, public transportation, stores and/or elsewhere.

Exposure to anti-smokeless tobacco information	Respondents who have noticed any information about the dangers of smokeless tobacco or non-smoking tobacco, or that encourages quitting of smokeless tobacco products, in the last 30 days, in the areas of interest: newspapers/ magazines, television, radio, billboards, public transportation, stores and/or elsewhere.
Exposure to bidi advertisement, sponsorship and promotion	Respondents who have noticed: • any advertisement or signs promoting bidi, in the last 30 days, in the areas of interest: stores where the products are sold, television, radio, billboards, newspapers/magazines, internet and/or elsewhere; • any sport or sporting event associated with either bidi brands/companies; • any free samples of cigarettes with a brand name or logo of either bidi.
Exposure to cigarette advertisement, sponsorship and promotion	Respondents who have noticed: • any advertisement or signs promoting cigarettes, in the last 30 days, in the areas of interest: stores where the products are sold, television, radio, billboards, newspapers/magazines, internet and/or elsewhere; • any sport or sporting event associated with either cigarette brands/companies; • any free samples of cigarettes with a brand name or logo of either cigarette.
Exposure to second-hand smoke at home	Indicates percentage of respondents who reported someone smoking inside his/her home (daily, weekly or monthly), in the past 30 days. This does not include areas outside such as patios, balcony, garden, etc. that are not fully enclosed.
Exposure to second-hand smoke at the work place	Indicates percentage of respondents who reported someone smoking at work inside, in the past 30 days. This is among those respondents who work outside of the home and who usually work indoors or both indoors and outdoors.
Exposure to second-hand smoke in public places	Indicates percentage of respondents who reported someone smoking inside the public places in the past 30 days: Government buildings: Covering indoor areas which are non-smoking areas as per COTPA. Health care facilities: Covering indoor areas of both public and private health care facilities which are non-smoking areas as per COTPA. Restaurants: Covering food and/ or beverage selling place inside the building, not including place in front of any building and wayside. Public transportation: All forms of public transport.
Exposure to smokeless tobacco advertisement, sponsorship and promotion	Respondents who have noticed: any advertisement or signs promoting smokeless tobacco, in the last 30 days, in the areas of interest: stores where the products are sold, television, radio, billboards, newspapers/magazines, internet and/or elsewhere; any sport or sporting event associated with smokeless tobacco; any free samples of smokeless tobacco with a brand name or logo of smokeless tobacco.
FCTC	Framework Convention on Tobacco Control
Former daily smokeless tobacco user	Person does not currently use smokeless tobacco but had previously used smokeless tobacco products daily over a period of one month or more.
Former daily smoker	Person is currently a non-smoker but had previously smoked daily over a period of one month or more.

FTP	File Transfer Protocol
GHPSS	Global Health Professional Student Survey
GoI	Government of India
GSPS	Global School Personnel Survey
GSS	General Survey System
GTSS	Global Tobacco Surveillance System
GYTS	Global Youth Tobacco Survey
HCP	Health Care Provider
Health Care Provider (HCP)	Healthcare providers include various health professionals such as medical doctors, nurses, pharmacist, health professionals, etc.
Hookah	Hubble-bubble or narghile. Hookah is written as hukka as well. Hookah has been used uniformly unless where anecdotes and historical records are mentioned. The hookah is an Indian water pipe.
HRR	Household Response Rate
IGSPS	India Global Youth tobacco Survey and Global School Personnel Survey
IIPS	International Institute for Population Sciences
Interest in quitting smokeless tobacco use	Current users of smokeless tobacco who are planning or thinking about quitting smokeless tobacco use within the next month, 12 months, or someday.
Interest in quitting smoking	Current tobacco smokers who are planning or thinking about quitting smoking within the next month, 12 months, or someday.
iPAQ	Handheld Machine
IARC	International Agency for Research on Cancer
IRB	Institutional Review Board
JHSPH	Johns Hopkins Bloomberg School of Public Health
Life expectancy	Life expectancy is the expected value of the lifetime of an individual in a given group at birth.
MoHFW	Ministry of Health and Family Welfare
Mortality rate	The death rate in a population. The ratio of the number of deaths to the population at risk of dying.
MPOWER	WHO recommended policy on tobacco control, including Monitor tobacco use and prevention policies, Protect people from tobacco smoke, Offer help to Quit tobacco use, Warn about dangers of tobacco, Enforce ban on tobacco advertising and promotion and Raise taxes on tobacco products.
NCCP	National Cancer Control Programme
NFHS	National Family Health Survey
NGO	Non-Governmental Organization
NHP	National Health Programme
NHSDAA	National Household Survey of Drugs and Alcohol Abuse in India

NMHP	National Mental Health Programme
Non-smoker	Person currently does not smoke at all.
Non-user of smokeless tobacco	Person currently does not use smokeless tobacco at all.
NPDCS	National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke
NSS	National Sample Survey
NSSO	National Sample Survey Organization
NRHM	National Rural Health Mission
NTCP	National Tobacco Control Programme
Occasional smokeless tobacco user	Person who currently uses a smokeless tobacco product less than daily.
Occasional smoker	Person who currently smokes less than daily.
Other prescription medicines	Use of medicines/ drugs to assist tobacco users to quit, e.g. Buproprion, Nortryptiline, Varenicline etc.
Paan	Betel quid.
PPS	Probability Proportional to Size Sampling
Prevalence	The term prevalence refers to the number of existing cases of a disease or condition in a population at some designated point of time or period of time.
PRR	Person-level Response Rate
PSU	Primary Sample Units
QRC	Questionnaire Review Committee
Quit attempt	Current tobacco smokers and users of smokeless tobacco who tried to quit during the past 12 months and former tobacco smokers and smokeless tobacco users who have been abstinent for < 12 months.
Quit ratio (among daily smokers)	Indicates how many 'ever daily smokers' were able to successfully quit ('former daily smoker' / 'ever daily smoker')
Quit ratio (among daily users of smokeless tobacco)	Indicates how many 'ever daily users of smokeless tobacco' were able to successfully quit ('former daily users of smokeless tobacco' / 'ever daily users of smokeless tobacco')
RA	Research Agency
RGI	Registrar General of India
RNTCP	Revised National TB Control Programme
RTI International	Research Triangle Institute International
SHP	School Health Programme
Second-hand smoke (SHS)	Inhalation of smoke from tobacco products used by others.
SIDS	Sudden Infant Death Syndrome

Smokeless tobacco use status	Classified into three categories: 1. 'Current/Daily smokeless user' means the person uses at least one smokeless tobacco product every day, over a period of one month or more. 2. 'Current/Occasional smokeless user' means the person uses smokeless tobacco products less than daily (either formerly daily or never daily). 3. 'Non-user of smokeless tobacco' means the person currently does not use smokeless tobacco at all. This includes 'Former daily user' and 'Never daily user'. (Currently a non-user of smokeless tobacco' and has never used of smokeless tobacco product daily, but instead occasionally or never user of smokeless tobacco).
Smoking status / Smoking frequency	Classified into three categories: 1. 'Current/Daily smoker' means the person currently smokes at least one tobacco product every day, over a period of one month or more. 2. 'Current/Occasional smoker' means the person currently smokes less than daily (either formerly daily or never daily). 3. 'Non-smoker' means the person currently does not smoke at all. This includes 'Former daily smoker' (currently a non-smoker but had previously smoker daily) and 'Never daily smoker' (currently a non-smoker and has never smoked daily, but instead occasionally or never smoker).
SNDSA	Smoking in the Designated No-Smoking Area
SPSS	Statistical Package for Social Science
SRC	Sample Review Committee
Store	A place where products and supplies, such as food, clothing, daily use commodities are offered for sale, a shop.
Street vendor	A retail salesperson without an established place of business. A person, or persons, travelling on public streets, public sidewalk, public property, or private and carrying, conveying or transporting items such as food, beverages, flowers, and balloons, offering and exposing the same for sale by hand or from a mobile type device such as push cart.
TCC	Tobacco Cessation Centers
Tobacco Products	Two types of tobacco products: 1) Smoked tobacco includes: manufactured cigarettes, hand-rolled cigarettes, bidi pipes full of tobacco, cigars/cheroots/cigarillos, hookah, and any other reported smoked tobacco products. 2) Smokeless tobacco includes: betel quid, *khaini*, gutka, snuff, paan masala, and any other reported smokeless tobacco products.
TAC	Technical Advisory Committee
TFI	Tobacco Free Initiative
TRR	Total Response Rate
UT	Union Territory
WHA	World health Assembly
WHO	World Health Organization
WHO- SEARO	WHO South East Asia Regional Office

APPENDIX D. TECHNICAL AND SURVEY STAFF

Ministry of Health & Family Welfare

Dr. Madhubala	Additional Director General Health Services (Stats)
Shri. S.K. Das	Former Additional Director General Health Services (Stats)
Dr. Rattan Chand	Chief Director (Stats)
Ms. Sukhvinder Kaur	Consultant (GATS)

ORGANIZATIONS INVOLVED IN GATS INDIA FIELDWORK

Research Organization	Region	State(s)
Centre for Research, Planning & Action(CRPA) New Delhi	1	Jammu & Kashmir
AMS Consulting Research Training Lucknow	2	Himachal Pradesh Uttarakhand
Indian Institute of Health Management Research (IIHMR), Jaipur	3	Punjab Chandigarh
ORG Center for Social Research (ORG-Nielsen), New Delhi	4	Haryana Delhi
TALEEM Research foundation Ahmadabad	5	Rajasthan Gujarat
Centre for Research Evaluation Analysis Training & Education (CREATE), Lucknow	6	Uttar Pradesh
Xavier Institute of Development Action and Studies (XIDAS), Jabalpur	7	Madhya Pradesh Chhattisgarh
Development and Research Services Pvt. Ltd. (DRS) New Delhi	8	Jharkhand Bihar
Center for Market Research & Social Development Pvt. Ltd. (CMRSD), New Delhi	9	West Bengal Odisha Sikkim
Center for Market Research & Social Development Pvt. Ltd. (CMRSD), New Delhi	10	Assam
Amity School of Rural Management (ASRUM), New Delhi	11	Meghalaya Arunachal Pradesh
Research and Development Initiative Pvt Ltd. (RDI), New Delhi	12	Mizoram Tripura
SYNOVATE India Pvt. Ltd. Mumbai	13	Manipur Nagaland
Gfk MODE Pvt. Ltd. New Delhi	14	Maharashtra Goa
Centre for Socio-Economic and Environmental Studies (CSES),Kochi	15	Karnataka Andhra Pradesh Kerala
Foundation for Research In Health System (FRHS), Ahmadabad	16	Tamil Nadu Puducherry

International Institute for Population Sciences, Mumbai

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Prof. Sulabha Parasuraman
Prof. L. Ladu Singh
Prof. B. Paswan
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IT Persons

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Mr. Anshuman Paul
Mr. Santosh Sorate
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Mr. Prem Kumar
Mr. Nagsen Meshram
Mr. Hrishikesh Tripathi

Mr. G. Mani
Mr. Vivek Yadav
Mr. Leimapokapam. G. Singh
Mr. Ramjanam Singh
Mr. Naveen Roy
Mr. Vikram Shinde
Mr. Santosh Kamble
Mr. Shamsuzzuha
Mr. Rajesh Lowanshi
Mr. Mayank Kumar Singh
Mr. Shivanand Chauhan
Ms. Shalini Meshram

Accounts and Administrative Staff

Mr. Vishram Patankar, Senior Accountant
Mr. Stivan Martis, Senior Accountant
Ms. Mangal Chauhan, Senior Accountant
Mr. Nazrul Haq Ansari, Account Assistant

Ms. Revati Bhadrayani, Office Assistant
Mr. Shashikant Mhatre, Office Assistant
Mr. Asif Kokane, Office Attendant
Mr. Sagar Dethe, Office Attendant

Questionnaire Review Committee (QRC)

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Mr. Ron Borland
Dr. Gary Giovino
Dr. K. Srinath Reddy
Dr. Prakash C. Gupta
Ms. Monica Arora
Dr. Daniel Ferrante
Mr. Mostafa Mohammed
Mr. Jeremy Morton
Dr. Vinayak Prasad
Dr. Jagdish Kaur
Ms.Vineet Gill Munish

Sample Review Committee (SRC)

Dr. Michael J. Bowling
Prof. William B. Kalsbeek
Prof. T. K. Roy
Dr. Krishna Mohan Palipudi

World Health Organization

Dr. Dhirendra N. Sinha (WHO-SEARO)
Mr. Sameer Pujari (WHO-HQ)
Mr. K. D. Maiti
Ms. Munish Vineet Gill (WHO-India)

Centers for Disease Control and Prevention (CDC)

Dr Samira Asma Associate Director, CDC
Dr. Krishna Mohan Palipudi, Senior Survey Statistician, CDC
Ms. Linda Andes
Ms. Glenda Blutcher Nelson
Mr. Jeremy Morton

GATS Partner Organization

Centers for Disease Control and Prevention (CDC)
CDC Foundation
Johns Hopkins Bloomberg School of Public Health (JHSPH)
RTI International
World Health Organization (WHO)

APPENDIX E. QUESTIONNAIRE

GLOBAL ADULT TOBACCO SURVEY

Identifying Information and Visit Record (Paper)

QUESTIONNAIRE ID NUMBER ___ ___ ___ ___ ___ [USE PRE-PRINTED LABEL IF APPLICABLE]

HOUSEHOLD DESIGNATION: MALE FEMALE

STATE ___ ___

DISTRICT ___ ___

URBAN/RURAL___ ___

TALUKA/TEHSIL/BLOCK___ ___

VILLAGE/CITY___ ___

LOCALITY _____

STREET ADDRESS _____

HOUSEHOLD # ___ ___ ___

SEGMENT # ___ ___ ___

VISIT RECORD				
Visit Number	1	2	3	4
Date of visit	__ __ __ __ Day Month	__ __ __ __ Day Month	__ __ __ __ Day Month	__ __ __ __ Day Month
Household Result*	____	____	____	____
Individual Result*	____	____	____	____
Interviewer	___ ___	___ ___	___ ___	___ ___
Supervisor	___ ___	___ ___	___ ___	___ ___

Result Codes

Household Questionnaire Pending Result Codes

102: Completed Part of Household Questionnaire, Could Not Finish Roster
103: Household Questionnaire Not Complete, Could Not Identify An Appropriate Screening Respondent
104: Household Refusal
105: Unoccupied/Vacant/Demolished House
106: Selected Address is Not a Household
107: Household Respondent Incapacitated
108: Other Household Non response
109: Nobody Home

Household Questionnaire Final Result Codes

200: Completed Household Questionnaire, One Person Selected
201: Completed Household Questionnaire, No One Selected
202: Completed Part of Household Questionnaire, Could Not Finish Roster
203: Household Questionnaire Not Complete, Could Not Identify An Appropriate Screening Respondent
204: Household Refusal
205: Unoccupied/Vacant/Demolished House
206: Selected Address is Not a Household
207: Household Respondent Incapacitated
208: Other Household Non response
888: Household Transferred to Another Field Interviewer
999: Household Replaced by Another Randomly Selected Address in the Missed Housing Unit Procedure

Individual Questionnaire Pending Result Codes

302: Completed Part of Individual Questionnaire
303: Selected Individual was Later Determine to be Survey Ineligible
304: Selected Respondent Refusal
307: Selected Respondent Incapacitated
308: Other Individual Non response
309: Selected Respondent Not Home

Individual Questionnaire Final Result Codes

400: Completed Individual Questionnaire

401: Not Eligible for Individual Questionnaire

403: Selected Individual Was Later Determine to Be Survey Ineligible

404: Selected Respondent Refusal

407: Selected Respondent Incapacitated
408: Other Individual Non response
888: Transferred to Another Field Interviewer

999: Household Replaced by Another Randomly Selected Address in the Missed Housing Unit Procedure

Household Questionnaire

TIME HH INTERVIEW STARTED	___ ___ : ___ ___
[24 HOUR CLOCK]	HRS MINS

INTERVIEWER: THE HOUSEHOLD SCREENING RESPONDENT MUST BE 18 YEARS OF AGE OR OLDER AND YOU MUST BE CONFIDENT THAT THIS PERSON CAN PROVIDE ACCURATE INFORMATION ABOUT ALL MEMBERS OF THE HOUSEHOLD.

IF NEEDED, VERIFY THE AGE OF THE HOUSEHOLD SCREENING RESPONDENT TO MAKE SURE HE/SHE IS 18 YEARS OF AGE OR OLDER.

CONSENT H1: I am working with International Institute for Population Sciences (IIPS), Mumbai, and this institution is conducting a survey on adult tobacco use behavior in India. This information will be used for public health purposes by the Ministry of Health and Family Welfare, Govt. of India.

All houses selected for this survey were chosen from a scientific sample and your household has been selected to participate. It is very important to the success of this project that each participates in the survey. All information gathered will be kept strictly confidential. I have a few questions to find out who in your household is eligible to participate.

CONSENT H2: Do you agree to participate?

YES ☐1 [GO TO HH1]
NO ☐2 [END INTERVIEW]

HH1. First, I'd like to ask you a few questions about your household. In total, how many persons live in this household?

INCLUDE ANYONE WHO CONSIDERS THIS HOUSEHOLD THEIR PLACE OF RESIDENCE LAST NIGHT

☐☐ PERSONS

HH2. How many of these household members are 15 years of age or older?

PERSONS

HH3.How many (male/female) household members are 15 years of age or older?

PERSONS

IF HH3 = 00 (NO ELIGIBLE MALES/FEMALES IN HOUSEHOLD), END INTERVIEW AND GO TO PAGE 6 TO RECORD THE TIME THE INTERVIEW ENDED. ENTER RESULT CODE 2.
HH4.I now would like to collect information about the (males/females) that live in this household who are 15 years of age or older. Let's start listing the (males/females) from oldest to youngest.

ASK THE FOLLOWING QUESTIONS AND RECORD ANSWERS IN TABLE BELOW

a. What is this person's first name?

b. What is this person's age?

IF RESPONDENT DOESN'T KNOW, PROBE FOR AN ESTIMATE

c. IF REPORTED AGE IS 15 THROUGH 17, ASK FOR BIRTH DATE:
What is the month and year of this person's date of birth?

CHECK TO VERIFY IF DATE OF BIRTH FALLS BEFORE THE DATE OF [FILL MONTH/YEAR] TO MAKE SURE PERSON IS 15 OR OLDER. IF NOT 15 OR OLDER, DELETE LINE.

IF RESPONDENT DOESN'T KNOW DATE OF BIRTH, CONTINUE TO d

d. RECORD GENDER

e. Does this person currently smoke tobacco, including bidis, cigarettes, hukkah, cigars, pipes?

f. Does this person currently use smokeless tobacco, including betel quid with tobacco, *sada/surti, khaini* or tobacco lime mixture, gutkha?

MALE DESIGNATED HH
…..☐1
FEMALE DESIGNATED HH
…. ☐2

	a. First Name	b. Age	IF AGE = 15-17 c. Date of Birth	d. Gender	e. Current Smoker?	f. Current smokeless user?
1	_____	___	Month: __ __ Year: __ __ __ __			
2	_____	___	Month: __ __ Year: __ __ __ __			
3	_____	___	Month: __ __ Year: __ __ __ __			
4	_____	___	Month: __ __ Year: __ __ __ __			
5	_____	___	Month: __ __ Year: __ __ __ __			
6	_____	___	Month: __ __ Year: __ __ __ __			
7	_____	___	Month: __ __ Year: __ __ __ __			
8	_____	___	Month: __ __ Year: __ __ __ __			
9	_____	___	Month: __ __ Year: __ __ __ __			
10	_____	___	Month: __ __ Year: __ __ __ __			

NOTE: SELECTION OF INDIVIDUAL RESPONDENT WILL BE PERFORMED AUTOMATICALLY BY THE iPAQ HANDHELD PROGRAM. HH5 AND HH6 WILL ALSO BE CODED AUTOMATICALLY.

SELECTION OF INDIVIDUAL RESPONDENT USING RANDOMIZATION TABLE:

NUMBER OF ELIGIBLE MALES/FEMALES IN HOUSEHOLD	LAST DIGIT OF QUESTIONNAIRE ID NUMBER									
	0	1	2	3	4	5	6	7	8	9
0	END INTERVIEW									
1	1	1	1	1	1	1	1	1	1	1
2	1	2	1	2	1	2	1	2	1	2
3	3	1	2	3	1	2	3	1	2	3
4	1	2	3	4	1	2	3	4	1	2
5	1	2	3	4	5	1	2	3	4	5
6	6	1	2	3	4	5	6	1	2	3
7	5	6	7	1	2	3	4	5	6	7
8	1	2	3	4	5	6	7	8	1	2
9	8	9	1	2	3	4	5	6	7	8
10	9	10	1	2	3	4	5	6	7	8

USE RANDOMIZATION TABLE ABOVE TO SELECT INDIVIDUAL RESPONDENT AND WRITE THE SELECTED NUMBER IN HH5 BELOW

-IF ONLY ONE ELIGIBLE (MALE/FEMALE) LIVES IN THE HOUSEHOLD, WRITE “1” IN HH5

-IF NO ELIGIBLE (MALES/FEMALES) LIVE IN THE HOUSEHOLD, WRITE “0” IN HH5 AND END INTERVIEW
-IF MORE THAN 10 (MALES/FEMALES) LIVE IN THE HOUSEHOLD, END THE INTERVIEW AND CONSULT WITH YOUR SUPERVISOR BEFORE SELECTING ANYONE FOR THE INDIVIDUAL INTERVIEW

HH5. HOUSEHOLD ROSTER NUMBER OF THE SELECTED ELIGIBLE MALE/FEMALE

HH6. FILL IN QUESTIONNAIRE ID NUMBER
QUESTIONNAIRE ID NUMBER: ___ ___ ___ ___ ___ - ___ ___

INT: IF YOU DO NOT SPEAK WITH THE SELECTED RESPONDENT OR IF HE/SHE IS NOT AVAILABLE FOR AN INTERVIEW AT THAT TIME, WRITE DOWN HIS/HER NAME AND SCHEDULE ANOTHER VISIT (DATE AND TIME)
NAME _____
DATE OF THE NEXT VISIT: _____ TIME: _____
DATE OF THE NEXT VISIT: _____ TIME: _____
DATE OF THE NEXT VISIT: _____ TIME: _____

DATE OF THE NEXT VISIT: _____ TIME: _____

TIME HH INTERVIEW ENDED [24 HOUR CLOCK]	___ ___ : ___ ___ HRS MINS

Individual Questionnaire

QUESTIONNAIRE ID NUMBER	___ ___ ___ ___ ___ - ___ ___

CONSENT1. CHECK AGE OF SELECTED RESPONDENT FROM THE HOUSEHOLD QUESTIONNAIRE CASE DETAILS, AND SELECT THE APPROPRIATE CATEGORY BELOW:

15-17	☐1 [GO TO CONSENT2]
18 OR OLDER	☐2 [GO TO CONSENT5]
EMANCIPATED MINOR (15-17)	☐3 [GO TO CONSENT5]

CONSENT2. Before starting the interview, I need to obtain consent from a parent or guardian of

[NAME OF RESPONDENT] and from [NAME OF RESPONDENT].
IF BOTH SELECTED RESPONDENT AND PARENT/GUARDIAN ARE AVAILABLE, CONTINUE WITH INTERVIEW.
IF PARENT/GUARDIAN IS NOT AVAILABLE, BREAK-OFF INTERVIEW AND SCHEDULE AN APPOINTMENT TO RETURN.
IF MINOR RESPONDENT IS NOT AVAILABLE, CONTINUE WITH OBTAINING PARENTAL CONSENT.

CONSENT3.READ THE FOLLOWING TO THE PARENT/GUARDIAN AND SELECTED RESPONDENT (IF AVAILABLE):

I am working with the International Institute for Population Sciences (IIPS), Mumbai. This institution is collecting information about tobacco use in India. This information will be used for public health purposes by the Ministry of Health and Family Welfare, Government of India.

Your household and [NAME OF RESPONDENT] have been selected at random. [NAME OF RESPONDENT] responses are very important to us and the community, as these answers will represent many other persons.

The interview will last around 30 minutes. [NAME OF RESPONDENT] participation in this survey is entirely voluntary. The information that [NAME OF RESPONDENT] will provide will be kept strictly confidential and [NAME OF RESPONDENT] will not be identified by his/her responses. Personal information will not be shared with anyone else, not even other family members including you. [NAME OF RESPONDENT] can withdraw from the study at any time, and may refuse to answer any question.

If you have questions about this survey you can contact our institution at the following telephone number:
The Director, International Institute for Population Sciences,
Telephone No.: (022) 25562062

This questionnaire has been reviewed and approved by the World Health Organization and the IIPS review committee, which is a committee whose task is to ensure that research participants are protected

from harm. If you wish to find more about this review committee, contact: Prof. S. Lahiri, International Institute for Population Sciences,
Telephone No.: (022) 25563254/55/56

If you agree with [NAME OF RESPONDENT]'s participation in this survey, we will conduct a private interview with him/her.

ASK PARENT/GUARDIAN: Do you agree with [NAME OF RESPONDENT]'s participation?

YES ☐1 [GO TO CONSENT4]
NO ☐2 [END INTERVIEW]

CONSENT4. IS THE SELECTED MINOR RESPONDENT PRESENT?

PRESENT ☐1 [GO TO CONSENT6]
NOT PRESENT ☐2 [GO TO CONSENT5]

CONSENT5. READ TO THE SELECTED RESPONDENT:

I am working with the International Institute for Population Sciences (IIPS), Mumbai. This institution is collecting information about tobacco use in India. This information will be used for public health purposes by the Ministry of Health and Family Welfare, Government of India.

Your household and you have been selected at random. Your responses are very important to us and the community, as these answers will represent many other persons. The interview will last around 30 minutes. Your participation in this survey is entirely voluntary. The information that you will provide us will be kept strictly confidential, and you will not be identified by your responses. Personal information will not be shared with anyone else, not even other family members. You can withdraw from the study at any time, and may refuse to answer any question.

If you have questions about this survey you can contact our institution at the following telephone number: The Director, International Institute for Population Sciences,
Telephone No. : (022) 25562062

This questionnaire has been reviewed and approved by the World Health Organization and the IIPS review committee, which is a committee whose task is to ensure that research participants are protected from harm. If you wish to find more about this review committee, contact: Prof. S. Lahiri, International Institute for Population Sciences,
Telephone No. : (022) 25563254/55/56
{FILL IF CONSENT4=2: Your parent/guardian has given his/her permission for you to participate in this study}
If you agree to participate, we will conduct a private interview with you.

CONSENT6. ASK SELECTED RESPONDENT: Do you agree to participate?

YES ☐1 [PROCEED WITH INTERVIEW]
NO ☐2 [END INTERVIEW]

FILL IN THE FOLLOWING INFORMATION:

INTERVIEW LANGUAGE	☐1 ASSAMESE ☐2 BENGALI ☐3 ENGLISH ☐4 GARO ☐5 GUJARATI ☐6 HINDI ☐7 KANNADA ☐8 KASHMIRI ☐9 KHASI ☐10 KONKANI ☐11 MALAYALAM ☐12 MANIPURI OR MEITHEI ☐13 MARATHI ☐14 MIZO ☐15 NAGAMESE ☐16 NEPALESE ☐17 ORIYA ☐18 PUNJABI ☐19 TAMIL ☐20 TELUGU
TIME INTERVIEW BEGAN [24 HOUR CLOCK]	___ ___ : ___ ___ HRS MINS

SECTION A. BACKGROUND CHARACTERISTICS

INTRO:I am going to first ask you a few questions about your background.

A1.INTERVIEWER: RECORD GENDER FROM OBSERVATION. ASK IF NECESSARY.

MALE ☐ 1

FEMALE ☐ 2

A2. What is the month and year of your date of birth?

MONTH:	☐☐	IF DON'T KNOW, ENTER "77", & IF REFUSED, ENTER"99"
YEAR:	☐☐☐☐	IF DON'T KNOW, ENTER "7777" & IF REFUSED, ENTER"9999"

INT: IF MONTH=77 OR YEAR=7777 IN A2, ASK A3. OTHERWISE SKIP TO A4.

A3. How old are you?

INTERVIEWER: IF RESPONDENT IS UNSURE, PROBE FOR AN ESTIMATE AND RECORD AN ANSWER

☐☐☐ YEARS OLD

A3a WAS RESPONSE ESTIMATED? YES ☐ 1

NO ☐ 2

DON'T KNOW ☐ 3

A4.What is the highest level of education you have completed?

INTERVIEWER: SELECT ONLY ONE CATEGORY

NO FORMAL SCHOOLING	☐ 1
LESS THAN PRIMARY SCHOOL COMPLETED	☐ 2
PRIMARY SCHOOL COMPLETED	☐ 3
LESS THAN SECONDARY SCHOOL COMPLETE	☐ 4
SECONDARY SCHOOL COMPLETED	☐ 5
HIGHER SECONADARY SCHOOL COMPLETED	☐ 6
COLLEGE/UNIVERSITY COMPLETED	☐ 7
POST GRADUATE DEGREE COMPLETED	☐ 8
DON'T KNOW	☐ 77
REFUSED	☐ 99

A5 Which of the following best describes your main work status over the past 12 months? Government employee; Non-government employee, Self-employed; Student; Homemaker; Retired; Unemployed, able to work, or Unemployed, unable to work?

INTERVIEWER: INCLUDE SUBSISTENCE FARMING AS SELF-EMPLOYED

GOVERNMENT EMPLOYEE	☐ 1
NON-GOVERNMENT EMPLOYEE	☐ 2
SELF-EMPLOYED	☐ 3
STUDENT	☐ 4
HOMEMAKER	☐ 5
RETIRED	☐ 6
UNEMPLOYED, ABLE TO WORK	☐ 7
UNEMPLOYED, UNABLE TO WORK	☐ 8
DON'T KNOW	☐ 77
REFUSED	☐ 99

A6. Please tell me whether this household or any person who lives in the household has the following items:

READ EACH ITEM:	YES ▼	NO ▼	DON'T KNOW ▼	REFUSED ▼
a. Electricity?	☐ 1	☐ 2	☐ 7	☐ 9
b. Flush toilet?	☐ 1	☐ 2	☐ 7	☐ 9
h. Car?	☐ 1	☐ 2	☐ 7	☐ 9
i. Moped/scooter/motorcycle?	☐ 1	☐ 2	☐ 7	☐ 9
e. Television?	☐ 1	☐ 2	☐ 7	☐ 9
g. Refrigerator?	☐ 1	☐ 2	☐ 7	☐ 9

j. Washing machine?	☐ 1	☐ 2	☐ 7	☐ 9
c. Fixed telephone?	☐ 1	☐ 2	☐ 7	☐ 9
d. Cell telephone?	☐ 1	☐ 2	☐ 7	☐ 9
f. Radio?	☐ 1	☐ 2	☐ 7	☐ 9

SECTION B. TOBACCO SMOKING

INTRO: I would now like to ask you some questions about smoking tobacco, including bidis, cigarettes, cigars, *cheroots*, rolled cigarettes, tobacco rolled in maize leaf and newspaper, hookah, pipes, *chillum*, *chutta*. Please do not answer about smokeless tobacco at this time.

B1. Do you currently smoke tobacco on a daily basis, less than daily, or not at all?

DAILY	☐ 1 → SKIP TO B4
LESS THAN DAILY	☐ 2
NOT AT ALL	☐ 3 → SKIP TO B3
DON'T KNOW	☐ 7 → SKIP TO NEXT SECTION
REFUSED……..	☐ 9 → SKIP TO NEXT SECTION

B2. Have you smoked tobacco daily in the past?

YES	☐ 1 → SKIP TO B8
NO	☐ 2 → SKIP TO B10
DON'T KNOW	☐ 7 → SKIP TO B10
REFUSED……..	☐ 9 → SKIP TO B10

B3. In the past, have you smoked tobacco on a daily basis, less than daily, or not at all?
INTERVIEWER: IF RESPONDENT HAS DONE BOTH "DAILY" AND "LESS THAN DAILY" IN THE PAST, CHECK "DAILY" AND FOLLOW DAILY ROUTING

DAILY	☐ 1 → SKIP TO B11
LESS THAN DAILY	☐ 2 → SKIP TO B13
NOT AT ALL	☐ 3 → SKIP TO NEXT SECTION
DON'T KNOW	☐ 7 → SKIP TO NEXT SECTION
REFUSED	☐ 9 → SKIP TO NEXT SECTION

[CURRENT DAILY SMOKERS]

B4. How old were you when you first started smoking tobacco daily?

☐☐ YEARS OLD — IF DON'T KNOW OR REFUSED, ENTER "99"

INT: IF B4 = 99, ASK B5. OTHERWISE SKIP TO B6.

B5. How many years ago did you first start smoking tobacco daily?
IF REFUSED, ENTER "99"

☐☐ YEARS

B6. On average, how many of the following products do you currently smoke each day? Also, let me know if you smoke the product, but not every day.
INTERVIEWER: IF RESPONDENT REPORTS SMOKING THE PRODUCT BUT NOT EVERY DAY, ENTER 888
IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER

READ EACH ITEM:

a. Manufactured cigarettes?				PER DAY
a1. [IF B6a=888] On average, how many manufactured cigarettes do you currently smoke each week?				PER WEEK
b. Rolled tobacco in paper or leaf?				PER DAY
b1. [IF B6b=888] On average, how many rolled tobacco products do you currently smoke each week?				PER WEEK
c. Bidis?				PER DAY
c1. [IF B6c=888] On average, how many bidis do you currently smoke each week?				PER WEEK
d. Cigars, cheroots, or cigarillos?				PER DAY
d1. [IF B6d=888] On average, how many cigars, cheroots, or cigarillos do you currently smoke each week?				PER WEEK
e. Number of hukkah sessions per day?				PER DAY
e1. [IF B6e=888] On average, how many hukkah sessions do you currently participate in each week?				PER WEEK
f. Any others? (Specify type)				PER DAY
f1. [IF B6f=888] On average, how many [FILL PRODUCT] do you currently smoke each week?				PER WEEK

B7. How soon after you wake up do you usually have your first smoke? Would you say within 5 minutes, 6 to 30 minutes, 31 to 60 minutes, or more than 60 minutes?

WITHIN 5 MINUTES ☐ 1
6 TO 30 MINUTES ☐ 2
31 TO 60 MINUTES ☐ 3
MORE THAN 60 MINUTES ☐ 4
REFUSED ☐ 9

INT: SKIP TO NEXT SECTION

[CURRENT LESS THAN DAILY SMOKERS]
B8. How old were you when you first started smoking tobacco <u>daily</u>?

☐☐ YEARS OLD IF DON'T KNOW OR REFUSED, ENTER "99"

INT: IF B8 = 99, ASK B9. OTHERWISE SKIP TO B10.

B9. How many years ago did you first start smoking tobacco daily?
IF REFUSED, ENTER "99"

		YEARS

B10. How many of the following do you currently smoke during a usual week?

INTERVIEWER: IF RESPONDENT REPORTS DOING THE ACTIVITY WITHIN THE PAST 30 DAYS, BUT LESS THAN ONCE PER WEEK, RECORD 888

INTERVIEWER: IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER

READ EACH ITEM:

a. Manufactured cigarettes?		PER WEEK
b. Rolled tobacco in paper or leaf?		PER WEEK
c. Bidis?		PER WEEK
d. Cigars, cheroots, or cigarillos?		
e. Number of hukkah sessions per week?		PER WEEK
f. Any others?		PER WEEK
→ Specify type: _____		

INT: SKIP TO NEXT SECTION
[FORMER SMOKERS]

B11. How old were you when you first started smoking tobacco daily?

		YEARS OLD

IF DON'T KNOW OR REFUSED, ENTER "99"

INT: IF B11 = 99, ASK B12. OTHERWISE SKIP TO B13.

B12. How many years ago did you first start smoking tobacco daily?
IF REFUSED, ENTER "99"

		YEARS

B13. How long has it been since you stopped smoking?
INTERVIEWER: ONLY INTERESTED IN WHEN RESPONDENT STOPPED SMOKING REGULARLY -- DO NOT INCLUDE RARE INSTANCES OF SMOKING
CHECK UNIT AND RECORD NUMBER

YEARS	☐1			

MONTHS	☐2	
WEEKS	☐3	
DAYS	☐4	

LESS THAN ONE DAY (24 HOURS) ☐5
DON'T KNOW ☐7
REFUSED ☐9

INT: IF B13 < 1 YEAR (< 12 MONTHS), THEN CONTINUE WITH B14. OTHERWISE SKIP TO NEXT SECTION.

B14. Have you visited a doctor or other health care provider in the past 12 months for any reason of personal health?

YES ☐ 1
NO ☐ 2 → SKIP TO B18
REFUSED ☐ 9 → SKIP TO B18

B15. How many times did you visit a doctor or health care provider in the past 12 months? Would you say 1 or 2 times, 3 to 5 times, 6 or more times?

1 OR 2 times ☐ 1
3 TO 5 times ☐ 2
6 OR MORE times ☐ 3
REFUSED ☐ 9

B16. During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoke tobacco?

YES ☐ 1
NO ☐ 2 → SKIP TO B18
REFUSED ☐ 9 → SKIP TO B18

B17. During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?

YES ☐ 1
NO ☐ 2
REFUSED ☐ 9

B18. During the past 12 months, did you use any of the following to try to stop smoking tobacco?

READ EACH ITEM:	YES ▼	NO ▼	REFUSED
a. Counselling, including at a smoking cessation clinic?	☐ 1	☐ 2	☐ 9
b. Nicotine replacement therapy, such as the patch or gum?	☐ 1	☐ 2	☐ 9
c. Other prescription medications, for example Bupropion?	☐ 1	☐ 2	☐ 9
d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani?	☐ 1	☐ 2	☐ 9
e. A quit line or a smoking telephone support line?	☐ 1	☐ 2	☐ 9

f. Switching to smokeless tobacco? ☐ 1 ☐ 2 ☐ 9
g. Anything else? Specify: _____ ☐ 1 ☐ 2 ☐ 9

SECTION C. SMOKELESS TOBACCO

INTRO: The next questions are about using smokeless tobacco, such as tobacco leaf, betel quid with tobacco, *sada/surti,* khaini or tobacco lime mixture, gutkha, pan masala with *zarda, gul, gudaku, mishri.*

C1. Do you currently use smokeless tobacco on a daily basis, less than daily, or not at all?

DAILY ☐ 1 → SKIP TO C4
LESS THAN DAILY ☐ 2
NOT AT ALL ☐ 3 → SKIP TO C3
DON'T KNOW ☐ 7 → SKIP TO NEXT SECTION
REFUSED ☐ 9 → SKIP TO NEXT SECTION

C2. Have you used smokeless tobacco daily in the past?

YES ☐ 1 → SKIP TO C8
NO ☐ 2 → SKIP TO C10
DON'T KNOW ☐ 7 → SKIP TO C10
REFUSED ☐ 9 → SKIP TO C10

C3. In the past, have you used smokeless tobacco on a daily basis, less than daily, or not at all?

INTERVIEWER: IF RESPONDENT HAS DONE BOTH "DAILY" AND "LESS THAN DAILY" IN THE PAST, CHECK "DAILY" AND FOLLOW DAILY ROUTING

DAILY ☐ 1 → SKIP TO C11
LESS THAN DAILY ☐ 2 → SKIP TO C13
NOT AT ALL ☐ 3 → SKIP TO NEXT SECTION
DON'T KNOW ☐ 7 → SKIP TO NEXT SECTION
REFUSED ☐ 9 → SKIP TO NEXT SECTION

[CURRENT DAILY SMOKELESS TOBACCO USERS]

C4. How old were you when you first started using smokeless tobacco daily?

☐☐ YEARS OLD IF DON'T KNOWOR REFUSED, ENTER "99"

INT: IF C4 = 99, ASK C5. OTHERWISE SKIP TO C6.

C5. How many years ago did you first start using smokeless tobacco daily?
IF REFUSED, ENTER "99"

☐☐ YEARS

C6. On average, how many times a day do you use the following products? Also, let me know if you use the product, but not every day.
IF RESPONDENT REPORTS SMOKING THE PRODUCT BUT NOT EVERY DAY, ENTER 888

READ EACH ITEM:

a. Betel quid with tobacco?				PER DAY
a1. [IF C6a=888] On average, how many times do you use betel quid with tobacco each week?				PER WEEK
b. *Khaini* or tobacco lime mixture?				PER DAY
b1. [IF C6b=888] On average, how many times do you use khaini or tobacco lime mixture each week?				PER WEEK
c. Gutkha or tobacco lime, areca nut mixture?				PER DAY
c1. [IF C6c=888] On average, how many times do you use gutka or tobacco lime, areca nut mixture each week?				PER WEEK
d. Oral tobacco use (as snuff, *mishri*, *qul*, *gudakhu*)?				PER DAY
d1. [IF C6d=888] On average, how many times do you use oral tobacco use (as snuff, *mishri*, *qul*, *gudakhu*) each week?				PER WEEK
e. Panmasala and betel quid without tobacco?				PER DAY
e1. [IF C6e=888] On average, how many times do you use panmasala and betel quid without tobacco each week?				PER WEEK
f. Nasal use of snuff?				PER DAY
f1. [IF C6f=888] On average, how many times do you use nasal use of snuff each week?				PER WEEK
g. Any others? (Specify type) _____(NAME)				PER DAY
g1. [IF C6g=888] On average, how many times do you use [FILL PRODUCT] each week?				PER WEEK

C7. How soon after you wake up do you usually use smokeless tobacco for the first time? Would you say 5 minutes, 6 to 30 minutes, 31 to 60 minutes, or more than 60 minutes?

WITHIN 5 MINUTES ☐ 1
6 TO 30 MINUTES ☐ 2
31 TO 60 MINUTES ☐ 3
MORE THAN 60 MINUTES ☐ 4
REFUSED ☐ 9

INT: SKIP TO NEXT SECTION

[CURRENT LESS THAN DAILY SMOKELESS TOBACCO USERS]

C8. How old were you when you first started using smokeless tobacco <u>daily</u>?

☐☐ YEARS OLD IF DON'T KNOWOR REFUSED, ENTER "99"

INT: IF C8 = 99, ASK C9. OTHERWISE SKIP TO C10.

C9. How many years ago did you first start using smokeless tobacco daily?
IF REFUSED, ENTER "99"

		YEARS

C10. How many times a week do you usually use the following?
INTERVIEWER: IF RESPONDENT REPORTS DOING THE ACTIVITY WITHIN THE PAST 30 DAYS, BUT LESS THAN ONCE PER WEEK, RECORD 888
READ EACH ITEM:

a. Betel quid with tobacco?				TIMES PER WEEK
b. *Khaini* or tobacco lime mixture?				TIMES PER WEEK
c. Gutka or tobacco lime, areca nut mixture?				TIMES PER WEEK
d. Oral tobacco use (as snuff, mishri, qul, gudakhu)?				TIMES PER WEEK
e. Pan masala and betel quid without tobacco?				TIMES PER WEEK
f. Nasal use of snuff?				TIMES PER WEEK
g. Any other form of smokeless tobacco?				

→ Specify type:_____

INT: SKIP TO NEXT SECTION

[FORMER SMOKELESS TOBACCO USERS]
C11. How old were you when you first started using smokeless tobacco daily?

		YEARS OLD

IF DON'T KNOW OR REFUSED, ENTER "99"

INT: IF C11 = 99, ASK C12. OTHERWISE SKIP TO C13.

C12. How many years ago did you first start using smokeless tobacco daily?
IF REFUSED, ENTER "99"

		YEARS

C13. How long has it been since you stopped using smokeless tobacco?
INTERVIEWER: ONLY INTERESTED IN WHEN RESPONDENT STOPPED USING SMOKELESS TOBACCO REGULARLY -- DO NOT INCLUDE RARE INSTANCES OF USING SMOKELESS TOBACCO
CHECK UNIT AND RECORD NUMBER

YEARS	☐1			

MONTHS	☐2	
WEEKS	☐3	
DAYS	☐4	

LESS THAN ONE DAY (24 HOURS) ☐5
DON'T KNOW ☐7
REFUSED ☐9

INT: IF C13 < 1 YEAR (< 12 MONTHS), THEN CONTINUE. OTHERWISE SKIP TO NEXT SECTION.

INT: IF B14 HAS NOT BEEN ASKED → CONTINUE WITH C14
IF B14 = YES → SKIP TO C16
IF B14 = NO → SKIP TO C18

C14. Have you visited a doctor or other health care provider in the past 12 months for any reason of personal health?

YES ☐ 1
NO ☐ 2 → SKIP TO C18
REFUSED ☐ 9 → SKIP TO C18

C15. How many times did you visit a doctor or health care provider in the past 12 months? Would you say 1 or 2 times, 3 to 5 times, or 6 or more times?

1 OR 2 TIMES ☐ 1
3 TO 5 TIMES ☐ 2
6 OR MORE TIMES ☐ 3
REFUSED ☐ 9

C16. During any visit to a doctor or health care provider in the past 12 months, were you asked if you use smokeless tobacco?

YES ☐ 1
NO ☐ 2 → SKIP TO C18
REFUSED ☐ 9 → SKIP TO C18

C17.During any visit to a doctor or health care provider in the past 12 months, were you advised to stop using smokeless tobacco?

YES ☐ 1
NO ☐ 2
REFUSED ☐ 9

C18.During the past 12 months, did you use any of the following to try to stop using smokeless tobacco?

READ EACH ITEM:	YES ▼	NO ▼	REFUSED ▼
a. Counseling, including at a cessation clinic?	☐ 1	☐ 2	☐ 9
d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani?	☐ 1	☐ 2	☐ 9
g. Anything else? Specify: _____	☐ 1	☐ 2	☐ 9

SECTION D1. CESSATION – TOBACCO SMOKING

INT: CHECK THE ANSWER TO B1 AND RECORD BELOW: B1 = ___

IF B1 = 1 or 2 (RESPONDENT CURRENTLY SMOKES TOBACCO), THEN CONTINUE WITH THIS SECTION ☐1

IF B1 = 3 or 7 or 9 (RESPONDENT DOES NOT CURRENTLY SMOKE TOBACCO), THEN SKIP TO NEXT SECTION ☐2

INTRO: The next questions ask about any attempts to stop smoking that you might have made during the past 12 months. Please think about tobacco smoking.

D1. During the past 12 months, have you tried to stop smoking?
YES ☐ 1
NO ☐ 2 → SKIP TO INSTRUCTION BEFORE D4
REFUSED ☐ 9 → SKIP TO INSTRUCTION BEFORE D4

D2. Thinking about the last time you tried to quit, how long did you stop smoking?
INTERVIEWER: ENTER UNIT AND NUMBER

MONTHS	☐1	
WEEKS	☐2	
DAYS	☐3	

LESS THAN ONE DAY (24 HOURS) ☐4
DON'T KNOW ☐7
REFUSED ☐9

D3. During the past 12 months, did you use any of the following to try to stop smoking tobacco?

READ EACH ITEM:	YES ▼	NO ▼	REFUSED ▼
a. Counseling, including at a smoking cessation clinic?	☐ 1	☐ 2	☐ 9
b. Nicotine replacement therapy, such as the patch or gum?	☐ 1	☐ 2	☐ 9
c. Other prescription medications, for example Bupropion?	☐ 1	☐ 2	☐ 9
d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani ?	☐ 1	☐ 2	☐ 9
e. A quit line or a smoking telephone support line?	☐ 1	☐ 2	☐ 9
f. Switching to smokeless tobacco?	☐ 1	☐ 2	☐ 9
g. Anything else? Specify:_____	☐ 1	☐ 2	☐ 9

INT: IF B14 AND C14 HAS NOT BEEN ASKED → CONTINUE WITH D4

IF C14 = YES → SKIP TO D6
IF C14 = NO → SKIP TO D8

D4. Have you visited a doctor or other health care provider in the past 12 months for any reason of personal health?

YES ☐ 1
NO ☐ 2 → SKIP TO D8
REFUSED ☐ 9 → SKIP TO D8

D5. How many times did you visit a doctor or health care provider in the past 12 months? Would you say 1 or 2 times, 3 to 5 times, or 6 or more times?

1 OR 2 ☐ 1
3 TO 5 ☐ 2
6 OR MORE ☐ 3
REFUSED ☐ 9

D6. During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoke tobacco?

YES ☐ 1
NO ☐ 2 → SKIP TO D8
REFUSED ☐ 9 → SKIP TO D8

D7. During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?

YES ☐ 1
NO ☐ 2
REFUSED ☐ 9

D8. Which of the following best describes your thinking about quitting smoking? I am planning to quit within the next month, I am thinking about quitting within the next 12 months, I will quit someday but not within the next 12 months, or I am not interested in quitting?

QUIT WITHIN THE NEXT MONTH ☐ 1
THINKING WITHIN THE NEXT 12 MONTHS ☐ 2
QUIT SOMEDAY, BUT NOT NEXT 12 MONTHS. ☐ 3
NOT INTERESTED IN QUITTING ☐ 4
DON'T KNOW ☐ 7
REFUSED…….. ☐ 9

SECTION D2. CESSATION – SMOKELESS TOBACCO

INT: CHECK THE ANSWER TO C1 AND RECORD BELOW: C1 = ___

IF C1 = 1 or 2 (RESPONDENT CURRENTLY USES SMOKELESS TOBACCO), THEN CONTINUE WITH THIS SECTION ☐1

IF C1 = 3 or 7 or 9 (RESPONDENT DOES NOT CURRENTLY USE SMOKELESS TOBACCO), THEN SKIP TO NEXT SECTION ☐2

INTRO: The next questions ask about any attempts to stop using smokeless tobacco that you might have made during the past 12 months. Please think about your use of smokeless tobacco.

D9. During the past 12 months, have you tried to stop using smokeless tobacco?
YES ☐ 1
NO ☐ 2 → SKIP TO INT INSTRUCTION BEFORE D12
REFUSED ☐ 9 → SKIP TO INT INSTRUCTION BEFORE D12

D10. Thinking about the last time you tried to quit, how long did you stop using smokeless tobacco?
INTERVIEWER: ENTER UNIT AND NUMBER

MONTHS	☐1	
WEEKS	☐2	
DAYS	☐3	

LESS THAN ONE DAY (24 HOURS) ☐4
DON'T KNOW ☐7
REFUSED ☐9

D11. During the past 12 months, have you used any of the following to try and stop using smokeless tobacco?

READ EACH ITEM:	YES ▼	NO ▼	REFUSED ▼
a. Counseling, including at a cessation clinic?	☐ 1	☐ 2	☐ 9
d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani ?	☐ 1	☐ 2	☐ 9
g. Anything else? Specify: _____	☐ 1	☐ 2	☐ 9

INT: IF BOTH B14 AND D4 HAVE NOT BEEN ASKED → CONTINUE WITH D12
IF B14 OR D4 = YES → SKIP TO D14
IF B14 OR D4 = NO → SKIP TO D16

D12. Have you visited a doctor or other health care provider in the past 12 months for any reason of personal health?
YES ☐ 1
NO ☐ 2 → SKIP TO D16

REFUSED ☐ 9 → SKIP TO D16

D13. How many times did you visit a doctor or health care provider in the past 12 months? Would you say 1 or 2 times, 3 to 5 times, or 6 or more times?

1 OR 2 ☐ 1
3 TO 5 ☐ 2
6 OR MORE ☐ 3
REFUSED ☐ 9

D14. During any visit to a doctor or health care provider in the past 12 months, were you asked if you use smokeless tobacco?

YES ☐ 1
NO ☐ 2 → SKIP TO D16
REFUSED ☐ 9 → SKIP TO D16

D15. During any visit to a doctor or health care provider in the past 12 months, were you advised to stop using smokeless tobacco?

YES ☐ 1
NO ☐ 2
REFUSED ☐ 9

D16. Which of the following best describes your thinking about quitting smokeless tobacco? I am planning to quit within the next month, I am thinking about quitting within the next 12 months, I will quit someday but not within the next 12 months, or I am not interested in quitting?

QUIT WITHIN THE NEXT MONTH ☐ 1
THINKING WITHIN THE NEXT 12 MONTHS ☐ 2
QUIT SOMEDAY, BUT NOT NEXT 12 MONTHS. ☐ 3
NOT INTERESTED IN QUITTING ☐ 4
DON'T KNOW ☐ 7
REFUSED…… ☐ 9

SECTION E. SECOND-HAND SMOKE

INTRO: I would now like to ask you a few questions about smoking in various places.

EE1. Which of the following best describes the practices about smoking inside of your home: Smoking is allowed inside of your home, smoking is generally not allowed inside of your home but there are exceptions, smoking is never allowed inside of your home, or there are no rules about smoking in your home?

ALLOWED	☐ 1
NOT ALLOWED, BUT EXCEPTIONS	☐ 2
NEVER ALLOWED	☐ 3 → SKIP TO E4
NO RULES	☐ 4 → SKIP TO E3
DON'T KNOW	☐ 7 → SKIP TO E3
REFUSED	☐ 9 → SKIP TO E3

E2. Inside your home, is smoking allowed in every room?

YES	☐ 1
NO	☐ 2
DON'T KNOW	☐ 7
REFUSED	☐ 9

E3. How often does anyone smoke inside your home? Would you say daily, weekly, monthly, less than monthly, or never?

DAILY	☐ 1
WEEKLY	☐ 2
MONTHLY	☐ 3
LESS THAN MONTHLY	☐ 4
NEVER	☐ 5
DON'T KNOW	☐ 7
REFUSED	☐ 9

E4. Do you currently work outside of your home?

YES	☐ 1
NO/DON'T WORK	☐ 2 → SKIP TO E9
REFUSED	☐ 9 → SKIP TO E9

E5. Do you usually work indoors or outdoors?

INDOORS	☐ 1 → SKIP TO E7
OUTDOORS	☐ 2
BOTH	☐ 3 → SKIP TO E7
REFUSED	☐ 9

E6. Are there any indoor areas at your work place?

YES	☐ 1
NO	☐ 2 → SKIP TO E9
DON'T KNOW	☐ 7 → SKIP TO E9
REFUSED	☐ 9 → SKIP TO E9

E7. Which of the following best describes the indoor smoking policy where you work: Smoking is allowed anywhere, smoking is allowed only in some indoor areas, smoking is not allowed in any indoor areas, or there is no policy?

ALLOWED ANYWHERE	☐ 1
ALLOWED ONLY IN SOME INDOOR AREAS	☐ 2
NOT ALLOWED IN ANY INDOOR AREAS	☐ 3
THERE IS NO POLICY	☐ 4
DON'T KNOW	☐ 7
REFUSED	☐ 9

E8. During the past 30 days, did anyone smoke in indoor areas where you work?

YES	☐ 1
NO	☐ 2
DON'T REMEMBER	☐ 7
REFUSED	☐ 9

E9. During the past 30 days, did you visit any government buildings or government offices?

YES	☐ 1
NO	☐ 2 → SKIP TO E11
DON'T REMEMBER	☐ 7 → SKIP TO E11
REFUSED	☐ 9 → SKIP TO E11

E10. Did anyone smoke inside of any government buildings or government offices that you visited in the past 30 days?

YES	☐ 1
NO	☐ 2
DON'T REMEMBER	☐ 7
REFUSED	☐ 9

E11. During the past 30 days, did you visit any health care facilities?

YES	☐ 1
NO	☐ 2 → SKIP TO E13
DON'T REMEMBER	☐ 7 → SKIP TO E13
REFUSED	☐ 9 → SKIP TO E13

E12. Did anyone smoke inside of any health care facilities that you visited in the past 30 days?

YES	☐ 1
NO	☐ 2
DON'T REMEMBER	☐ 7
REFUSED	☐ 9

E13. During the past 30 days, did you visit any restaurant?

YES	☐ 1
NO	☐ 2 → SKIP TO E15
DON'T REMEMBER	☐ 7 → SKIP TO E15
REFUSED	☐ 9 → SKIP TO E15

E14. Did anyone smoke inside of any restaurant that you visited in the past 30 days?

YES ☐ 1
NO ☐ 2
DON'T REMEMBER ☐ 7
REFUSED ☐ 9

EE14a. In any restaurant that you visited in the past 30 days, did you see a designated non smoking area with clear signs?

YES ☐ 1
NO ☐ 2 → SKIP TO E15
DON'T REMEMBER ☐ 7 → SKIP TO E15
REFUSED ☐ 9 → SKIP TO E15

EE14b. [IF E14 = NO, SKIP TO E15]

In any restaurant that you visited in the past 30 days, did you observe anyone smoking in a designated non smoking area?

YES ☐ 1
NO ☐ 2
DON'T REMEMBER ☐ 7
REFUSED ☐ 9

E15. During the past 30 days, did you use any public transportation?

YES ☐ 1
NO ☐ 2 → SKIP TO E17
DON'T REMEMBER ☐ 7 → SKIP TO E17
REFUSED ☐ 9 → SKIP TO E17

E16. Did anyone smoke inside of any public transportation that you used in the past 30 days?

YES ☐ 1
NO ☐ 2
DON'T REMEMBER ☐ 7
REFUSED ☐ 9

E17. Based on what you know or believe, does breathing other people's smoke cause serious illness in non-smokers?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

SECTION F. ECONOMICS – MANUFACTURED CIGARETTES

INT: CHECK THE ANSWERS TO B1, B6a, AND B10a. RECORD BELOW:

B1 = ___
B6a = ___
B10a = ___

IF B1 = 1 OR 2 (RESPONDENT CURRENTLY SMOKES DAILY OR LESS THAN DAILY)

AND

[B6a OR B10a] > 0 OR = 888 (RESPONDENT SMOKES MANUFACTURED CIGARETTES)

THEN CONTINUE WITH THIS SECTION ☐1

OTHERWISE, SKIP TO NEXT SECTION ☐2

INTRO: The next few questions are about the last time you purchased cigarettes for yourself.

F1. The last time you bought cigarettes for yourself, how many cigarettes did you buy?

RECORD NUMBER AND CHECK UNIT BELOW

CIGARETTES	☐ 1	
PACKS	☐ 2 → How many cigarettes were in each pack?	___ ___ ___
CARTONS	☐ 3 → How many cigarettes were in each carton?	___ ___ ___
OTHER SPECIFY:_____	☐ 4 → How many cigarettes were in each [FILL]?	___ ___ ___
NEVER BOUGHT CIGARETTES	☐ 5 → SKIP TO NEXT SECTION	
REFUSED	☐ 9 → SKIP TO F3	

F2. In total, how much money did you pay for this purchase?

INTERVIEWER: IF DON'T KNOW OR REFUSED, ENTER 999

☐☐☐☐ RUPEES

F3. What brand did you buy the last time you purchased cigarettes for yourself?

WILLS	☐ 1
PANAMA	☐ 2
FOUR SQUARE	☐ 3
CLASSIC	☐ 4
GOLD FLAKE	☐ 5
MARLBORO	☐ 6
TRIPLE FIVE	☐ 7
CAMEL	☐ 8
OTHER	☐ 10 → SPECIFY: _____
REFUSED	☐ 99

F4. The last time you purchased cigarettes for yourself, where did you buy them?

VENDING MACHINE	☐ 1
STORE	☐ 2
STREET VENDOR	☐ 3
MILITARY STORE	☐ 4
DUTY-FREE SHOP	☐ 5

OUTSIDE THE COUNTRY ☐ 6
KIOSKS ☐ 7
INTERNET ☐ 8
FROM ANOTHER PERSON ☐ 9
OTHER ☐ 10 → SPECIFY: _____
DON'T REMEMBER ☐ 77
REFUSED ☐ 99

SECTION FA. ECONOMICS – BIDIS

INT: CHECK THE ANSWERS TO B1, B6c, AND B10c. RECORD BELOW:

B1 = ___
B6c = ___
B10c = ___

IF B1 = 1 OR 2 (RESPONDENT CURRENTLY SMOKES DAILY OR LESS THAN DAILY)
AND
[B6c OR B10c] > 0 OR = 888 (RESPONDENT SMOKES BIDIS)
THEN CONTINUE WITH THIS SECTION ☐1
OTHERWISE, SKIP TO NEXT SECTION ☐2

INTRO: The next few questions are about the last time you purchased bidis for yourself.

FA1. The last time you bought bidis for yourself, how many bidis did you buy?

RECORD NUMBER AND CHECK UNIT BELOW

BIDIS ☐ 1
PACKS ☐ 2 → How many bidis were in each pack? ___ ___ ___
CARTONS ☐ 3 → How many bidis were in each carton? ___ ___ ___
OTHER SPECIFY:_____ ☐ 4 → How many bidis were in each [FILL]? ___ ___ ___
NEVER BOUGHT BIDIS ☐ 5 → SKIP TO NEXT SECTION
REFUSED ☐ 9 → SKIP TO FA3

FA2. In total, how much money did you pay for this purchase?

INTERVIEWER: IF DON'T KNOW OR REFUSED, ENTER 999

RUPEES

FA3. What brand did you buy the last time you purchased bidis for yourself?

GANESH ☐ 1
PATAKA ☐ 2
MAZDOOR ☐ 3

A-ONE ☐ 4
ALEEM ☐ 5
BHARATH ☐ 6
CHANDAN ☐ 7
KAREEM ☐ 8
OTHER ☐ 10 → SPECIFY: _____
REFUSED ☐ 99

FA4. The last time you purchased bidis for yourself, where did you buy them?

STORE ☐ 2
STREET VENDOR ☐ 3
MILITARY STORE ☐ 4
OUTSIDE THE COUNTRY ☐ 6
KIOSKS ☐ 7
INTERNET ☐ 8
FROM ANOTHER PERSON ☐ 9
OTHER ☐ 10 → SPECIFY: _____
DON'T REMEMBER ☐ 77
REFUSED ☐ 99

SECTION FB. ECONOMICS – SMOKELESS TOBACCO

INT: CHECK THE ANSWER TO C1 AND RECORD BELOW:

C1 = ___

IF C1 = 1 OR 2 (RESPONDENT CURRENTLY USES SMOKELESS TOBACCO DAILY OR LESS THAN DAILY), THEN CONTINUE WITH THIS SECTION ☐1

OTHERWISE, SKIP TO NEXT SECTION ☐2

INTRO: The next few questions are about the last time you purchased smokeless tobacco products for yourself.

FB1. The last time you bought smokeless tobacco products for yourself, how many of those did you buy?

RECORD NUMBER AND CHECK UNIT BELOW

POUCHES ☐ 1
CANS ☐ 2
OTHER SPECIFY: ☐ 3
NEVER BOUGHT SMOKELESS TOBACCO ☐ 4 → SKIP TO NEXT SECTION
REFUSED ☐ 9 → SKIP TO FB3

FB2. In total, how much money did you pay for this purchase?

INTERVIEWER: IF DON'T KNOW OR REFUSED, ENTER 999

☐ RUPEES

FB3. What of the following did you buy the last time you purchased smokeless tobacco products for yourself: package of rupees 0.50, package of rupees 1.00, package of rupees 2.00, or package of rupees more than 2.00?

PACKAGE OF RUPEES 0.50	☐ 1
PACKAGE OF RUPEES 1.00	☐ 2
PACKAGE OF RUPEES 2.00	☐ 3
PACKAGE OF RUPEES MORE THAN 2.00	☐ 4
DON'T REMEMBER	☐ 7
REFUSED	☐ 9

FB4. The last time you purchased smokeless tobacco products for yourself, where did you buy them?

STORE	☐ 2
STREET VENDOR	☐ 3
MILITARY STORE	☐ 4
OUTSIDE THE COUNTRY	☐ 6
KIOSKS	☐ 7
INTERNET	☐ 8
FROM ANOTHER PERSON	☐ 9
OTHER	☐ 10 → SPECIFY: _____
DON'T REMEMBER	☐ 77
REFUSED	☐ 99

SECTION G. MEDIA

INTRO: The next few questions ask about your exposure to the media and advertisements in the last 30 days. For each item, I am going to ask about cigarettes, bidis, and smokeless tobacco.

G1a. In the last 30 days, have you noticed any information in <u>newspapers or in magazines</u> about the dangers of use or that encourages quitting of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?

YES	☐1
NO	☐2
NOT APPLICABLE	☐3 → SKIP TO G1b
REFUSED	☐9

2. Bidis?

YES	☐1
NO	☐2
REFUSED	☐9

3. Smokeless tobacco?

YES ☐1
NO ☐2
REFUSED ☐9

G1b. In the last 30 days, have you seen any information on television about the dangers of use or that encourages quitting of the following tobacco products?

READ EACH ITEM:
1. Cigarettes?
YES ☐1
NO ☐2
NOT APPLICABLE ☐3 → SKIP TO G1c
REFUSED ☐9

2. Bidis?
YES ☐1
NO ☐2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐1
NO ☐2
REFUSED ☐9

G1c. In the last 30 days, have you heard any information on the radio about the dangers or that encourages quitting of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐1
NO ☐2
NOT APPLICABLE ☐3 → SKIP TO G1d
REFUSED ☐9

2. Bidis?
YES ☐1
NO ☐2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐1
NO ☐2
REFUSED ☐9

G1d. In the last 30 days, have you noticed any information on billboards/hoardings about the dangers or that encourages quitting of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐1
NO ☐2
NOT APPLICABLE ☐3 → SKIP TO G1e
REFUSED ☐9

2. Bidis?
YES ☐1
NO ☐2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐1
NO ☐2
REFUSED ☐9

G1e. In the last 30 days, have you noticed any information somewhere else about the dangers or that encourages quitting of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐1 → a. Please specify _____
NO ☐2
REFUSED ☐9

2. Bidis?
YES ☐1 → a. Please specify _____
NO ☐2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐1 → a. Please specify _____
NO ☐2
REFUSED ☐9

G2. In the last 30 days, did you notice any health warnings on cigarette packages?
YES ☐ 1
NO ☐ 2 → SKIP TO G2a
DID NOT SEE ANY CIGARETTE PACKAGES ☐ 3 → SKIP TO G2a
REFUSED ☐ 9 → SKIP TO G2a

G3. [ADMINISTER IF B1 = 1 OR 2. ELSE GO TO G2a]

In the last 30 days, have warning labels on cigarette packages led you to think about quitting?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G2a. In the last 30 days, did you notice any health warnings on smokeless tobacco products?
YES ☐ 1

NO ☐ 2 → SKIP TO G4a
DID NOT SEE ANY SMOKELESS TOBACCO PRODUCTS ☐ 3 → SKIP TO G4a
REFUSED ☐9 → SKIP TO G4a

G3a. [ADMINISTER IF C1 = 1 OR 2. ELSE GO TO G4a]

In the last 30 days, have warning labels on smokeless tobacco products led you to think about quitting?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐9

G4a. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products in stores where the products are sold?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4b
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4b. In the last 30 days, have you seen any advertisements or signs promoting the following tobacco products on television?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4c
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1

NO ☐ 2
REFUSED ☐9

G4c. In the last 30 days, have you heard any advertisements promoting the following tobacco products on the radio?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4d
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4d. In the last 30 days, have you noticed any advertisements promoting the following tobacco products on billboards/hoardings?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4e
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4e. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on posters?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3→ SKIP TO G4f
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4f. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products in newspapers or magazines?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4G
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4g. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products in cinemas?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4h
REFUSED ☐9

2. Bidis?
YES ☐ 1

NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4h. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on the internet?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4I
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4i. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on public transportation vehicles or stations?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐3 → SKIP TO G4j
REFUSED ☐9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐9

G4j. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on public walls?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
NOT APPLICABLE ☐ 3 → SKIP TO G4k
REFUSED ☐ 9

2. Bidis?
YES ☐ 1
NO ☐ 2
REFUSED ☐ 9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
REFUSED ☐ 9

G4k. In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products anywhere else?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1 → a. SPECIFY _____
NO ☐ 2
REFUSED ☐ 9

2. Bidis?
YES ☐ 1 → a. SPECIFY _____
NO ☐ 2
REFUSED ☐ 9

3. Smokeless tobacco?
YES ☐ 1 → a. SPECIFY _____
NO ☐ 2
REFUSED ☐ 9

G6a. In the last 30 days, have you noticed any free samples of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2

DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

G6b. In the last 30 days, have you noticed any of the following tobacco products sold at sale prices?
READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

G6c. In the last 30 days, have you noticed any coupons for the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

G6d. In the last 30 days, have you noticed free gifts or special discount offers on other products when buying any of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

G6e. In the last 30 days, have you noticed any clothing or other items with a brand name or logo of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?

YES ☐ 1

NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

G6f. In the last 30 days, have you noticed any promotions in the mail for the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

G6g. In the last 30 days, have you noticed any surrogate advertisements promoting other products with the same brand name as of the following tobacco products?

READ EACH ITEM:

1. Cigarettes?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

2. Bidis?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

3. Smokeless tobacco?
YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

SECTION H. KNOWLEDGE, ATTITUDES & PERCEPTIONS

H1. The next question is asking about smoking tobacco.
Based on what you know or believe, does smoking tobacco cause serious illness?

YES ☐ 1
NO ☐ 2 → SKIP TO H3
DON'T KNOW ☐ 7
REFUSED ☐ 9 → SKIP TO H3

H2. Based on what you know or believe does smoking tobacco cause the following…

READ EACH ITEM:	YES ▼	NO ▼	DON'T KNOW ▼	REFUSED ▼
a. Stroke (blood clots in the brain that may cause paralysis)?	☐ 1	☐ 2	☐ 7	☐ 9
b. Heart attack?	☐ 1	☐ 2	☐ 7	☐ 9
c. Lung cancer?	☐ 1	☐ 2	☐ 7	☐ 9

H3. Based on what you know or believe, does using smokeless tobacco cause serious illness?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7
REFUSED ☐ 9

X1. (DO NOT ASK] WHERE OTHERS PRESENT DURING THE INTERVIEW

1. YES
2. NO

X2 [DO NOT ASK] IS THE RESPONDENT A CURRENT SMOKER (DAILY OR LESS THAN DAILY)?

1. YES
2. NO
9. REFUSED

X3. [ASK TO ALL RESPONDENTS]: In the last 30 days, did you notice any health warnings on bidi packages?

1. YES
2. NO
3. DID NOT SEE ANY BIDI PACKAGES
9. REFUSED

X4. [ASK ONLY IF BOTH X2 AND X3 = 1 (YES)]: In the last 30 days, have warning labels on bidi packages led you to think quitting?

1. YES
2. NO
3. DON'T KNOW/NOT SURE/CAN'T SAY
9. REFUSED
0. DID NOT ASK

END INDIVIDUAL QUESTIONNAIRE

Those are all of the questions I have. Thank you very much for partcipating in this important survey.

TIME INTERVIEW ENDED [24 HOUR CLOCK]	___ ___ : ___ ___ HRS MINS

RECORD ANY NOTES ABOUT INTERVIEW:

APPENDIX F.1: MPOWER SUMMARY INDICATORS, GATS INDIA, 2009-2010

Indicator	Overall	Gender		Residence	
		Male	Female	Urban	Rural
M: Monitor tobacco use and prevention policies *					
Current tobacco users[1]	34.6	47.9	20.3	25.3	38.4
Current tobacco smokers[1]	14.0	24.3	2.9	11.2	15.1
Current cigarette smokers[1,2]	5.7	10.3	0.8	7.0	5.2
Current bidi smokers[1]	9.2	16.0	1.9	5.5	10.7
Current users of smokeless tobacco[1]	25.9	32.9	18.4	17.7	29.3
Average number of cigarettes smoked per day [2,3]	6.2	6.1	7.0	6.4	6.1
Average number of bidis smoked per day [2,3]	11.6	12.2	6.5	11.7	11.6
Average age at daily smoking initiation [4]	17.9	18.1	14.7	18.5	17.7
Average age at daily use of smokeless tobacco initiation [5]	17.9	18.2	17.1	18.3	17.8
Former tobacco smokers among ever daily smokers [6]	12.6	12.1	16.2	11.8	12.9
Former daily user of smokeless tobacco among ever daily users [7]	4.8	4.6	5.2	5.9	4.5
P: Protect people from second-hand smoke *					
Percentage of adults exposed to second-hand smoke at home [8]	52.3	52.2	52.5	38.5	58.0
Percentage of adults exposed to second-hand smoke at work [9,+]	29.9	32.2	19.4	27.6	32.1
Exposure to second-hand smoke in public places: +					
Government buildings	6.6	10.3	2.6	7.9	6.1
Health care facilities	5.4	6.0	4.8	5.8	5.3
Restaurants	11.3	19.2	2.8	14.0	10.2
Public transportation	17.5	22.0	12.6	17.9	17.3
Any of these public places	29.0	39.5	17.8	31.6	27.9
O: Offer help to quit tobacco use [10]					
Percentages of smokers who made quit attempt in the past 12 months [11]	38.4	38.3	38.9	38.7	38.2
Percentages of smokers who were advised quit some tobacco use by a health care provider [12]	46.3	47.3	38.9	50.6	44.9
Attempted to quit smoking using a specific cessation method [11]					
Pharmacotherapy [13]	4.1	4.3	1.6	6.7	3.2
Counselling/Advice [14]	9.2	9.2	8.1	12.7	8.1
Other methods [15]	26.0	26.7	20.6	25.1	26.3
Made a smokeless tobacco quit attempt in the past 12 months [11]	35.4	38.8	29.0	37.0	35.0
Advise to quit smokeless tobacco by a healthcare provider [12]	26.7	28.1	24.5	31.9	25.3
Attempted to quit using smokeless tobacco using a specific cessation method [11]					
Counseling/advice [14]	7.6	6.6	10.0	8.6	7.3
Other methods [15]	21.9	20.6	25.0	25.0	21.0

Appendix F.1: continued

Indicator	Overall	Gender		Residence	
		Male	Female	Urban	Rural
Percentage of current tobacco users interested in quitting tobacco use [16]					
Among current smokers	46.6	47.3	40.6	49.2	45.7
Among users of smokeless tobacco	45.2	48.3	39.1	45.0	45.2
W: Warn about the dangers of tobacco *					
Percentage of adults who believe that tobacco smoking causes serious illness	90.2	91.5	88.8	93.8	88.7
Percentage of adults who believe believe that tobacco smoking causes specific disease:					
Stroke	49.4	50.5	48.2	54.2	47.4
Heart attack	63.9	65.1	62.7	72.0	60.6
Lung cancer	84.9	87.2	82.5	90.0	82.8
Percentage adults who believe smokeless tobacco smoking causes serious illness	88.8	90.1	87.3	93.0	87.0
Percentage of adults who believe breathing other people's smoke causes serious illness	82.9	84.9	80.8	88.0	80.8
E: Enforce bans on tobacco advertising or promotion *					
Percentage of adults who noticed any cigarette advertisement, sponsorship or promotion +	28.4	36.3	19.8	35.3	25.5
Percentage of adults who noticed any bidi advertisement, sponsorship or promotion +	47.0	50.9	41.1	46.0	47.6
Percentage of adults who noticed any smokeless tobacco advertisement, sponsorship or promotion +	54.7	58.6	48.7	55.2	54.5
Percentage of adults who noticed anti-cigarette smoking information at any location +	51.7	58.1	45.0	67.6	45.2
Percentage of adults who noticed anti -bidi smoking information at any location +	61.1	63.0	58.8	66.2	58.4
Percentage of adults who noticed anti-smokeless tobacco information at any location +	66.2	68.5	63.3	71.5	63.4
R: Raise taxes on tobacco					
Average cigarette expenditure per month among current manufactured cigarette smokers(₹)	399.20	401.70	177.80	469.00	347.50
Average bidi expenditure per month among current bidi smokers (₹)	93.40	97.00	49.50	92.50	98.00
Last cigarette purchase was from store	50.5	50.4	56.8	44.6	54.5
Last cigarette purchase was from a street vendor	16.4	16.5	12.6	21.9	12.7
Last bidi purchase was from store	48.5	48.2	52.2	44.2	49.4
Last bidi purchase was from a street vendor	11.4	12.2	3.3	15.2	10.6
Last smokeless tobacco purchase was from store	54.7	49.7	64.3	46.9	56.7
Last smokeless tobacco purchase was from a street vendor	10.4	12.2	7.1	16.9	8.8

Note: [1] Current use includes both daily and occasional (less than daily) use.
[2] Cigarette use includes manufactured cigarettes and hand-rolled cigarettes.
[3] Among current cigarette smokers.
[4] Among respondents 20-34 years of age who are ever daily smokers.
[5] Among respondents 20-34 years of age who are ever daily users of smokeless tobacco
[6] Also known as the quit ratio for daily smoking.
[7] Also known as the quit ratio for daily use of smokeless tobacco.

[8] Adults reporting that smoking inside their home occur daily, weekly, or monthly.
[9] Among those respondents who work outside of the home who usually work indoors or both indoors and outdoors.
[10] Among current smokers (includes both daily and occasional smokers).
[11] Among current smokers/smokeless users and former smokers/smokeless users who have been abstinent for less than 12 months.
[12] Among current smokers/smokeless users and former smokers/smokeless users who have been abstinent for less than 12 months, and who visited a HCP during the past 12 months.
[13] Includes nicotine replacement therapy and other medications such as Buproprion.
[14] Counselling, including smoking cessation clinics and quit line or smoking telephone support line.
[15] Other includes traditional medicines, switching to smokeless tobacco and any other specified methods.
[16] Interest in quitting includes current smokers/smokeless tobacco users who are planning to quit within next month, thinking about quitting within next 12 months, and who will quit someday, but not in the next 12 months
[*] Among all adults.
[†] In the last 30 days.

APPENDIX F.2: MPOWER SUMMARY INDICATORS ACCORDING TO REGIONS AND STATES/UTS. GATS INDIA. 2009-2010

Region and State/UT	Current tobacco users[1]	Current tobacco smokers[1]	Current users of smokeless tobacco[1]	Adults exposed to second-hand smoke at workplace	Adults exposed to second-hand smoke at public place	Current smokers[2] who made a quit attempt in the past 12 months	Current smokers[2] who were advised to quit smoked tobacco by HCP	Adults who believe tobacco smoking causes serious illness	Adults who believe smokeless tobacco causes serious illness	Adults who noticed any cigarette advertisement or promotion	Average cigarette expenditure per month	Average bidi expenditure per month
India	34.6	14.0	25.9	29.9	29.0	38.4	46.3	90.2	88.8	28.4	399.20	93.40
North	18.9	13.8	7.2	26.6	28.6	26.3	52.6	94.0	92.0	33.7	453.60	93.90
Jammu & Kashmir	26.6	21.9	7.6	67.9	35.2	29.6	51.0	88.2	82.0	23.0	513.60	134.20
Himachal Pradesh	21.2	18.3	4.5	17.8	33.3	28.9	54.7	96.4	92.4	16.6	393.60	75.80
Punjab	11.7	6.9	6.5	16.0	18.2	18.7	64.7	94.6	95.0	41.0	396.50	93.30
Chandigarh	14.3	11.0	5.4	15.4	11.3	15.8	46.3	97.4	97.3	56.6	514.30	109.90
Uttarakhand	30.7	22.1	11.6	24.2	49.2	30.1	43.9	96.5	92.6	35.5	316.20	93.30
Haryana	23.7	19.6	6.4	42.7	53.0	34.2	56.6	95.8	93.6	30.4	393.40	93.00
Delhi	24.3	17.4	10.5	24.4	32.4	12.4	43.3	98.1	96.8	29.2	513.40	110.40
Central	38.1	15.5	29.2	29.5	31.8	43.1	37.4	88.8	88.5	26.9	414.70	94.20
Rajasthan	32.3	18.8	18.9	34.6	40.2	36.8	39.7	92.8	94.1	36.2	340.90	147.80
Uttar Pradesh	33.9	14.9	25.3	28.9	29.1	44.1	38.4	87.7	86.9	19.1	498.90	72.50
Chhattisgarh	53.2	12.6	47.2	20.6	21.9	37.6	37.6	85.2	86.5	32.0	388.50	79.70
Madhya Pradesh	39.5	16.9	31.4	32.0	40.9	51.3	33.4	91.7	89.4	34.5	325.10	94.90
East	45.4	15.7	37.6	35.4	24.5	29.4	40.4	90.0	88.3	19.3	242.70	58.60
West Bengal	36.3	21.3	21.9	49.1	29.8	16.7	48.8	85.7	85.4	28.6	253.90	66.60
Jharkhand	50.1	9.6	47.9	25.6	22.7	42.4	19.1	89.7	86.6	10.4	181.70	46.60
Odisha	46.2	10.3	43.1	18.6	13.5	24.9	28.6	95.3	96.4	20.8	203.30	59.40
Bihar	53.5	14.2	48.7	35.5	24.7	47.7	38.7	92.2	88.2	11.5	229.50	42.70

Appendix F.2: continued

Region and State/UT	Current tobacco users[1]	Current tobacco smokers[1]	Current users of smokeless tobacco[1]	Adults exposed to second hand smoke at workplace	Adults exposed to second hand smoke at public places	Current smokers[2] who made a quit attempt in the past 12 months	Current smokers[2] who were advised to quite smoked tobacco by HCP	Adults who believe tobacco smoking causes serious illness	Adults who believe smokeless tobacco causes serious illness	Adults who noticed any cigarette advertisement or promotion	Average cigarette expenditure per month	Average bidi expenditure per month
North-East	44.1	19.3	34.6	35.2	26.2	31.0	41.6	91.2	88.8	24.6	549.50	88.40
Sikkim	41.6	26.4	25.6	27.0	39.9	24.6	48.2	88.5	88.7	33.6	616.10	62.70
Arunachal Pradesh	47.7	29.4	36.2	42.8	30.7	28.8	49.6	81.1	82.2	33.7	1264.90	103.50
Nagaland	56.8	31.5	45.3	64.6	32.0	22.5	81.8	87.8	83.5	19.9	412.10	69.50
Manipur	54.1	25.7	44.5	55.1	31.2	33.3	41.1	89.1	86.6	26.7	404.90	83.50
Mizoram	67.2	39.7	40.7	64.6	27.3	19.2	34.0	98.4	95.2	7.5	718.00	113.40
Tripura	55.9	27.3	41.4	45.4	22.4	33.9	51.8	93.0	90.0	37.2	475.40	77.00
Meghalaya	55.2	35.7	28.2	50.7	53.8	28.3	51.8	88.3	79.1	17.0	810.00	119.80
Assam	39.3	14.4	32.7	27.7	23.3	33.1	34.7	91.8	90.0	23.8	495.50	89.50
West	30.5	8.1	25.3	26.6	30.6	35.2	47.0	87.3	87.5	36.4	448.60	109.20
Gujarat	29.4	11.0	21.6	32.8	31.7	41.7	53.4	89.0	90.6	51.8	350.90	113.40
Maharashtra	31.4	6.6	27.6	23.8	30.2	29.5	41.5	86.4	85.9	28.6	465.00	101.70
Goa	8.8	4.8	4.6	17.4	22.8	38.3	64.5	90.0	90.6	21.7	402.80	71.10
South	24.1	13.3	13.4	29.4	28.7	45.9	62.4	93.3	89.7	32.9	440.00	125.70
Andhra Pradesh	29.2	17.4	15.1	31.0	33.5	54.9	70.7	92.8	83.7	28.4	363.70	113.30
Karnataka	28.2	11.9	19.4	42.0	37.2	34.6	58.2	92.1	92.0	56.8	384.10	126.50
Kerala	21.4	13.4	10.7	17.5	18.7	47.3	49.3	95.0	91.9	44.2	483.90	139.20
Tamil Nadu	16.2	9.6	8.1	26.9	21.1	35.8	60.5	93.9	93.6	12.7	589.30	145.60
Puducherry	15.1	10.3	6.1	27.9	27.1	50.1	45.2	94.3	92.9	16.3	553.90	104.30

Note [1] Current use includes both daily and occasional (less than daily) use.
[2] Cigarette use includes manufactured cigarettes and hand-rolled cigarettes.

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