GLOBAL ADULT TOBACCO SURVEY

INDIA 2016-17

REPORT

Ministry of Health & Family Welfare
Government of India

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CHAPTER ONE

INTRODUCTION

1.1 THE THREAT FROM TOBACCO USE

Tobacco use is the leading single preventable cause of deaths worldwide. Each year an estimated 7 million deaths are attributed to the use of tobacco (1). On an average, tobacco users lose 15 years of life. Up to half of all tobacco users will die prematurely due to tobacco related causes by any year or time estimation. Most of these deaths will be in middle and low-income nations, which would account for almost 80% of all tobacco related deaths (2).
The economic costs of tobacco use are enormous, totaling more than US$ 1.4 trillion in health care costs and resulting in lost productivity which is about 1.8% of the world's GDP and over 40% of what the world spends on school education (3). Yet tobacco remains the single most widely available and purchasable addictive substance whose purchase is legal everywhere.

The situation of tobacco use in India is even more of a challenge. India is the third largest tobacco producing nation and second largest consumer of tobacco world-wide. Mortality due to tobacco in India is estimated at upwards of 1 million (4). The link between tobacco use and mortality in India is well established, and is similar to global experience with tobacco use. One feature of tobacco related mortality in India is the high incidence of oral cancer, exceeding even that of lung cancer and accounting for almost half of all oral cancers in the world (5). Tuberculosis related mortality too has an increasing link with smoking with some sources attributing a contributory role of smoking in about half of all TB deaths. If the current trends continue, tobacco will account for 13% of all deaths by 2002 (6)

All this makes it imperative to accelerate the efforts at tobacco control at both global as well as national level to contain the epidemic of tobacco use and to effectively address the greatest public health challenge we are currently facing.

1.2 THE GLOBAL ACTION AGAINST TOBACCO

There has been growing international recognition of the threat posed by tobacco use and the potential of concerted global action to contain this epidemic. Tobacco Control has also been included in the United Nations Agenda on Sustainable Development Goals. Controlling the use of tobacco is also seen as one of the effective means to achieve the SDG target that calls for reduction of one-third premature mortality from non-communicable diseases (NCDs), including cardiovascular disease, cancers and chronic obstructed pulmonary disease. Further, an additional target aims at strengthening the implementation of the WHO Framework Convention on Tobacco Control in all the countries (7)
The World Health Organization's Framework Convention on Tobacco Control (WHO FCTC) provides a strong, concerted response to the global tobacco epidemic and its enormous health, social,

environmental and economic costs. It also gives nation the necessary foundation and framework – both legal and technical to enact comprehensive, effective tobacco control measures spanning all sectors of government. With close to 180 members, the WHO FCTC covers more than 90% of the world's population (8)

The FCTC have set out price and tax restrictions as well as enacted various regulatory measures related to product packaging, education, and elimination of tobacco advertising for reducing the demand for tobacco. Around 180 countries are Parties to this Convention. The Governing Body of the FCTC is known as the Conference of Parties (COP) consisting of all the parties to the Convention that undertakes regular reviews and make decisions related to the Convention(8)

The strategy for tobacco control was established in 2008 as what is termed as MPOWER approach and this promote government action on six tobacco control actions:

- Monitor tobacco use and prevention policies.
- Protect people from tobacco smoke.(action against second-hand smoking)
- Offer help to quit tobacco use.
- Warn people about the dangers of tobacco use.
- Enforce bans on tobacco advertising, promotion and sponsorship.
- Raise taxes on tobacco.

Every year on 31st May, the WHO in alliance with its partners marks the 'World No Tobacco Day'. The Theme for the World No Tobacco Day in 2017 is Tobacco-A Threat to Development.[1] One of the major goals of the World No Tobacco Day is to highlight the links between the use of tobacco products, tobacco control and sustainable development as well as to direct efforts at the implementation of strategies prioritising actions on tobacco control.
One of the important global functions under the FCTC is to monitor both, the prevalence of tobacco use and the progress on tobacco control using MPOWER strategies world-wide. To do this monitoring function effectively, a Global Tobacco Surveillance System has been set up at the international level.

1.3 GLOBAL TOBACCO SURVEILLANCE SYSTEMS

Under the leadership of the World Health Organization(WHO) a Global Tobacco Surveillance System (GTSS) was established to assist all 192 WHO Member States in collecting data on youth and adult tobacco use. The Global Adult Tobacco Survey is the global standard for systematically monitoring the adult tobacco use (smoking and smokeless) and to keep the systematic track of all the key tobacco control indicators. This is a household survey that will monitor tobacco use among adults as defined to be those who are aged 15 or above. GATS has been implemented in 33 countries since 2008 and repeated in 11 countries(9).

Complementing GATS is the Global Youth Tobacco Survey (GYTS) which focuses on youth aged 13-15 and collects information in schools. GYTS has been implemented in 173 countries since 1999 and has

[1] http://www.who.int/campaigns/no-tobacco-day/2017/event/en/ accessed on 7th May 2017

been repeated at least once in 106 countries. It also generates comparable data within and across countries because of its standardize, systematic and consistent process for all countries.

In addition, there is a list of tobacco questions for surveys, as a subset of 22 core standardized questions from GATS, which can be incorporated into other surveys in any combination. Currently, 73 countries have integrated TQS into their national surveys(10). Other surveys of the GTSS include a Global School Personnel Survey and a Global Health Professional Students Survey.
India has been an active participant in all the different activities under the WHO-FCTC and the GTSS.

1.4 TOBACCO CONTROL POLICIES IN INDIA

India has been one of the earliest nations to ratify the World Health Organization Framework Convention on Tobacco Control in 2004. The Government of India's legal and programmatic efforts at tobacco control pre-dates this milestone. The legal action against tobacco began in 2003 with the enactment of the 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.

In 2007-08, India launched its own National Tobacco Control Programme (NTCP) as a part of the 11th Five Year Plan to fulfill the given obligations under COTPA & FCTC. One of the main objective of the programme was to increase the awareness about the deleterious effects of tobacco use. The programme also aims to raise awareness about laws pertaining to control of tobacco and ensure effective implementation of the tobacco control laws. The main components of the NTCP are to setting up the State Tobacco Control Cells and a district tobacco control programme that consists of training and capacity building of enforcement officials, better monitoring and implementation of tobacco control laws, health communication efforts within schools and in the general public to promote awareness of the dangers/hazards of tobacco use and to prevent tobacco use. Apart from this initiatives, the NTCP also provided for setting up of cessation centers at the district levels and establishing tobacco product testing laboratories(11)

Recognizing the importance of high quality information on tobacco use to guide its tobacco control policy and programmes, the Indian government has also been one of the first nation to undertake the Global Tobacco Surveys. The Global Youth Tobacco Survey was done in 2003, and the same repeated in 2006 and 2009 and the first round of Global Adult Tobacco Survey was undertaken in the year 2009-2010. India has also conducted a school personnel survey and a professional students survey in 2006. Questions on tobacco use have also formed a part of other major national surveys, notably the National Family Health Surveys 2, 3 and 4.

In 2009, when both the GYTS-3 and GATS- 1 were undertaken, the NTCP was still at an early stage of implementation. By 2009, government had set up the steering committees for the implementation of COPTA in 21 states. However effectiveness of the restrictions on tobacco sales that the law mandates was varied across states, and few states had started collecting fines and only half the states had established tobacco cessation facilities(11). However these two surveys provided a convenient baseline for the NTCP

Despite the different sources of information, it has been the Global Adult Tobacco Survey which provided the baseline information on the multiple forms of tobacco use, the varying epidemiology across states and the diverse determinants of its prevalence and the efforts at tobacco control across states.

1.5 GLOBAL ADULT TOBACCO SURVEY- FIRST ROUND-2009-10 INDIA

The first round of Global Adult Tobacco Survey, India was carried out in 2009-2010 (12). The Ministry of Health and Family Welfare, Government of India organized this survey in partnership with International Institute for Population Sciences, World Health Organization, CDC, USA and others. 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 2009 covered 69,296 adults, among which there were 33,767 males and 35,529 females. By place of residence41,825 samples were from rural areas and 27,471 were in urban areas. All 29 States and 2 Union Territories of Pondicherry and Chandigarh were covered.The survey findings were published in 2010 and disseminated systematically through events organized at National, Regional and State level. The survey results were also widely covered in the media.

GATS India 2009 revealed that 34.8 percent of adults in India use tobacco in some form or the other. Out of this reported prevalence 21percent adults were using only smokeless tobacco, 9 percent reported only smoked one whereas 5 percent reported under both i.e. smoked as well as smokeless tobacco. The prevalence of overall u tobacco use among males reported 48 percent and of smoking was 24 percent whereas corresponding figures for females was 20 percent for any tobacco use and 3 percent for smoking. The prevalence of tobacco use was higher in rural areas compare to the urban counterpart.

Prevalence of tobacco use also varies across States, with a range from 67 percent in Arunachal to 9 percent in Goa. All eight north-eastern States and the five eastern States of West Bengal Bihar, Jharkhand, Orissa and Chhattisgarh and the central State of Madhya Pradesh had prevalence above the national average.

A higher prevalence rate for tobacco use was associated with lower levels of education and with higher age groups. In all the sub-groups studied –that included gender, age, educational level and residence, the results stated the use of smokeless tobacco was higher than smoking tobacco. Of those who used tobacco, over 75 percent were daily users.

GATS India 2009 also explored passive smoking in some detail. The survey revealed that 52 percent of adults were exposed to second-hand smoke (SHS) at home.It also varied across States; reaching an almost universal level of 97 percent in Mizoram. Exposure to SHS at any public place ranged from

the highest levels of 54 percent in Meghalaya to the lowest of 11 percent in Chandigarh. Exposure to passive smoking in different public sites was also investigated and the patterns varied across States.

GATS 2009 also reported on the expenditure incurred on smoking and use of smokeless tobacco. The survey also studied the exposure to anti-smoking messages in different communication media and on packages. The experience of efforts at cessation of tobacco use is also part of the information provided by GATS India 2009-10. Information was also collected and presented on knowledge, attitudes and practices of tobacco consumers along with information on initiation of age for the use of tobacco.

1.6 POLICY MEASURES SINCE GATS 1 INDIA 2009-2010

GATS 1 leads to an increasing attention to the challenge of tobacco control and provide a robust baseline on the many dimensions needed to guide action. At the time of GATS 1, the NTCP was being piloted in 42 districts of 21 states (with two districts in each state) across India. In 2013, the programme was expanded and the number of districts covered increased to 53 districts of 29 states. During the 12th Five Year Plan (2012- 17), the programme was to be extended to all the districts in a phased manner. In this period, all NTCP activities at the district and below were subsumed under the National Health Mission (NHM) Flexipool for Non-Communicable Disease (NCD's)(11).

One of the big changes brought by GATS 1 India -2 was a sharp recognition of the problem of smokeless tobacco and the varied prevalence of tobacco use across states. Many states introduced a total ban on the manufacture and sale of Gutkha and Pan Masala containing tobacco or nicotine, a form of chewing tobacco. Taxes on cigarettes and many smokeless products were also increased.

Another important development in this period was the emphasis on anti-tobacco messaging in the media and on tobacco packets. The earlier version of COTPA had provisions for banning the direct and indirect advertisement of tobacco products (except at point of sale). An amendment in April 2016 increased the size of the warning on tobacco packets to a minimum of 3.5 cms (width) and 4 cms (height). This amounts to covering 85% of both sides of the tobacco package. Additionally, a 2009 set of rules under the Cable Television Networks (Regulation) Act, 1995 (CTNA) disallows direct advertising of tobacco products on cable networks in India. A subsequent Ministry of Information and Broadcasting Directive, also disallows indirect advertising of tobacco products.

In addition, government had also started a toll-free Tobacco Cessation Quitline as well as m-Cessation services under the "Be Healthy Be Mobile Initiative",[2] .Taking into consideration the definite felt need for tobacco cessation, as revealed by the GATS India, 2010, the Government undertook capacity building initiatives to expand the tobacco cessation facilities in the country. The emphasis is being laid on mainstreaming tobacco cessation in the health care delivery system by encouraging health care institutes to set up tobacco cessation facilities. The Indian Dental Association, a professional organization has also initiated Tobacco Intervention Initiative (TII) to train the dental professionals in tobacco cessation and help to set up cessation clinics(11).

[2] http://pib.nic.in/newsite/PrintRelease.aspx?relid=153341 accessed on 10th May 2017

Considerable investment has also been made in national publicity and awareness building activities including the observation of the World No Tobacco day on May 31st of every year (11).

In November 2016, Government of India in partnership with the FCTC Secretariat hosted the Seventh Session of the Conference of Parties in Noida, Uttar Pradesh, India. This was an occasion where the government reiterated its commitment to strengthen measures at tobacco control especially the increasing emphasis on regulation of Smokeless tobacco products in India.

India has also established the 'Global Knowledge Hub for Smokeless Tobacco' at National Institute of Cancer Prevention and Research (NICPR) which will act as a global repository of knowledge related to smokeless tobacco(13).

1.7 TOWARDS THE SECOND ROUND OF GATS INDIA

Five years after GATS-1 and the considerable efforts at implementation that it led to the need was felt to have a second round of the survey. GATS 2009 India had not only contributed significantly to government efforts at control of tobacco use, it has also raised public awareness of the issue and triggered a number of scientific articles leading to the generation of new knowledge in this area.

A second round of GATS was felt that it would be able to comment on the effectiveness of tobacco control measures much better and this could inform course corrections in the programme. Changes in tobacco use can occur despite active efforts of the government and civil society to curb its use. It is due to changes in the strategies of promotion of tobacco use by different segments of the tobacco industry, or passively, in response to cultural changes that are taking place secondary to the patterns of social and economic development. The latter category includes such varied changes as improved educational levels, much larger numbers of youth entering higher institutions, increased migration, and fragmentation of households, growth of urban slums, greater numbers involved in casual labour and growth of social networking. There are also new technologies like e-cigarettes or at the other end nicotine replacement therapies whose scope and reach is entirely uncertain.

While designing GATS 2 a number of principles were kept at the forefront.

a) The design of the survey and its tools had to be consistent with the Global Design of the Survey as its a part of the Global Surveillance effort. However, India could and did use additional questions wherever it was needed.
b) The design of the survey and its tools had to be consistent with the design of the GATS India survey of 2009-10, so that the results of both GATS 1 and GATS 2 would be comparable.
c) To make the information more relevant and useful for programme planning and management, it was essential to have state specific data and this implies that region based sampling would be replaced by state based sampling. Also since after GATS 1, prevalence rates were known, indicated that states with lower prevalence rates needed a larger sample size to track change. Whereas larger states would need a larger sample.
d) Like in GATS-1, the interview schedule of GATS 2 also did not ask for health status with respect to any confirmed communicable or non-communicable disease. However, GATS 2 did introduce a question that could relate to tobacco use and exposure to SHS during pregnancy- a question that has considerable importance.

With all these considerations in mind, the main objectives of the Second Round of Global Adult Tobacco Survey – India that was conducted in year 2016 was set out as follows:

1.8 THE MAIN OBJECTIVE OF GATS INDIA 2

1) To obtain sufficiently reliable estimates of various dimensions of tobacco use so as to systematically monitor adult tobacco use and its key tobacco control indicators.

2) To contribute to the understanding of effectiveness of tobacco control measures, based on observed changes in relevant indicators since 2009-10 when GATS 1 India -2009-2010 was completed.

3) The indicators measured would include:

   a. Prevalence of tobacco use as in smoking and in different forms of smokeless tobacco use,

   b. Prevalence of second hand exposure to tobacco smoking

   c. Prevalence of cessation efforts,

   d. Economics of tobacco use in terms of monthly expenditures incurred

   e. Awareness of measures to control it and exposure to health communication efforts against tobacco use through different media.

   f. Awareness and perception on the harmful effects of tobacco use

The survey would be designed to provide all the critical indicators of tobacco use for males and females and for rural and urban areas; at national level and at the level of every state and two union territories. GATS India 2 also aims to observe the changes in these indicators since GATS India 1 conducted in 2009-10.

Ministry of Health and Family Welfare designated the Tata Institute of Social Science (TISS), Mumbai as nodal implementing agency. With the creation of Telangana State, the total number of States covered in GATS 2 would go upto 30 as compared to 29 for GATS 1. Coverage of union territories would be limited to Chandigarh and Puducherry, as was done in GATS 1. Thus only 4 union territories representing about 0.01% of the Indian population would be excluded.

CHAPTER TWO

METHODOLOGY

The Global Adult Tobacco Survey (GATS) is a standardized survey used across nations to monitor the prevalence of adult tobacco use and to measure changes in key tobacco control indicators. The first round of this survey was conducted in India in 2009-10. This is the report of the second round of the Global Adult Tobacco survey in India which was conducted in 2016-2017 , and this survey is referred to in this report as ''GATS 2 India''. This survey is a nationally representative household survey of adults, 15 years of age or older designed to produce internationally comparable data on tobacco use and other tobacco control indicators. The survey used the internationally standardized questionnaire, sample design, data collection and management procedures. A representative probability sample was used to provide national estimates of tobacco use and its various dimensions by urban and rural residence and gender, and state estimates by gender. This chapter describes the study population and the survey methodology, sampling design, questionnaire, data collection methods and statistical analysis.

2.1 STUDY POPULATION

GATS 2 India is a household survey and hence included only household population. The target population for the survey was defined as all Indian residents, aged 15 or above living in their usual 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., were not included in the survey.

The respondents eligible for GATS 2 India were all non-institutionalized persons aged 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 out 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, interviewer read the consent form (statements) and proceeded for the interview only after the respondent consented for it. In case of minor respondent age 15–17, interviewer was required to obtain the consent from both, parent or guardian of the minor as well as 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 2 India covered all the 30 states, including National Capital territory of Delhi and two union territories (UTs) - Chandigarh and Puducherry, covering about 99.92 percent of the total population

of India-1029 million- according to 2011 Census. For GATS 2 India survey, sampling was done independently in each state/UT and within the state/UT, independently in urban and rural areas (see Appendix for details). Prevalence rates by gender in the GATS 1 survey in each state was also considered when samples for each gender in individual interviews was decided.

In urban areas, three stage sampling was adopted. At first level, 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 (PSUs) was selected using probability proportional to size (PPS) sampling. At second level, 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 the third level, 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. At the first stage of sampling all the villages in the state/ UT formed the sampling frame. All the small villages having less than five households were removed from the sampling frame. Villages with five to 49 households as per Census of India, 2011 were linked with the neighboring larger villages. All the villages were 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 PSUs (villages) was selected according to the proportion of population 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 2 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. And hence all the 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. Household listing in the large PSUs was done only in selected two segments. In all such large villages, sampling design became a three-stage design.

From the list of households 30 households (plus additional three for accounting non-response) were selected by systematic random sampling. The 33 selected households in a PSU were divided into two groups as 1) households for interview of a male member and 2) households for interview of a female member in proportion to the total sample size of male and female interviews in a state. In a selected household a list of all the males/ females members aged 15+ formed the sampling frame for the selection of male/ female respondents. The sampling was done at the headquarters of the implementing agency and whichever household was selected had to be interviewed. From the total number of male/ female members aged 15 or above in a household, one member was be selected at random for the interview. This selection was random and done by the handheld device.

2.3 SURVEY QUESTIONNAIRE

GATS 2 India used two types of questionnaire: 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 and Monitoring Committee (TAMC) these questionnaires were adapted and modified to reflect the relevant issues applicable for India's situation. The India specific adaptation was done in consultation with Centers for Disease Control and Prevention (CDC), Atlanta and WHO South East Asia Regional Office (WHO- SEARO). 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 18 Indian languages for administration in different states/UTs. The questionnaires were back translated to check the quality of translation. GATS 2 India Questionnaires are given in Appendix A.

2.3.1 Household questionnaire

The household questionnaire was administered to head of the household or any adult member in the absence of head. In the household questionnaire, information on the total number of household members and total number of household members aged 15 or above by sex was collected. In the households selected for interviewing male respondents, information of all male members about name, age, month and year of birth (in case of those aged 15-17), smoking status and smokeless tobacco use status was collected. Similarly in the households selected for interviewing female respondents; information of female members was collected. The information on age was used to identify an eligible random respondent for the individual questionnaire. Whether a particular household was to be interviewed for male or for female respondents was determined during the household selection process itself and corresponding case management files were loaded in each handheld device.

2.3.2 Individual questionnaire

The Individual questionnaire was administered to the individual age 15 or above selected randomly for the interview by the handheld device from the list of male or female members that had been entered as response to the household questionnaire. The individual interview started with consent statement. The individual questionnaire consisted of the eight sections:

1. *Background characteristics:* Questions on sex, age, education, occupations, possession of household items, religion, caste, marital status and pregnancy status (in case of females aged below 50) were included in this section.
2. *Tobacco smoking:* Questions in this section covered 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*, *hukkah*, pipes, cigars and other smoked tobacco), time to the first smoke of a day after waking up and attempts to quit. There were in addition two sub-sections added which were as follows:

a. *Waterpipe:* Though in the sub-section on tobacco smoking information on *hukkah* use was collected, in this section information on the use of *hukkah* (water pipe) was collected from those who did not report it in the previous section. From all *hukkah* users details like duration of *hukkah* session, number of participants in a *hukkah* session, place of *hukkah* smoking and type of tobacco smoked were collected.
b. *Electronic Cigarette:* In this sub-section information on the awareness and use of electronics cigarette was collected.

3. *Smokeless tobacco:* Questions included 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 *(khaini, gutkha, tobacco with pan masala,* tobacco with betel quid and other smokeless tobacco products like, *mishri, gul, bajjar, gudakhu*), time to the first use of smokeless tobacco of a day after waking up, attempts to quit. One sub-section added to this section is on the use of other products that are consumed without tobacco, but have a relationship culturally to use of smokeless tobacco. These are the use of *pan masala* without tobacco, betel quid without tobacco, and use of areca nut was collected.
4. *Cessation:* Questions related to quit attempts, advice to quit smoking by health care providers, methods used to quit smoking and future plans to quit smoking. Similar information was collected for cessation of smokeless tobacco as well.
5. *Secondhand smoke:* Questions in this section were on whether smoking was allowed in the home, exposure to secondhand smoke at home, indoor smoking policy at the work place, exposure in the last 30 days in the work place or in any public place like government buildings/offices, private offices, health care facilities, restaurants, public transportation, bars/ night clubs and cinema hall/ theatre. The section also included knowledge about serious illness among non-smokers and children due to secondhand smoke.
6. *Economics:* Questions covered type of tobacco product and quantity bought, cost of tobacco products, and source of last tobacco products purchased.
7. *Media:* Questions on exposure to advertising: 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.

2.4 QUESTIONNAIRE PROGRAMMING AND PREPARATION OF HANDHELD COMPUTERS

Data collection for both household and individual questionnaire at national level was electronically collected using hand-held devices in the form of tablets. General Survey Software, developed by RTI International was used on the handheld devices to capture survey data. GATS 2 questionnaire was programmed in the GSS software.

The handheld device used on field for data collection operates on Android 4.4.2 with a Quad-core 1.2 GHz processor and 1.5 GB RAM.

The GSS Software is developed to facilitate the administration, collection, and management of survey data. It's a dual system with one component designed to run on a computer (PC) while the other component designed to run on Android platform based handheld (portable/mobile) device.

Programming was supported by the international IT partner- RTI International. The programming of questionnaire in the GSS software was carried out in collaboration with in-country IT personnel of the implementing agency.

The GATS India questionnaire was translated into 18 different regional languages and thus the questionnaire was programmed using the GSS software in 19 languages including English. All handheld devices had the questionnaire available in all 19 languages and the interviewer could switch to any of the 19 languages for the interviews.

Quality control mechanisms were used repeatedly to test the quality of questionnaire programming following the GATS Programmer's Guide to General Survey System manual[27]. 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, data transmission, data management and aggregation (preparing a raw data for analysis), was pre-tested on field between 15th February 2016 and 22nd February 2016 at Lucknow, Uttar Pradesh, India.

Data transmission was carried out using cloud systems and syncing software. A cloud server setup was established by the national implementing agency. This server system was used to transmit data to and from the handheld devices. Each handheld device was remotely connected to the central cloud server using the sync software.

Handheld devices programming for data transmission and final questionnaire for data collection was uploaded in the form of case management files by the data management team of the implementing agency along with IT personnel's from CDC & RTI international in July 2016. The electronic case management files used for identifying the selected household addresses and for then entering the data of that selected household was uploaded in two phases. The case files for phase one- which was the first set of states that the research agencies were taking up, were uploaded into the handheld devices during National Training of Trainer's (TOT) in July-August 2016 while the cases file for phase two, the second set of states, was uploaded into the handheld devices remotely from the implementing agency office in October-November 2016.

2.5 RECRUITMENT TRAINING AND FIELD WORK

2.5.1 Organizations involved in GATS India

GATS 2 India is the project of the Ministry of Health & Family Welfare (MoHFW), Government of India. MoHFW designated Tata Institute of Social Sciences (TISS), Mumbai as the nodal implementing agency for GATS 2. A Technical Monitoring and Advisory Committee (TMAC) of Indian Experts,

constituted by MoHFW provided guidance to GATS 2 at all stages, and on all the aspects of the project especially on design and questionnaire contents, tabulation, format of the report and dissemination of the results. The composition of the TMAC is provided in Appendix E. An international advisory committee and its sub-committees on questionnaire and on sampling and data management provided guidance and review at the international levels.

GATS 2 survey proposal, protocols and questionnaires were reviewed and approved by the Ethics Review Committee, Institutional Review Board (IRB) of TISS.

The financial support for GATS India was provided by Ministry of Health and Family Welfare, Government of India and CDC Foundation. Technical support was provided by the Center for Disease Control and Prevention (CDC), USA and the World Health Organization and the international IT partner- RTI International.

For GATS 2, the data collection work was entrusted to 10 reputed research agencies (RAs) across the country, who worked under the overall guidance and supervision of the nodal implementing agency. A list of research agencies along with the states in which they worked is attached in Appendix E. The research agencies recruited the researchers needed for mapping and listing of households and then for data collection from the PSUs. The Research Officers who supervised the state level work on behalf of the nodal implementing agency were recruited, trained and deployed by TISS.

2.5.2 Pretest

The pretest of GATS 2 was conducted in and around Lucknow, a city in Uttar Pradesh in February, 2016. The scope of pretest was much broader than the usual pretest of questionnaires. The pretest served the objectives of i) identifying the problems encountered in administering the questionnaire, ii) identifying the gaps in the training manual and in training programs iii) testing field protocol and iv) achieving standardisation on the IT equipment, data management systems and development of the IT training manuals.

The Pre-testing was organised with the partnership of the Giri Institute of Development Studies (GIDS), Lucknow. A team of 20 interviewers and 4 supervisors identified by GIDS were involved in pretest. Field work had been organised at four sites- each of them similar to a PSU. One was a relatively remote under-developed village- over 30 km away, another well developed near road village about 10 km away, the third was an urban slum and the fourth was a urban middle class/working class area. The questionnaire for pretest was translated into Hindi a language used in 13 out of 32 states/UTs of GATS 2. The field staff was given intense classroom training supplemented by practical training with demonstration and mock interviews. In pretest 150 interviews were completed out of them 86 were with males and 64 were with female respondents.

The pre-test achieved its main objectives. It ensured that the questionnaire was thoroughly reviewed under field conditions, that the IT system was checked out, that the IT team was provided with a comprehensive capacity building – both the skills needed and the confidence for carrying out its function. The resource persons of the implementing agency were exposed to many issues in

training, supervision, manual preparation and integration with the IT component. But over and above these targeted objectives the pre-test also served to forge the personnel into a leadership team and provide them with the encouragement, confidence and motivation to work together to implement GATS 2 in a time bound manner without any compromise in quality.

2.5.3 Manual

For the standardization of survey protocol and procedures across the survey areas and to minimize non-sampling errors 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 included general guidelines and tips to conduct interview and minimize non-response.
2. Question-by-Question Specifications: this manual was intended to help investigators while interviewing the respondent. The manual discusses each question included in the questionnaire question by question; its purpose was guidance on how to ask the question and record the response.
3. Field Supervisor's Manual: this manual was intended to help team supervisors in supervising data collection work. 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 listing of households operation effectively. It discusses each step involved in drawing 'Location and Layout' maps of each ultimate sampling area and listing all the structures and households. This provides the lists from which the implementing agency would draw the household sample, and also has enough detail to subsequently help the data collection team to locate the household selected.
5. 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 2 was to be implemented by 10 different research agencies in 30 states and two Union Territories, training of field staff was to be conducted at 32 different locations by officials of 10 research agencies. To train these trainers from different research agencies and TISS personnel involved in GATS 2 three centralized training workshops were organized by TISS.

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 operation. The training was of three days duration during April 13-15, 2016. On the first two days, there were classroom lectures followed by practice session on the third day. The practice session involved mapping and house listing in one urban area and one village. The resource persons for the training program were TISS faculty and experts from our national and international partners.

2. Training of interviewers and supervisors: this was intended to equip personnel from regional agencies to train field interviewers and supervisors in their state/ UT. The Training of Trainers workshop program was organized during July 21 to August 3rd, 2016. The programme began with a

language review and then setting up of the tablets and uploading with the case files needed for training and the first phase of states and their distribution. In parallel, from July 27th to August 3rd, three senior persons from each research agency were introduced to GATS 2 objectives, sampling, mapping, house listing, interviewing techniques. They were also provided with background information on different tobacco products used in India, the Government of India's tobacco free initiative and policy banning media advertisement of tobacco etc. The training program emphasized a systematic discussion of each question on the questionnaire. Experts in the area of tobacco control gave special lectures. The training program also included demonstration interviews, mock interviews, as well as practice interviews in nearby urban slum. The resource persons for the training program were TISS faculty and Officials from MoHFW, WHO, CDC, RTI. The personnel from regional agencies trained at TISS imparted training to field staff in their respective state/UT.

Five TISS faculty and one doctoral student of the school of health systems studies of TISS and the field research officers and the headquarters research staff of GATS 2 project also attended the relevant training programs, enabling them to provide the required support and guidance to the teams in the next stage.

3. Training of IT Managers: A special training program for IT professionals from research agencies was organized as a parallel session during the National TOT. The IT professionals were trained in the use of the handheld device in data collection, trouble-shooting common problems and in data transfer. For this purpose the research agencies had been asked to bring along one IT professional as part of their team. In the subsequent stage these IT professionals assisted the research agencies in data management.

2.5.5 Field work

The fieldwork took place from August 2016 to February 2017. Over 90% of the data collection was completed by November 2016. Data collection for only three states extended to mid January- and for one state to early February. The first part of field work was mapping and listing operation in all the selected PSUs. Upon completion of this work in each of the states, all the maps and listing of households in each sample area were uploaded on GATS 2 cloud. TISS data management team made the randomized selection of 33 households in each PSU, and its allocation into male and female households according to the distribution decided upon for that state, and then the case management files of these households were uploaded into the handheld devices of male and female interviewers respectively. All households which had to list and interview females were necessarily interviewed only by female interviewers.

Each field data collection team comprised of 2 male interviewers, 2 female interviewers and one supervisor. It was mandatory for field team to visit each selected PSU for at least for two days. For assuring quality data, TISS assigned one Research Officer to every state/ UT, who supervised the mapping, listing of households and data collection work. During fieldwork period TISS employed as many as 23 research officers to provide technical support and quality assurance at all levels of the data collection work. .

In addition to TISS Research Officers, faculty of the school of health systems studies who were part of the training and support team for GATS 2 also monitored field work.

2.6 DATA PROCESSING AND AGGREGATE

On the field, data collected from interviews were entered into the tablet on the case management system. At the end of each day of data collected the completed data files from each and every tablet for each state was transmitted to the cloud server using wireless interne. These data files received were then securely collated from cloud server to a work station by the TISS data management team. After collating the data files, these files would be aggregated, using the aggregation module in GSS to generate a master data file. On this master data file, checks were performed to ensure data quality. The checks performed included data validation and skip patterns, interview time & duration, and inspection for any unusual pattern from any particular team or investigator. If there are any issues/problems found then these were reported back to the respective teams and field coordinators by the faculty coordinator, through the agency coordinator and research officers to ensure appropriate action has been implemented. The process of data aggregation and quality checking was carried out on a daily basis. On completion of field work, all the tablet exported data files were aggregated to generate the master data file which includes all the interviews recorded. Then using the master data file and Master FileMerge module of GSS, data files were generated in various statistical software formats (SPSS, STATA, etc) for further analysis and reporting.

2.7 STATISTICAL ANALYSIS

For the tabulation purpose GATS national data file in SPSS format was used. Data used for the tabulation included only cases where respondent reported their smoking status and status of smokeless tobacco use and allowed to continue interview for 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, the data was suitably weighted. The weights were 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 B on Sample design.

All the statistical analysis was done using SPSS-20 software.

Table 2.1: Sample size by Gender, Residence and Number of Primary Sampling Units (PSU) by Residence across states/UTs.									
Allocation of total sample size by gender				**Allocation of sample : residence**			**Number of PSUs by residence**		
State	**Total**	**Male**	**Female**	**% Urban**	**Urban**	**Rural**	**Total**	**Urban**	**Rural**
North									
Jammu & Kashmir	2,500	1,000	1,500	27	685	1,815	83	23	60
Himachal Pradesh	2,500	1,000	1,500	10	250	2,250	83	8	75
Uttarakhand	2,500	1,000	1,500	30	755	1,745	83	25	58
Punjab	2,500	1,000	1,500	38	938	1,563	83	31	52
Haryana	2,500	1,000	1,500	35	873	1,628	83	29	54
Chandigarh	2,500	1,000	1,500	97	2,433	68	83	81	2
Delhi	2,500	1,000	1,500	98	2,438	63	83	81	2
Central									
Rajasthan	3,000	1,500	1,500	25	747	2,253	100	25	75
Uttar Pradesh	3,500	1,750	1,750	22	781	2,720	117	26	91
Madhya Pradesh	3,000	1,500	1,500	28	828	2,172	100	28	72
Chhattisgarh	2,000	1,000	1,000	23	464	1,536	67	15	52
East									
Bihar	3,000	1,500	1,500	11	339	2,661	100	11	89
Jharkhand	2,000	1,000	1,000	24	480	1,520	67	16	51
West Bengal	3,000	1,500	1,500	32	957	2,043	100	32	68
Orissa	2,000	1,000	1,000	17	334	1,666	67	11	56
North-East									
Assam	3,000	1,500	1,500	14	423	2,577	100	14	86
Meghalaya	1,500	750	750	20	302	1,199	50	10	40
Mizoram	1,500	750	750	52	782	719	50	26	24
Sikkim	1,500	750	750	25	378	1,122	50	13	37
Arunachal Pradesh	1,500	750	750	23	344	1,157	50	11	39
Manipur	1,500	750	750	33	488	1,013	50	16	34
Nagaland	1,500	750	750	29	434	1,067	50	14	36
Tripura	1,500	750	750	26	393	1,107	50	13	37
West									
Gujarat	3,000	1,500	1,500	43	1,278	1,722	100	43	57
Maharashtra	3,500	1,750	1,750	45	1,582	1,918	117	53	64
Goa	2,500	1,000	1,500	62	1,550	945	83	52	31
South									
Andhra Pradesh	2,000	1,000	1,000	33	668	1,332	67	22	45
Telangana	2,000	1,000	1,000	33	668	1,332	67	22	45
Karnataka	3,000	1,500	1,500	39	1,161	1,839	100	39	61
Kerala	2,500	1,000	1,500	48	1,193	1,308	83	40	43
Tamil Nadu	3,000	1,500	1,500	48	1,452	1,548	100	48	52
Puducherry	2,500	1,000	1,500	68	1,708	793	83	57	26
All India	**76,500**	**35,750**	**40,750**	**31**	**23,868**	**52,632**	**2,549**	**935**	**1,614**

CHAPTER THREE

SAMPLE AND POPULATION CHARACTERISTICS

This chapter presents details of sample implementation at household and individual level at national and state/ UT level. The detail includes information on proportion of sample coverage at household and person-level and response rates. Description of surveyed individuals by selected background characteristics is also included in this chapter.

3.1 SAMPLE COVERAGE, HOUSEHOLD AND PERSON-LEVEL RESPONSE RATES

Table 3.1 shows the unweighted number of households and persons selected for the survey and the status of completion by residence. A sample of 84,047 households (30,821 from urban areas and 53,226 from rural areas) was selected for the survey. In 77,170 households (27,721 from urban areas and 49,449 from rural areas) out of these 84,087 selected households, the household interview was completed and one person selected for the individual interview. In 3,376 households (4.0 percent of selected households) the household interview was completed no one was found eligible for individual interview. These were the households selected for male interview but there was no adult male aged 15 or above, or they were selected for female interview but there was no adult female aged 15 or above. In 2.6 percent of households there was no one at home and in 0.3 percent of the households there was a refusal for survey participation. The household response rate was 96.7 percent. In urban areas the household response rate was 95.2%, which was lower than the 97.6% household response rate obtained in rural areas.

Out of the total 77, 170 households where household interviews were completed and one person was selected for an individual interview, 74,037 individual interviews were completed. An individual interview was considered as “completed” if the respondent had completed at least till question E01 (half of the questionnaire) and there were valid answers to six questions on tobacco use, i.e., B01, B02, B03, C01, C02, C03 where applicable. The number of completed individual interviews was 26,488 in urban and 47,549 in urban areas. In case of 2.6 percent cases, persons selected for individual interview were not at home and 0.1 percent of cases the selected persons refused to give interview. In a small proportion of cases (0.1%) a person selected for individual interview was later found to be ineligible, mainly because they were less than 15 years of age. The person level response rate was 96.0 percent (95.6% in urban areas and 96.3% in rural areas). The overall response rate calculated as the product of the response rates at the household and person-level was 92.9 percent. The overall response rate in urban areas was 91.1 percent, lower than the overall response rate of 93.9 percent in rural areas.

Table 3.1: Number and percent of households and persons interviewed and response rates, by residence (unweighted) – GATS India, 2017.

	Residence					
	Urban		Rural		Total	
	Number	Percent	Number	Percent	Number	Percent
Selected Household						
Completed (HC)	27721	89.9	49449	92.9	77170	91.8
Completed – No one eligible (HCNE)	1263	4.1	2113	4.0	3376	4.0
Incomplete (HINC)	26	0.1	17	0.0	43	0.1
No screening respondent (HNS)	44	0.1	28	0.1	72	0.1
Nobody home (HNH)	1097	3.6	1104	2.1	2201	2.6
Refused (HR)	179	0.6	40	0.1	219	0.3
Unoccupied (HUO)	365	1.2	377	0.7	742	0.9
Address not a dwelling (HAND)	82	0.3	63	0.1	145	0.2
Other[1] (HO)	44	0.1	35	0.1	79	0.1
Total Households Selected	30821	100	53226	100	84047	100
Household Response Rate (HRR) ()[2]	95.2		97.6		96.7	
Selected Person						
Completed (PC)	26488	95.6	47549	96.2	74037	95.9
Incomplete (PINC)	4	0.0	16	0.0	20	0.0
Not eligible (PNE)	26	0.1	50	0.1	76	0.1
Not at home (PNH)	804	2.9	1177	2.4	1981	2.6
Refused (PR)	66	0.2	38	0.1	104	0.1
Incapacitated (PI)	317	1.1	610	1.2	927	1.2
Other[1] (PO)	16	0.1	9	0.0	25	0.0
Total Number of Sampled Persons	27721	100	49449	100	77170	100
Person-level Response Rate (PRR) ()[3]	95.6		96.3		96.0	
Total Response Rate (TRR) ()[4]	91.1		93.9		92.9	

[1] Other includes any other result not listed.

[2] The Household Response Rate (HRR) is calculated as:

$$\frac{HC * 100}{HC + HINC + HNS + HNH + HR + HO}$$

[3] The Person-level Response Rate (PRR) is calculated as:

$$\frac{PC * 100}{PC + PINC + PNH + PR + PI + PO}$$

[4] The Total Response Rate (TRR) is calculated as: (HRR x PRR) / 100

Notes:

— An incomplete household interview (i.e., roster could not be finished) was considered a nonrespondent to the GATS. Thus, these cases (HINC) were not included in the numerator of the household response rate.

— The Total Number of Sampled Persons should be equal to the number of Completed [HC] household interviews.

— A completed person interview [PC] includes respondents who had completed at least question E01 and who provided valid answers to questions B01/B02/B03 (and C01/C02/C03 where applicable). Respondents who did not meet these criteria were considered as incomplete (PINC) nonrespondents to GATS and thus, were not included in the numerator of the person-level response rate.

3.2 SAMPLE COVERAGE, HOUSEHOLD AND PERSON-LEVEL RESPONSE RATES BY STATE/ UT

The distribution of selected households by interview completion status and household response rates by states/ UTs in India are presented in Table 3.2. The subsequent table 3.3 gives the distribution of number of persons selected for individual interview by interview completion status and person level and total response rate by state/ UT.

The household response rate was 100 percent in Meghalaya and Nagaland. Even in Bihar and Manipur household response rate was almost 100 percent. On the contrary, in Goa (85.2%), Maharashtra (92.1%), Telangana (94.0%), Chandigarh (94.5%) Odisha and Kerala (both 94.6%) it was less than 95 percent. The main reason for lower household response rate was sizeable number of households where no one was at home.

The individual response rate in many states, especially from north-east was 98 percent or higher. Similar to low household response rates, person level response rates were also lower than 95 percent in Kerala (90%), Karnataka (91.1%), Goa (91.9%), Maharashtra (93.5%), Telangana (94.2%) and Gujarat (94.3%). Again, the main reason for lower person level response rates was that sizeable number of selected persons who were not at home during interviews in their area.

Total response rate which is product of household and person level response rate was at lower side in states/ UTs where both the rates were low. In Kerala (80.7%), Karnataka (82.9%), Goa (84.3%), Maharashtra (86.7%), Telangana (88.5%) and Gujarat (89.0%) total response rate was lower than 90 percent.

Table 3.2: Distribution of households by interview completion status and response rates, according to regions and states/UTs (unweighted), GATS India, 2016-2017

states/UTs	Completed (HC)	Complete, no one eligible (HCNE)	Incomplete (HINC)	Not screening respondent (HNS)	No body home (HNH)	Refused (HR)	Unoccupied (HUO)	Address not a Dwelling (HAND)	Other[1] (HO)	Total Household Selected	Household Response Rate[2](HRR)
India	77,170	3,376	43	72	2201	219	742	145	79	84,047	96.7
Jammu & Kashmir	2,575	36	1	1	43	7	10	0	0	2,673	98.0
Himachal Pradesh	2,627	88	0	0	15	1	4	4	0	2,739	99.4
Punjab	2,600	43	0	0	49	5	28	13	1	2,739	97.9
Chandigarh	2,417	148	1	0	119	5	31	2	16	2,739	94.5
Uttarakhand	2,482	182	0	2	42	6	25	0	0	2,739	98.0
Haryana	2,626	56	3	0	23	1	20	7	3	2,739	98.9
Delhi	2,409	141	2	5	89	26	54	12	1	2,739	95.1
Rajasthan	3,127	132	0	0	33	1	6	1	0	3,300	98.9
Uttar Pradesh	3,617	138	1	0	62	6	37	0	0	3,861	98.1
Chhattisgarh	2,109	74	0	0	25	0	2	1	0	2,211	98.8
Madhya Pradesh	3,075	87	2	4	110	11	7	2	2	3,300	96.0
West Bengal	3,066	145	0	1	71	3	5	9	0	3,300	97.6
Jharkhand	2,042	65	1	3	91	1	5	1	2	2,211	95.4
Odisha	1,942	134	0	2	104	5	20	3	0	2,210	94.6
Bihar	3,160	122	0	0	17	0	1	0	0	3,300	99.5
Sikkim	1,453	148	3	3	21	3	11	5	3	1,650	97.8
Arunachal Pradesh	1,426	148	1	1	64	1	8	0	1	1,650	95.4
Nagaland	1,612	37	0	0	0	0	1	0	0	1,650	100.0
Manipur	1,626	16	0	0	3	0	2	0	0	1,647	99.8
Mizoram	1,581	41	2	1	8	1	15	1	0	1,650	99.2
Tripura	1,570	49	0	0	17	0	13	1	0	1,650	98.9
Meghalaya	1,623	26	0	0	0	0	1	0	0	1,650	100.0
Assam	3,014	189	1	4	40	5	33	3	11	3,300	98.0
Gujarat	2,898	116	2	3	116	14	115	26	10	3,300	95.2
Maharashtra	3,391	133	3	2	228	53	38	10	3	3,861	92.1
Goa	2,221	95	15	30	303	28	16	20	11	2,739	85.2
Andhra Pradesh	2,007	125	2	2	46	2	24	2	1	2,211	97.4
Telangana	1,947	95	1	0	110	11	40	5	2	2,211	94.0

Karnataka	2,987	113	1	5	102	7	74	7	4	3,300	96.2
Kerala	2,438	130	1	0	125	11	30	3	1	2,739	94.6
Tamil Nadu	2,990	210	0	0	63	4	33	0	0	3,300	97.8
Puducherry	2512	114	0	3	62	1	33	7	7	2739	97.2

Table 3.3 Distribution of selected persons by interview completion status and response rates, according to regions and states/UTs (unweighted), GATS India, 2016-2017

Region and state/UT	Completed (PC)	Incomplete (PINC)	Not eligible (PNE)	Not at home (PNH)	Refused (PR)	Incapacitaed (PI)	Other[1] (PO)	Total number of sampled persons	Person-level response rate[2] (PRR)	Total response rate[3] (TRR)
India	74,037	20	76	1981	104	927	25	77,170	96.1	92.2
Jammu & Kashmir	2,491	0	3	48	1	32	0	2,575	96.8	93.6
Himachal Pradesh	2,547	0	2	9	0	69	0	2,627	97.0	94.0
Punjab	2,513	1	1	65	2	18	0	2,600	96.8	93.5
Chandigarh	2,351	0	1	43	1	17	4	2,417	97.3	94.8
Uttarakhand	2,410	0	1	63	1	7	0	2,482	97.1	94.3
Haryana	2,505	0	2	54	1	64	0	2,626	95.4	91.0
Delhi	2,311	0	6	72	2	18	0	2,409	96.0	92.1
Rajasthan	3,033	0	2	15	0	77	0	3,127	97.0	94.0
Uttar Pradesh	3,464	0	6	103	3	41	0	3,617	95.8	91.8
Chhattisgarh	2,087	0	0	10	0	12	0	2,109	99.0	97.9
Madhya Pradesh	2,934	0	1	112	4	23	1	3,075	95.5	91.2
West Bengal	2,920	2	1	122	2	19	0	3,066	95.4	90.9
Jharkhand	1,942	1	2	71	0	25	1	2,042	95.1	90.5
Odisha	1,858	0	3	60	2	19	0	1,942	95.8	91.6
Bihar	3,114	1	4	25	0	16	0	3,160	98.6	97.1
Sikkim	1,416	1	1	11	3	21	0	1,453	97.7	95.2
Arunachal Pradesh	1,373	0	1	42	0	10	0	1,426	96.3	92.6
Nagaland	1,595	0	3	1	0	13	0	1,612	98.9	97.8
Manipur	1,619	0	0	2	0	5	0	1,626	99.6	99.1
Mizoram	1,566	0	1	0	12	2	0	1,581	99.8	98.8
Tripura	1,559	0	1	2	0	7	1	1,570	99.3	98.6
Meghalaya	1,582	0	2	1	0	38	0	1,623	97.5	95.0
Assam	2,864	4	1	74	4	67	0	3,014	95.3	90.6
Gujarat	2,731	0	3	116	3	42	3	2,898	94.3	89.0
Maharashtra	3,141	2	9	171	31	35	2	3,391	93.5	86.7

Goa	2,029	4	1	141	9	32	5	2,221	91.9	84.3
Andhra Pradesh	1,966	0	2	36	1	2	0	2007	98.0	96.0
Telangana	1,827	2	0	49	5	63	1	1947	94.2	88.5
Karnataka	2,714	2	11	195	5	55	5	2987	91.1	82.9
Kerala	2,186	0	2	209	10	31	0	2438	90.0	80.7
Tamil Nadu	2,915	0	2	37	2	33	1	2990	97.6	95.1
Puducherry	2474	0	1	22	0	14	1	2512	98.5	97.0

3.3 CHARACTERISTICS OF SAMPLED RESPONDENTS

Table 3.4 presents the unweighted count of sampled respondents and population estimates classified by select socio-demographic characteristics. The unweighted sample count of persons who completed individual interview was 74,037. The projected population of persons age 15 and above in India as on 1st October, 2016-a mid period of survey period- was 932.5 million. Out of the projected population, 51.1 percent were males and 48.9 percent were females. The population in four broad age-groups of 15–24, 25–44, 45–64 and 65+ years was 26.8, 41.3, 23.5 and 8.4 percent of total population, respectively. Of the estimated population age 15 and above 65.5 percent was from rural areas. Little more than one-fourth (26.4%) had no formal schooling, 9.2 percent had been to school but did not complete primary. More than one-third (36.1%) of the respondents had completed secondary schooling or had higher education. The occupational distribution of the respondents show that most of them are either self- employed (40.6%) or home makers (30.1%). About one eight (11.9%) are students and 11 percent are employed either with Government or Non-Government offices. Those who are currently non-working either because they are unemployed or retired constitute six percent of all the respondents.

Table 3.4: Unweighted sample counts and weighted population estimates according to selected background characteristics, GATS India, 2016-2017

Background characteristic	Unweighted number	Weighted population estimates	
		Number	Percentage
		In thousands	
Overall	74,037	932,488	100
Age			
15- 24	13,329	250,044	26.8
25- 44	35,564	385,235	41.3
45- 64	19,132	218,803	23.5
65+	6,012	78,407	8.4
Gender			
Male	33,772	476,499	51.1
Female	40,265	455,989	48.9
Residence			
Urban	26,488	321,648	34.5
Rural	47,549	610,839	65.5
Education level			
No formal schooling	18,473	246,228	26.4
Less than primary	7,510	86,052	9.2
Primary but less than secondary	20,967	262,614	28.2
Secondary and above	27,028	337,027	36.1
Missing	59	566	0.1
Occupation			

Government and non-government employee	9,614	102,895	11.0
Self employed	27,704	378,529	40.6
Student	6,134	111,142	11.9
Home maker	25,833	280,332	30.1
Retired or unemployed	4,722	59,212	6.3
Missing	30	377	0

3.4 POPULATION DISTRIBUTION BY STATE/ UT

The distribution of unweighted count of respondents and weighted population estimates by states/ UTs is shown in Table 3.5. There is a wide variation in population size across the states/ UTs. One-sixth of the estimated population is accounted by Uttar Pradesh (15.7). Thirteen states/ UTs each account for less than one percent of India's population.

Table 3.5: Unweighted sample counts and weighted population estimates according to regions and states/UTs, GATS India, 2016-2017

Region and state/UT	Un-weighted number	Weighted Population Estimates	
		Number	Percentage
		In thousands	
India	74,037	932,488	100
Jammu & Kashmir	2,491	9,328	1.0
Himachal Pradesh	2,547	5,507	0.6
Punjab	2,513	22,551	2.4
Chandigarh	2,351	944	0.1
Uttarakhand	2,410	7,807	0.8
Haryana	2,505	20,166	2.2
Delhi	2,311	14,849	1.6
Rajasthan	3,033	51,300	5.5
Uttar Pradesh	3,464	146,429	15.7
Chhattisgarh	2,087	19,306	2.1
Madhya Pradesh	2,934	54,547	5.8
West Bengal	2,920	72,656	7.8
Jharkhand	1,942	24,215	2.6
Odisha	1,858	32,554	3.5
Bihar	3,114	72,760	7.8
Sikkim	1,416	496	0.1
Arunachal Pradesh	1,373	1,050	0.1
Nagaland	1,595	1,508	0.2
Manipur	1,619	2,232	0.2
Mizoram	1,566	840	0.1
Tripura	1,559	2,906	0.3
Meghalaya	1,582	2,112	0.2
Assam	2,864	23,422	2.5
Gujarat	2,731	47,872	5.1
Maharashtra	3,141	90,998	9.8
Goa	2,029	1,207	0.1

Andhra Pradesh	1,966	39,718	4.3
Telangana	1,827	28,008	3.0
Karnataka	2,714	48,734	5.2
Kerala	2,186	27,063	2.9
Tamil Nadu	2,915	58,399	6.3
Puducherry	2,474	1,008	0.1

CHAPTER FOUR

TOBACCO USE

The Government of India is committed to contain the tobacco epidemic. As an initiative to tobacco control program, India ratified the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC). For the control of tobacco epidemic the first necessary step is an assessment of the extent of tobacco use and variation in across the different population groups. Recognizing the importance of high quality information on tobacco use to guide its tobacco control policy and its implementation, the Indian government was one of the first nations to undertake the multiple rounds of Global Tobacco Surveys- both the Global Youth Tobacco Survey (GYTS) and the Global Adult Tobacco (GATS). The global tobacco survey provides information on the multiple forms of tobacco use, the variation in tobacco use across the states and different population groups.

Similar to GATS 1, GATS 2 also collected data on tobacco use and its different aspects. Additionally GATS 2 also collected data on four non-tobacco products, i.e., electronics cigarette, a recent smoking product in the market and betel quid without tobacco, pan masala without tobacco and areca nut. 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, an extent of quitting tobacco use, and the timing of the first occurrence of tobacco use of the day. The chapter also presents data on use of above mentioned non-tobacco products.

In most countries across the world tobacco use is synonymous to cigarette smoking. In contrast, tobacco use in India is in multiple form. Broadly there are two types of tobacco products that are commonly used: smoking tobacco and smokeless tobacco. Smoking tobacco products include *bidis*, manufactured cigarettes, hand-rolled cigarettes, pipes, cigars, *hookah*, water-pipes and some other smoking tobacco products like *chuttas, dhumti* and *chillum*. Smokeless tobacco is used by either chewing, applying to the teeth and gums, or inhaling. Smokeless tobacco products used in India include chewing tobacco items such as betel quid with tobacco, *khaini*, *gutka*, *paan masala with tobacco.* Smokeless tobacco products such as *mishri*, *gul*, *bajjar*, *gudakhu*, etc. are applied to the teeth and gums, and the snuff is inhaled.

4.1TOBACCO USE

4.1.1 Prevalence of tobacco use

This section presents the prevalence of tobacco use that includes all forms of tobacco use, i.e., tobacco smoking, and the different forms of smokeless tobacco use- like tobacco chewing, its use for oral/ dental application and for inhaling. Table 4.1 presents the percent distribution of adults* classified by details of tobacco use status. All the adult population is divided into three mutually exclusive categories of 1) current daily users of tobacco, 2) current occasional tobacco users, and 3) current non-users. Current tobacco users are obtained by adding current daily and occasional tobacco users. All occasional tobacco

*Adults mean age 15 and above

users are divided into two categories of current occasional but former daily tobacco users, and current as well as former occasional tobacco users. All non-users are divided into three categories of current non-users but former daily tobacco users, current non-users but former occasional tobacco users, and never users of tobacco.

GATS 2 revealed that 28.6 percent of adults in India use tobacco in some form; i.e., they either smoke or chew tobacco, or apply it to the teeth and gums or inhale it. Among the current tobacco users 87 percent are daily tobacco users (24.9% of all adults) and remaining 13 percent are occasional tobacco users (3.7% of all adults). Of all the adults, 71.4 percent are current non-users. Among these current non-users, 4 percent (3.1% of all adults) were formerly using tobacco but currently stopped using it; whereas 96 percent (68.4% of all adults) have never used any tobacco product in their lifetime. The prevalence of current tobacco use among men is 42.4 percent as compared with 14.2 percent among women. About one-third (32.5%) of adults from rural areas and more than one-fifth (21.2%) from urban areas currently use tobacco. Among men and women as well as in both urban and rural areas 84% -88% of the current users are daily users of tobacco.

Table 4.1: Percentage of adults age 15 and above by detailed status of tobacco use, according to gender and residence, GATS 2 India, 2016-2017

		Gender		Residence	
Status of tobacco use	**Overall**	**Male**	**Female**	**Urban**	**Rural**
Current tobacco user	28.6	42.4	14.2	21.2	32.5
Daily user	24.9	36.9	12.4	17.9	28.6
Occasional user	3.7	5.5	1.8	3.3	3.9
Occasional user, former daily	1.0	1.4	0.5	0.9	1.0
Occasional user, never daily	2.7	4.1	1.3	2.4	2.9
Current non-user	71.4	57.6	85.8	78.8	67.5
Former daily user	1.9	2.6	1.1	1.8	1.9
Never daily user	69.5	55.0	84.7	77.0	65.6
Former occasional user	1.2	1.7	0.6	1.1	1.2
Never user	68.4	53.2	84.2	75.9	64.4

4.1.2 Number of tobacco users

As per GATS 2, currently there are 266.8 million tobacco users aged 15 and above in India (Table 4.2). Among the current users, 202.0 million are men and 64.8 million are women; 68.2 million are from urban areas and 198.6 million are from rural areas. The estimated number of daily tobacco users is 232.4 million and that of occasional users is 34.4 million. Among the total adult population of 932.5 million, 665.7 million adults currently do not use tobacco in any form. However, in past 28.2 million of these current non-users of tobacco had used tobacco, either daily or occasionally. In other words, 295.1

million adult Indians have ever used tobacco, and 637.4 million have never used tobacco in their lifetime.

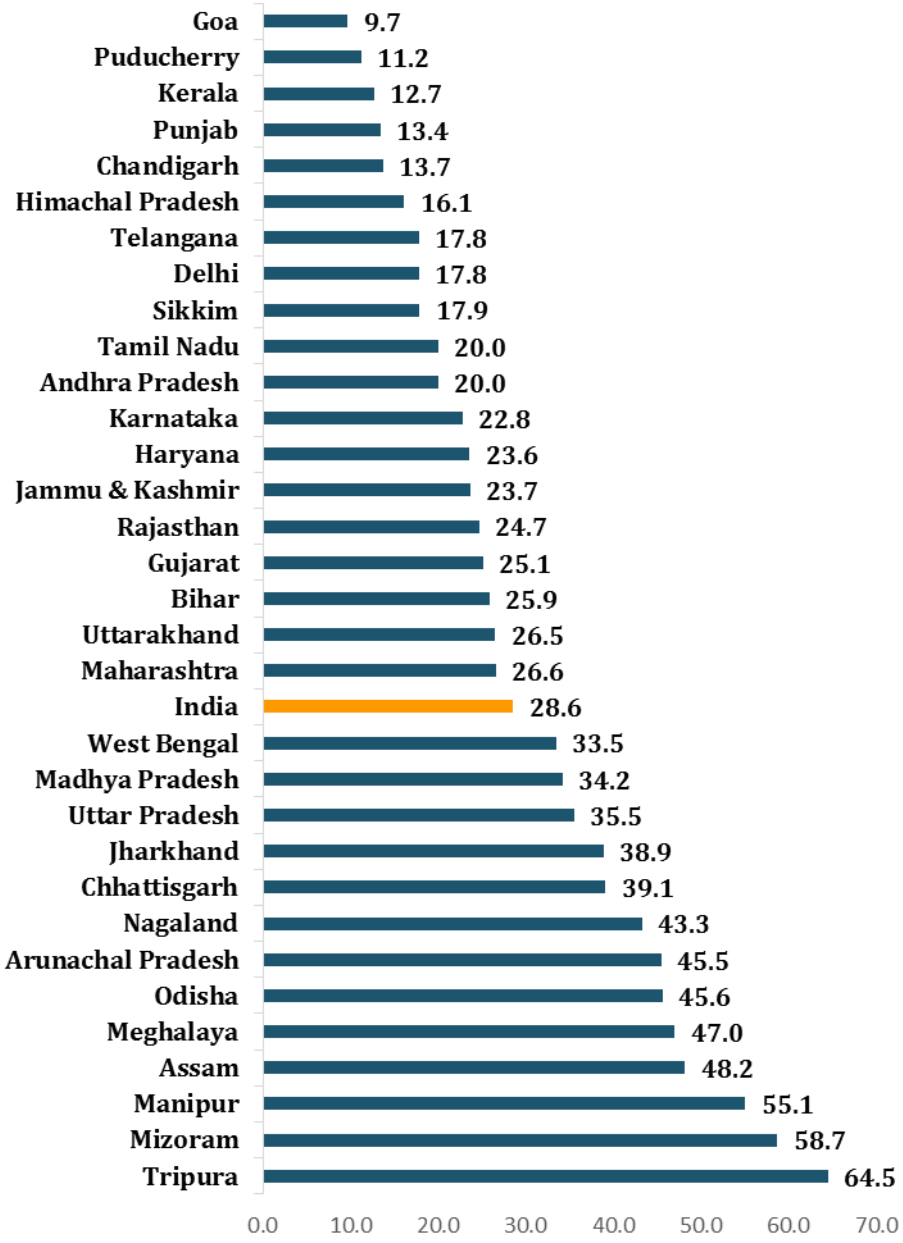
Table 4.2: Number of adults age 15 and above by detailed status of tobacco use, according to gender and residence, GATS 2 India, 2016-2017

Status of tobacco use	Overall	Gender		Residence	
		Male	Female	Urban	Rural
	Number in thousand				
Total	932,488	476,499	455,989	321,648	610,839
Current tobacco user	266,812	201,980	64,832	68,174	198,639
Daily user	232,396	175,823	56,574	57,600	174,796
Occasional user	34,416	26,158	8,258	10,573	23,843
Occasional user, former daily	8,944	6,550	2,394	2,907	6,037
Occasional user, never daily	25,472	19,608	5,864	7,667	17,806
Current non-user	665,676	274,519	391,157	253,475	412,201
Former daily user	17,365	12,530	4,835	5,774	11,591
Never daily user	648,311	261,989	386,322	247,701	400,610
Former occasional user	10,878	8,329	2,550	3,537	7,342
Never user	637,433	253,660	383,773	244,165	393,268

4.1.3 Prevalence of tobacco use by state/UT

The state/UT level differentials in the prevalence of tobacco use for all adults by gender are presented in Table 4.3 and Figure 4.1 and Map 4.1. The appendix tables A-4.1, A-4.2and A-4.3 present details of tobacco use for total, male and female adult population, respectively. There is a wide variation in the prevalence of tobacco use across the states/ UTs. Among all the states/UTs, the highest prevalence of tobacco use is reported in Tripura (64.5%), the lowest prevalence is reported in Goa (9.7%). Along with Tripura, in two other states of Manipur (55.1%) and Mizoram (58.7) majority of the adults uses tobacco. In these three states tobacco users outnumber non-users of tobacco. In all the states from northern, western and southern part of the country and in Sikkim, Rajasthan and Bihar the prevalence of tobacco use is lower than the national level of 28.6 percent.

Figure No. 4.1 – Percentage of current tobacco users among states/UTs, GATS India 2016-17



As the tobacco use is considered, both, the prevalence as well as state/ UT population size is important. Tobacco users in Uttar Pradesh- the most populous state in India- account for 20 percent of the total tobacco users in India. The three large states of Uttar Pradesh, West Bengal and Maharashtra account for more than one-third (38%) of the tobacco users in India. Inclusion of five more states- Bihar, Madhya Pradesh, Odisha, Rajasthan and Gujarat -account for two-thirds (67%) of tobacco users in India. All the high tobacco prevalence states from north-eastern part of the country account for less than three percent of tobacco users in the country (Table not presented).

Table 4.3: Current tobacco use among adults aged 15 or above, by states and Union Territories, GATS 2, India, 2016-17

	Percentage of adults currently using tobacco in any form		
State/ UT	**Overall**	**Male**	**Female**
India	28.6	42.4	14.2
Jammu & Kashmir	23.7	39.7	6.2
Himachal Pradesh	16.1	30.4	1.7
Punjab	13.4	25.3	0.5
Chandigarh	13.7	23.3	1.7
Uttarakhand	26.5	43.6	9.3
Haryana	23.6	39.1	6.3
Delhi	17.8	28.9	4.8
Rajasthan	24.7	39.6	9.0
Uttar Pradesh	35.5	52.1	17.7
Chhattisgarh	39.1	53.7	24.6
Madhya Pradesh	34.2	50.2	17.3
West Bengal	33.5	48.5	17.9
Jharkhand	38.9	59.7	17.0
Odisha	45.6	57.6	33.6
Bihar	25.9	43.4	6.9
Sikkim	17.9	26.4	8.4
Arunachal Pradesh	45.5	61.1	28.7
Nagaland	43.3	54.1	31.7
Manipur	55.1	62.5	47.8
Mizoram	58.7	64.9	52.4
Tripura	64.5	67.5	61.4
Meghalaya	47.0	59.8	34.2
Assam	48.2	62.9	32.9
Gujarat	25.1	38.7	10.4
Maharashtra	26.6	35.5	17.0
Goa	9.7	15.3	4.0
Andhra Pradesh	20.0	30.0	10.1
Telangana	17.8	25.9	9.8
Karnataka	22.8	35.2	10.3
Kerala	12.7	22.9	3.6
Tamil Nadu	20.0	31.0	9.3
Puducherry	11.2	17.7	5.1

As is the case with the national level, most tobacco users in all the states/ UTs are daily users. In all the states/ UTs, except in Nagaland and Kerala, at least 75 percent of the current users use tobacco every day. Even in Nagaland and Kerala two-thirds or more current users are daily tobacco users (Appendix Table A-4.1).

The state level variation in the prevalence of tobacco use among men is much narrower than among women. In all the states/UTs the prevalence of tobacco use is much higher among men is at least double than that among women. Exceptions are Tripura, Mizoram and Manipur where the tobacco use among men is less than 50 percent higher than that among women. Following table summarizes the variation in the prevalence of tobacco use among adult men and women across the states/ UT. Within each group the states/ UTs are arranged according to ascending level of tobacco use.

Table 4.4: Classification of states/ UTs according to prevalence of tobacco use among men/ women, GATS 2, India, 2016-17.

Tobacco prevalence %	Total	Male	Female
Less than 5%	--	--	Punjab, Chandigarh, Himachal Pradesh, Kerala, Goa, Delhi
5% - 10%	Goa,	--	Puducherry, Jammu & Kashmir, Haryana, Bihar, Sikkim, Rajasthan, Uttarakhand, Tamil Nadu, Telangana
10% - 20%	Himachal Pradesh, Punjab, Chandigarh, Delhi, Sikkim, Telangana, Kerala, Puducherry	Goa, Puducherry	Andhra Pradesh,Karnataka,Gujarat, Jharkhand, Maharashtra,Madhya Pradesh, Uttar Pradesh, West Bengal
20% - 30%	Jammu & Kashmir, Uttarakhand, Haryana, Rajasthan, Bihar, Gujarat, Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu	Kerala, Chandigarh, Punjab, Telangana, Sikkim, Delhi,	Chhattisgarh,Arunachal Pradesh
30% - 40%	Uttar Pradesh, Chhattisgarh, Madhya Pradesh, West Bengal, Jharkhand	Andhra Pradesh, Himachal Pradesh, Tamil Nadu, Karnataka, Maharashtra, Gujarat, Haryana, Rajasthan, Jammu & Kashmir	Nagaland, Assam, Odisha, Meghalaya
40% - 50%	Odisha, Arunachal Pradesh, Nagaland, Meghalaya, Assam	Bihar, Uttarakhand, West Bengal	Manipur

50% and above	Manipur, Tripura, Mizoram	Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Nagaland, Odisha, Jharkhand, Meghalaya, Arunachal Pradesh, Manipur, Assam, Mizoram, Tripura	Mizoram, Tripura

Map 4.1 to be inserted

4.1.4 Prevalence of tobacco use by background characteristics

Table 4.5 and Figure 4.2 present the proportion of adults who currently smoke tobacco but do not use smokeless tobacco, who smoke as well as use smokeless tobacco, and those who use only smokeless tobacco but do not smoke, along with the proportions of adults who do not use tobacco in any form by age-group, residence and education level.

Figure No. 4.2 – Percentage distribution of tobacco according to gender, GATS India 2016-17

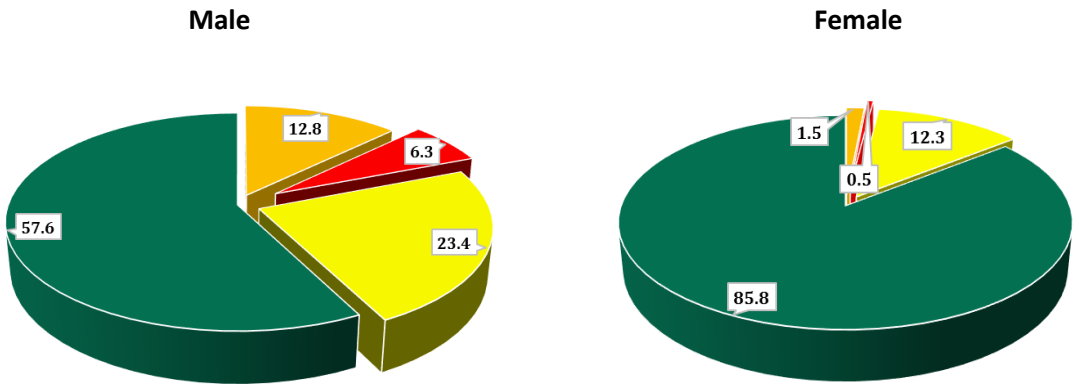


Figure No. 4.3 – Percentage distribution of tobacco according to residence, GATS India 2016-17

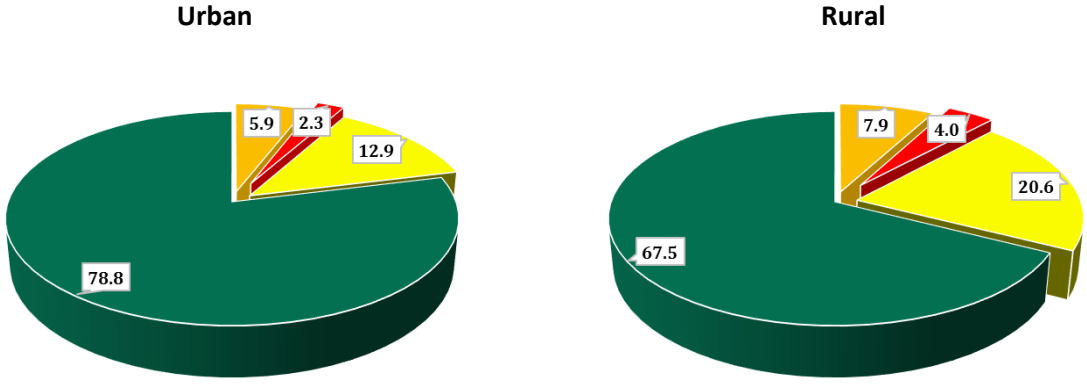
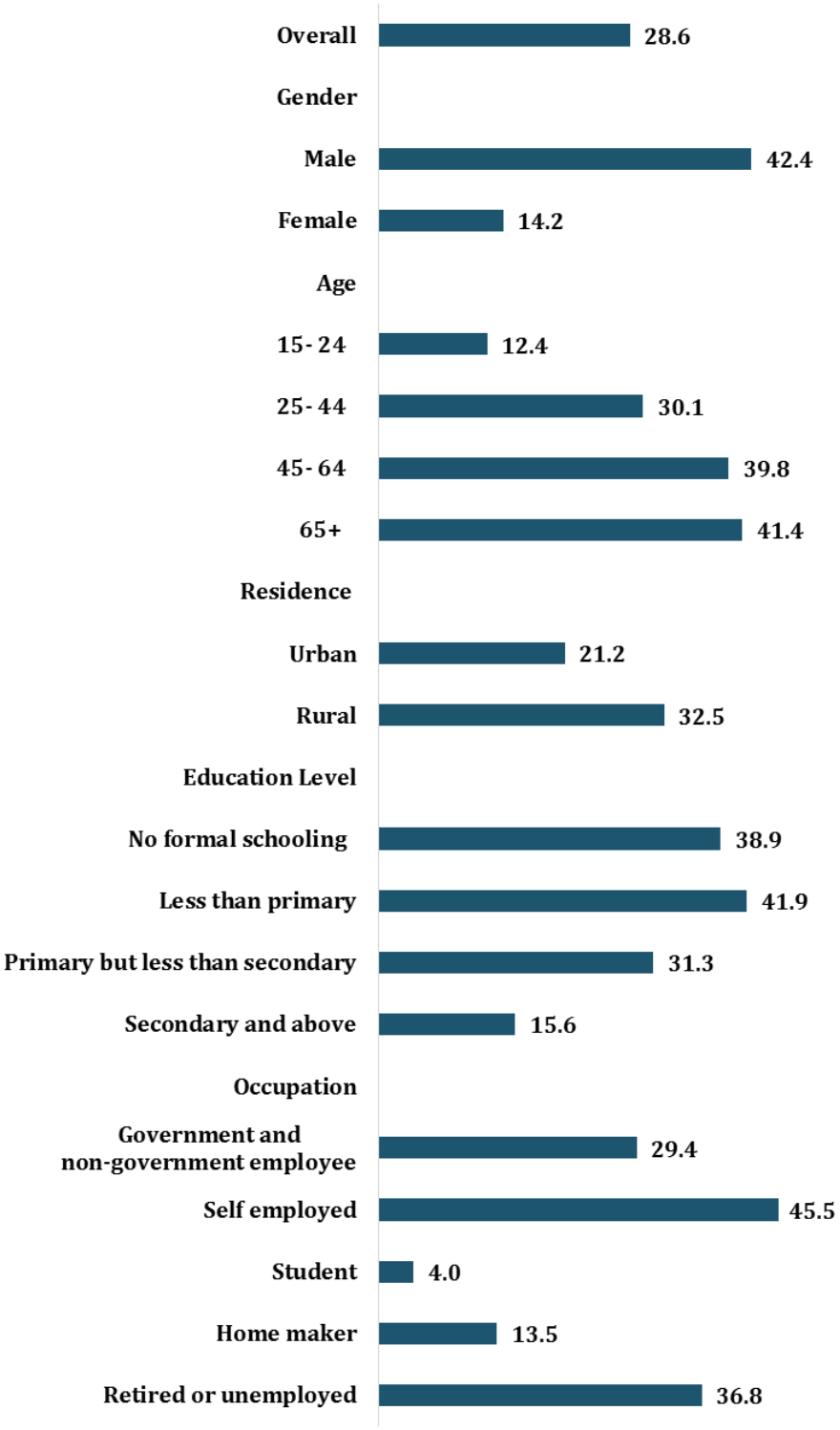


Figure No. 4.4 – Percentage of current tobacco users by background characteristics, GATS India 2016-17



As reported earlier, 28.6 percent of adults in India currently use tobacco in some form or the other. These 28.6 percent of tobacco users are distributed as- 7.2 percent smoke but do not use smokeless tobacco, 17.9 percent use smokeless tobacco but do not smoke, whereas remaining 3.4 percent of adult Indians smoke as well as use smokeless tobacco. One in every eight tobacco user uses both types of tobacco, i.e., smoking tobacco as well as smokeless tobacco.

Table 4.5: Percent distribution of adults age 15 and above who are current tobacco users by tobacco use pattern, according to background characteristics, GATS-2, India, 2016-17

		Type of current tobacco use				
Background Characteristics	**Current tobacco user**	**Smoked only**	**Smokeless only**	**Both smoked and smokeless**	**Non-user**	**Total**
Overall	28.6	7.2	17.9	3.4	71.4	100
Age						
15- 24	12.4	1.6	9.1	1.8	87.6	100
25- 44	30.1	6.8	19.2	4.1	69.9	100
45- 64	39.8	12.7	23.0	4.1	60.2	100
65+	41.4	11.8	25.9	3.7	58.6	100
Residence						
Urban	21.2	5.9	12.9	2.3	78.8	100
Rural	32.5	7.9	20.6	4.0	67.5	100
Education Level						
No formal schooling	38.9	10.0	24.6	4.2	61.1	100
Less than primary	41.9	11.2	24.6	6.1	58.1	100
Primary but less than secondary	31.3	7.2	20.0	4.1	68.7	100
Secondary and above	15.6	4.2	9.7	1.7	84.4	100
Occupation						
Government and non-government employee	29.4	7.9	17.8	3.7	70.6	100
Self employed	45.5	12.3	26.7	6.5	54.5	100
Student	4.0	1.0	2.6	0.4	96.0	100
Home maker	13.5	1.7	11.4	0.5	86.5	100
Retired or unemployed	36.8	11.6	22.1	3.1	63.2	100
Male	42.4	12.8	23.4	6.3	57.6	100
Age						
15- 24	20.3	2.9	14.0	3.4	79.7	100
25- 44	47.6	12.6	27.4	7.6	52.4	100
45- 64	55.7	22.3	26.1	7.3	44.3	100
65+	52.6	19.8	26.6	6.2	47.4	100
Residence						
Urban	32.6	11.1	17.3	4.2	67.4	100
Rural	47.6	13.6	26.6	7.3	52.4	100
Education Level						

No formal schooling	66.1	24.1	31.1	10.9	33.9	100
Less than primary	62.4	19.7	31.9	10.8	37.6	100
Primary but less than secondary	47.8	12.4	28.3	7.0	52.2	100
Secondary and above	24.4	6.9	14.7	2.8	75.6	100
Occupation						
Government and non-government employee	34.6	9.8	20.1	4.6	65.4	100
Self employed	53.3	15.8	29.1	8.4	46.7	100
Student	6.1	1.7	3.8	0.6	93.9	100
Home maker	42.9	15.0	23.4	4.5	57.1	100
Retired or unemployed	42.6	16.1	22.5	4.1	57.4	100
Female	14.2	1.5	12.3	0.5	85.8	100
Age						
15- 24	3.7	0.1	3.6	0.0	96.3	100
25- 44	12.0	0.9	10.7	0.4	88.0	100
45- 64	23.5	2.8	19.8	0.9	76.5	100
65+	31.0	4.4	25.3	1.3	69.0	100
Residence						
Urban	9.0	0.4	8.3	0.3	91.0	100
Rural	16.9	2.0	14.3	0.6	83.1	100
Education Level						
No formal schooling	25.9	3.3	21.5	1.1	74.1	100
Less than primary	17.4	1.1	15.9	0.4	82.6	100
Primary but less than secondary	9.9	0.4	9.2	0.3	90.1	100
Secondary and above	2.5	0.1	2.4	0.0	97.5	100
Occupation						
Government and non-government employee	9.5	0.7	8.8	0.0	90.5	100
Self employed	22.5	2.0	19.6	0.9	77.5	100
Student	0.9	0.0	0.8	0.0	99.1	100
Home maker	13.0	1.5	11.1	0.4	87.0	100
Retired or unemployed	25.2	2.7	21.4	1.2	74.8	100

The table also shows that in India prevalence of smokeless tobacco use is much higher than the prevalence of tobacco smoking. In each category of residence, age-group, education and occupation of both men and women the prevalence of smokeless tobacco use is higher than the prevalence of tobacco smoking.

Tobacco use is more prevalent in rural areas than in urban areas. Among both men and women, the prevalence of tobacco use is higher in rural than urban areas. Little less than half of men (47.6%) and 16.9 percent of women from rural areas use tobacco compared with 32.6 percent of men and 9.0 percent of women from urban areas. Prevalence of tobacco use increases with age; however after age 45, it almost stabilizes. The prevalence of tobacco use among men increases from 20.3 percent in the age group of 15–24 to 55.7 percent in that of 45–64, and then decreases to 52.6 percent in the oldest

age group of 65+. However, among women the prevalence of tobacco use increases consistently with age from 3.7 percent for women age 15–24 to 31.0 percent among women age 65 and above.

Dual use of tobacco is more prevalent among men than women. The proportion of adults who uses tobacco in both the forms of smoking and smokeless tobacco is 6.3 percent (15% of male tobacco users) among men as compared to 0.5 percent (4% of female tobacco users) among women.

Tobacco use is inversely related to education. Among both men and women, tobacco use in every form—either as smoking or smokeless tobacco use-decreases sharply with education. For example, prevalence of tobacco use decreases from 66.1 percent among men and 25.9 percent among women with no formal education to 22.4 percent among men and only 2.5 percent among women with secondary or more education, respectively. Prevalence of dual use of tobacco also decreases with increase in education. Men with no formal education or less than primary education (11% each) are more likely to use both forms of tobacco. Similarly, women with no formal education (1.1%) are more likely to smoke as well as use smokeless tobacco.

Among all the categories of occupation, tobacco use was at higher side among self employed and retired/ unemployed adults; 45.5 percent of self employed adults (53.3% of men and 22.5% of women) and 36.8 percent retired/ unemployed (42.6% of men and 25.2% of women) were currently using tobacco. Even dual use of tobacco was high among adults from these two occupational categories.

The state level variation in the prevalence of different types of tobacco use for adult population is presented in Table 4.6. In five states of Arunachal Pradesh (16.5%), Nagaland (8.9%), Manipur (13.5%), Mizoram (9.2%) and Tripura almost every tenth adult practices the dual use of tobacco. In many states the prevalence of dual use of tobacco among men is quite high. In Jharkhand, Arunachal Pradesh, Nagaland, Manipur and Tripura about 15 percent or more adult men make dual use of tobacco (Appendix table 4.**).

Table 4.6: Percent distribution of adults age 15 and above who are current tobacco users by tobacco use pattern, by states/UTs, GATS-2, India, 2016-17

States/UT	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both smoked and smokeless		
India	28.6	7.2	17.9	3.4	71.4	100
Jammu & Kashmir	23.7	19.4	2.9	1.4	76.3	100
Himachal Pradesh	16.1	13.0	1.9	1.2	83.9	100
Punjab	13.4	5.5	6.1	1.8	86.6	100
Chandigarh	13.7	7.6	4.3	1.8	86.3	100
Uttarakhand	26.5	14.2	8.4	3.9	73.5	100
Haryana	23.6	17.3	3.9	2.4	76.4	100
Delhi	17.8	8.9	6.5	2.3	82.2	100

Rajasthan	24.7	10.6	11.5	2.6	75.3	100
Uttar Pradesh	35.5	6.2	22.0	7.4	64.5	100
Chhattisgarh	39.1	3.1	33.7	2.4	60.9	100
Madhya Pradesh	34.2	6.1	24.0	4.1	65.8	100
West Bengal	33.5	13.5	16.9	3.2	66.5	100
Jharkhand	38.9	3.5	27.7	7.7	61.1	100
Odisha	45.6	2.8	38.6	4.3	54.4	100
Bihar	25.9	2.4	20.8	2.7	74.1	100
Sikkim	17.9	8.2	7.0	2.7	82.1	100
Arunachal Pradesh	45.5	6.2	22.9	16.5	54.5	100
Nagaland	43.3	4.3	30.1	8.9	56.7	100
Manipur	55.1	7.4	34.2	13.5	44.9	100
Mizoram	58.7	25.1	24.3	9.2	41.3	100
Tripura	64.5	16.0	36.8	11.7	35.5	100
Meghalaya	47.0	26.7	15.4	4.9	53.0	100
Assam	48.2	6.5	34.9	6.8	51.8	100
Gujarat	25.1	5.9	17.4	1.8	74.9	100
Maharashtra	26.6	2.2	22.8	1.6	73.4	100
Goa	9.7	3.2	5.5	1.0	90.3	100
Andhra Pradesh	20.0	12.8	5.7	1.4	80.0	100
Telangana	17.8	7.7	9.5	0.6	82.2	100
Karnataka	22.8	6.5	14.0	2.3	77.2	100
Kerala	12.7	7.3	3.4	2.0	87.3	100
Tamil Nadu	20.0	9.5	9.5	1.0	80.0	100
Puducherry	11.2	6.4	4.0	0.8	88.8	100

It is already noted that at national level the prevalence of smokeless tobacco use is much higher than the prevalence of tobacco smoking. However in many states/ UTs from the northern and southern parts of India the prevalence of smoking is higher than the smokeless tobacco use. For example, in Jammu & Kashmir, 20.8 percent of adults smoke tobacco and 4.3 percent use smokeless tobacco. Similarly, in Andhra Pradesh, 14.2 percent smoke tobacco and 7.1 percent use smokeless tobacco.

4.1.5 Age at initiation of tobacco use

The age at the initiation of tobacco use, either in the smoking or smokeless form, is an important dimension of tobacco use since the age at initiation of tobacco use determines the duration of such use. The duration of tobacco use has a direct and conspicuous bearing on the health impact of tobacco use (14). Furthermore, the degree of addiction to tobacco also depends on the age when tobacco use was started on a daily basis. Table 4.7 presents the distribution of ever daily smokers aged 20–34 years by age at the initiation of daily tobacco use. The table is restricted to younger respondents as their age at initiation of tobacco use presents the current and recent situation.

Table 4.7: Percent distribution of ever daily tobacco users age 20-34 by age at tobacco use initiation, according to selected background characteristics, GATS-2, India, 2016-2017

Background characteristic	Age at tobacco initiation					
	<15	15-17	18-19	20-34	Total	Mean age
Overall	12.2	23.6	19.4	44.7	100	18.7
Gender						
Male	11.4	24.4	20.1	44.0	100	18.7
Female	16.6	19.4	15.3	48.8	100	19.2
Residence						
Urban	11.7	23.5	16.0	48.8	100	19
Rural	12.4	23.7	20.5	43.4	100	18.7
Education Level						
No formal schooling	17.1	23.8	15.7	43.4	100	18.3
Less than primary	13.9	26.4	21.8	37.9	100	18.2
Primary but less than secondary	12.9	24.0	20.2	43.0	100	18.7
Secondary and above	6.0	21.6	20.1	52.3	100	19.5
Occupation						
Government and non-government employee	12.1	23.7	15.6	48.6	100	19.0
Self employed	11.9	24.0	20.6	43.5	100	18.6
Student	11.9	30.5	19.7	38.0	100	17.9
Home maker	13.3	21.1	17.9	47.8	100	19.3
Retired or unemployed	17.0	19.6	15.9	47.5	100	18.5

Among all daily tobacco users aged 20-34, 12.2 percent started using tobacco daily before completion of the age 15, 23.6 percent in the age group 15–17, 19.4 percent at age 18 or 19, and the remaining 44.7 percent after the age of 20. More than one-third (35.6%)of daily tobacco users aged 20–34 had started using tobacco on a daily basis before attaining the age of 18, i.e. when they were minor. The mean age at initiation of daily tobacco use is 18.7 years. The proportion of daily tobacco users who started daily tobacco use before age 18 does not differ by either residence or gender. The mean age at initiation of daily tobacco use is slightly higher among female than male tobacco users and tobacco users from urban than those from rural areas. The mean age at initiation of daily tobacco use increases with the educational attainment of the tobacco user. Students have started using tobacco at relatively younger age as 42.4 percent of the students initiated daily tobacco use before age 18.

4.1.6 Age at initiation of tobacco use by state/UT

The pattern of age at initiation of tobacco use varies across the states(Table 4.8).In Sikkim (52%), Arunachal Pradesh (66%), Meghalaya (51%) and Maharashtra (51%), the majority of the daily tobacco users have started using tobacco on a daily basis before attaining age 18. Along with these states, even in Odisha, Nagaland and Goa the mean age at initiation of daily tobacco use is lower than 18 years.

Table 4.8: Percent distribution of age at initiation among ever daily tobacco users age 20-34 by age at tobacco use initiation, by states/UTs, GATS-2, India, 2016-2017

	Age at tobacco product initiation					
State/UT	**<15**	**15-17**	**18-19**	**20-34**	**Total**	**Mean age**
India	12.2	23.6	19.4	44.7	100	18.7
Jammu & Kashmir	12.1	35.6	20.9	31.4	100	18.0
Himachal Pradesh	3.1	14.0	22.0	61.0	100	20.2
Punjab	1.4	28.6	18.7	51.3	100	19.9
Chandigarh	12.9	19.8	9.9	57.5	100	18.9
Uttarakhand	4.4	23.2	25.9	46.6	100	20.0
Haryana	5.4	22.1	32.5	40.1	100	19.3
Delhi	12.9	24.9	24.7	37.6	100	18.3
Rajasthan	12.8	24.9	19.0	43.2	100	18.4
Uttar Pradesh	13.5	25.5	18.1	43.0	100	18.7
Chhattisgarh	7.3	29.0	28.4	35.3	100	18.5
Madhya Pradesh	13.7	26.2	17.1	43.0	100	18.3
West Bengal	9.6	16.8	19.8	53.8	100	19.4
Jharkhand	6.7	19.2	26.2	47.9	100	19.4
Odisha	22.1	25.8	17.3	34.7	100	17.4
Bihar	6.6	24.0	27.4	42.0	100	18.9
Sikkim	32.2	20.0	19.8	28.1	100	15.9
Arunachal Pradesh	25.1	41.2	15.3	18.4	100	16.2
Nagaland	13.4	31.7	24.7	30.2	100	17.2
Manipur	3.1	16.6	20.2	60.2	100	20.8
Mizoram	11.9	34.3	25.1	28.7	100	17.8
Tripura	8.5	22.4	15.0	54.2	100	19.5
Meghalaya	8.8	41.8	25.1	24.3	100	17.5
Assam	13.1	28.3	20.2	38.5	100	18.5
Gujarat	11.9	22.9	16.6	48.6	100	18.6
Maharashtra	21.0	30.0	14.9	34.2	100	17.4
Goa	23.1	24.7	15.3	36.9	100	17.5
Andhra Pradesh	10.8	17.4	12.4	59.4	100	19.4
Telangana	7.6	22.8	3.5	66.1	100	19.9
Karnataka	13.0	9.4	21.0	56.5	100	19.8
Kerala	8.9	8.4	15.3	67.5	100	20.8
Tamil Nadu	3.6	12.9	15.8	67.7	100	20.6
Puducherry	13.4	16.1	12.4	58.1	100	19.3

4.1.7 Time to first tobacco use of the day

This section presents one more important dimension of tobacco use, the timing of the first use of tobacco during the day. The timing of the use of the first tobacco of the day, either in the smoking or smokeless form, after waking upindicates level of individual's dependence on the nicotine. Table 4.9presents the distribution of daily tobacco users classified bytiming of the use of the first tobacco of the day. About one in five (18%) daily tobacco users resort to tobacco use immediately or within five minutes after waking up, another 41 percent use it after five minutes but within 30 minutes, 20 percent within half an hour to an hour of waking up, and the remaining 22 percent make the first use of tobacco of the day after one hour of waking up. Overall 59 percent of daily tobacco users are so addicted to tobacco that they resort to tobacco use within half an hour of getting up from bed, and 78 percent of all the daily tobacco users use it within the first hour after waking up. It may be noted that the time taken for the first use of tobacco of the day is also depends on the type of tobacco product in use and its easy availability at home.

Table 4.9: 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-2, India, 2016-2017

Background characteristic	Time to first smoke or use of smokeless tobacco				Total
	≤5 minutes	6-30 minutes	31-60 minutes	≥60 minutes	
Overall	17.7	40.8	19.6	21.9	100
Age					
15- 24	8.4	36.8	22.0	32.9	100
25- 44	17.3	41.4	19.3	22.0	100
45- 64	20.2	41.7	18.5	19.6	100
65+	19.3	39.4	21.5	19.8	100
Gender					
Male	17.1	41.9	19.7	21.3	100
Female	19.5	37.4	19.1	24.0	100
Residence					
Urban	17.7	40.3	20.0	21.9	100
Rural	17.7	41.0	19.4	21.9	100
Education level					
No formal schooling	21.9	39.2	19.8	19.2	100
Less than primary	19.5	41.8	18.4	20.3	100
Primary but less than secondary	15.1	42.6	19.5	22.8	100
Secondary and above	11.8	40.5	20.1	27.6	100
Occupation					

Government and non-government employee	14.8	44.3	17.8	23.1	100
Self employed	18.2	41.3	20.0	20.5	100
Student	2.6	33.9	17.4	46.1	100
Home maker	17.3	37.0	19.4	26.2	100
Retired or unemployed	19.7	39.6	19.3	21.4	100

The proportion of daily tobacco users who use tobacco within half an hour after waking up is slightly higher among males than females though the difference is very large., indicating same high level of nicotine dependence among all—males and females and urban and rural residents. The proportion of daily tobacco users who use tobacco within half an hour after waking up increases with increasing age and decreases with increasing level of education. The proportion of daily tobacco users who use tobacco within half an hour after waking up increases from 45 percent among tobacco users aged 15-24 to 62 percent among those aged45-65 and to 59 percent among those aged 65 years or above. Sixty-one percent of daily tobacco users with no education use tobacco within half an hour of waking up compared with 52 percent with secondary or more education. Among the daily tobacco users from all the occupational categories, lesser proportion of students (36.5%) and home makers (54.3%) use tobacco within half an hour of waking up.

4.1.8 Time to first tobacco use of the day by state/UT

Table 4.10 presents the distribution of daily tobacco by the timing of first use of tobacco of the day, either in the smoking or smokeless form, after waking up, according to state/ UT.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, in Chandigarh, Uttarakhand, Uttar Pradesh, Jharkhand, Mizoram, Maharashtra, Goa, Andhra Pradesh, Kerala and Puducherry one-fifth or more of tobacco users make the first tobacco use of the day immediately (within five minutes) after waking up.

Table 4.10: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, by states/UTs, GATS-2, India, 2016-2017

	Time to first smoke or first use of smokeless tobacco				
State/UT	**≤5 minutes**	**6-30 minutes**	**31-60 minutes**	**≥60 minutes**	**Total**
India	17.7	40.8	19.6	21.9	100
Jammu & Kashmir	15.9	44.9	25.3	13.9	100
Himachal Pradesh	7.1	43.9	15.8	33.3	100
Punjab	12.2	54.2	16.0	17.5	100
Chandigarh	20.1	46.5	16.0	17.4	100
Uttarakhand	23.4	32.9	15.3	28.4	100
Haryana	13.5	40.1	23.7	22.6	100
Delhi	18.9	45.0	17.7	18.4	100
Rajasthan	14.1	31.8	19.3	34.8	100
Uttar Pradesh	19.9	40.2	16.3	23.7	100
Chhattisgarh	14.8	43.6	22.6	19.0	100
Madhya Pradesh	14.8	39.1	22.5	23.6	100
West Bengal	15.4	47.4	22.6	14.6	100
Jharkhand	32.5	44.3	13.3	10.0	100
Odisha	18.5	35.7	13.6	32.3	100
Bihar	16.8	36.0	22.1	25.1	100
Sikkim	19.3	54.5	19.0	7.2	100
Arunachal Pradesh	13.8	26.4	28.7	31.0	100
Nagaland	11.8	34.2	28.1	25.9	100
Manipur	7.1	28.7	23.1	41.1	100
Mizoram	24.2	41.1	19.5	15.1	100
Tripura	18.9	40.1	21.0	20.0	100
Meghalaya	6.2	29.5	36.9	27.4	100
Assam	11.4	39.3	21.1	28.2	100
Gujarat	17.8	41.3	27.5	13.4	100
Maharashtra	20.0	51.9	14.6	13.5	100
Goa	20.1	48.9	12.5	18.5	100
Andhra Pradesh	28.5	46.9	13.3	11.2	100
Telangana	17.9	39.2	23.8	19.1	100
Karnataka	10.8	24.7	26.8	37.7	100
Kerala	26.4	23.4	20.6	29.5	100
Tamil Nadu	14.8	44.9	22.2	18.1	100
Puducherry	21.3	32.1	20.1	26.5	100

4.2 TOBACCO SMOKING

This section presents the prevalence of tobacco smoking and its various dimensions. Tobacco smoking includes smoking any product containing tobacco or nicotine like, *bidi*, manufactured cigarette, hand-rolled cigarette, pipe, cigar, *hookah* (water pipe) and some other forms like *chutta, dhumti* and *chillum* and electronic cigarettes.

4.2.1 Prevalence of tobacco smoking

The prevalence of smoking among adults in India is presented in Table 4.11. About one in every 10 adults (10.7%) in India currently smokes tobacco; 8.6 percent of adults smoke tobacco daily whereas 2.1 percent smoke only occasionally. The data implies that most of the current smokers (80%) smoke tobacco every day. Out of the 2.1 percent of occasional tobacco smokers one-fourth (0.5% of all adults) were former daily smokers but currently smoke only occasionally. Among the adult population 89.3 percent are current non-smokers. About two percent of the current non-smokers (1.8% of all adults) were smoking daily sometime during their life and about one percent (1.3% of all adults) of current non-smokers were formerly smoking but only occasionally. So, in all 13.9 percent of Indian adults are ever smokers and 89.1 percent are never smokers.

Table 4.11: Percentage of adults age 15 and above by detailed status of smoking, according to gender and residence, GATS-2, India, 2016-17

		Gender		Residence	
Status of smoking	**Overall**	**Male**	**Female**	**Urban**	**Rural**
Current smoker	10.7	19.0	2.0	8.3	11.9
Daily smoker	8.6	15.2	1.7	6.3	9.8
Occasional smoker	2.1	3.8	0.3	1.9	2.2
Occasional smoker, formerly daily	0.5	0.9	0.1	0.4	0.5
Occasional smoker, never daily	1.6	2.9	0.2	1.5	1.6
Non-smoker	89.3	81.0	98.0	91.7	88.1
Former daily smoker	1.8	3.2	0.4	1.5	2.0
Never daily smoker	87.5	77.7	97.7	90.2	86.0
Former occasional smoker	1.3	2.4	0.2	1.1	1.5
Never smoker	86.1	75.3	97.4	89.2	84.6

The prevalence of smoking is much higher among men (19.0%) than among women (2.0%). The prevalence of smoking is higher in rural areas (11.9%) than in urban areas (8.3%). Among men and women smokers and among smokers from both urban and rural areas, most (76-85%) of the current smokers are daily smokers.

4.2.2 Number of tobacco smokers

Table 4.12 presents the estimated number of smokers in India classified by residence and gender. As per GATS 2 the number of current smokers In India is 99.5 million adults (90.6 million men and 8.9 million women). Due to both Most of the current smokers are from rural areas (73.0 million) and remaining 26.6 million are from urban areas. A total of 80.1 million adults (72.5 million males and 7.6 million females) smoke tobacco daily and an additional 19.4 million (18.1 million males and 1.4 million females) smoke tobacco occasionally. Of the total adult population of 932.5 million, 833.0 million adults do not smoke tobacco currently. However 29.7 million among these used to smoke formerly, either daily or occasionally. In other words, almost 129.2 million adult Indians out of total adult population of 932.5 million are ever smokers.

Table 4.12: Numbers of adults age 15 and above by detailed status of smoking, according to residence and gender, GATS-2, India, 2016-17

		Gender		Residence	
Status of smoking	**Overall**	**Male**	**Female**	**Urban**	**Rural**
	Number in thousands				
Overall	932,488	476,499	455,989	321,648	610,839
Current smoker	99,522	90,585	8,937	26,565	72,957
Daily smoker	80,077	72,498	7,579	20,332	59,746
Occasional smoker	19,445	18,087	1,358	6,233	13,211
Occasional smoker, formerly daily	4,652	4,323	328	1,359	3,292
Occasional smoker, never daily	14,793	13,764	1,029	4,874	9,919
Non-smoker	832,966	385,914	447,052	295,084	537,882
Former daily smoker	17,146	15,458	1,688	4,831	12,315
Never daily smoker	815,820	370,455	445,365	290,253	525,567
Former occasional smoker	12,559	11,459	1,101	3,499	9,060
Never smoker	803,261	358,997	444,264	286,754	516,507

4.2.3 Prevalence of tobacco smoking by state/UT

Table 4.13 and Figures 4.X present the prevalence of tobacco smoking by states/UTs among adult population, men and women respectively. The prevalence of smoking varies substantially across states/UTs. It ranges from 34.4 percent in Mizoram to 3.8% in Maharashtra. In all the states from the north and north-eastern part of India (except Punjab and Chandigarh) prevalence of smoking is higher than the national average. All of the top five states with respect to prevalence of smoking are in north-eastern part of India (Mizoram 34%, Meghalaya 32%, Tripura 28%, Arunachal Pradesh 23% and Manipur 21%). However, these are smaller states in terms of population size and hence all the north-eastern states (excluding Assam) account for less than three percent of total tobacco smokers in India. Uttar

Pradesh the most populous state in India alone accounts for 20 percent of all the smokers in the country. Similar to the number of tobacco users, tobacco users in the two large states of Uttar Pradesh and West Bengal account for about one-third (32%) of smokers.

Figure No. 4.5 – Percentage of current tobacco smokers among states/UT, GATS India 2016-17

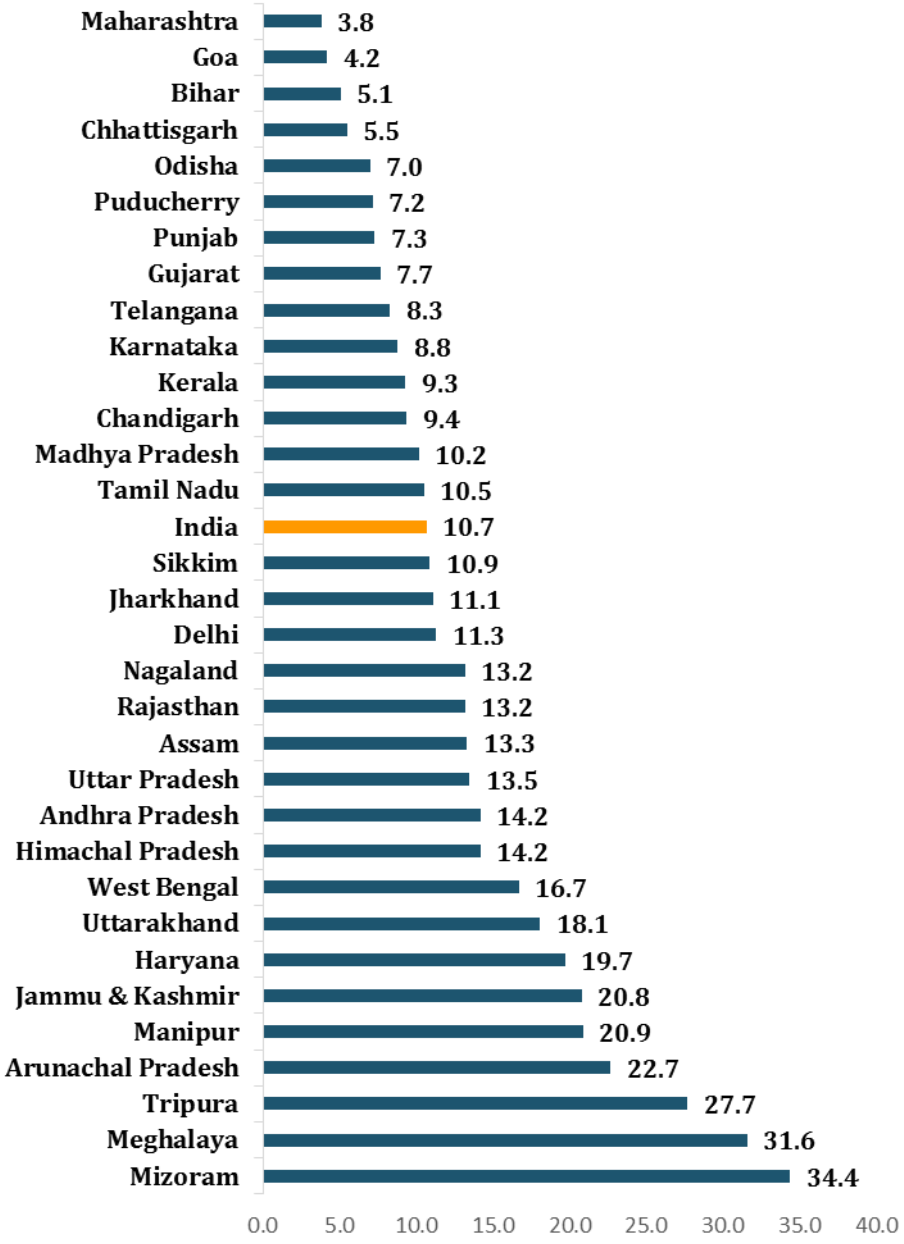


Table 4.13: Percentage of adults age 15 and above who currently smoke tobacco by states/UTs, according to gender, GATS-2, India, 2016-17

State/ UT	Current smokers		
	Total	Male	Female
India	10.7	19.0	2.0
Jammu & Kashmir	20.8	35.2	5.1
Himachal Pradesh	14.2	26.7	1.6
Punjab	7.3	13.6	0.4
Chandigarh	9.4	16.2	0.9
Uttarakhand	18.1	29.8	6.3
Haryana	19.7	33.1	4.8
Delhi	11.3	19.4	1.8
Rajasthan	13.2	22.2	3.7
Uttar Pradesh	13.5	23.1	3.2
Chhattisgarh	5.5	10.8	0.1
Madhya Pradesh	10.2	19.0	0.8
West Bengal	16.7	31.7	0.9
Jharkhand	11.1	20.3	1.6
Odisha	7.0	13.9	0.1
Bihar	5.1	6.6	3.4
Sikkim	10.9	17.4	3.6
Arunachal Pradesh	22.7	38.7	5.4
Nagaland	13.2	25.0	0.5
Manipur	20.9	35.9	6.0
Mizoram	34.4	54.1	14.3
Tripura	27.7	44.4	10.3
Meghalaya	31.6	53.7	9.5
Assam	13.3	25.3	0.8
Gujarat	7.7	14.2	0.7
Maharashtra	3.8	6.0	1.4
Goa	4.2	7.9	0.4
Andhra Pradesh	14.2	24.0	4.6
Telangana	8.3	15.3	1.4
Karnataka	8.8	16.8	0.7
Kerala	9.3	19.6	0.2
Tamil Nadu	10.5	21.1	0.1
Puducherry	7.2	14.7	0.1

Following Table 4.14 presents state/ UT level variation in tobacco smoking among men and women.

Table 4.14: Classification of states/ UTs according to prevalence of smoking tobacco use among men/ women, GATS 2, India, 2016-17.

Smokeless tobacco prevalence %	Total	Male	Female
Less than 5%	Maharashtra, Goa		Himachal Pradesh, Punjab, Chandigarh, Haryana, Delhi, Rajasthan, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, West Bengal, Jharkhand, Odisha, Bihar, Sikkim, Nagaland, Assam, Gujarat, Maharashtra, Goa, Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu, Puducherry
5% - 10%	Punjab, Chandigarh, Chhattisgarh, Odisha, Bihar, Gujarat, Telangana, Karnataka, Kerala, Puducherry	Bihar, Maharashtra, Goa	Jammu & Kashmir, Uttarakhand, Arunachal Pradesh, Manipur, Meghalaya
10% - 20%	Himachal Pradesh, Uttarakhand, Haryana, Delhi, Rajasthan, Uttar Pradesh, Madhya Pradesh, West Bengal, Jharkhand, Sikkim, Nagaland, Assam, Andhra Pradesh, Tamil Nadu	Punjab, Chandigarh, Delhi, Chhattisgarh, Madhya Pradesh, Odisha, Sikkim, Gujarat, Telangana, Karnataka, Kerala, Puducherry	Mizoram, Tripura
20% - 30%	Jammu & Kashmir, Arunachal Pradesh, Manipur, Tripura	Himachal Pradesh, Uttarakhand, Rajasthan, Uttar Pradesh, Jharkhand, Nagaland, Assam, Andhra Pradesh, Tamil Nadu	
30% - 40%	Mizoram, Meghalaya	Jammu &Kashmir,	

		Haryana, West Bengal, Arunachal Pradesh, Manipur	
40% - 50%		Tripura	
50% and above		Mizoram, Meghalaya	

4.2.4 Prevalence of various tobacco smoking products

Differentials in the prevalence of smoking by selected characteristics and the prevalence of various tobacco smoking products among all adults is shown in Table 4.15 and Figure 4.5.

Figure No. 4.6 – Percentage of current tobacco smokers by various smoking products and gender, GATS India 2016-17

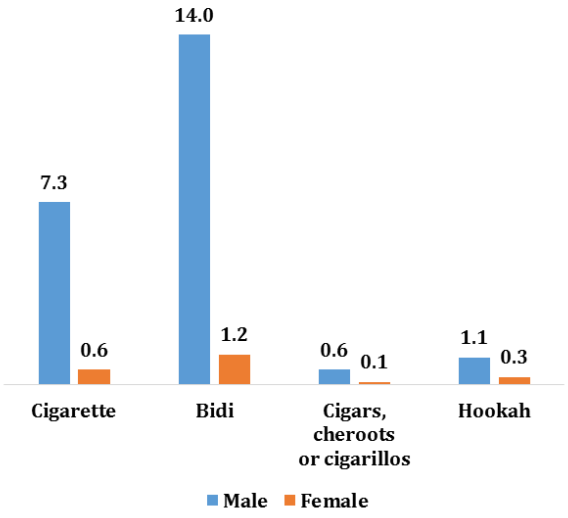


Figure No. 4.7 – Percentage of current tobacco smokers by various smoking products and residence, GATS India 2016-17

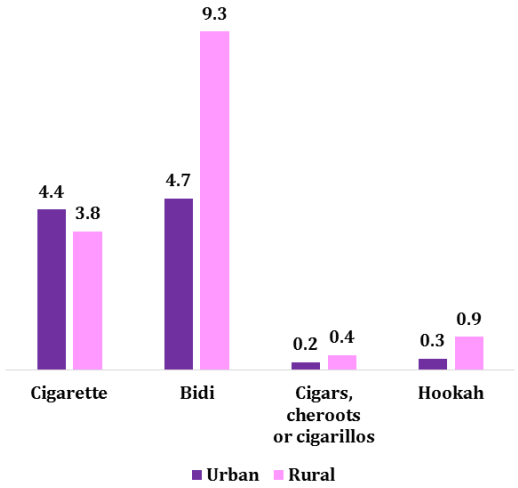
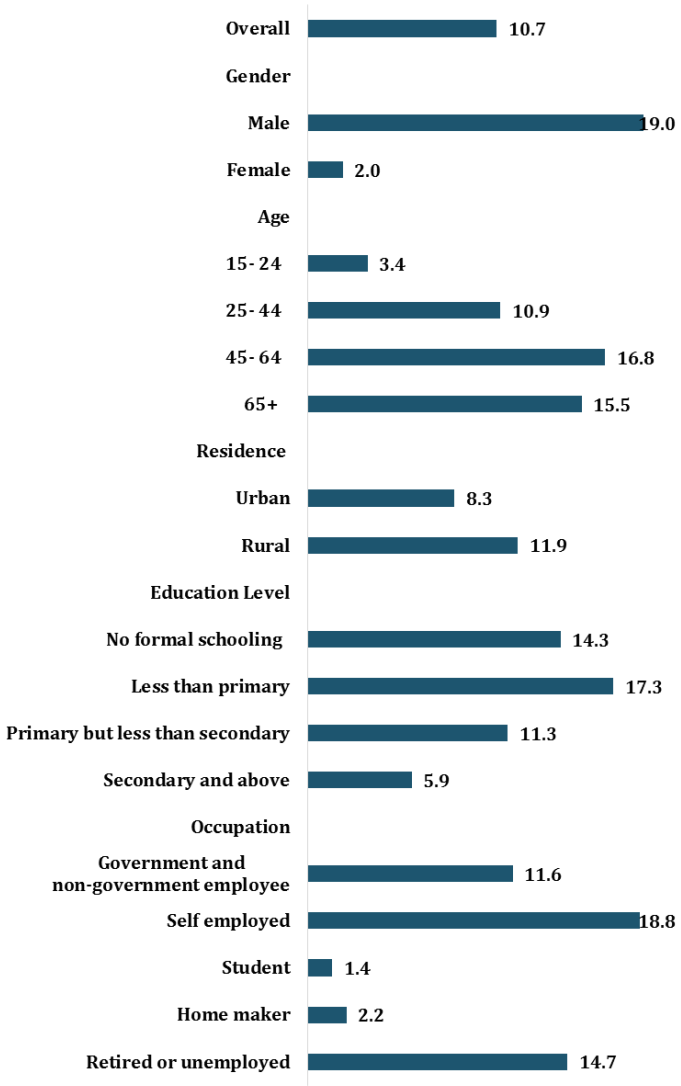


Figure No. 4.8 – Percentage of current tobacco smokers by background characteristics, GATS India 2016-17



The differentials in the prevalence of smoking across residence, age, education level and occupation are almost similar to the differentials in tobacco use. Among both men and women prevalence of smoking is higher in rural than urban areas. With increase in age there is an increase in the prevalence of smoking; however after age 65 there is little decrease in smoking among men. Among both men and women there is an inverse relationship between education level and the prevalence of smoking. Prevalence of smoking is much higher among self employed and retired/ unemployed adult men and women. Almost every fifth (18.8%) self employed adult and 14.7 percent retired/ unemployed adult currently smokes tobacco. Prevalence of smoking is much lower among students (1.4%) and home makers (2.2%).

Table 4.15: Percentage of adults age 15 and above who are current smokers of various smoked tobacco products by gender, according to background characteristics, GATS-2, India, 2016-2017

Background characteristic	Any smoked tobacco product	Any cigarette[1]	*Bidi*	Cigars, *cheroots* or cigarillos	*Hookah*	Other smoked tobacco
Overall	10.7	4.0	7.7	0.3	0.7	0.1
Age						
15- 24	3.4	2.1	1.7	0.1	0.1	0.1
25- 44	10.9	4.8	7.7	0.3	0.5	0.1
45- 64	16.8	5.0	13.1	0.4	1.3	0.2
65+	15.5	3.6	12.1	0.6	1.7	0.3
Residence						
Urban	8.3	4.4	4.7	0.2	0.3	0.1
Rural	11.9	3.8	9.3	0.4	0.9	0.2
Education level						
No formal schooling	14.3	3.6	11.3	0.3	1.3	0.2
Less than primary	17.3	5.6	14.1	0.5	0.6	0.1
Primary but less than secondary	11.3	4.3	8.5	0.3	0.6	0.2
Secondary and above	5.9	3.7	2.8	0.2	0.4	0.0
Occupation						
Government and non-government employee	11.6	6.8	6.6	0.3	0.4	0.1
Self employed	18.8	6.7	14.3	0.5	1.1	0.2
Student	1.4	1.2	0.2	0.0	0.1	0.0
Home maker	2.2	0.6	1.5	0.1	0.3	0.0
Retired or unemployed	14.7	3.8	11.2	0.6	1.9	0.2
Male	19.0	7.3	14.0	0.6	1.1	0.2
Age						
15- 24	6.3	4.0	3.1	0.2	0.2	0.1
25- 44	20.2	9.0	14.4	0.6	0.9	0.2
45- 64	29.5	8.7	23.5	0.7	2.2	0.3
65+	26.0	5.9	21.5	1.0	2.3	0.4
Residence						
Urban	15.4	8.4	8.8	0.4	0.4	0.1
Rural	21.0	6.8	16.8	0.6	1.5	0.2
Education level						
No formal schooling	34.9	8.6	29.4	0.8	2.6	0.5
Less than primary	30.5	9.7	25.3	0.8	1.0	0.1
Primary but less than secondary	19.5	7.5	14.8	0.6	1.0	0.2
Secondary and above	9.7	6.2	4.7	0.4	0.6	0.1
Occupation						
Government and non-government employee	14.5	8.4	8.2	0.4	0.4	0.1
Self employed	24.2	8.6	18.6	0.7	1.3	0.2
Student	2.3	2.0	0.3	0.0	0.1	0.0
Home maker	19.5	6.8	14.5	0.9	2.0	0.1
Retired or unemployed	20.1	5.4	15.6	0.9	2.4	0.2
Female	2.0	0.6	1.2	0.1	0.3	0.1
Age						
15-24	0.2	0.0	0.1	0.0	0.0	0.0

25- 44	1.3	0.5	0.7	0.0	0.1	0.1
45- 64	3.7	1.1	2.3	0.1	0.5	0.0
65+	5.7	1.4	3.4	0.1	1.2	0.2
Residence						
Urban	0.7	0.3	0.3	0.0	0.1	0.0
Rural	2.6	0.8	1.6	0.1	0.4	0.1
Educational level						
No formal schooling	4.4	1.2	2.7	0.1	0.7	0.1
Less than primary	1.5	0.6	0.8	0.0	0.2	0.0
Primary but less than secondary	0.6	0.2	0.3	0.0	0.1	0.2
Secondary and above	0.2	0.1	0.1	0.0	0.0	0.0
Occupation						
Government and non-government employee	0.8	0.6	0.1	0.0	0.0	0.0
Self employed	2.9	1.2	1.4	0.1	0.2	0.2
Student	0.0	0.0	0.0	0.0	0.0	0.0
Home maker	1.9	0.5	1.2	0.0	0.3	0.0
Retired or unemployed	3.9	0.7	2.5	0.1	1.0	0.3

Note: Includes manufactured cigarettes and tobacco rolled in paper or leaf

Bidi is the most commonly used smoking product in India, followed by the cigarette. While 7.7 percent of Indian adults smoke *bidis*, 4.0 percent smoke cigarettes. Less than one percent of adults smoke other tobacco products like, *hookah* (0.7%) and, and *c*igars/ *cheroots/* cigarillos (0.3%). The addition of the prevalence of different smoking tobacco products (12.9%) is higher than the prevalence of smoking (10.7%), indicating that smokers in India smoke multiple tobacco products.

There is slight variation in the most commonly smoked tobacco product across the categories by age, residence, education level and occupation. Among the adults aged 15-24 years, cigarette (2.1%) is the most commonly smoked product followed by *Bidi* (1.7%). In all other age groups, *bidi* is the most commonly smoked product. In both urban and rural areas, *bidi* is the most commonly smoked product. Prevalence of *bidi* smoking is almost double in rural areas (9.3%) than in urban areas (4.7%). In contrast to this, prevalence of smoking cigarettes is higher in urban areas (4.4%) compared to that in rural areas (3.8%). Prevalence of smoking *hookah* is higher in rural (0.9%) than in urban areas (0.3%). In all educational groups except secondary or higher education, *bidi* is the most commonly smoked product. Among the adults with secondary or higher education, cigarette is the most commonly smoked product (3.7%). The proportion of Government and Non-Government employees who smoke cigarette (6.8%) and bidi (6.6%) is almost equal. Among the self employed, home makers and retired/ unemployed adults, bidi is the most commonly smoked tobacco product. Prevalence of smoking is quite low and students prefer smoking cigarette (1.2%). Almost one in five (18.6%) self employed and about 15-16 percent of home makers and retired/ unemployed men smoke bidi.

4.2.5 Number of users of various tobacco smoking products

Table 4.16 shows the estimated number of adults in India who smoke a particular type of tobacco product by gender and residence. Of the 99.5 million smokers in India, 71.8 million smoke *bidi*. Of the *bidi* smokers, majority are men (66.6 million) and majority live in rural areas (56.8 million). Of the 99.5 million smokers in India, 37.5 million smoke cigarettes. Of the cigarette smokers, majority are men (34.9

million). Although prevalence of cigarette smoking is higher in urban than rural areas, majority of cigarette smokers are in rural areas (23.3 million) due to higher population in rural areas.

Table 4.16: Number of adults age 15 and above who are current smokers of various smoking tobacco products, according to residence and gender, GATS-2, India, 2016-17

		Gender		Residence	
	Overall	**Male**	**Female**	**Urban**	**Rural**
			Number in thousands		
Current smoker	99,522	90,585	8,937	26,565	72,957
Cigarette	37,542	34,859	2,683	14,250	23,292
Bidi	71,836	66,579	5,257	15,030	56,806
Cigar	2,888	2,642	245	704	2,184
Hookah	6,575	5,268	1,306	811	5,764
Other smoking products	1,272	906	366	300	972

4.2.6 Prevalence of various tobacco smoking products by state/UT

The state/UT level variation in the prevalence of various smoking products among total population is presented in Tables 4.17. In most of the states, *bidi* smoking is more prevalent than cigarette smoking. However, in three states from the North-East (Manipur, Meghalaya, Mizoram) and in Sikkim, Andhra Pradesh, Kerala and Jammu and Kashmir cigarette smoking is more prevalent than *bidi* smoking. In Mizoram (29.1%), Meghalaya (23.4%) and Manipur (19.8%) one or more in every five adults smoke cigarette. In these three states more than one-third of adult men smoke tobacco. Though, cigarette smoking is much less among women, in Mizoram more than one in every eight (13.7%) women smoke cigarette. Prevalence of *bidi* smoking is at higher side in Tripura (19.3%), Meghalaya (17.2%), Uttarakhand (15.7%), Haryana (15.5) and Arunachal Pradesh (14.8%). In all these states and West Bengal prevalence of smoking among men ranges between 25 to 33 percent. *Hookah* (water Pipe) smoking is prevalent mainly in Haryana (7.1%), Jammu and Kashmir (5.9%), Tripura (6.4%), Rajasthan (2.7%), and Meghalaya (2.4%). In Tripura hukkah smoking is more prevalent among women (7.3%) than among men (5.5%).

Table 4.17: Percentage of adults age 15 and above who are current smokers of various smoked tobacco products, by states/UTs, GATS-2, India, 2016-17

State/UT	Any smoked tobacco product	Any cigarette[1]	*Bidi*	Cigars, cheroots or cigarillos	*Hookah*	Other smoked tobacco
India	10.7	4.0	7.7	0.3	0.7	0.1
Jammu & Kashmir	20.8	10.4	6.2	0.3	5.9	0.1
Himachal Pradesh	14.2	2.8	12.6	0.1	0.5	0.1
Punjab	7.3	1.7	5.9	0.0	0.1	0.0
Chandigarh	9.4	3.5	6.4	0.0	0.0	0.0
Uttarakhand	18.1	4.9	15.7	0.0	1.8	0.3
Haryana	19.7	2.6	15.5	0.2	7.1	0.2
Delhi	11.3	4.9	8.2	0.0	0.4	0.0
Rajasthan	13.2	2.8	11.4	1.9	2.7	0.2
Uttar Pradesh	13.5	4.7	11.3	0.3	1.3	0.1
Chhattisgarh	5.5	1.8	4.1	0.0	0.0	0.1
Madhya Pradesh	10.2	1.3	9.1	0.4	0.1	0.3
West Bengal	16.7	5.2	14.4	0.6	0.2	0.1
Jharkhand	11.1	6.5	5.2	0.0	0.2	0.3
Odisha	7.0	3.5	4.4	0.1	0.0	0.1
Bihar	5.1	0.9	4.2	0.1	0.4	0.2
Sikkim	10.9	9.2	3.0	1.4	0.2	0.1
Arunachal Pradesh	22.7	12.4	14.8	2.9	1.3	0.3
Nagaland	13.2	5.7	9.9	0.5	0.1	0.1
Manipur	20.9	19.8	4.3	0.9	0.4	0.4
Mizoram	34.4	29.1	1.5	0.9	1.2	4.3
Tripura	27.7	8.7	19.3	0.6	6.4	0.1
Meghalaya	31.6	23.4	17.2	2.3	2.4	1.5
Assam	13.3	6.1	8.6	0.3	0.3	0.3
Gujarat	7.7	1.2	6.4	0.2	0.2	0.0
Maharashtra	3.8	1.9	1.9	0.1	0.0	0.2
Goa	4.2	2.6	2.1	1.0	0.1	0.1
Andhra Pradesh	14.2	9.0	6.2	0.1	0.0	0.0
Telangana	8.3	4.1	4.9	0.1	0.0	0.0
Karnataka	8.8	4.4	5.9	0.1	0.3	0.2
Kerala	9.3	6.7	3.8	0.1	0.1	0.0
Tamil Nadu	10.5	6.3	5.4	0.2	0.0	0.0
Puducherry	7.2	5.2	2.2	0.1	0.0	0.1

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

4.2.7 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 *bidi*s smoked per day reflects the level of addiction. Table 4.19 and Figure 4.x present the percent distribution of daily cigarette smokers classified by number of cigarettes smoked every day. A typical daily cigarette smoker in India smokes an average of 6.8 cigarette sticks every day. About half of all cigarette smokers smoke less than five cigarettes a day, 30 percent smoke 5–9 cigarettes, 14 percent smoke 10–14 cigarettes, 5 percent smoke 15–24 cigarettes and about 3 percent smoke more than 25 cigarettes per day.

Figure No. 4.9 – Percent distribution of daily cigarette smokers by number of cigarettes smoked on an average per day, according to gender, GATS India 2016-17

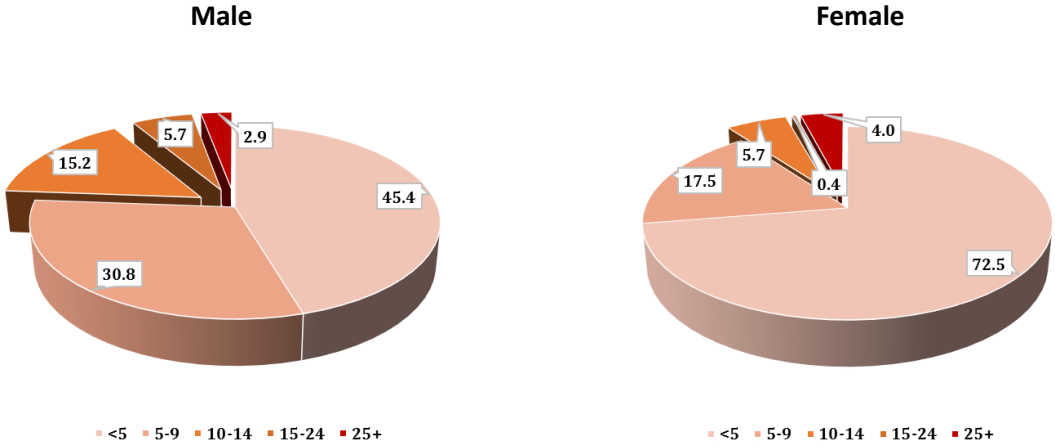


Table 4.19: Percent distribution of current daily cigarette smokers age 15 and above by the number of cigarettes smoked on an average per day, by gender, according to background characteristics, GATS-2, India, 2016-17

Background Characteristics	Number of cigarettes smoked on average per day					Total	Mean number of cigarettes smoked per day
	<5	5-9	10-14	15-24	25+		
Overall	47.9	29.6	14.3	5.2	3.0	100	6.8
Age							
15- 24	54.1	34.3	7.6	1.9	2.1	100	5.1
25- 44	46.6	30.7	16.1	3.6	2.9	100	6.8
45- 64	46.2	27.4	14.8	8.3	3.4	100	7.4
65+	52.7	26.7	11.1	6.1	3.3	100	6.5
Residence							
Urban	44.2	32.2	16.5	5.0	2.0	100	6.3
Rural	50.6	27.6	12.6	5.4	3.8	100	7.2

Education Level							
No formal schooling	53.8	24.5	10.8	6.6	4.2	100	7.3
Less than primary	51.4	23.9	17.1	5.1	2.4	100	7.0
Primary but less than secondary	42.1	32.8	17.9	4.8	2.3	100	6.5
Secondary and above	47.1	32.4	12.9	4.6	2.9	100	6.6
Occupation							
Government and non-government employee	50.7	29.9	12.4	4.7	2.4	100	6.6
Self employed	47.1	28.2	15.8	5.7	3.2	100	7.0
Student	37.0	57.3	3.5	0.1	2.1	100	5.5
Home maker	47.0	30.3	14.9	3.3	4.5	100	6.8
Retired or unemployed	52.2	32.0	8.2	5.3	2.3	100	5.7
Male	45.4	30.8	15.2	5.7	2.9	100	7.0
Age							
15- 24	54.0	34.4	7.6	1.9	2.1	100	5.1
25- 44	45.9	31.2	16.2	3.7	3.1	100	6.9
45- 64	41.3	29.7	16.8	9.4	2.8	100	7.6
65+	46.0	28.1	13.6	8.5	3.8	100	7.4
Residence							
Urban	43.4	32.7	16.8	5.2	2.0	100	6.4
Rural	47.0	29.2	13.8	6.2	3.7	100	7.5
Education Level							
No formal schooling	43.6	30.0	12.8	9.5	4.1	100	8.3
Less than primary	51.1	22.5	18.4	5.4	2.5	100	7.2
Primary but less than secondary	42.0	32.4	18.2	4.9	2.4	100	6.6
Secondary and above	47.1	32.4	12.9	4.6	2.9	100	6.6
Occupation							
Government and non-government employee	50.6	30.0	12.4	4.7	2.4	100	6.7
Self employed	44.2	29.7	16.6	6.1	3.3	100	7.2
Student	37.0	57.3	3.5	0.1	2.1	100	5.5
Home maker	15.1	38.0	35.4	11.4	0.0	100	8.4
Retired or unemployed	51.6	32.4	8.6	5.7	1.7	100	5.6
Female	72.5	17.5	5.7	0.4	4.0	100	5.2
Age							
15- 24	91.4*	8.6*	0.0*	0.0*	0.0*	100	2.6*
25- 44	60.3	22.6	15.6	1.1	0.4	100	4.7
45- 64	80.1	11.4	1.2	0.2	7.1	100	6.0
65+	70.0	23.0	4.9	0.1	2.1	100	4.3

Residence							
Urban	77.6	15.0	6.4	0.6	0.3	100	3.7
Rural	71.8	17.8	5.6	0.4	4.4	100	5.4
Education Level							
No formal schooling	77.0	11.9	6.5	0.1	4.5	100	5.2
Less than primary	54.7	42.0	0.7	1.5	1.0	100	4.2
Primary but less than secondary	44.4	50.7	2.4	1.6	1.0	100	5.6
Secondary and above	28.0*	39.8*	12.8*	14.0*	5.5*	100	9.0*
Occupation							
Government and non-government employee	76.9*	13.0*	3.6*	4.1*	2.4*	100	4.5*
Self employed	86.3	7.6	4.3	0.4	1.4	100	3.9
Student	0.0*	100.0*	0.0*	0.0*	0.0*	100	5.3*
Home maker	58.3	27.6	7.6	0.4	6.1	100	6.3
Retired or unemployed	60.8*	26.4*	2.8*	0.0*	10.0*	100	8.0*
Note: *Based on less than 25 unweighted cases							

The frequency of cigarettes per day among male cigarette smokers (7.0) is higher than female smokers (5.2). The frequency of cigarettes per day among rural smokers (7.2) is higher than urban smokers (6.3). Although, prevalence of smoking is less among young adults (aged 15-24 years), mean number of cigarettes smoked by young adults is 5.1. The mean number of cigarettes smoked per day decreases with increase in education level from 7.3 cigarettes per day among those with no formal education to 6.5-6.6 cigarettes per day among those with primary or more education. The mean number of cigarettes smoked per day is higher among self employed (7.0) cigarette smokers.

The table on prevalence of smoking by state/ UT has already shown relatively higher prevalence of cigarette smoking in Jammu & Kashmir, West Bengal, Sikkim, Tripura, Nagaland, Manipur, Mizoram and Meghalaya. In these states the average number of bidis smoked per day is also quite large (7.5 or more).

4.2.8 Number of *bidis* smoked per day

The percent distribution of daily *bidi* smokers by number of *bidis* smoked per day is shown in Table4.20 and Figure 4.8.Less than half of all *bidi* smokers (47%) on an average smoke less than 10 *bidi*s per day, whereas the remaining 53 percent smoke more than 10 *bidi*s per day. A little more than 14 percent of all daily *bidi* smokers in India smoke an average of 25 *bidis* every day. The overall average is 15.1*bidi*s per day. The daily frequency of *bidi* smoking among male *bidi* smokers (15.6 sticks) is almost twice that for female smokers (7.8 sticks). Current daily *bidi* smokers in rural areas smoke 15.3 on an average 15.3 bidis per day; in urban areas this figure is lesser than one bidi (14.3). Prevalence of smoking among young adults is low. However, average number of bidi sticks smoked by daily bidi smokers among young

adults (aged 15-24 years) is 14.4 sticks. The number of bidis smoked per day by a daily bidi smoker has decreased with education from 16.0 bidis per day among those with no education to 12.0 among those with secondary or more education. The average number of bidi sticks smoked by a self employed (16.2) daily bidi smokers is at higher side in comparison to adults from other occupational categories.

Figure No. 4.10 – Percent distribution of daily bidi smokers by number of bidis smoked on an average per day, according to gender, GATS India 2016-17

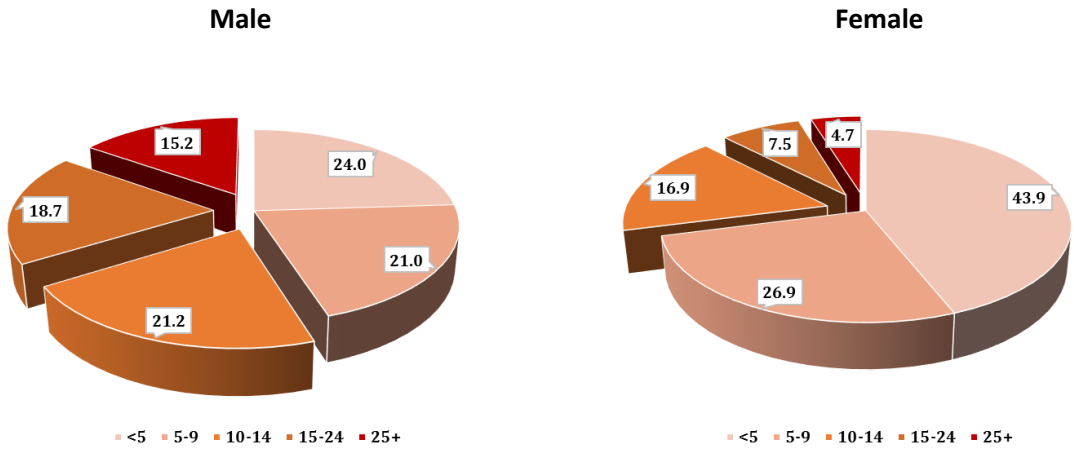


Table 4.20: Percent distribution of current daily *bidi*smokers age 15 and above by the number of *bidi* smoked on an average per day, by gender, according to background characteristics, GATS-2, India, 2016-17

Background Characteristics	Number of *bidis* smoked on average per day					Total	Mean number of bidis smoked per day
	<5	5-9	10-14	15-24	25+		
Overall	25.4	21.4	20.9	17.9	14.4	100	15.1
Age							
15- 24	23.2	31.1	15.3	14.7	15.7	100	14.4
25- 44	25.3	20.2	21.1	16.8	16.6	100	16.0
45- 64	22.8	21.7	21.0	20.5	14.1	100	15.5
65+	34.1	21.0	21.5	14.8	8.5	100	11.5
Residence							
Urban	25.5	21.0	20.5	19.4	13.6	100	14.3
Rural	25.4	21.5	21.0	17.6	14.6	100	15.3
Education Level							
No formal schooling	28.2	18.7	20.5	18.4	14.1	100	16.0
Less than primary	24.6	20.5	17.4	18.7	18.9	100	14.9
Primary but less than secondary	23.1	24.0	22.0	16.6	14.3	100	15.4

Secondary and above	22.7	25.0	24.1	18.5	9.6	100	12.0
Occupation							
Government and non-government employee	28.1	20.0	19.0	16.8	16.1	100	12.5
Self employed	23.7	20.9	21.3	18.5	15.6	100	16.2
Student	9.0*	4.3*	22.1*	64.7*	0.0*	100	15.3*
Home maker	39.8	27.0	19.3	9.6	4.4	100	8.0
Retired or unemployed	28.1	23.9	19.9	18.4	9.8	100	12.8
Male	24.0	21.0	21.2	18.7	15.2	100	15.6
Age							
15- 24	21.2	31.9	15.7	15.1	16.0	100	14.6
25- 44	24.4	19.7	21.5	17.1	17.2	100	16.4
45- 64	21.5	21.1	20.6	21.8	15.0	100	16.1
65+	31.7	20.5	24.0	15.3	8.5	100	12.0
Residence							
Urban	24.7	20.9	20.6	19.8	13.9	100	14.5
Rural	23.8	21.0	21.3	18.4	15.5	100	16.0
Education Level							
No formal schooling	25.7	17.5	20.8	20.3	15.8	100	17.4
Less than primary	23.7	19.9	17.9	19.1	19.4	100	15.1
Primary but less than secondary	22.9	23.8	22.1	16.7	14.4	100	15.4
Secondary and above	22.2	25.2	24.3	18.7	9.7	100	12.0
Occupation							
Government and non-government employee	28.1	20.0	19.0	16.8	16.1	100	12.5
Self employed	23.2	20.8	21.5	18.7	15.8	100	16.4
Student	9.0*	4.3*	22.1*	64.7*	0.0*	100	15.3*
Home maker	23.3	24.3	18.4	21.7	12.3	100	12.2
Retired or unemployed	27.1	23.4	20.8	19.4	9.3	100	13.0
Female	43.9	26.9	16.9	7.5	4.7	100	7.8
Age							
15- 24	95.5*	1.9*	0.0*	0.0*	2.6*	100	4.3*
25- 44	46.6	30.1	12.6	8.9	1.8	100	7.1
45- 64	38.0	27.8	25.8	4.7	3.6	100	7.8
65+	48.3	24.4	6.9	11.5	8.9	100	8.7
Residence							
Urban	51.2	25.0	15.2	4.9	3.8	100	6.7
Rural	43.2	27.1	17.1	7.8	4.8	100	7.9
Education Level							
No formal schooling	42.4	25.5	18.8	8.3	5.0	100	8.2
Less than primary	55.0	39.8	2.3	2.1	0.9	100	4.9

Primary but less than secondary	40.2	48.9	3.7	2.5	4.7	100	5.5
Secondary and above	95.6*	3.2*	0.0*	0.0*	1.3*	100	3.8*
Occupation							
Government and non-government employee	20.5*	79.5*	0.0*	0.0*	0.0*	100	5.2*
Self employed	46.9	24.5	13.1	9.8	5.6	100	8.8
Student	0.0*	0.0*	0.0*	0.0*	0.0*	100	0.0*
Home maker	43.4	27.5	19.5	7.0	2.7	100	7.1
Retired or unemployed	39.1	29.2	9.6	6.5	15.6	100	10.5

Note: *Based on less than 25 unweighted cases

4.2.9 Age at initiation of tobacco smoking

Table 4.21 presents the distribution of ever daily smokers age 20–34 by age at the initiation of daily smoking. Of all daily smokers, 11 percent started smoking daily by the age of 15, 23 percent in the age group 15–17, 18 percent at age 18-19, and the remaining 49 percent after the age of 20. In other words, one third of all daily smokers aged 20–34 had started smoking tobacco on a daily basis before attaining the age of 18, i.e. before they became major. The mean age at initiation of smoking is 18.9 years. The table points out that, male daily smokers have started smoking at much younger age compared to females. The mean age at initiation of smoking for females is 21.2 as against 18.8 for males. The mean age at initiation of smoking among daily smokers from urban areas (19.0) is little higher than that from rural areas (18.8).

Table 4.21: Percent distribution of ever daily smokers age 20-34 by age at smoking initiation, according to selected background characteristics, GATS-2, India, 2016-17

	Age at smoking initiation					
Background Characteristics	**<15**	**15-17**	**18-19**	**20-34**	**Total**	**Mean age**
Overall	10.6	22.5	18.0	48.9	100	18.9
Gender						
Male	10.6	23.1	18.2	48.2	100	18.8
Female	11.6	8.8	13.2	66.4	100	21.2
Residence						
Urban	11.4	16.9	19.7	52.1	100	19.0
Rural	10.3	24.6	17.4	47.7	100	18.8
Education Level						
No formal schooling	14.0	20.6	13.7	51.6	100	18.6
Less than primary	10.8	22.2	23.2	43.8	100	19.0
Primary but less than secondary	11.9	26.8	18.5	42.8	100	18.4
Secondary and above	6.1	17.7	17.8	58.5	100	19.7
Occupation						

Government and non-government employee	4.8	23.7	14.2	57.3	100	19.7
Self employed	11.4	23.2	18.0	47.4	100	18.7
Student	1.0	20.9	44.5	33.7	100	19.0
Home maker	19.8	18.2	23.8	38.2	100	18.1
Retired or unemployed	15.4	8.8	18.4	57.4	100	19.2

4.2.10 Prevalence of former daily smoking and quit ratio

This section discusses quit ratios or the extent to which daily smokers have quitted tobacco smoking. Two different types of ratios are defined as 1) the percentage of former daily smokers among all adults and 2) the percentage of former daily smokers among all ever daily smokers. Table 4.22 presents these two types of quit ratios by background characteristics.

Table 4.22: 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-2, India, 2016-17

Background Characteristics	Former daily smokers [1] (Among all adults)	Former daily smokers[1] (Among ever daily smokers)[2]
Overall	1.8	16.8
Age		
15- 24	0.3	14.9
25- 44	0.9	9.5
45- 64	3.4	18.2
65+	6.6	31.2
Gender		
Male	3.2	16.8
Female	0.4	17.6
Residence		
Urban	1.5	18.2
Rural	2.0	16.3
Education Level		
No formal schooling	2.4	15.5
Less than primary	2.8	15.9
Primary but less than secondary	1.9	16.5
Secondary and above	1.2	20.7
Occupation		

Government and non-government employee	1.5	14.2
Self employed	2.7	14.3
Student	0.1	15.8
Home maker	0.5	18.9
Retired or unemployed	6.7	33.3

Note: [1]Includes current non-smokers

[2] Also known as the quit ratio for daily smoking

In India, about two percent of the adult population was formerly smoking tobacco every day but now have 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 for Indian population. The quit ratio for smoking is 16.8 percent, i.e. about one in every six ever daily smokers has stopped smoking completely. The quit ratios of smoking is highest among those with secondary and above education (21%). Quit ratio among young adults is 14.9 percent and that among those aged 65 and above is 31.2 percent. Quit ratios among employees and self employed adults are much lower in comparison those among home makers and retired/ unemployed adults. Five states namely, Chhattisgarh, Odisha, Bihar, Assam and Kerala have quit ratios more than 20%. (Appendix Table A-4.15)

4.2.11 Time since quitting tobacco smoking

https://www.ncbi.nlm.nih.gov/pubmed/9106646#

One important dimension of quitting is the duration for which tobacco smokers could abstain from smoking, as there is always a chance of reverting after a short duration of non-smoking. For most smokers, quitting is a difficult process. Many smokers try to quit repeatedly before they succeed, with some relapsing even after a lengthy period of abstinence. Table 4.23 presents the per cent distribution of former daily smokers who have stopped smoking completely, by duration in years since the time of quitting. About one in eight quitters have abstained from smoking for the last one year, about one fifth have quit for between one to five years and two-thirds of former daily smokers have stopped smoking for more than five or more years.

Table 4.23: Percent distribution of former daily smokers age 15 and above by time since quitting smoking, according to selected background characteristics, GATS-2, India, 2016-2017

	Time since quitting smoking (in years)				
Background characteristic	**<1**	**1 - 4**	**5 - 9**	**10+**	**Total**
Overall	12.1	21.7	20.0	46.1	100
Gender					
Male	10.9	20.9	20.4	47.8	100
Female	23.9	29.5	16.1	30.5	100
Residence					
Urban	13.1	19.1	22.3	45.5	100

Rural	11.8	22.8	19.1	46.4	100
Education Level					
No formal schooling	13.8	19.8	17.7	48.7	100
Less than primary	11.8	15.3	17.2	55.7	100
Primary but less than secondary	12.4	23.9	21.4	42.3	100
Secondary and above	9.6	25.7	23.4	41.3	100
Occupation					
Government and non-government employee	10.7	28.9	17.4	43.0	100
Self employed	12.4	22.0	19.7	45.9	100
Student	45.5*	52.9*	1.6*	0.0*	100
Home maker	17.3	25.5	19.0	38.3	100
Retired or unemployed	9.3	15.8	22.7	52.2	100

Note: *Based on less than 25 unweighted cases

About half of male smokers (48%) and 31 percent of female smokers who were former daily smoker have abstained from smoking for more than 10 years. Almost equal proportion of former daily smokers both, from urban (46%) and rural (46%) areas have abstained from smoking for more than 10 years. A higher proportion of retired/ unemployed former daily smokers have abstained for five or more yearsas compared to their counterparts.

4.3 SMOKELESS TOBACCO

This section presents the prevalence of smokeless tobacco use and its different dimensions. Smokeless tobacco includes chewing tobacco products such as tobacco leaves, betel quid with tobacco, *sada/surti, khaini* or tobacco lime mixture, *gutkha*, *pan masala* with *zarda, mawa, gul,gudaku, mishri*, betel quid with tobacco, *khaini*, *gutkha*, *paan masala*; and other 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 4.24 presents prevalence of smokeless tobacco in India by gender and residence. GATS 2 shows that 21.4 percent of all adults in India are currently using smokeless tobacco, either by chewing, or applying it to the teeth and gums, or by inhalation. Use of smokeless tobacco is more prevalent than the tobacco smoking. The prevalence of smokeless tobacco use is more than twice that of smoking (10.7%). Of the 21.4 percent of all adults who use smokeless tobacco, 85 percent (18.2% of all adults) use smokeless tobacco every day and the remaining 15 percent (3.1% of all adults) use it occasionally. Two percent of the adults, who were using smokeless tobacco in the past, either daily (1.2%) or occasionally (0.8%), have stopped its use completely. The extent of use of smokeless tobacco among men (29.6%) is higher than women (12.8%). In rural areas 24.6 percent of adults use smokeless tobacco whereas in urban areas the 15.2 percent use smokeless tobacco. In each category of adults either by residence or gender, 84-87 percent of the current smokeless tobacco users use it every day.

Table 4.24: Percentage of adults age 15 and above by detailed status of use of smokeless tobacco, according to gender and residence, GATS-2, India, 2016-17

		Gender		Residence	
Status of use of smokeless tobacco	**Overall**	**Male**	**Female**	**Urban**	**Rural**
Current user of smokeless tobacco	21.4	29.6	12.8	15.2	24.6
Daily	18.2	25.1	11.1	12.8	21.1
Occasional user	3.1	4.5	1.7	2.5	3.5
Occasional user, former daily	0.8	1.0	0.5	0.6	0.8
Occasional user, never daily	2.4	3.5	1.2	1.8	2.7
Non-user of smokeless tobacco	78.6	70.4	87.2	84.8	75.4
Former daily user	1.2	1.4	0.9	1.0	1.2
Never daily user	77.5	68.9	86.4	83.7	74.2
Former occasional user	0.8	1.2	0.4	0.8	0.9
Never user	76.6	67.7	85.9	83.0	73.3

4.3.2 Number of users of smokeless tobacco

The estimated number of current adult smokeless tobacco users in India is 199.4 million, twice that of current tobacco smokers (99.5 million). The number of male smokeless tobacco users (141.2 million) is more than twice that of female smokeless tobacco users (58.2 million). Similarly, the number of smokeless tobacco users in rural areas (150.3 million) is about three times that in urban areas (49.0 million).

Table 4.25: Numbers of adults age 15 and above by detailed status of use of smokeless tobacco, according to gender and residence, GATS-2, India, 2016-17

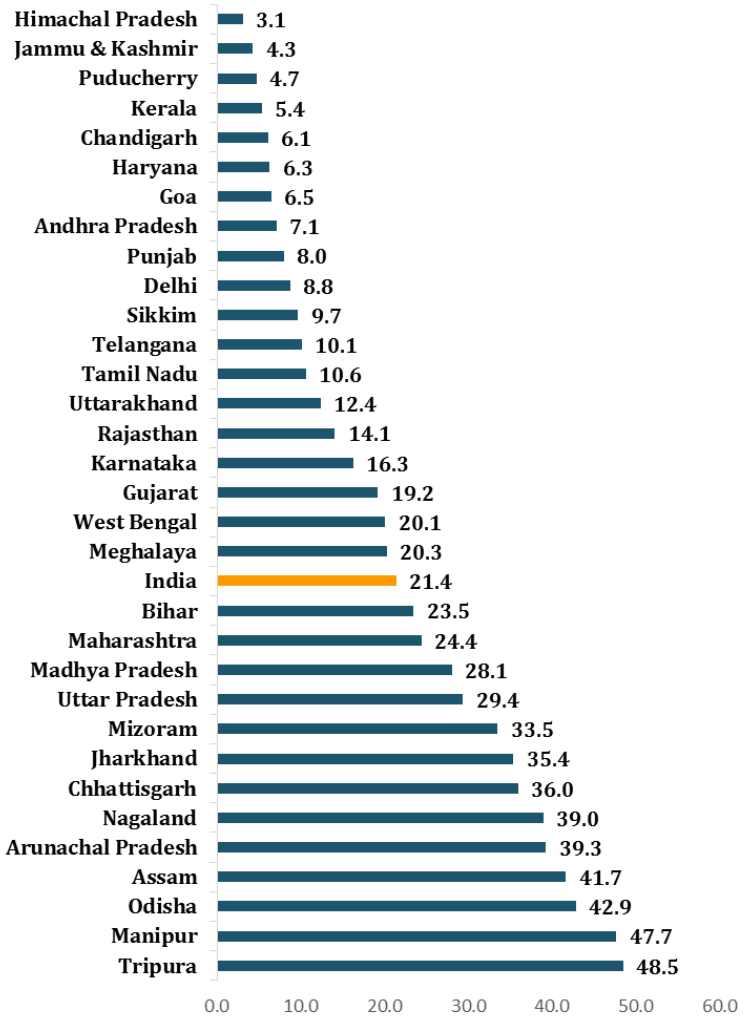
		Gender		Residence	
Status of use of smokeless tobacco	**Overall**	**Male**	**Female**	**Urban**	**Rural**
		Numbers in thousands			
Total	932,488	476,499	455,989	321,648	610,839
Current user of smokeless tobacco	199,388	141,183	58,206	49,050	150,338
Daily	170,098	119,540	50,558	41,110	128,988
Occasional user	29,290	21,643	7,648	7,940	21,351
Occasional user, former daily	7,103	4,977	2,127	1,996	5,107
Occasional user, never daily	22,187	16,666	5,521	5,944	16,243
Non-user of smokeless tobacco	733,099	335,316	397,783	272,598	460,501
Former daily user	10,820	6,863	3,957	3,279	7,542
Never daily user	722,279	328,453	393,826	269,320	452,959
Former occasional user	7,675	5,691	1,984	2,439	5,236
Never user	714,604	322,762	391,842	266,881	447,723

Among all the adults, 170.1 million (119.5 million males and 50.6 million females) use smokeless tobacco every day and 29.3 million adults (21.6 million males and 7.6 million females) use smokeless tobacco occasionally. Little more than 18 million adults who were formerly using smokeless tobacco either daily (10.8 million) or occasionally (7.7 million) have stopped its use completely. Currently 733.1 million adults aged 15 and above do not use smokeless tobacco and among them 722.3 million adults have never used smokeless tobacco in their lifetime.

4.3.3 Prevalence of use of smokeless tobacco by state/UT

Prevalence of smokeless tobacco by state/ UT according to gender is presented in Table 4.26 and Figures **. Similar to national pattern, in all the states/ UTs 60 percent or more of the current smokeless tobacco users are daily users.

Figure No. 4.11 – Percentage of current smokeless tobacco users among states/UTs, GATS India 2016-17



The prevalence of smokeless tobacco use among all the adults ranges from the highest of 48.5 percent in Tripura to the lowest of 3.1 percent in Himachal Pradesh. Tripura also reported the highest prevalence of smokeless tobacco among women. In three states from north India, Himachal Pradesh, Chandigarh and Punjab less than one percent of women use smokeless tobacco. Among men the prevalence of smokeless tobacco is the highest in Odisha (52.1%) and the lowest in Puducherry (4.5%). The state level differentials in smokeless tobacco use are summarized in Table 4.26.

Table 4.26: Percentage of adult age 15 and above by detailed status of smokeless tobacco use, by states/ UTs, GATS-2, India, 2016-17			
	Current user of smokeless tobacco		
State/UT	**Total**	**Male**	**Female**
India	21.4	29.6	12.8
Jammu & Kashmir	4.3	6.8	1.5
Himachal Pradesh	3.1	6.1	0.1
Punjab	8.0	15.0	0.3
Chandigarh	6.1	10.4	0.8
Uttarakhand	12.4	21.2	3.4
Haryana	6.3	10.0	2.2
Delhi	8.8	13.7	3.2
Rajasthan	14.1	22.0	5.8
Uttar Pradesh	29.4	42.6	15.2
Chhattisgarh	36.0	47.7	24.5
Madhya Pradesh	28.1	38.7	16.8
West Bengal	20.1	22.8	17.2
Jharkhand	35.4	54.1	15.7
Odisha	42.9	52.1	33.6
Bihar	23.5	41.9	3.6
Sikkim	9.7	13.8	5.1
Arunachal Pradesh	39.3	50.1	27.7
Nagaland	39.0	46.0	31.5
Manipur	47.7	50.2	45.2
Mizoram	33.5	21.3	46.0
Tripura	48.5	40.8	56.5
Meghalaya	20.3	11.6	29.1
Assam	41.7	50.5	32.5
Gujarat	19.2	27.6	10.0
Maharashtra	24.4	31.7	16.6
Goa	6.5	9.2	3.6
Andhra Pradesh	7.1	7.6	6.6
Telangana	10.1	11.3	9.0
Karnataka	16.3	22.2	10.3
Kerala	5.4	7.4	3.6
Tamil Nadu	10.6	11.9	9.3
Puducherry	4.7	4.5	4.9

In all the states/ UTs the prevalence of tobacco use in any form or that of smoking is much lower among women than men. However, in three states of Meghalaya (11.6% among men vs. 29.1% among women), Mizoram (21.3% among men vs. 46.0% among women) and Tripura (40.8% among men vs. 56.5% among women) prevalence of smokeless tobacco use is higher among women than men. Especially, in Meghalaya and Mizoram, the smokeless tobacco use among women is more than twice of that among men.

Similar to the tobacco use, the smokeless tobacco users in Uttar Pradesh- the most populous state in India- account for more than one-fifth (22%) of the total smokeless tobacco users in India. Two states, Uttar Pradesh and Maharashtra, together account for one-third (33%) of the smokeless tobacco users in India. Inclusion of five more states- Bihar, Madhya Pradesh, Odisha, West Bengal and Assam -account for more than two-thirds (68%) of tobacco users in India. All the high tobacco prevalence states from north-eastern part of the country account for less than three percent of tobacco users in the country (Table not presented).

Table 4.27: Classification of states/ UTs according to prevalence of smokeless tobacco use among men/ women, GATS 2, India, 2016-17.

Smokeless tobacco prevalence %	Total	Male	Female
Less than 5%	Jammu & Kashmir, Himachal Pradesh, Puducherry	Puducherry	Jammu & Kashmir, Himachal Pradesh, Puducherry, Punjab, Chandigarh, Uttarkhand, Haryana, Delhi, Bihar, Goa, Kerala
5% - 10%	Punjab, Chandigarh, Haryana, Delhi, Sikkim, Goa, Andhra Pradesh, Kerala	Jammu & Kashmir, Himachal Pradesh, Goa, Andhra Pradesh, Kerala	Rajasthan, Sikkim, Andhra Pradesh, Telangana, Tamil Nadu
10% - 20%	Uttarakhand, Rajasthan, Gujarat, Telangana, Karnataka, Tamil Nadu	Punjab, , Chandigarh, Haryana, Delhi, Sikkim, Meghalaya, Telangana, Tamil Nadu	Uttar Pradesh, Madhya Pradesh, West Bengal, Jharkhand, Gujarat, Maharashtra, Karnataka
20% - 30%	Uttar Pradesh, Madhya Pradesh, West Bengal, Bihar, Meghalaya, Maharashtra	Uttarakhand,Rajasthan, West Bengal, Mizoram, Gujarat, Karnataka	Chhattisgarh, Arunachal Pradesh, Meghalaya
30% - 40%	Chhattisgarh, Jharkhand, Arunachal Pradesh, Nagaland, Mizoram	Madhya Pradesh, Maharashtra	Odisha, Nagaland, Assam
40% - 50%	Odisha, Manipur, Tripura, Assam	Uttar Pradesh, Chhattisgarh, Bihar, Nagaland, Tripura	Manipur, Mizoram
50% and above		Jharkhand, Odisha, Arunachal Pradesh, Manipur, Assam	Tripura

4.3.4 Prevalence of various products of smokeless tobacco

The use of various smokeless products among adult men and women is presented in Table 4.28 and Figure 4.**. The two most commonly used smokeless tobacco products in India are *Khaini* -tobacco-lime mixture used by 11.2 percent of Indians (17.9% of men and 4.2% of women) and *gutka* -mixture of tobacco, lime and areca nut- used by 6.8 percent of adults (10.8% of men and 2.7% of women). About six percent (7.1% of men and 4.5% of women) of adults use betel quid with tobacco; and 3.8 percent (3.3% men and 4.3% women) use tobacco products such as *mishri, gul, gudakhu*for oral application. Besides these products, some other products such as snuff for inhalation, *paan masala* with tobacco and other tobacco products are used by a small proportion of adults. The prevalence of each of the smokeless tobacco products is higher among men compared to women. The only exception is oral tobacco which is used by a higher proportion of women than men.

Figure No. 4.12 – Percentage of current smokeless tobacco by various smoking products and gender, GATS India 2016-17

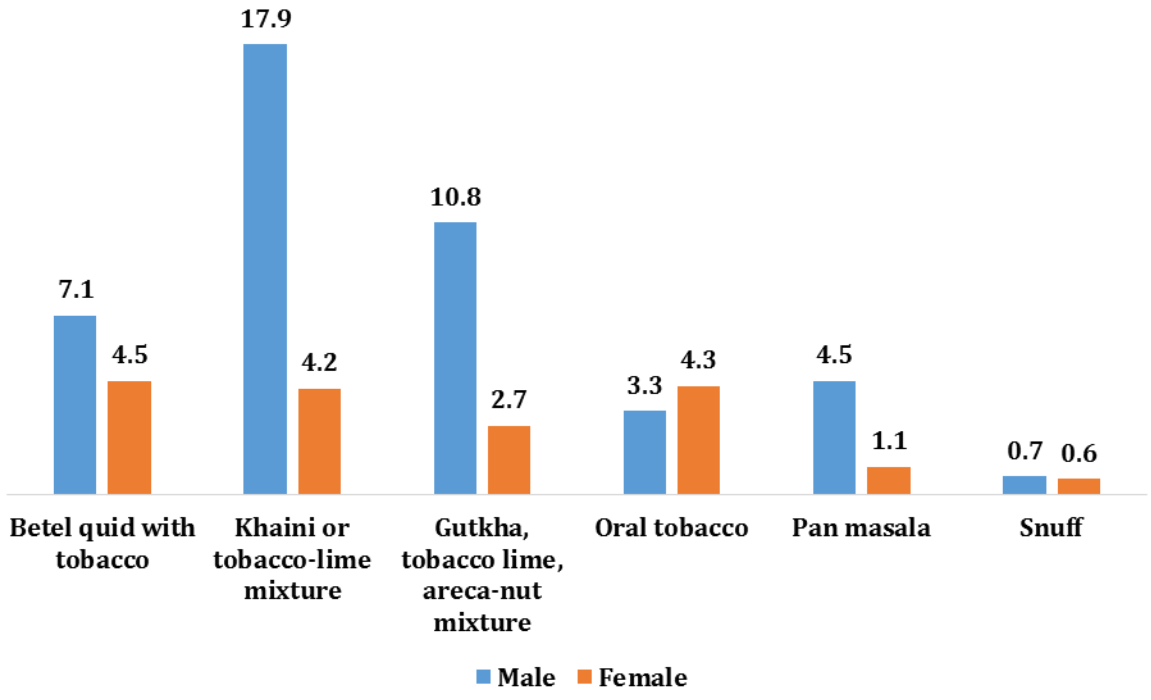


Figure No. 4.13 – Percentage of current smokeless tobacco users by various smoking products and residence, GATS India 2016-17

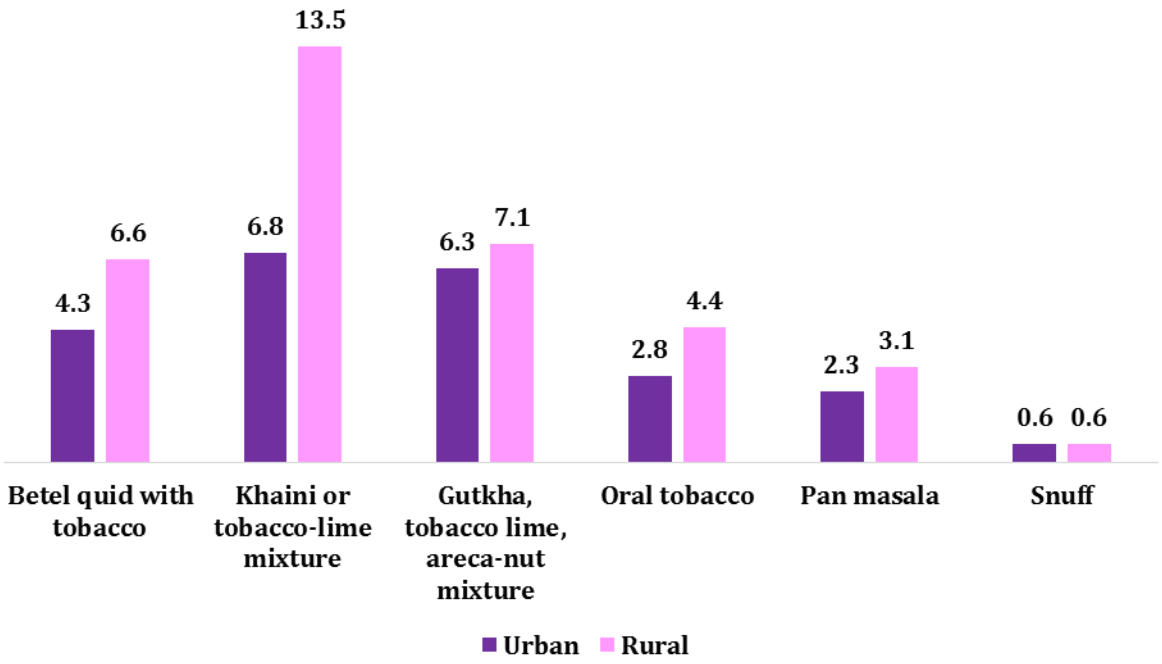


Figure No. 4.14 – Percentage of current smokeless tobacco users by background characteristics, GATS India 2016-17

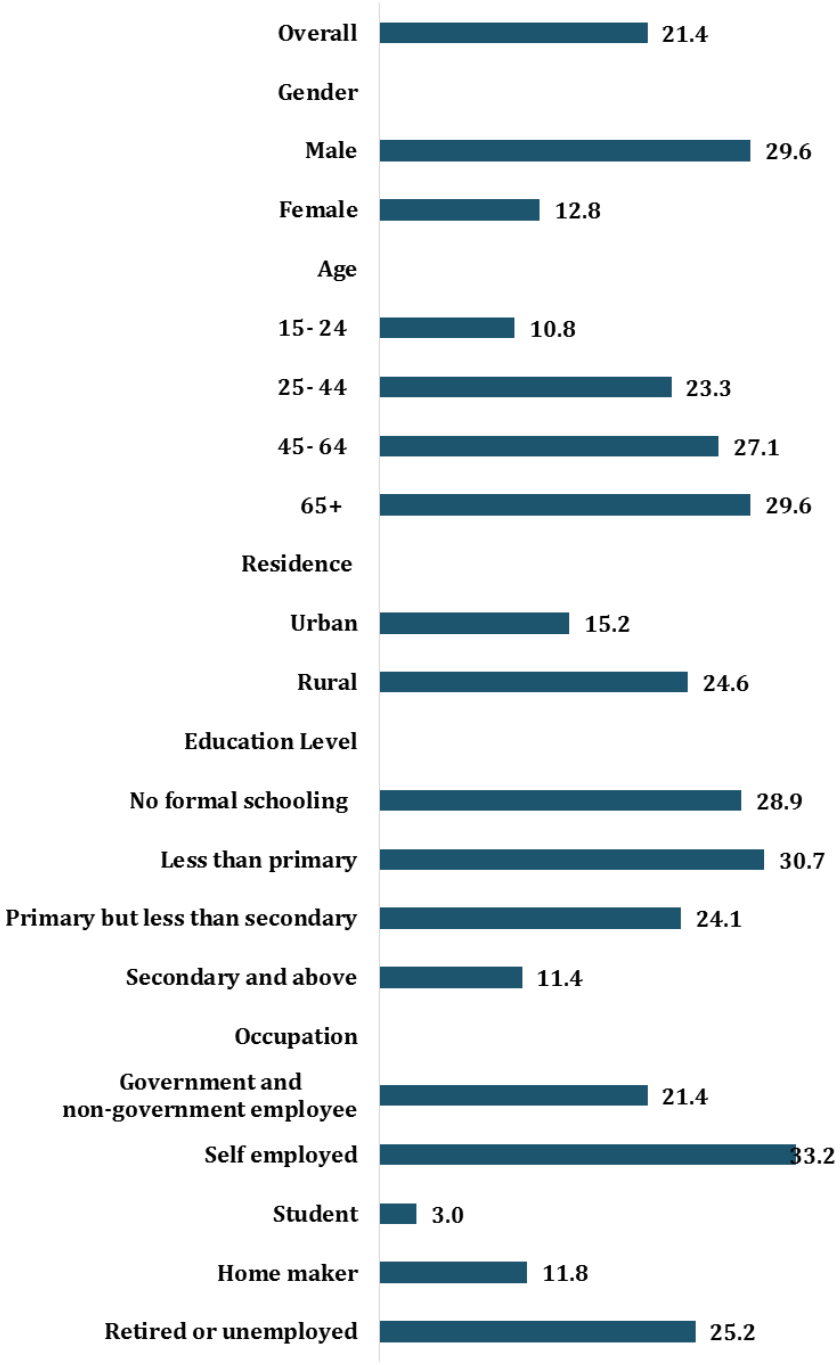


Table 4.28: Percentage of adults age 15 and above who are current users of various smokeless tobacco products by gender, according to background characteristics, GATS-2; India, 2016-17

Background characteristic	Any smokeless tobacco product	*Betel quid with tobacco*	*Khaini or tobacco-lime mixture*	*Gutka, tobacco lime, areca-nut mixture*	Oral tobacco	*Pan masala with tobacco*	Snuff	Other smokeless tobacco products
Overall	21.4	5.8	11.2	6.8	3.8	2.8	0.6	0.3
Age								
15- 24	10.8	2.3	4.4	5.3	1.5	2.2	0.2	0.2
25- 44	23.3	6.1	12.0	8.8	3.9	3.6	0.6	0.2
45- 64	27.1	8.0	15.4	5.8	5.8	2.6	1.0	0.4
65+	29.6	9.3	17.0	4.8	5.6	1.9	1.2	0.5
Residence								
Urban	15.2	4.3	6.8	6.3	2.8	2.3	0.6	0.2
Rural	24.6	6.6	13.5	7.1	4.4	3.1	0.6	0.3
Education Level								
No formal schooling	28.9	8.9	15.0	6.5	6.8	3.0	1.2	0.5
Less than primary	30.7	8.3	16.8	8.4	5.6	3.4	0.9	0.4
Primary but less than secondary	24.1	5.3	12.5	9.2	3.6	3.9	0.5	0.3
Secondary and above	11.4	3.2	5.9	4.8	1.4	1.8	0.2	0.1
Occupation								
Government and non-government employee	21.4	5.9	10.4	9.2	2.7	4.1	0.4	0.1
Self employed	33.2	8.4	19.3	11.1	5.0	4.5	0.9	0.4
Student	3.0	0.8	1.1	1.4	0.3	0.7	0.1	0.1
Home maker	11.8	4.1	3.8	2.7	4.0	1.1	0.5	0.3
Retired or unemployed	25.2	6.4	14.2	5.1	4.3	2.7	1.1	0.5
Male	29.6	7.1	17.9	10.8	3.3	4.5	0.7	0.3
Age								
15- 24	17.4	3.8	7.7	9.1	1.6	3.9	0.4	0.2
25- 44	35.0	8.5	20.4	14.7	3.9	6.0	0.7	0.3
45- 64	33.4	8.3	23.2	8.0	4.5	3.4	0.9	0.3
65+	32.8	7.2	24.4	4.4	2.9	2.0	1.0	0.5
Residence								
Urban	21.5	5.1	11.2	10.2	2.5	3.5	0.7	0.2
Rural	34.0	8.1	21.4	11.1	3.8	5.1	0.7	0.3
Education Level								
No formal schooling	42.0	10.7	29.1	10.8	5.8	5.5	1.3	0.3
Less than primary	42.7	10.0	26.6	13.1	5.2	5.2	1.1	0.5

Primary but less than secondary	35.4	7.3	20.5	14.3	3.7	6.2	0.7	0.3
Secondary and above	17.5	4.8	9.4	7.6	1.7	2.7	0.4	0.2
Occupation								
Government and non-government employee	24.7	6.7	12.3	11.1	2.6	4.8	0.4	0.1
Self employed	37.5	8.8	23.3	13.5	4.4	5.5	0.9	0.3
Student	4.4	1.2	1.8	2.1	0.4	0.9	0.1	0.1
Home maker	27.9	5.6	18.3	9.9	4.2	5.7	2.7	0.4
Retired or unemployed	26.6	5.3	18.1	5.7	2.4	2.8	0.6	0.5
Female	12.8	4.5	4.2	2.7	4.3	1.1	0.6	0.3
Age								
15- 24	3.6	0.6	0.7	1.1	1.4	0.3	0.0	0.1
25- 44	11.1	3.6	3.3	2.7	3.9	1.0	0.4	0.2
45- 64	20.6	7.6	7.3	3.6	7.1	1.8	1.1	0.4
65+	26.6	11.3	10.0	5.1	8.1	1.8	1.5	0.6
Residence								
Urban	8.6	3.3	2.2	2.2	3.1	1.0	0.6	0.2
Rural	14.9	5.1	5.2	3.0	5.0	1.1	0.6	0.3
Education Level								
No formal schooling	22.6	8.1	8.3	4.5	7.2	1.8	1.1	0.5
Less than primary	16.3	6.3	5.0	2.7	6.1	1.1	0.7	0.3
Primary but less than secondary	9.5	2.8	2.0	2.5	3.6	0.9	0.3	0.2
Secondary and above	2.4	0.9	0.6	0.6	0.9	0.4	0.0	0.0
Occupation								
Government and non-government employee	8.8	2.7	2.8	2.1	3.2	1.5	0.4	0.2
Self employed	20.6	7.1	7.7	4.0	6.8	1.3	1.0	0.4
Student	0.8	0.2	0.0	0.2	0.1	0.2	0.0	0.1
Home maker	11.6	4.1	3.6	2.6	4.0	1.0	0.4	0.3
Retired or unemployed	22.6	8.6	6.4	3.9	8.0	2.5	2.2	0.3

Though among all the adults and men *khaini* is the most commonly used smokeless tobacco product, among women prevalence of betel quid with tobacco, tobacco for oral application and *khaini i*s almost equal (4.2-4.5%). Among adolescents, particularly adolescent men prevalence of *gutka* is higher than that of *khaini.* In urban areas *khaini* (6.8%) and *gutka* (6.3%) are the most prevalent smokeless tobacco products, whereas in rural areas *khaini* (13.5%) is the most prevalent product.

The prevalence of smokeless tobacco increases with age from 10.8 percent among the adolescents (aged 15-24) to 29.6 percent among adults aged 65 or above. Similar to tobacco use, the prevalence of smokeless tobacco use decreases with education. Among all the categories of education level, *khaini* is the most prevalent smokeless tobacco products. Among all the categories of occupation, the prevalence of smokeless tobacco use was the highest among self employed adults. More than one-third of self employed men (37.6%) and 20.6 percent of self employed women currently use smokeless tobacco. Even 22.6 percent of retired/ unemployed women use smokeless tobacco. Among adults from all the employment categories, *khaini* is the most prevalent smokeless tobacco product; however there are some exceptions. Among Government and Non-Government employees, use of *gutka* is also quite prevalent. The prevalence of smokeless tobacco use among students is quite low, and among them also *gutka* is more in use. Home makers and retired/ unemployed women use of betel quid with tobacco and tobacco for oral application are more prevalent than *khaini*.

4.3.5 Number of users of various products of smokeless tobacco

Table 4.29 presents the number of users of different smokeless products in India. In the adult population of 932.5 million, 54.1 million adult Indians use betel quid with tobacco, 104.1 million use *khaini*, 63.6 million use *gutka*, 35.7 million use tobaccos for oral application and 26.5 million use *pan masala* with tobacco. The number of male users of every kind of smokeless tobacco products is higher than female users except for products for oral application. The number of users of all smokeless tobacco products in rural areas is higher than urban areas, partly because of the higher prevalence of smokeless tobacco use in rural areas and also because of the larger rural population.

These numbers of users of different products of smokeless tobacco reflect the volume of tobacco epidemic in India. In a few cases, the magnitude of prevalence may not give clear idea of the problem of tobacco use, but translated into number of users, the huge magnitude of the tobacco problem in India gives an idea of the volume of tobacco epidemic in India.

Table 4.29: Number of adults age 15 who are current users of various smokeless tobacco products, according to residence and gender, GATS-2; India, 2016-17

		Gender		Residence	
	Overall	**Male**	**Female**	**Urban**	**Rural**
		Numbers in thousands			
Current users of smokeless tobacco	199,388	141,183	58,206	49,050	150,338
Betel quid with tobacco	54,097	33,665	20,433	13,702	40,395
*Khaini*or tobacco lime mixture	104,081	85,100	18,981	21,904	82,178
Gutkha or tobacco lime, areca nut mixture	63,583	51,343	12,240	20,234	43,349
Oral tobacco	35,704	15,882	19,822	9,036	26,668
Pan masala	26,537	21,499	5,039	7,371	19,167
Snuff	5,838	3,247	2,591	2,064	3,774
Other smokeless tobacco products	2,564	1,312	1,253	601	1,964

4.3.6 Prevalence of various products of smokeless tobacco by state/UT

Table 4.30 presents state/ UT level variation in different smokeless tobacco products. There is large variation in the prevalence of use of the most common smokeless tobacco products across the states.

In majority of the states/ UTs *khaini* is the most prevalent smokeless tobacco product. However, in Manipur, Tripura, Meghalaya, Karnataka, Kerala, Tamil Nadu and Puducherry betel quid with tobacco is the most commonly used smokeless tobacco product. In Rajasthan, Madhya Pradesh, and Gujarat *gutka* is the most prevalent product. Tobacco for oral application is the most commonly used product in Chhattisgarh, Mozoram and Odisha whereas *pan masala* with tobacco is the most prevalent smokeless tobacco product in Nagaland.

Table 4.30: Percentage of adults age 15 and above who are current users of various smokeless tobacco products by state/ UTs, GATS-2, India, 2016-17

State/UT	Any smokeless tobacco product	*Betel quid with tobacco*	*Khaini or tobacco lime mixture*	*Gutkha, tobacco lime, areca nut mixture*	*Oral tobacco*	Pan masala	Snuff	Other smokeless tobacco
India	21.4	5.8	11.2	6.8	3.8	2.8	0.6	0.3
Jammu & Kashmir	4.3	0.8	2.3	0.4	0.7	0.2	0.4	0.4
Himachal Pradesh	3.1	0.0	2.6	0.5	0.0	0.1	0.1	0.2
Punjab	8.0	0.4	5.2	2.3	0.5	0.2	0.0	0.0
Chandigarh	6.1	0.9	4.8	1.0	0.9	0.4	0.0	0.0
Uttarakhand	12.4	2.7	8.0	2.2	0.2	3.1	0.0	0.0
Haryana	6.3	1.1	3.2	2.5	0.3	0.4	0.1	0.0
Delhi	8.8	2.6	4.9	3.0	1.6	1.3	0.4	0.1
Rajasthan	14.1	4.0	8.2	9.0	4.7	4.6	3.2	0.2
Uttar Pradesh	29.4	10.2	15.9	11.5	4.3	7.2	0.1	0.0
Chhattisgarh	36.0	2.0	16.1	7.8	19.7	1.8	0.0	0.4
Madhya Pradesh	28.1	4.1	11.7	13.7	3.8	4.4	0.6	0.3
West Bengal	20.1	6.4	10.8	2.9	4.9	2.2	0.2	0.1
Jharkhand	35.4	4.9	26.6	8.3	4.5	1.1	0.2	1.7
Odisha	42.9	8.6	16.9	9.4	14.9	8.6	0.2	1.5
Bihar	23.5	3.4	20.4	3.7	1.6	1.4	0.7	0.0
Sikkim	9.7	2.6	8.7	1.2	0.1	0.5	0.0	0.1
Arunachal Pradesh	39.3	14.9	22.9	18.9	4.0	4.7	0.7	0.2
Nagaland	39.0	17.5	10.1	9.4	5.1	21.1	0.2	0.1
Manipur	47.7	38.6	17.5	2.7	2.2	4.2	0.6	1.8
Mizoram	33.5	4.3	11.1	4.0	21.6	0.8	0.1	3.1
Tripura	48.5	39.5	9.3	2.5	0.4	10.4	0.4	0.5
Meghalaya	20.3	12.0	7.7	2.4	6.0	2.5	1.5	2.2
Assam	41.7	19.0	23.1	8.2	1.1	2.9	0.2	0.0
Gujarat	19.2	1.1	3.3	12.8	3.0	1.4	1.4	0.9
Maharashtra	24.4	3.7	15.5	8.6	5.0	1.7	0.8	0.2
Goa	6.5	2.7	4.1	2.6	0.4	1.3	0.2	0.4
Andhra Pradesh	7.1	2.4	4.5	1.9	1.7	0.2	0.1	0.0

Telangana	10.1	3.9	5.2	2.9	3.1	1.1	0.5	0.3
Karnataka	16.3	9.4	3.3	5.9	1.3	0.7	0.5	0.5
Kerala	5.4	4.4	0.7	0.7	0.3	0.4	0.5	0.1
Tamil Nadu	10.6	6.0	2.4	0.7	1.6	0.1	1.2	0.0
Puducherry	4.7	3.4	1.2	0.7	0.2	0.1	0.2	0.1

The prevalence of certain smokeless products in some of the states is very high. For example, in Jharkhand (44.3%), Bihar (37.3%), Assam (37.3%) and Arunachal Pradesh (34.0%) more than one-third of men use khaini. In Tripura (26.4% of men and 53.0% of women) and Manipur (37.5% of men and 39.8% of women) betel quid with tobacco is widely used. In Mizoram (32.6%) and Chhattisgarh (19.1%) tobacco for oral application is widely used by women.

4.3.7. 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 4.31. The age pattern of initiation of smokeless tobacco use is quite similar to that of smoking tobacco use: 12 percent of daily users of smokeless tobacco have started using tobacco on a daily basis by the age of 15, 24 percent started when in the age group 15–17, 20 percent at age 18–19 and the remaining 44 percent started after they had crossed 20. More than one-third (36%) of daily users of smokeless tobacco age 20–34 started daily use of smokeless tobacco before the age of 18, i.e., when they were minor. The mean age of initiation of use of smokeless tobacco is 18.8 years, almost the same as for initiation of smoking. Male daily users of smokeless tobacco started tobacco use at a younger age compared to their female counterparts. The mean age of initiation for males is 18.7 compared to 19.2 for females. The mean age of initiation of smokeless tobacco use is almost same in both urban and rural areas. Age at initiation of smokeless tobacco use bears an inverse relationship with education level of the user. The proportion of daily users of smokeless tobacco who initiated its use before age 18 years decreased from 41 percent among those users with no formal education to 28 percent among those with secondary or more education; and the mean age at initiation increased from 18.4 years among those users with no formal education to 19.5 years among those with secondary or more education.

Table 4.31: 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, 2016-2017

	Age at smokeless tobacco initiation					Mean
Background characteristic	**<15**	**15 - 17**	**18 – 19**	**20-34**	**Total**	**age**
Overall	12.1	24.1	19.6	44.2	100	18.8
Gender						
Male	11.1	25.0	20.5	43.4	100	18.7
Female	16.8	20.0	15.3	47.9	100	19.2
Residence						
Urban	12.4	25.8	14.3	47.5	100	18.9
Rural	12.0	23.6	21.2	43.2	100	18.8
Education level						

No formal schooling	17.3	24.0	16.9	41.8	100	18.4
Less than primary	12.8	27.3	20.4	39.4	100	18.4
Primary but less than secondary	13.0	23.9	20.0	43.1	100	18.7
Secondary and above	5.3	23.0	20.8	50.9	100	19.5
Occupation						
Government and non-government employee	13.6	24.5	16.9	45.0	100	18.8
Self employed	11.3	24.3	21.1	43.4	100	18.8
Student	14.5	33.3	15.1	37.2	100	17.5
Home maker	12.8	21.4	17.5	48.4	100	19.4
Retired or unemployed	18.5	22.5	11.3	47.6	100	18.3

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

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, only 1.2 percent of all adults who were using smokeless tobacco every day have stopped its use completely (Table 4.32). 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 smokeless tobacco-users – are more relevant to understand the extent of success achieved by daily tobacco users in quitting.

In comparison to the quit ratio for smoking (16.8%) the quit ratio for the smokeless tobacco use is very low: 5.8 percent of daily smokeless tobacco users successfully stopped the use of smokeless tobacco. In other words, in comparison with smokers very few users of smokeless tobacco could quit such use. The quit ratios of smokeless tobacco use is little higher for women (7.0%) than men (5.2%) and in urban (7.1%) than rural areas (5.3%). The quit ratio increases with age from 4.4 percent among users aged 15-24 to 10.7 among older persons age 65 and above. Quit ratio is comparatively high among adults with secondary and above education and among retired/ unemployed adults and those employed with Government and Non-Government organizations.

Table 4.32: 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-2, India, 2016-2017

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	5.8
Age		
15- 24	0.4	4.4
25- 44	1.1	4.9
45- 64	1.4	5.4
65+	3.3	10.7
Gender		
Male	1.4	5.2
Female	0.9	7.0
Residence		
Urban	1.0	7.1
Rural	1.2	5.3
Education level		
No formal schooling	1.6	5.6
Less than primary	1.5	5.1
Primary but less than secondary	1.3	5.6
Secondary and above	0.7	6.8
Occupation		
Government and non-government employee	1.4	7.0
Self employed	1.4	4.5
Student	0.1	6.2
Home maker	0.9	7.3
Retired or unemployed	2.7	10.5

Note: [1] Includes current non- users of smokeless tobacco.

[2] Also known as quit ratio for daily use of smokeless tobacco.

4.3.9 Time since quitting use of smokeless tobacco

The duration for which smokeless tobacco users could abstain 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 4.33 shows the percent distribution of former daily users (current non-users) of smokeless tobacco by years since quitting smokeless tobacco. One in five quitters have stayed away from smokeless tobacco for the period of one year, 33 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, majority of smokeless tobacco users have stopped using tobacco only for the five years. The differentials in proportion of quitters who have abstained from smokeless tobacco use for 10 or more years by gender or residence are almost non-existent. Almost equal proportion of both men (29%) and women (27%) and users from urban (28%) and rural areas (28%) who were former daily users of smokeless tobacco have abstained from tobacco use for more than 10 years. The proportion of quitters who have abstained from smokeless tobacco use for 10 or more years decreases with education level. A larger proportion of retired/ unemployed adults have (39%)abstained from smokeless tobacco use for 10 or more years.

Table 4.33: 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-2, India, 2016-2017

	Time since quitting smokeless tobacco (in years)				
Background characteristic	**<1**	**1 – 4**	**5 - 9**	**10+**	**Total**
Overall	20.5	33.2	18.4	27.9	100
Gender					
Male	20.0	32.3	19.2	28.5	100
Female	21.4	34.7	16.9	27.0	100
Residence					
Urban	27.5	26.0	18.7	27.8	100
Rural	17.5	36.2	18.2	28.0	100
Education level					
No formal schooling	14.8	35.9	16.2	33.0	100
Less than primary	37.7	21.4	14.3	26.6	100
Primary but less than secondary	24.1	32.6	17.3	26.0	100
Secondary and above	15.7	35.7	25.6	23.0	100
Occupation					
Government and non-government employee	26.9	29.5	16.2	27.4	100
Self employed	22.2	35.7	19.2	23.0	100
Student	40.7*	59.3*	0.0*	0.0*	100
Home maker	17.7	32.3	17.0	33.0	100
Retired or unemployed	12.6	27.4	20.8	39.2	100

Note: *Based on less than 25 unweighted cases

4.4 CHANGESIN THE PREVALENCE OF TOBACCO USE BETWEEN GATS 1 AND GATS 2.

GATS 2 was implemented nine years after India launched the National Tobacco Control Program (NTCP) in 2007-08. The NTCP aimed at increasing awareness of the ill effects of tobacco use, raise awareness about laws pertaining to control of tobacco and help the tobacco users in quitting tobacco by providing cessation services. The comparison in all the indicators related to tobacco use in 2009-10 from GATS 1 and in 2016-17 in GATS 2 can give some idea about the extent of effectiveness of the NTCP measures.

4.4.1. Change in Prevalence of Tobacco Use: Smoking and Smokeless& by frequency of use

Table 4.34 presents the comparison of prevalence of current tobacco use, tobacco smoking and use of smokeless tobacco from GATS 1 and GATS 2, separately for all adults, men, women, adults in urban and rural areas. Prevalence of tobacco use has decreased from 34.6 percent in GATS 1 to 28.6 percent in GATS 2. The relative reduction in the prevalence of tobacco use is 17.3 percent and is statistically significant. Both, the prevalence of daily tobacco use and occasional use have decreased significantly by 14.4 percent and 31.5 percent respectively. The magnitude of relative decrease in the occasional tobacco use is higher than the relative decrease in the daily tobacco use; however as the occasional tobacco users account for less than one-fifth of total tobacco use, the higher decrease in the occasional use could not result into sizeable drop in the tobacco use.

Figure No. 4.15 – Change in prevalence of tobacco use by gender and residence, GATS India, 2009-10 and 2016-17

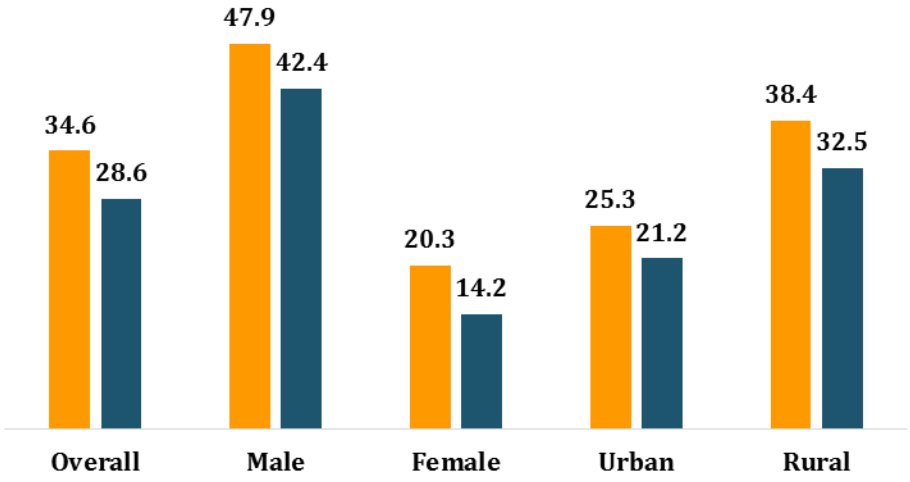


Figure No. 4.16 – Change in prevalence of smoking tobacco by gender and residence, GATS India, 2009-10 and 2016-17

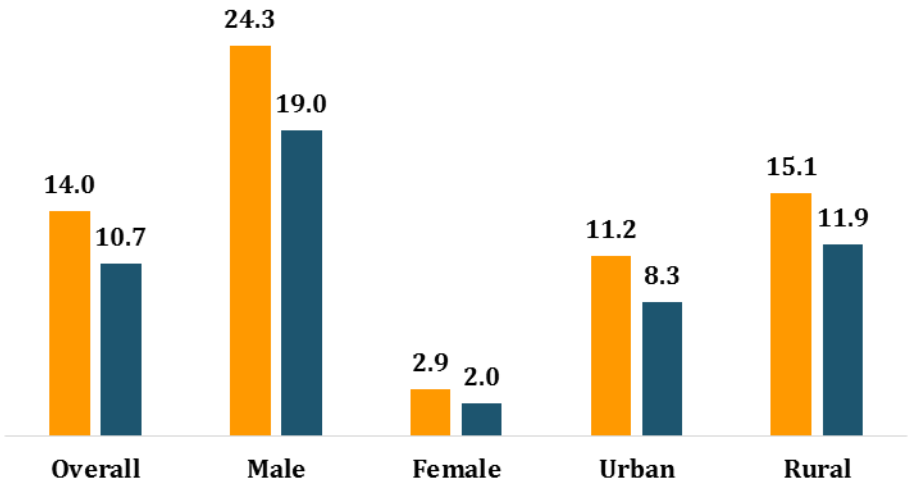
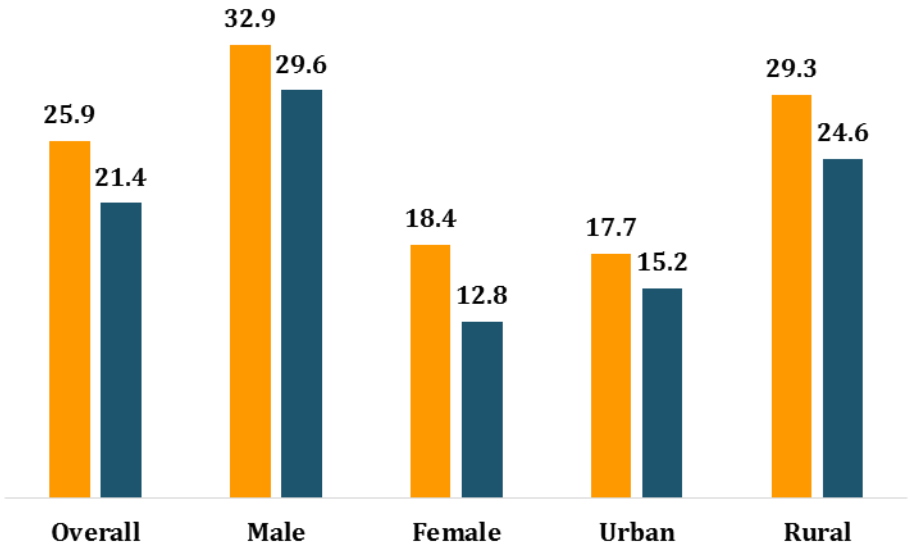


Figure No. 4.17 – Change in prevalence of smokeless tobacco by gender and residence, GATS India, 2009-10 and 2016-17



The relative decrease in the prevalence of tobacco use among women –both daily and occasional tobacco use-is much higher than the relative decrease in corresponding tobacco use among men. The magnitude of relative decrease in current tobacco use in urban and rural areas is almost equal.

The decrease in all the three indicators of tobacco use, current use (total), daily use and occasional use among men and women and in urban and rural areas is statistically significant.

Similar to the decrease in the prevalence of tobacco use, there has been decrease in the prevalence of tobacco smoking from 14.0 percent in 2009-10 (GATS 1) to 10.7 percent in 2016-17 (GATS 2); the magnitude of relative decrease in the prevalence of smoking is 23.6 percent and is statistically significant. The decrease in both, the prevalence of daily smoking (19.6%) and occasional smoking (36.4%) is statistically significant. In comparison to men, the relative reduction in the prevalence of smoking among women is larger. However, the prevalence of smoking among women even in GATS 1 was quite low. The relative decrease in the prevalence of smoking among adults in urban areas is little larger than that in rural areas. Though, the relative reduction in the prevalence of smoking- overall, daily and occasional- among men and women as well as in urban and rural areas was of varying magnitude; reduction in all is statistically significant.

The prevalence of smokeless tobacco use has decreased significantly by 17.4 percent from 25.9 percent in 2009-10 (GATS 1) to 21.4 percent in 2016-17 in GATS 2. The relative decrease in the smokeless tobacco use-daily use as well as occasional use is of lower magnitude in comparison to the corresponding decrease in the prevalence of smoking tobacco. Among women, the prevalence of smokeless tobacco use has decreased by a higher magnitude (30.4%) as compared to the decrease in the prevalence among men (10.0%). Similar to the prevalence of smoking, the relative reduction in the prevalence of smokeless tobacco use- overall, daily and occasional- among men and women as well as in urban and rural areas though was of varying magnitude; it was statistically significant.

Table 4.34: Change in the prevalence of tobacco use,GATS India, 2009-10 and 2016-17

	Tobacco use			Tobacco smokers			Smokeless tobacco users		
	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change
Overall									
Current user	34.6	28.6	-17.3**	14.0	10.7	-23.6**	25.9	21.4	-17.4**
Daily user	29.1	24.9	-14.4**	10.7	8.6	-19.6**	21.4	18.2	-15.0**
Occasional user	5.4	3.7	-31.5**	3.3	2.1	-36.4**	4.5	3.1	-31.1**
Men									
Current user	47.9	42.4	-11.5**	24.3	19	-21.8**	32.9	29.6	-10.0**
Daily user	40.8	36.9	-9.6**	18.3	15.2	-16.9**	27.4	25.1	-8.4**
Occasional user	7.1	5.5	-22.5**	5.9	3.8	-35.6**	5.4	4.5	-16.7**
Women									
Current user	20.3	14.2	-30.0**	2.9	2.0	-31.0**	18.4	12.8	-30.4**
Daily user	16.7	12.4	-25.7**	2.4	1.7	-29.2**	14.9	11.1	-25.5**
Occasional user	3.5	1.8	-48.6**	0.5	0.3	-40.0**	3.5	1.7	-51.4**
Urban									

Current user	25.3	21.2	-16.2**	11.2	8.3	-25.9**	17.7	15.2	-14.1**
Daily user	21.1	17.9	-15.2**	8.4	6.3	-25.0**	14.7	12.8	-12.9**
Occasional user	4.2	3.3	-21.4**	2.8	1.9	-32.1**	3	2.5	-16.7**
Rural									
Current user	38.4	32.5	-15.4**	15.1	11.9	-21.2**	29.3	24.6	-16.0**
Daily user	32.5	28.6	-12.0**	11.6	9.8	-15.5**	24.2	21.1	-12.8**
Occasional user	5.9	3.9	-33.9**	3.5	2.2	-37.1**	5.1	3.5	-31.4**

Figure No. 4.18 – Change in prevalence of tobacco use by age group, GATS India, 2009-10 and 2016-17

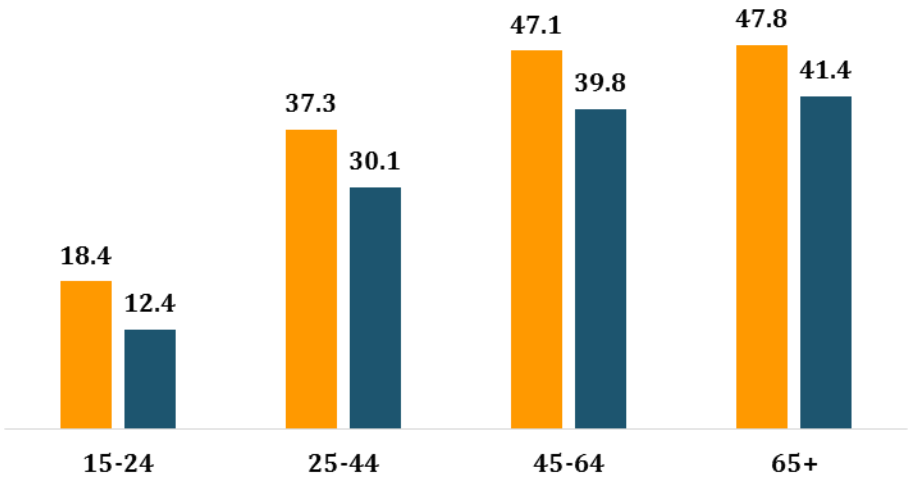


Figure No. 4.19 – Change in prevalence of smoking tobacco by age group, GATS India, 2009-10 and 2016-17

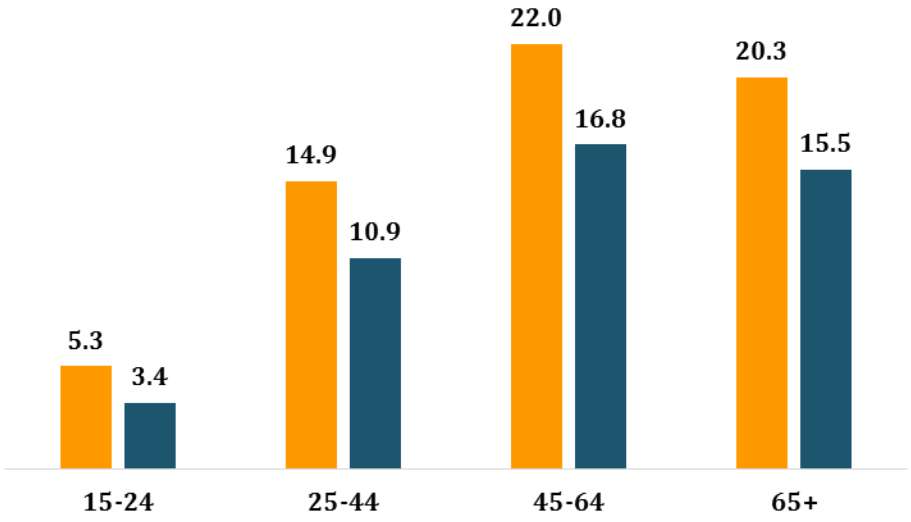
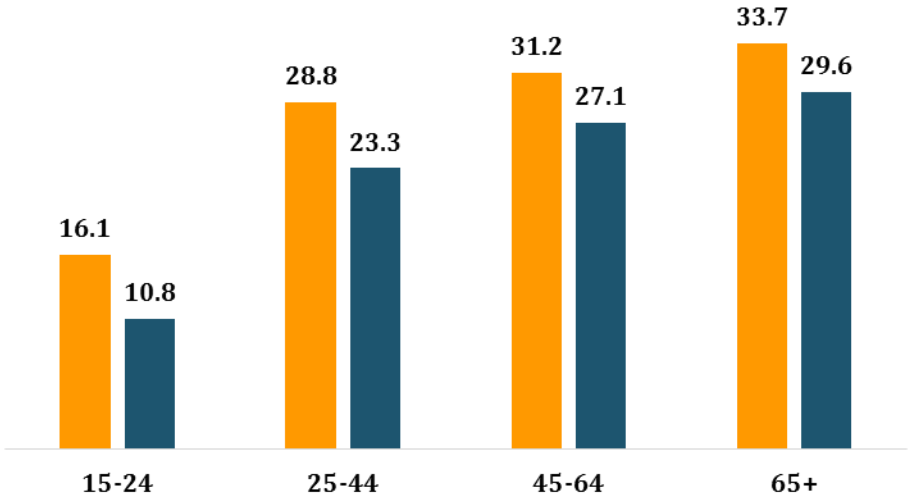


Figure No. 4.20 – Change in prevalence of smokeless tobacco by age group, GATS India, 2009-10 and 2016-17



The relative reduction in the prevalence of all the three-tobacco use, smoking, smokeless tobacco use- for all adults, men and women by age-group and residence is presented in Table 4.35 . The salient findings reflected in the table are:

- Though, among persons from all the four age-groups there was significant decrease in all the three prevalence indicators-tobacco use, tobacco smoking and smokeless tobacco use, the decrease in the prevalence among adolescents aged 15-24 was of larger magnitude in comparison to their older counterparts. Decrease in the tobacco use of all the forms among young people is quite encouraging for tobacco control program.
- Among both men and women classified by age-group and residence, there was a significant decrease in all the three prevalence indicators-tobacco use, tobacco smoking and smokeless tobacco use. The exceptions are; prevalence of smoking among women aged 15-24 and among men aged 45-64 and 65 and above. In the prevalence of smoking among women aged 15-24 and among men aged 45-64 and 65 and above though there was a decrease it was not statistically significant.

Table 4.35: Change in the prevalence of tobacco use, according to background characteristics, GATS India, 2009-10 and 2016-17

	Tobacco use			Tobacco smokers			Smokeless tobacco users		
Background characteristics	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**
Overall	34.6	28.6	-17.3**	14.0	10.7	-23.6**	25.9	21.4	-17.4**
Residence									
Urban	25.3	21.2	-16.2**	11.2	8.3	-25.9**	17.7	15.2	-14.1**
Rural	38.4	32.5	-15.4**	15.1	11.9	-21.2**	29.3	24.6	-16.0**
Age (years)									
15-24	18.4	12.4	-32.6**	5.3	3.4	-35.8**	16.1	10.8	-32.9**
25-44	37.3	30.1	-19.3**	14.9	10.9	-26.8**	28.8	23.3	-19.1**
45-64	47.1	39.8	-15.5**	22.0	16.8	-23.6**	31.2	27.1	-13.1**
65+	47.8	41.4	-13.4**	20.3	15.5	-23.6**	33.7	29.6	-12.2**
Men	47.9	42.4	-11.5**	24.3	19.0	-21.8**	32.9	29.6	-10.0**
Residence									
Urban	37.5	32.6	-13.1**	20.4	15.4	-24.5**	23.6	21.5	-8.9**
Rural	52.3	47.6	-9.0**	25.9	21.0	-18.9**	36.8	34.0	-7.6**
Age (years)									
15-24	27.4	20.3	-25.9**	9.7	6.3	-35.1**	23.1	17.4	-24.7**
25-44	54.6	47.6	-12.8**	27.0	20.2	-25.2**	39.3	35.0	-10.9**
45-64	61.1	55.7	-8.8**	37.4	29.5	-21.1**	33.8	33.4	-1.2
65+	55.7	52.6	-5.6*	31.0	26.0	-16.1**	33.6	32.8	-2.4
Women	20.3	14.2	-30.0**	2.9	2.0	-31.0**	18.4	12.8	-30.4**

Residence									
Urban	11.8	9.0	-23.7**	1.1	0.7	-36.4**	11.1	8.6	-22.5**
Rural	23.7	16.9	-28.7**	3.7	2.6	-29.7**	21.3	14.9	-30.0**
Age (years)									
15-24	8.3	3.7	-55.4**	0.3	0.2	-33.3	8.2	3.6	-56.1**
25-44	19.0	12.0	-36.8**	2.1	1.3	-38.1**	17.6	11.1	-36.9**
45-64	32.1	23.5	-26.8**	5.7	3.7	-35.1**	28.4	20.6	-27.5**
65+	40.2	31.0	-22.9**	9.9	5.7	-42.4**	33.9	26.6	-21.5**

4.4.2. Change in Prevalence of Tobacco Use: Across the states:

Though, national level data shows significant decrease in all the indicators of different forms of tobacco use, so was not the case in all the states and UTs. Table 4.36gives the prevalence of all the three-tobacco use, smoking, smokeless tobacco use- and relative reduction in them for all the states and UTs in India. The highlights of the table are:

- From GATS 1 to GATS 2, in three states of India- Tripura, Assam and Tamil Nadu- prevalence of tobacco use has increased and the increase is statistically significant.
- In all the remaining states/ UTs, tobacco use has either decreased significantly or remained practically unchanged.
- In all the 30 states and two UTs surveyed, prevalence of smoking has either decreased significantly or remained practically unchanged.
- In none of the state/ UT prevalence of smoking has increased significantly.
- In six states - Punjab, Uttar Pradesh, Tripura, Assam, Goa, and Tamil Nadu- prevalence of smokeless tobacco use has increased and the increase is statistically significant.
- In all the remaining states/ UTs, smokeless tobacco use has either decreased significantly or remained practically unchanged.
- In three states-Bihar, Sikkim and Kerala- the relative decrease in the prevalence of tobacco use was more than 40 percent and was statistically significantly.

Table 4.36: Change in the prevalence of tobacco use, by states/UTs,, GATS India, 2009-10 and 2016-17

	Tobacco use			Tobacco smokers			Smokeless tobacco users		
State/UTs	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**
India	34.6	28.6	-17.3**	14.0	10.7	-23.6**	25.9	21.4	-17.4**
Jammu & Kashmir	26.6	23.7	-10.9*	21.9	20.8	-5.0	7.6	4.3	-43.4**
Himachal Pradesh	21.2	16.1	-24.1**	18.3	14.2	-22.4**	4.5	3.1	-31.1*
Punjab	11.7	13.4	14.5	6.9	7.3	5.8	6.5	8.0	23.1*
Chandigarh	14.3	13.7	-4.2	11.0	9.4	-14.5	5.4	6.1	13.0
Uttarakhand	30.7	26.5	-13.7**	22.1	18.1	-18.1**	11.6	12.4	6.9

Haryana	23.7	23.6	-0.4	19.6	19.7	0.5	6.4	6.3	-1.6
Delhi	24.3	17.8	-26.7**	17.4	11.3	-35.1**	10.5	8.8	-16.2
Rajasthan	32.3	24.7	-23.5**	18.8	13.2	-29.8**	18.9	14.1	-25.4**
Uttar Pradesh	33.9	35.5	4.7	14.9	13.5	-9.4	25.3	29.4	16.2**
Chhattisgarh	53.2	39.1	-26.5**	12.6	5.5	-56.3**	47.2	36.0	-23.7**
Madhya Pradesh	39.5	34.2	-13.4**	16.9	10.2	-39.6**	31.4	28.1	-10.5*
West Bengal	36.3	33.5	-7.7*	21.3	16.7	-21.6**	21.9	20.1	-8.2
Jharkhand	50.1	38.9	-22.4**	9.6	11.1	15.6	47.9	35.4	-26.1**
Odisha	46.2	45.6	-1.3	10.3	7.0	-32.0**	43.1	42.9	-0.5
Bihar	53.5	25.9	-51.6**	14.2	5.1	-64.1**	48.7	23.5	-51.7**
Sikkim	41.6	17.9	-57.0**	26.4	10.9	-58.7**	25.6	9.7	-62.1**
Arunachal Pradesh	47.7	45.5	-4.6	29.4	22.7	-22.8**	36.2	39.3	8.6
Nagaland	56.8	43.3	-23.8**	31.5	13.2	-58.1**	45.3	39.0	-13.9**
Manipur	54.1	55.1	1.8	25.7	20.9	-18.7**	44.5	47.7	7.2
Mizoram	67.2	58.7	-12.6**	39.7	34.4	-13.4**	40.7	33.5	-17.7**
Tripura	55.9	64.5	15.4**	27.3	27.7	1.5	41.4	48.5	17.1**
Meghalaya	55.2	47.0	-14.9**	35.7	31.6	-11.5*	28.2	20.3	-28.0**
Assam	39.3	48.2	22.6**	14.4	13.3	-7.6	32.7	41.7	27.5**
Gujarat	29.4	25.1	-14.6**	11.0	7.7	-30.0**	21.6	19.2	-11.1*
Maharashtra	31.4	26.6	-15.3**	6.6	3.8	-42.4**	27.6	24.4	-11.6**
Goa	8.8	9.7	10.2	4.8	4.2	-12.5	4.6	6.5	41.3*
Karnataka	28.2	22.8	-19.1*	11.9	8.8	-26.1**	19.4	16.3	-16.0**
Kerala	21.4	12.7	-40.7*	13.4	9.3	-30.6**	10.7	5.4	-49.5**
Tamil Nadu	16.2	20.0	23.5*	9.6	10.5	9.4	8.1	10.6	30.9**
Puducherry	15.1	11.2	-25.8*	10.3	7.2	-30.1**	6.1	4.7	-23.0*

All the states/ UTs are categorized in the following table according to the change in prevalence of tobacco use, smoking and smokeless tobacco use.

Table 4.37 Categorization of states/ UTs * according to significance and magnitude of relative change in the prevalence of tobacco use, smoking and smokeless tobacco use between GATS 1 and GATS 2.

Change from 2009-10 (GATS 1) to 2016-17 (GATS 2)	Tobacco use	Smoking	Smokeless tobacco use
No	Punjab, Chandigarh, Haryana,	Jammu & Kashmir, Punjab,	Chandigarh,

significant change	Uttar Pradesh, Odisha, Arunachal Pradesh, Manipur, Goa	Chandigarh, Haryana, Uttar Pradesh, Jharkhand, Tripura, Assam, Goa, Tamil Nadu	Uttarakhand, Haryana, Delhi, West Bengal, Odisha, Arunachal Pradesh, Manipur
Significant increase	Tripura, Assam, Tamil Nadu		Punjab, Uttar Pradesh, Tripura, Assam, Goa, Tamil Nadu
Significant decrease Relative decrease <=20 %	Jammu & Kashmir, Uttarakhand, Madhya Pradesh, West Bengal, , Mizoram, Meghalaya, Gujarat, Maharashtra, Karnataka	Uttarakhand, Manipur, Mizoram, Meghalaya	Madhya Pradesh, Nagaland, Mizoram, Gujarat, Maharashtra, Karnataka
Significant decrease Relative decrease > 20% and <=40 %	Himachal Pradesh, Delhi, Rajasthan,Chhattisgarh,Nagaland, Jharkhand, Puducherry	Himachal Pradesh, , Delhi, Rajasthan,Madhya Pradesh, West Bengal, Odisha, Arunachal Pradesh, Gujarat,Karnataka, Kerala, Puducherry	Himachal Pradesh, Rajasthan,Chhattisgarh, Jharkhand, Meghalaya,Puducherry
Significant decrease Relative decrease > 40%	Bihar,Sikkim, Kerala	Chhattisgarh,Bihar, Sikkim,Nagaland,Maharashtra,	Jammu & Kashmir, Bihar,Sikkim,Kerala

* States in which prevalence of all the three-tobacco use, tobacco smoking, smokeless tobacco use- has decreased and the decrease is statistically significant, are shown in yellow highlight.

4.4.3 Change in the number of cigarettes and *bidis* smoked per day… between GATS 1 and GATS 2:

Besides the prevalence of tobacco use, o**ne** more important dimensionof tobacco use is the intensity of use measured here by the number of cigarettes and bidis smoked by a daily cigarette and bidi smokers respectively. The change in the number of cigarettes and bidis smoked by a daily smokers of these products is shown in Table 4.38.

The average number of cigarettes smoked per day by a daily cigarette smoker has increased from 6.2 in GATS 1 to 6.8 in GATS 2. This increase of 0.6 cigarettes per day (relative decrease of 9.7%) is not statistically significant. The average number of cigarettes smoked per day by female daily cigarette

smokers (1.8 cigarettes) and cigarette smokers from urban areas (0.1 cigarette) has decreased during GATS 1 to GATS 2, and it has increased among cigarette smokers from rural areas (1.1 cigarettes); however these changes are not statistically significant. There is an increase in the average number of cigarettes smoked per day by a male cigarette smokers of the order of 0.9 cigarettes, which is significant at five percent level of significance.

Table 4.38: Change in the number of cigarettes and bidi smoked on an average per day, according to background characteristics, GATS India, 2009-10 and 2016-17

	Average number of cigarettes smoked per day by daily cigarette smoker			Average number of *bidis* smoked per day by daily *bidi* smoker		
	2009-10	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**
Overall	6.2	6.8	9.7	11.6	15.1	30.2**
Gender						
Male	6.1	7.0	14.8*	12.2	15.6	27.9**
Female	7.0	5.2	-25.7	6.5	7.8	20.0
Residence						
Urban	6.4	6.3	-1.6	11.7	14.3	22.2
Rural	6.1	7.2	18.0	11.6	15.3	31.9**

Between GATS 1 and GATS 2, the average number of bidis smoked per day by a daily bidi smokers has increased by 3.5 bidis (relative increase of 30.2%). The increase is statistically significant at one percent level of significance. There has been an increase in the average number of bidis smoked per day by both male and female bidi smokers and bidi smokers from both urban and rural areas. However, the increase in the average number of bidis smoked per day by a male cigarette smoker and smoker from rural areas is statistically significant.

4.4.4. Change in the age at initiation of smoking and smokeless tobacco use …between GATS 1 and GATS 2:

The table comparing tobacco prevalence from GATS 1 and GATS 2 has already shown the large and significant decrease in the prevalence of smoking and smokeless tobacco use among minors aged 15-17. The other side of this finding is an increase in the age at the initiation of tobacco use. Table 4.39 presents comparison in the average age at initiation of daily smoking/ smokeless tobacco use among daily smokers/ smokeless tobacco users aged 20-34.

The table shows an increase of one year in the average age from 17.9 years in GATS 1 to 18.9 years in GATS 2; and the increase is statistically significant. There is an increase in the average age of initiation of daily smoking among male and female smokers as well as smokers from both urban and rural areas. Except the increase in the average age of initiation of daily smoking among smokers from urban areas, increase in all others is statistically significant.

Table 4.39: Change in the age at initiation of daily tobacco use(among daily smokers and smokeless tobacco users aged 20-34), according to background characteristics, GATS India, 2009-10 and 2016-17

	Average age at initiation of daily smoking (for smoker aged 20-34)			Average age at initiation of daily smokeless tobacco use (for daily smokeless tobacco users aged 20-34)		
	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change
Overall	17.9	18.9	5.6**	17.9	18.8	5.0**
Gender						
Male	18.1	18.8	3.9*	18.2	18.7	2.7*
Female	14.7	21.2	44.2**	17.1	19.2	12.3**
Residence						
Urban	18.5	19.0	2.7	18.3	18.9	3.3
Rural	17.7	18.8	6.2**	17.8	18.8	5.6**

The average age at initiation of daily smokeless tobacco use among daily smokeless tobacco users aged 20-34 has increased from 17.9 years in GATS 1 to 18.8 years in GATS 2. The increase of one year in the age at initiation of daily smokeless tobacco use, during GATS 1 to GATS 2, is statistically significant. Similar to the age at initiation of daily smoking, there is an increase in the average age of initiation of daily smokeless tobacco use among male and female smokeless tobacco users as well as users from both urban and rural areas. Except the increase in the average age of initiation of daily smokeless tobacco use in urban areas, increase in all others is statistically significant.

CHAPTER FIVE

TOBACCO CESSATION

Tobacco consumption both in the smoked form and as smokeless tobacco is addictive. It is now well recognized that a significant number of tobacco users would like to quit, but given the state of chronic dependence they are in, quitting is not easy. Yet it is also recognized that deaths and disease due to tobacco use can be reduced significantly through an increased emphasis on cessation programmes. It has been projected that by 2050, if the focus is only on prevention of initiation and not cessation, the result will be an additional 160 million deaths among smokers globally (15). It is also recognized that soon after quitting, blood pressure and the chances of heart attack, stroke, lung and other cancers decreases. WHO MPOWER policy calls for 'Offer to help tobacco users to quit' as an important strategy of tobacco control.

Tobacco cessation is a vital component of National Tobacco Control Programme. The program calls for establishing 400 tobacco cessation centers in District Hospitals under national program and provision for both free pharmacotherapy and counselling services at these clinics. In addition the counsellors appointed under AIDS control, TB control would provide tobacco cessation services at primary level. The government has also established a National level tobacco cessation QUITLINE at New Delhi with a toll free number - and developed and deployed a mobile based strategy called m-Cessation where those desirous of quitting can give a missed call which would then be followed by their receiving messages bolstering their resolve.

GATS 2, like the GATS 1 survey done 8 years earlier, collected information on the current status in desire to quit, the contribution that health care providers as well as different cessation initiatives were making and the current levels of success in quitting. These findings are presented in this chapter.

5.1. QUIT ATTEMPTS AMONGST TOBACCO USERS

5.1.1. Quit attempts amongst tobacco smokers:

The findings with regard to cessation attempts, and on whether health care providers urged cessation is presented in table 5.1.

*Adults mean age 15 and above

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-2, India, 2016-2017

Background characteristic	Smoking cessation and health care seeking behavior				
	Made quit attempt[1]	Visited an HCP[1]	Asked by HCP if a smoker[2]	Advised to quit by HCP[2]	Advised to quit by HCP[3]
Overall	38.5	50.2	54.5	48.8	89.7
Gender					
Male	38.8	49.4	55.9	50.3	90.0
Female	35.5	58.5	42.4	36.6	86.2
Age					
15-24	39.8	41.2	35.7	25.6	71.6
25-44	39.4	46.2	50.3	44.9	89.3
45-64	38.0	53.5	60.8	55.2	90.7
65+	36.2	60.8	57.5	53.3	92.8
Residence					
Urban	41.5	46.9	59.7	53.1	89.0
Rural	37.4	51.4	52.7	47.4	89.9
Education level					
No formal schooling	34.8	52.0	54.4	50.3	92.5
Less than primary	41.5	55.3	55.6	50.0	90.0
Primary but less than secondary	41.3	48.3	54.1	46.5	85.9
Secondary and above	38.8	46.2	54.1	48.4	89.5
Occupation					
Government and non-government employee	42.9	50.4	51.1	44.1	86.4
Self employed	38.5	49.5	54.6	49.5	90.7
Student	31.0	29.3	58.0	45.0	77.7
Home maker	38.1	58.2	44.6	38.2	85.7
Retired or unemployed	34.7	53.9	65.2	58.4	89.5

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.

3 Among those who were asked by a health care provider if smoker.

In the past 12 months, 38.5% of adult* smokers had made a quit attempt. The proportion of smokers who had made an attempt to quit was more in male smokers (38.8%) as compared to female smokers (35.5%). It was more with urban residence (41.5%) as compared to rural residence (37.4%). It was also higher in the 15 to 24 age group (39.8%) and the proportion declines modestly with each higher age group. In the 65+ age group, it has decreased to 36.2%.

With respect to education levels, smokers with no formal schooling were less inclined to quit (34.8%) as compared to those with less than primary schooling (41.5%) or primary schooling but less than secondary level (41.3%) - after which in those with secondary school completion or more the proportions decreased again (38.8%). The extent of quit attempts made by government and non-government employees (42.9%) was higher than with other occupational groups. The lowest were students where the proportion of smokers attempting to quit was as low as 31%.

Across states, the proportion of smokers who make a quit attempt in the last 12 months prior to the survey varied widely- from 51.9% in Puducherry which has a relatively low smoking prevalence to 20.6% in Goa which has also a very low smoking prevalence and 20.7% in Meghalaya which has a high prevalence of tobacco smokers. Clearly, attempt to quit is quite independent of prevalence of smoking – and one has to investigate further as to why this pattern varies so much across states. (see figure 5.1, table A-5.1 appendix)

5.1.2 Quit Attempts amongst Smokeless Tobacco Users:

The data with respect to users of smokeless tobacco (table 5.2) shows a similar pattern with 33.2% of adult users of smokeless tobacco made attempts to quit in the 12 months preceding the survey. The figure for male users (35.2%) attempting to quit was more than of female users (28.4%). Similarly there was a higher incidence of attempting to quit in urban areas (36.7%) as compared to rural areas (32.1%). The proportion of users wanting to quit was highest in the youngest age group and decreased considerably with higher age groups. With respect to occupation groups, it was highest in the employee occupation group and least in the retired or unemployed.

Table 5.2: 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-2, India, 2016-2017

		Smokeless cessation and health care seeking behavior			
Background characteristic	**Made quit attempt[1]**	**Visited an HCP[1]**	**Asked by HCP if a user[2] of smokeless tobacco**	**Advised to quit by HCP[2]**	**Advised to quit by HCP[3]**
Overall	33.2	47.7	37.4	31.7	84.9
Gender					
Male	35.2	45.2	39.3	33.3	84.6
Female	28.4	53.7	33.5	28.6	85.4

Age					
15-24	39.4	40.5	30.6	24.9	81.4
25-44	37.0	45.2	36.6	31.6	86.4
45-64	28.2	51.3	41.4	35.7	86.2
65+	24.1	56.5	36.4	28.8	79.1
Residence					
Urban	36.7	47.7	40.8	35.2	86.3
Rural	32.1	47.7	36.3	30.6	84.3
Education level					
No formal schooling	26.0	48.6	36.2	30.8	85.2
Less than primary	31.8	47.9	35.7	29.6	82.9
Primary but less than secondary	37.6	47.7	38.6	32.8	85.0
Secondary and above	40.3	46.1	39.1	33.3	85.2
Occupation					
Government and non-government employee	41.4	48.8	42.0	35.4	84.2
Self employed	33.1	45.6	38.6	33.0	85.5
Student	39.3	33.9	24.6	24.5	99.7
Home maker	30.3	53.9	33.4	27.1	81.2
Retired or unemployed	26.3	53.0	32.9	28.6	87.0

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.

[3] Among those who were asked by a health care provider if users of smokeless tobacco.

Figure No. 5.1 – Percentage of tobacco users who made a quit attempt among states/UTs, GATS India 2016-17

5.2. VISIT TO HEALTHCARE PROVIDER BY TOBACCO USER AND ADVICE ON QUITTING.

5.2.1. Visits by tobacco smokers:

Table 5.1 shows that 50.2 % of smokers had visited a health care provider within the last 12 months. Both current smokers and former smokers who had abstained for less than 12 months were included. Of those who had visited, about half (54.5%) had been asked whether they were smoking and 48.8% had been advised to quit by the provider. As a percentage almost 90% of those who were asked whether they were smoking were also advised to quit.

This same trend is seen across all background characteristics- only about half are asked but if they are asked, over 90% of those so asked would also be advised to quit.

The only exception is the 15 to 24 age group where only 35.7% were asked whether they were smokers and women where only 42.4% were asked. In occupational group, only 44.6% of home makers were asked. These are groups with low prevalence of smoking and a lower perceived likelihood of being smokers. But more of concern is that of those who were asked whether they were smokers in these three sub-groups only 72% were asked to quit. With students only 78 % of those who were asked were asked to quit. A possible reason is that the students were presenting in the clinic for reasons that had no immediate connection with tobacco use, whereas in elderly there would often be symptoms leading the provider to think of tobacco. But we do not know for sure and this is an area that would need further investigation.

Clearly the focus of the efforts at tobacco control should be to encourage and persuade health care providers to ask the question more often- and not miss asking or advising those aged 15 to 24 or those who are students on tobacco smoking and cessation.

The findings on visiting a healthcare provider and the advise to quit smoking vary widely across states. Some states like Jharkhand, Gujarat and all North-east states except Assam record low visits to the healthcare provider by smokers in the last 12 months (between 17% and 34 %). But except in Jharkhand, if they visit about half of them were asked if they were smokers; and if they were asked over 80% of those asked were advised to quit. This pattern is also seen but with slightly higher levels of visits in Chandigarh and Assam.

There are other states where visits to health care provider in the last 12 months were high but where health care providers more often failed to ask them whether they were smokers. An example is Uttar Pradesh where 71.4 % visit a health care provider but only 39.7% of them asked if they were smokers, but of those asked over 90 % were advised to quit. In Odisha where 50.2% had visited a health care provider but of these only 26.4% had been asked if they were smokers and of those asked 75% were advised to quit. This pattern is also seen in Delhi.

In most other states about 50% or more of smokers had made a visit to a healthcare provider and of them anywhere from 42.5% in Uttarakhand to 88.3% in Telengana had been asked if they were smokers and in almost all of them over 90% of those so asked had been advised to quit. There were a few states in this category, like Chhattisgarh, where though a relatively high proportion were asked (67.0%), those advised to quit was relatively less (48.1%).

5.2.2. Visit to Health Care Provider by Smokeless Tobacco Users:

Table 5.2 shows that 47.7 % of smokeless tobacco users had visited a health care provider within the last 12 months. Both current users and former users of smokeless tobacco who had abstained for less than 12 months were included. This is only marginally less than for smokers. Morbidity that required a visit to a healthcare provider seems only 2.5% higher in smokers. However of those who had visited, only 37.4 had been asked whether they were users of smokeless tobacco – which is considerably less than a similar query to smokers (54.5%). But of those who were asked about 85 % had been advised to quit by the provider.

This same trend is seen across all background characteristics – except in two sub-groups those aged 15 to 24 and those who are students. In all the others, visits to healthcare providers range from 45 % to 57 % and in them those asked about smokeless tobacco use range from 33 % to 42%.

In the users of smokeless tobacco aged 15 to 24 years only 30.6% are asked if they are users of smokeless tobacco and in students the corresponding figure is 24.6%. In the latter group almost everyone is advised to quit but in the 15 to 24 age group only 24.9% of current users who visited the HCP are advised to quit. In women as compared to men, visits to health care providers are higher,(53.7% as compared to 45.2%) but being queried about smokeless tobacco use is less (33.5% to 39.3%), and being advised to quit is even lessor (28.6% to 33.3%).

The pattern across states on current users of smokeless tobacco who visited a healthcare provider in preceding 12 months, were queried about smokeless tobacco use and being advised to quit is given in figure 5.2 and appendix table 5.2. Broadly they parallel the findings made for smokers.

5.3. USE OF CESSATION METHODS BY TOBACCO USERS

5.3.1 Use of Cessation Methods by Smokers:

Between 2009 when the first round of GATS India was conducted and 2016 when the second round was conducted the government of India's national tobacco control programme has introduced a number of methods that are offered to those motivated to quit. These include pharmacotherapy in the form of nicotine replacement therapy or other prescription medications, counseling, support through helpline call center or through mobile- the latter known as m-cassation. A significant proportion of tobacco users also try methods of their own choice other than these and this includes traditional medicines and indigenous systems. Amongst smokers switching to smokeless forms is often mistakenly perceived as a form of cessation. Most of those who quit however try to quit without any forms of assistance …

Table 5.3 presents the findings into what proportion of those who tried to quit smoking availed of any form of support- and how many made the quit attempt without any assistance. The survey also indicates how many switched to smokeless tobacco as a form of quitting smoking. The survey shows that a modest 4.1% of all smokers made use of some measure of pharmaco-therapy support, 8.6% had support from counseling and 8.7 used other means of support. As many as 71.7% made the quit attempt on their own.

When we examine those quitting without any assistance by background characteristics, we find that a greater proportion of women do so than men, and the younger the smoker, the more likely they are to try quitting without any assistance. Urban residence and greater levels of schooling are also associated with greater proportions trying quitting on their own. In occupational groups, the likelihood of trying to quit without any assistance is, from highest to lowest, students, employees, self-employed, home makers and finally the retired or unemployed.

The use of pharmacotherapy as a support for cessation shows the same pattern as those who try to quit without assistance with respect of gender and residence. It is more in men (4.2%) than in women (3.0%), and more with urban residence (6.6%) than with rural residence (3.0%). With age it rises from 2.8% in the 25 to 44 age group to 4.6 % in the 45 to 64 age group and 6.6% in the 65+ age group. In the 15 to 24 age group it is 4.8%. With occupation group it is highest in employees (6.0%) and lowest in students 1.0%). However students have a relatively high proportion of counselling as a support to their attempts to quit (10.0%).

The patterns in counselling as a support for attempts to quite- differ from that for pharmacotherapy. Counselling refers not only to the process as followed in a smoking cessation clinic, but also that which is provided by primary health care providers. Counselling rates was high in the senior citizen (16.5%) which could be because they presented with respiratory problems. But otherwise it was about 7 to 10 % with most background characteristic.

The category of 'others' includes traditional medicines and other products like chewing gum which are resorted to. Some respondents stated reasons that precipitated quitting smoking (like getting affected with a disease, or pregnancy etc) as the trigger to try quitting. The elderly, the retired and then women reported this more frequently than other sub-groups.

Switching to smokeless tobacco as a form of cessation of smoking was in 4.1 % of smokers. Rates of doing so were higher in occupational groups of students (8.0%) home makers (6.0%), and employees

(5.8%) . It was also higher in women (5.1%) then men and in the 25 to 44 age group (5.4%). The reasons for the vulnerability of these groups to such a transition need to be explored further.

Table 5.3: 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-2, India, 2016-2017

	Use of cessation method[1]				
Background characteristic	**Pharmacotherapy[2]**	**Counseling/Advice[3]**	**Others[4]**	**Switching to smokeless tobacco**	**Without any assistance**
Overall	4.1	8.6	4.8	4.1	71.7
Gender					
Male	4.2	8.6	4.6	4.0	71.5
Female	3.0	8.7	6.7	5.1	74.2
Age					
15-24	4.8	9.9	1.7	3.9	75.0
25-44	2.8	6.6	4.4	5.4	73.4
45-64	4.6	8.3	5.3	2.9	70.5
65+	6.6	16.5	7.0	3.4	66.6
Residence					
Urban	6.6	8.2	5.6	2.7	76.2
Rural	3.0	8.8	4.4	4.7	69.9
Education level					
No formal schooling	3.0	7.4	4.0	3.2	68.8
Less than primary	5.2	8.6	6.1	4.8	73.9
Primary but less than secondary	4.5	10.5	5.0	4.9	71.4
Secondary and above	4.2	7.6	4.7	3.9	75.1
Occupation					
Government and non-government employee	6.0	7.8	3.4	5.8	73.5
Self employed	3.5	8.6	4.8	3.7	72.4
Student	1.0	10.0	0.3	8.2	73.6
Home maker	5.2	9.0	4.7	6.0	69.5
Retired or unemployed	5.2	9.6	7.6	3.3	63.5

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 and other products.

5.3.2 Use of Cessation Methods by Smokeless Tobacco Users:

Table 5.4 presents the findings into what proportion of those who tried to quit use of smokeless tobacco products availed of any form of support- and how many made the quit attempt without any assistance. The survey shows that 3.2% of all smokeless tobacco users made use of some measure of

pharmacotherapy support, 7.3% had support from counseling and 5.2% used other means of support. As many as 74.9% made the quit attempt on their own.

When we examine those shifting without any assistance by background characteristics we find that a greater proportion of men (76.0%) do so than women (71.6%), and that younger users of smokeless tobacco products are more likely to try quitting without any assistance. Rural residence is more associated with quitting on one's own. There is no clear pattern with educational levels. In occupational groups those who are retired or unemployed are far less likely to quit on their own (59.7%) and far more likely to receive counselling or advice (16.5 %). In other occupational groups the likelihood of trying to quit without any assistance ranges between 73.4% and 77.9% and counselling support between 6.1% and 6.9%.

The use of pharmacotherapy is relatively high in students -8.8% and then in retired or unemployed occupation groups 6.2%. It is modestly high in the age group 15 to 24 (4.8%) and in those with secondary education and above (4.2%). In all other sub-groups by background characteristic, utilization of pharmacotherapy is below 3.6%.

Table 5.4: 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-2, India, 2016-2017

Background characteristic	Use of cessation method[1]			
	Pharmacotherapy[2]	Counseling/Advice[3]	Others[4]	Without any assistance
Overall	3.2	7.3	5.2	74.9
Gender				
Male	3.4	7.0	5.5	76.0
Female	2.7	8.4	4.3	71.6
Age				
15-24	4.8	6.8	2.9	76.0
25-44	3.1	6.2	5.2	77.0
45-64	2.7	8.8	6.1	73.1
65+	2.7	10.7	7.0	65.3
Residence				
Urban	3.6	8.7	6.1	71.4
Rural	3.1	6.8	4.9	76.2
Education level				
No formal schooling	3.2	7.5	6.6	75.8
Less than primary	3.1	8.4	5.3	67.6
Primary but less than secondary	2.7	6.8	4.3	74.5
Secondary and above	4.2	7.2	5.0	78.5
Occupation				
Government and non-government employee	3.3	6.9	5.5	75.1
Self employed	2.9	6.8	5.7	76.5
Student	8.8	6.9	1.5	77.9

Home maker	2.2	6.1	2.5	73.4
Retired or unemployed	6.2	16.5	6.6	59.7

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] 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 and other products.

5.4. THE INTENTION TO QUIT

5.4.1. Interest in quitting amongst smokers

It was also considered useful to explore what proportion of the smokers were planning to quit- and how many were not clearly not interested in quitting. For smoking these findings are presented in table 5.5. Table 5.5 indicates that 42.0 percent of smokers are not considering quitting at all, and at the other end 8.4% would like to quit within the next month. More ambivalent answers are the 13.1% who would consider quitting within the next 12 months, and the 33.9% who state that they would quit someday, but not in the next 12 months. The proportion of smokers planning to quit immediately or later varies across states.

Table 5.5: Percent distribution of current smokers age 15 and above by their interest in quitting smoking, according to background characteristics, GATS-2, India, 2016-2017

	Interest in quitting smoking					
Background characteristic	**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	8.4	13.1	33.9	42.0	2.6	100
Gender						
Male	8.6	13.1	34.6	41.2	2.5	100
Female	6.9	12.7	26.9	49.6	4.0	100
Age						
15-24	11.2	11.4	35.7	38.2	3.3	100
25-44	8.8	12.8	37.6	38.3	2.6	100
45-64	8.0	13.9	32.2	43.1	2.7	100
65+	6.8	12.5	24.6	54.1	2.1	100
Residence						
Urban	8.6	13.4	39.2	36.3	2.5	100
Rural	8.4	12.9	31.9	44.0	2.7	100
Education level						
No formal schooling	6.9	9.8	29.7	51.1	2.5	100
Less than primary	9.7	12.6	34.3	40.7	2.7	100
Primary but less than secondary	9.5	16.9	33.5	37.7	2.4	100
Secondary and above	8.6	13.4	41.6	33.2	3.2	100
Occupation						
Government and non-	9.8	13.5	41.8	32.5	2.4	100

government employee						
Self employed	8.5	13.6	33.6	41.9	2.4	100
Student	14.3	3.8	41.5	39.1	1.4	100
Home maker	6.3	14.0	26.2	49.1	4.4	100
Retired or unemployed	6.5	8.9	29.8	51.1	3.7	100

5.4.2. Interest in quitting amongst smokeless tobacco uers

Table 5.6 shows that 47.8 percent of current users of smokeless tobacco aged 15 and above are not interested in quitting. On the other hand 7.8% are planning to quit within the next month and 11.7 are planning to quit within the next 12 months. For 30.2% there is some intention of quitting someday- but not within the next 12 months.

A relatively larger proportion of those in the 15 to 24 age group (11. 2% for smoking and 9.8% for use of smokeless tobacco), and those in the occupational category of student (14.3% for smoking and 9.5% for use of smokeless tobacco) report themselves as planning to quit tobacco use within the next month as compared to other groups. Patterns across the states vary.

Table 5.6: Percent distribution of current users of smokeless tobacco age 15 and above by their interest in quitting smokeless tobacco, according to background characteristics, GATS-2, India, 2016-2017

	Interest in quitting smokeless tobacco					
Background characteristic	**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	7.8	11.7	30.2	47.8	2.6	100
Gender						
Male	8.2	12.4	32.2	45.1	2.2	100
Female	6.9	10.0	25.2	54.4	3.4	100
Age						
15-24	9.8	10.0	36.8	40.3	3.1	100
25-44	8.8	13.2	32.3	43.2	2.6	100
45-64	6.1	11.6	27.6	51.9	2.7	100
65+	6.2	7.8	20.5	64.0	1.5	100
Residence						
Urban	7.8	13.2	33.7	42.8	2.5	100
Rural	7.8	11.2	29.0	49.5	2.6	100
Education level						
No formal schooling	5.7	8.6	24.7	58.4	2.6	100
Less than primary	8.4	11.0	30.6	47.5	2.5	100
Primary but less than secondary	9.3	12.5	33.6	42.5	2.1	100

Secondary and above	8.8	16.4	34.3	37.4	3.1	100
Occupation						
Government and non-government employee	8.5	13.4	37.3	39.5	1.3	100
Self employed	8.1	12.2	29.9	47.3	2.5	100
Student	9.5	17.6	44.1	25.8	3.0	100
Home maker	6.9	10.1	26.2	53.9	2.8	100
Retired or unemployed	5.5	6.8	27.7	56.0	4.0	100

Figure No. 5.2 – Percent distribution of current smokers by interest in quitting smoking, GATS India 2016-17

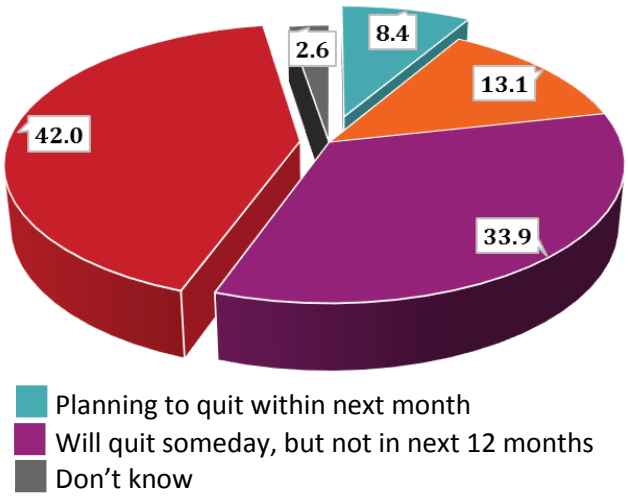
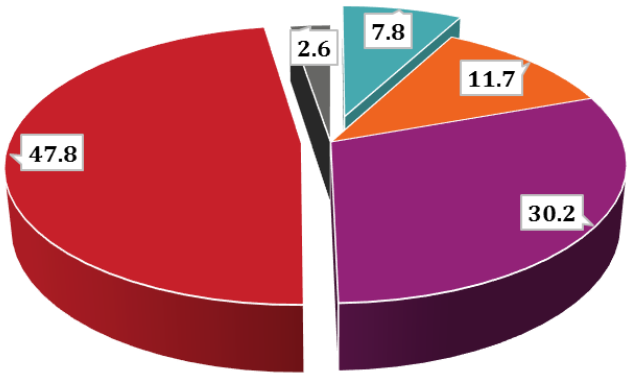


Figure No. 5.3 – Percent distribution of current smokeless tobacco users by interest in quitting smokeless tobacco use, GATS India 2016-17



5.5. DURATION OF STOPPING TOBACCO USE:

One question that was introduced to throw light on the seriousness of efforts at quitting and also reflect on physical dependence was the duration for which those who make a quit attempt in the past 12 months could stay away from tobacco use.

The findings presented in table 5.7 show that about one in two could not sustain the quit attempt for even month- whether it was cigarette smoking (47.4%), bidi smoking (48.7%) or the use of smokeless tobacco(49.5%). At the other end those who could stay away from tobacco use for more than three months was 22.4% for cigarette smoking, 22.6% for bidi smoking and 21.3% for smokeless tobacco. This of course would be consistent with an understanding that all three forms of tobacco use cause similar levels of physical dependence.

It is interesting to observe that this similarity across forms of tobacco use persist for different background characteristics. Thus more women find it more difficult than men to sustain cessation- though the difference is much less for smokeless tobacco. Similarly urban residence is associated with more success at sustaining cessation than rural residence though the difference is smaller. Except in the 15 to 24 age group where cessation of smoking is better sustained, in all other age groups there are similar levels of ability/inability to sustain cessation of the three different forms of tobacco use.

Figure No. 5.4 – Percent distribution of current cigarette, bidi and smokeless tobacco users by duration of stopping cigarette, bidi and smokeless tobacco use, GATS India 2016-17

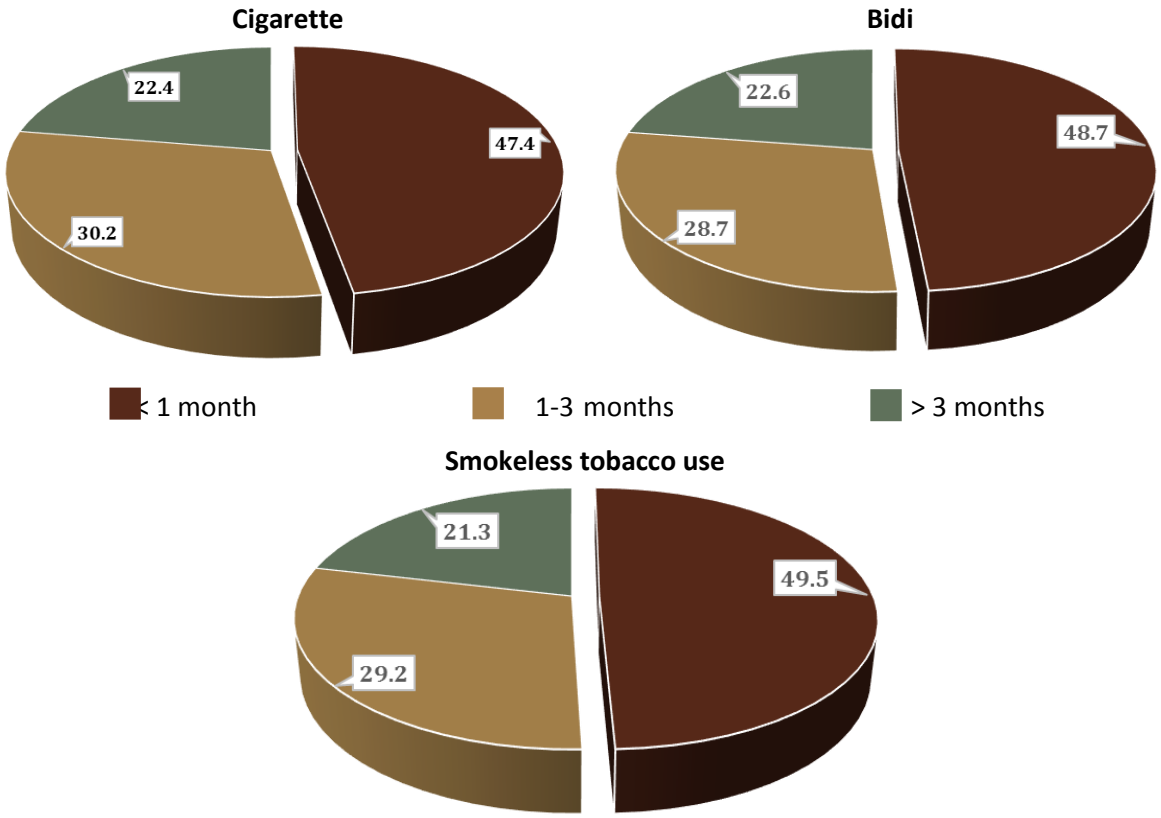


Table 5.7: Percent distribution of current cigarette smokers, *bidi* smokers and users of smokeless tobacco age 15 and above who made a quit attempt in the past 12 months by duration of stopping use of tobacco products, according to background characteristics, GATS-2, India, 2016-2017

	Duration of stopping use of tobacco products											
	Cigarette				*Bidi*				Smokeless tobacco			
Background characteristic	<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	47.4	30.2	22.4	100	48.7	28.7	22.6	100	49.5	29.2	21.3	100
Gender												
Male	46.9	30.5	22.7	100	47.7	29.2	23.2	100	48.9	29.5	21.6	100
Female	69.7	19.8	10.5	100	62.6	22.3	15.1	100	51.4	28.2	20.4	100
Age												
15-24	28.7	40.2	31.2	100	49.3	29.1	21.5	100	46	37.3	16.7	100
25-44	50.3	31.2	18.5	100	49.9	28.8	21.3	100	50.5	28.1	21.4	100
45-64	52.5	24.2	23.2	100	49	26.7	24.3	100	48.4	28	23.6	100
65+	41.8	28.1	30.1	100	43.8	34	22.2	100	53.6	23.3	23.1	100
Residence												
Urban	43.9	33.1	23	100	47.4	29	23.6	100	48	28.1	23.9	100
Rural	49.9	28.2	21.9	100	49.2	28.6	22.3	100	50.1	29.5	20.4	100
Education level												
No formal schooling	47.6	35.4	17	100	54.3	27.1	18.6	100	52.9	30.2	16.8	100
Less than primary	64.6	16.4	19	100	49.3	27.7	23.1	100	52.8	25.2	22	100
Primary but less than secondary	36.5	36.2	27.3	100	40.9	31.3	27.7	100	46.1	29.3	24.6	100
Secondary and above	49.9	28.3	21.8	100	52.1	27.9	20	100	48.9	29.8	21.3	100
Occupation												
Government and non-government employee	50.4	27.3	22.3	100	51.7	27.6	20.7	100	48.2	25.2	26.6	100
Self employed	45.8	31.5	22.7	100	47.7	29.7	22.6	100	49.5	30.4	20.1	100
Student	52.7	37.8	9.4	100	76.8*	2.5*	20.7*	100	31.5	42	26.4	100
Home maker	60.5	16.7	22.7	100	56.9	19.9	23.2	100	53.3	28.1	18.6	100
Retired or unemployed	48.2	27.5	24.3	100	47.9	27.5	24.7	100	49	23.1	27.9	100

Note: *Based on less than 25 unweighted cases

5.6 CHANGES IN THE CESSATION BEHAVIOR

5.6.1. Changes in proportion of population trying to quit:

The changes in the efforts at quitting are presented in table 5.8. The findings do not show any significant change in the proportion of tobacco smokers who tried to quit smoking. In smokeless tobacco users the efforts at quitting have decreased and the decrease from 35.4% to 33.2 % is significant.

When analyzed by background characteristics, the proportion of those trying to quit has decreased significantly amongst male users of smokeless tobacco and increased significantly amongst urban smokers. Though there is a small increase in quitting efforts in male smokers this change is not significant. There are decreases in efforts to quit amongst women and in rural areas for both forms of tobacco use but these changes are not statistically significant.

The significant decrease in efforts to quit amongst smokers in the 15 to 24 age group is a matter of concern. Even with smokeless tobacco there is a decrease in efforts to quit, though this decrease is not statistically significant, there is clearly a trend here. There is a significant decrease in those desiring to quit smokeless tobacco in the 45-64 age group. The changes between the two rounds of GATS in other occupational groups are not significant.

Figure No. 5.5 – Change in smoking quit attempt by current smokers, GATS 2009-10, 2016-17

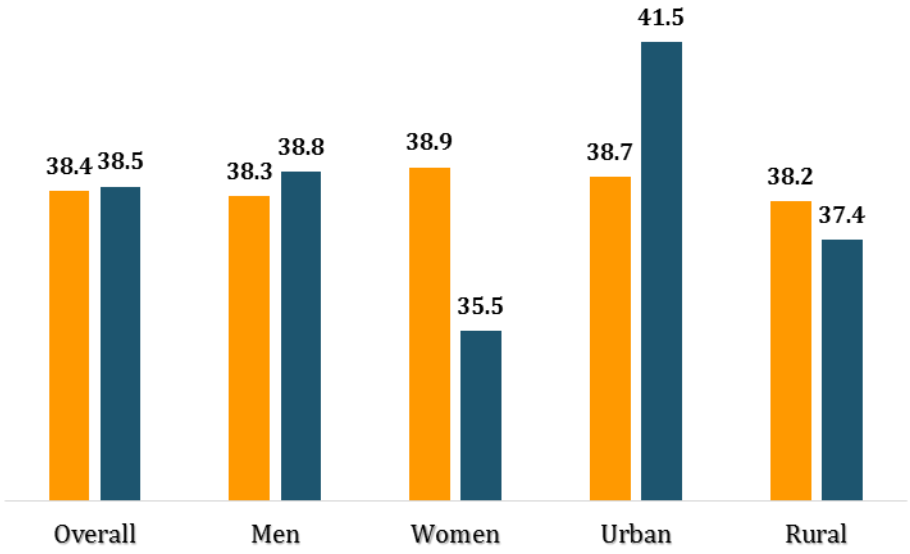
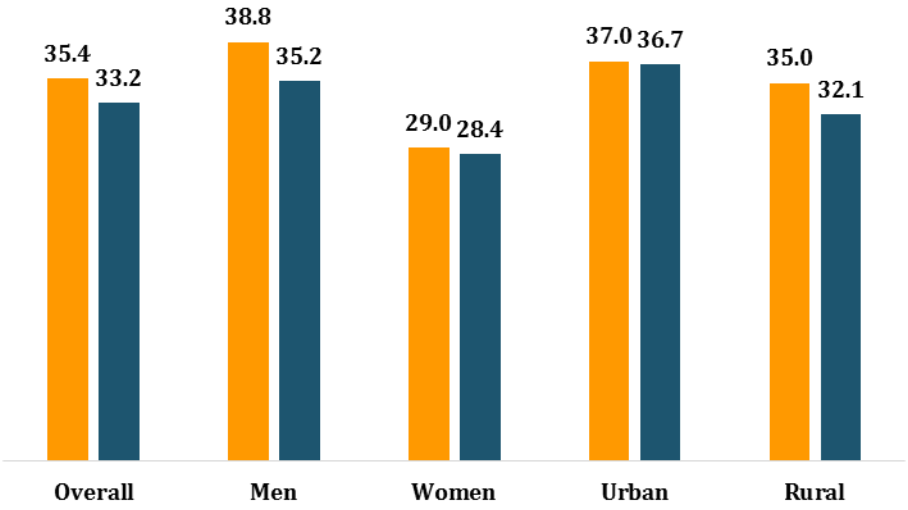


Figure No. 5.6 – Change in smokeless tobacco quit attempt by current smokeless tobacco users, GATS 2009-10, 2016-17



5.6.2. Changes in advice to quit during visit to healthcare provider:

The proportion of smokers who were encouraged to quit smoking when they visited a healthcare provider in the past 12 months, was 48.8% in GATS 2 as against 46.3% in GATS-1. The relative change is 5.4 which is statistically significant. When analyzed for sub-groups by background characteristics it was significant only for males and in rural areas.

For use of smokeless tobacco, 31.7% of those who visited a healthcare were advised to quit as seen in GATS 2 findings as against 26.7% in the GATS -1 survey. The relative change is 18.7 which is statistically significant. Again when analyzed for each sub-groups according to background characteristics it was significant in every sub-group except for the age groups of 15 to 24 and above 65. Even here the trends were positive.

The percent who used pharmacotherapy to support their efforts at quitting tobacco smoking remain and unchanged at 4.1% across both survey rounds. For smokeless tobacco pharmacotherapy was not queried in the first round and it was 3.2% in the second round.

Use of counselling to support quitting had decreased from 9.2% in smokers trying to quit in GATS 1 to 8.6% in smokers in GATS 2- and increased minimally from 7.2% to 7.3% in users of smokeless tobacco trying to quit.

One visible change is that the use of other methods- defined as 'use of traditional medicines, switching to smokeless tobacco and other products' had declined from 26.0% for smokers and 21.9 % for smokeless tobacco use in GATS1 to 8.9% for smokers and 5.2% for smokeless tobacco. In GATS 2 we have taken switching over to smokeless tobacco out of the "others" category. But had we kept to "Others" as defined

in GATS 1 for the sake of comparison, 8.9% would have been so categorized and of this 4.1% are those switching over to smokeless forms of use.

Figure No. 5.7 – Change in advice to current smokers by health care provider to quit smoking, GATS 2009-10, 2016-17

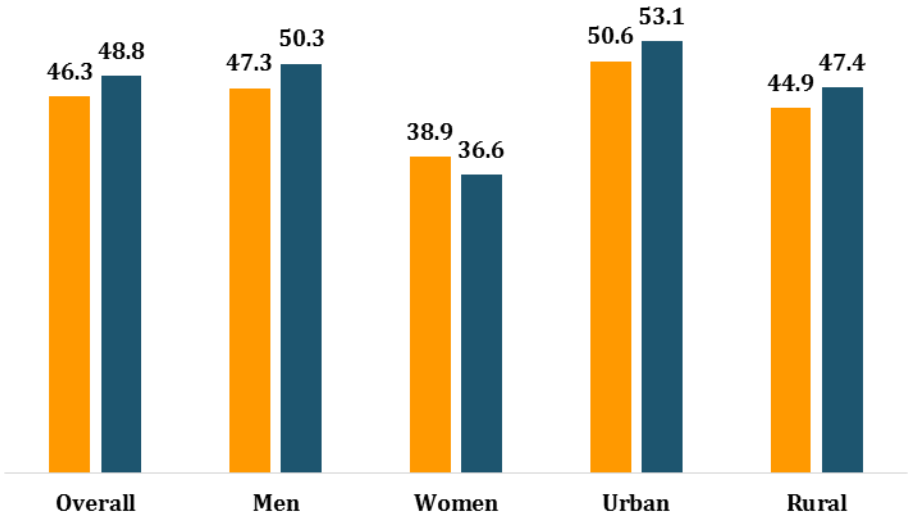


Figure No. 5.8 – Change in advice to current smokeless tobacco users by health care provider to quit smokeless tobacco use, GATS 2009-10, 2016-17

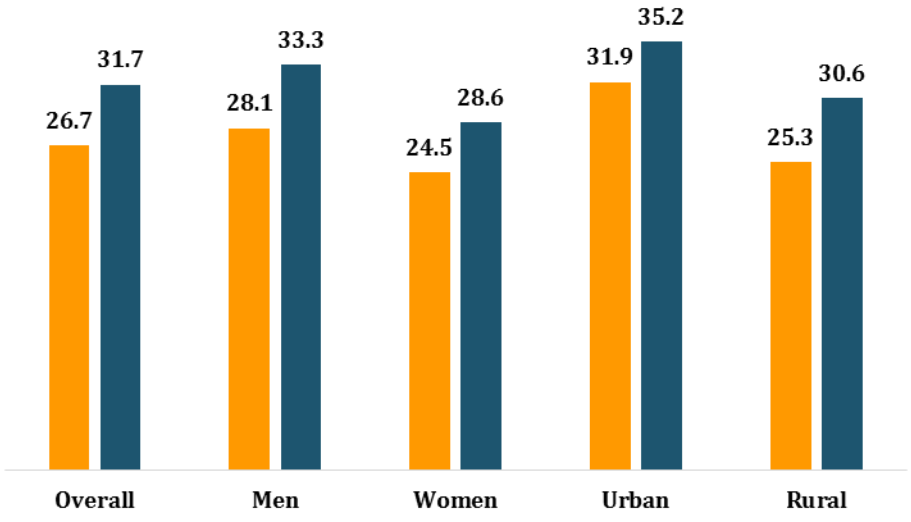


Table 5.8: Change in the quit attempts made by smokers and smokeless tobacco users and who were advised to quit by the HCP in the past 12 months, according to background characteristics, GATS India, 2009-10 and 2016-17

	Smoker made a quit attempt[1]			Smokers advised to quit by a health care provider[2]			Smokeless tobacco user made a quit attempt[3]			Smokeless tobacco user advised to quit by a health care provider[4]		
	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change
Overall	38.4	38.5	0.3	46.3	48.8	5.4*	35.4	33.2	-6.2**	26.7	31.7	18.7**
Gender												
Male	38.3	38.8	1.3	47.3	50.3	6.3**	38.8	35.2	-9.3**	28.1	33.3	18.5**
Female	38.9	35.5	-8.7	38.9	36.6	-5.9	29.0	28.4	-2.1	24.5	28.6	16.7**
Residence												
Urban	38.7	41.5	7.2*	50.6	53.1	4.9	37.0	36.7	-0.8	31.9	35.2	10.3*
Rural	38.2	37.4	-2.1	44.9	47.4	5.6*	35.0	32.1	-8.3	25.3	30.6	20.9**
Age (years)												
15-24	47.2	39.8	-15.7*	26.1	25.6	-1.9	43.7	39.4	-9.8	22.4	24.9	11.2
25-44	37.8	39.4	4.2	43.0	44.9	4.4	36.0	37.0	2.8	26.4	31.6	19.7**
45-64	36.5	38.0	4.1	52.9	55.2	4.3	31.6	28.2	-10.8**	28.8	35.7	24.0**
65+	36.9	36.2	-1.9	57.9	53.3	-7.9	26.2	24.1	-8.0	29	28.8	-0.7

Note: [1] Includes current smokers and those who quit in the past 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.

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

[4] 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

CHAPTER 6

SECOND HAND SMOKE

Second hand smoke (SHS) also termed as environment tobacco smoke (ETS), is a complex mixture of gases and particles that contain many carcinogenic and toxic compounds. When someone smokes a cigarette, most of the smoke doesn't go into their lungs. It goes into the air, where anyone nearby can breathe it. A large body of epidemiological research has established the link between SHS exposure and increased morbidity and mortality. It is a cause of cardiovascular disease, respiratory ailments and lung cancer.

Recognizing the adverse health impact of SHS among non-smokers, Government of India adopted many measures to protect non-smokers. The Government of India enacted the Cigarette and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act (COTPA) in 2003. The provisions under this act include prohibition of smoking in public places. Under Article 8 of the WHO Framework Convention on Tobacco Control, which was ratified by India in 2004, it is necessary to provide for a "smoke-free environment to protect the health of non-smokers from SHS in indoor workplaces, public transport, indoor public places and, as appropriate, other public places." With the law which was enforced from 2nd October 2008, smoking is completely banned in all public places including educational and health institutions, entertainment and hospitality places, public transport and workplaces.

The GATS includes one section on SHS which explores the exposure to SHS at home and at different places where people generally visit. This present chapter on "Second Hand Smoke" discusses the extent of exposure to second hand smoke at indoor work places, at home and at various public places.

In the tables in the chapter we present data on exposure to second hand smoking at workplace, home and any public place, not only for non- smokers but overall viz. for all adults*- including smokers. Second hand smoking would make little additional adverse health impact to smokers, but by presenting this information we get a better understanding of the prevalence of smoking in the workplace, home and at public places. This is important because there are some public places and work places where smokers are more likely to frequent that non-smokers.

6.1. EXPOSURE TO SECOND-HAND SMOKE IN INDOOR WORKPLACES

Table 6.1 provides prevalence of exposure to SHS among adults age 15 and above in work places during 30 days preceding the survey by background characteristics. The question on SHS at work place was asked to those who work in places having indoor or both indoor and outdoor areas.

6.1.1. Exposure to second-hand smoke at work by background characteristics

GATS 2 shows that all the workplaces are not tobacco smoke-free. Table 6.1 shows that 30 percent of adults in India who usually work indoors or both indoors and outdoors are exposed to second hand smoke at workplace. The prevalence of exposure to SHS at work place is little lower in urban areas

*Adults mean age 15 and above

(23%) than rural areas (29%). About one-third (33%) of male workers and 17.7 percent of female workers are exposed to SHS at their workplace. Workers from all ages are almost equally exposed to SHS at work places (28%-32%). With increase in education there is a decrease in the extent of SHS at workplace; 22 percent of persons with secondary and above education are exposed to SHS at work place compared to 41 percent of persons with no formal schooling.

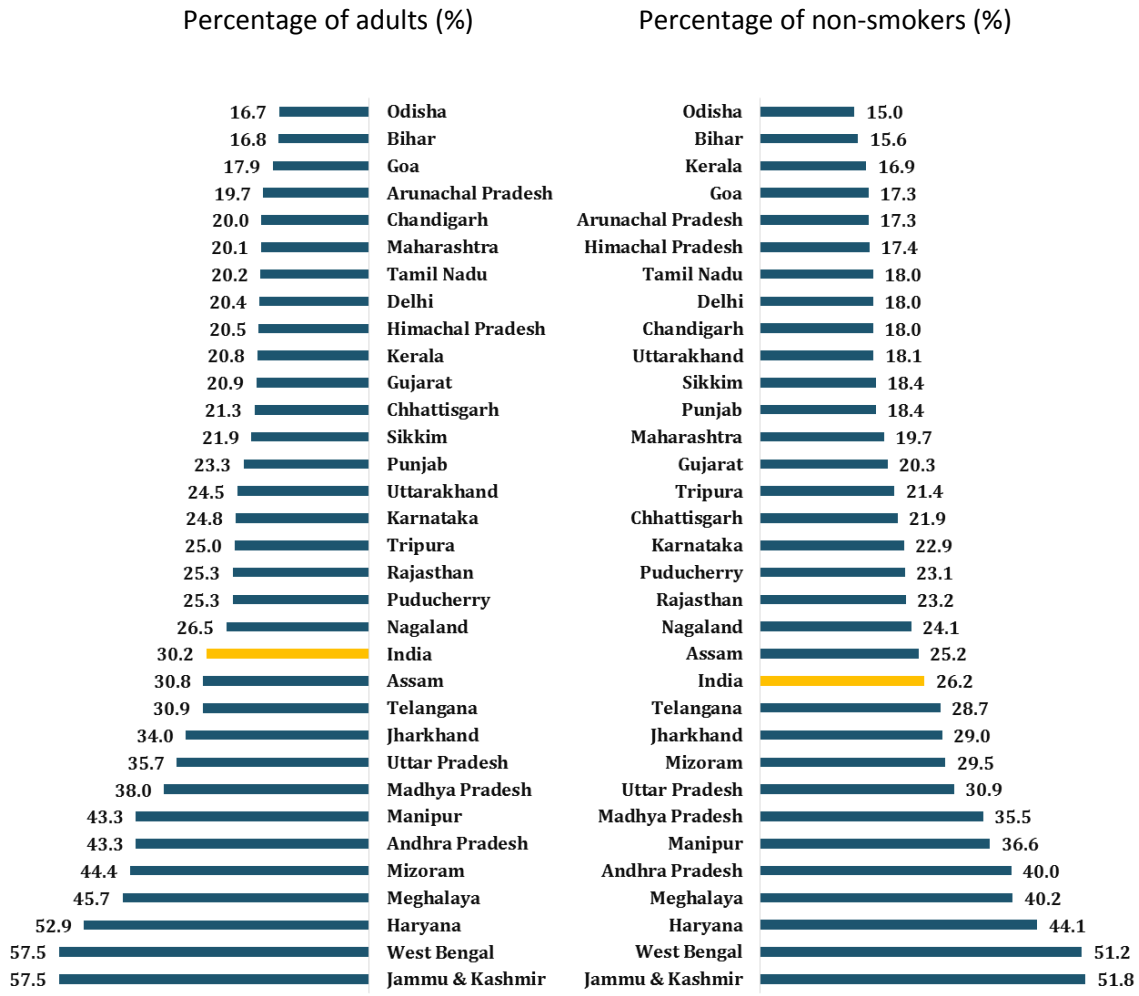
Non-smokers though they do not smoke, get exposed to SHS because of their co-workers' smoking. In each category a sizeable proportion of non-smokers are exposed to SHS. Little more than one-fourth (26 percent) of all the non-smoker workers are exposed to SHS at work place. An exposure to SHS among less educated non-smokers is quite high as about one-third of the workers having less than secondary education are exposed to SHS at their workplace. Exposure to SHS among all adults and non-smokers who were self-employed was much higher than those who were employed with Government or Non-Government offices. About one-third (32.4%) of the self-employed non-smokers were exposed to SHS at their work place as compared to 19.4 percent of the non-smokers working in Government or Non-Government offices.

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 2, India, 2016-2017

Background characteristic	Adults exposed to second-hand smoke at work[1]	
	Overall	Non-smoker
Overall	30.2	26.2
Gender		
Male	32.7	28.3
Female	17.9	17.7
Age		
15-24	28.5	27.1
25-44	30.7	26.8
45-64	30.3	23.8
65+	31.7	26.1
Residence		
Urban	25.3	22.7
Rural	34.3	29.4
Education level		
No formal schooling	40.6	33.7
Less than primary	41.4	35.6
Primary but less than secondary	35.3	31.6
Secondary and above	22.3	20.3
Occupation		
Government and non-government employee	21.7	19.4
Self employed	37.1	32.4
Student	17.8	17.5
Home maker	22.6	19.2
Retired or unemployed	43.3	37.9

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.

Figure No. 6.1 – Exposure to second hand smoke at workplace (for all adults and non-smokers) among states/UTs, GATS India 2016-17



The variation in the exposure to second hand smoke at workplace across the states/ UTs is quite large. In three states – Jammu & Kashmir (58%), West Bengal (58%) and Haryana (53%) majority of the adults are exposed to second hand smoke at their work places (Appendix Table 6.1).

6.2 EXPOSURE TO SECOND-HAND SMOKE AT HOME

Table 6.2 provides percentage of adults in whose households smoking is allowed and exposure to SHS at home by background characteristics. Appendix Table 6.2 provides the same information by state/ UT.

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

Table 6.2: 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-2, India, 2016-2017

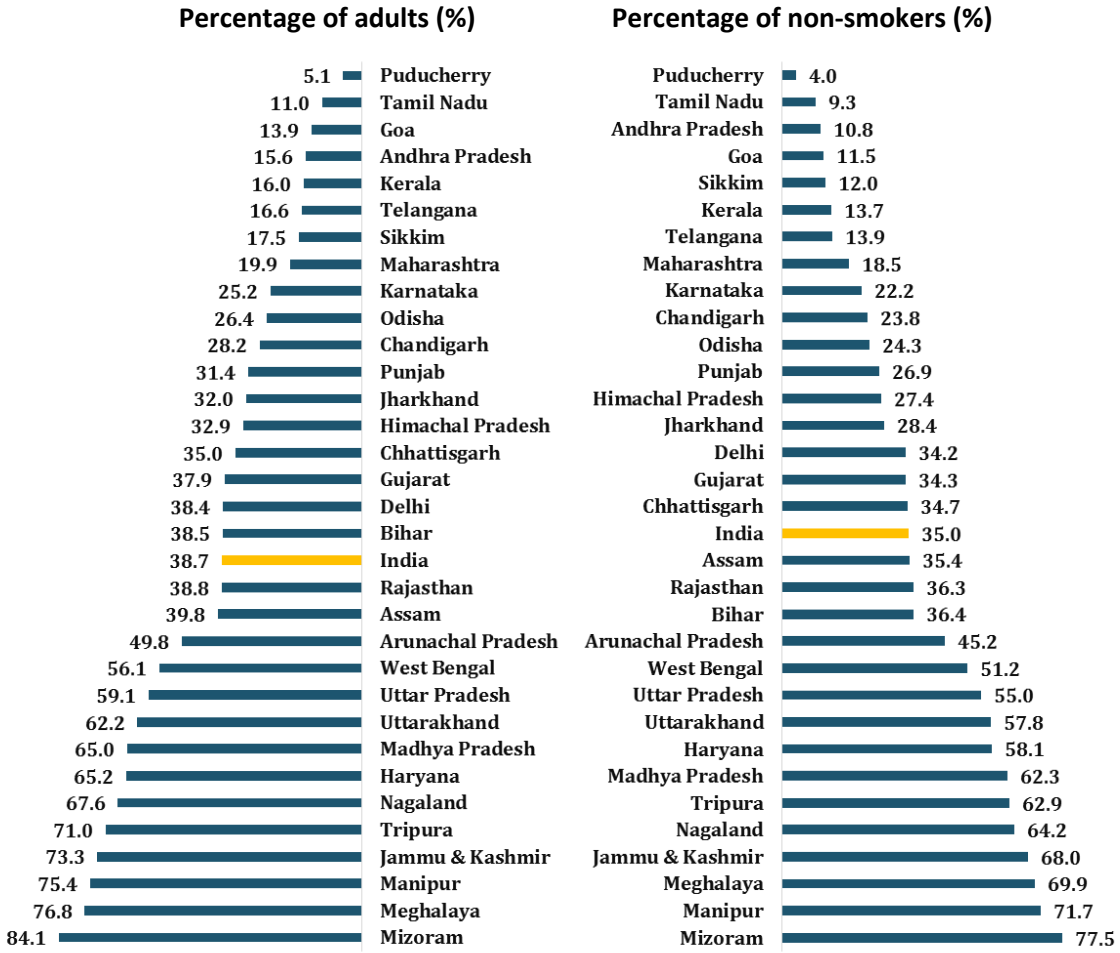
Background characteristic	Adults who reported that smoking is allowed in home			Adults exposed to second-hand smoke at home	
	Overall	Non-smoker		Overall	Non-smoker
Overall	48.8	45.5		38.7	35.0
Gender					
Male	48.1	41.7		38.1	31.0
Female	49.5	48.8		39.3	38.4
Age					
15-24	48.8	48.2		38.6	37.9
25-44	48.4	45.1		38.6	34.8
45-64	49.3	43.3		39.0	32.4
65+	49.5	43.6		38.5	31.9
Residence					
Urban	38.2	35.6		27.9	25.0
Rural	54.4	50.9		44.4	40.4
Education level					
No formal schooling	59.0	55.2		49.4	45.1
Less than primary	55.5	50.0		44.3	37.8
Primary but less than secondary	51.6	48.7		41.1	37.8
Secondary and above	37.4	35.6		27.5	25.5
Occupation					
Government and non-government employee	39.3	35.0		28.8	24.1
Self employed	52.6	46.9		42.8	36.5
Student	40.7	40.9		31.5	31.6
Home maker	49.9	49.0		39.5	38.5
Retired or unemployed	50.8	45.8		38.8	32.9

Almost every second (49%) adult and 46 percent of non-smokers reported that smoking is allowed inside their house. Almost equal proportion of male and female respondents and respondents from different age-groups reported that smoking is allowed inside their house. Comparatively a lesser proportion of households in urban areas (38%) are allowed smoking inside the house than in rural areas (54%). With increase in education level there is a decrease in the proportion of adults reporting

that smoking is allowed inside their house. The proportion of adults who reported smoking is allowed inside the house decreased from 59 percent of among those with no formal schooling to 37 percent among those with education level of secondary and above. The proportion of adults who reported smoking is allowed inside the house varied with occupation of the respondent. About 50 percent or more of the adults who were either self-employed (53%) or retired/ unemployed (51%) or home-makers (50%) reported that smoking is allowed in their house. Comparatively in lesser proportion of houses of Government or Non-Government employees (39%) or of students (41%) smoking was permitted.

In all 39 percent of all adults and 35 percent of non-smokers reported that smoking took place in their houses. In other words, little more than one-third of smokers (35%) and 39 percent of all adults were exposed to second hand smoke in their house. The prevalence of second hand smoke inside home was relatively higher among female (38%) than male (31%) non-smokers. As smoking was allowed in higher proportion in rural than urban areas, the proportion of non-smokers exposed to second hand smoke at home was higher in rural (40%) than urban areas (25%). The exposure to second hand smoke inside home decreased with increase in education. One-fourth (26%) of the non-smokers with education level of secondary and above are exposed to second hand smoke at home in comparison to 45 percent with no formal education reporting exposure to SHS at home. As in relatively larger proportion of home makers and self-employed reported that smoking is allowed in their house, larger proportion of home maker non-smokers (39%) and self-employed non-smokers (37%) were exposed to SHS at their residence.

Figure No. 6.2 – Exposure to second hand smoke at home (for all adults and non-smokers) among states/UTs, GATS India 2016-17



In the exposure to second hand smoke at home also varies substantially across the states/ UTs (Appendix Table 6.2). There is apositive correlation between prevalence of smoking and proportion of adults reporting that smoking is allowed inside the home as well as between prevalence of smoking and exposure to SHS at home (both among all adults and non-smokers).

In Mizoram, Manipur, Meghalaya, Jammu & Kashmir and Tripura more than three-fourths (75-84%) of the adults reported that smoking is allowed inside home. In all these states more than 70 percent of the adults are exposed to SHS at home. On the contrary, in Andhra Pradesh, in spite of relatively higher prevalence of smoking, smoking is allowed in less than one-fourth (23%) of the houses and 16 percent of the adults are exposed to SHS at home.

6.3. EXPOSURE TO SECOND-HAND SMOKE AT VARIOUS PUBLIC PLACES

Table 6.3 and Appendix Table 6.3 provide data on exposure to SHS at various public places among adults aged 15 and above during 30 days preceding the survey by background characteristics and states/UTs respectively.

6.3.1 Exposure to second-hand smoke at various public places by the background characteristics

GATS 2 collected data on exposure to SHS during 30 days prior to survey, at seven public places, 1) Government office/ Government office, 2) health care facility, 3) private offices/ workplaces other than respondent's office, 4) restaurant/ public eating places, 5) public transportation, 6) night club/ bar and 7) cinema hall/ theatre.

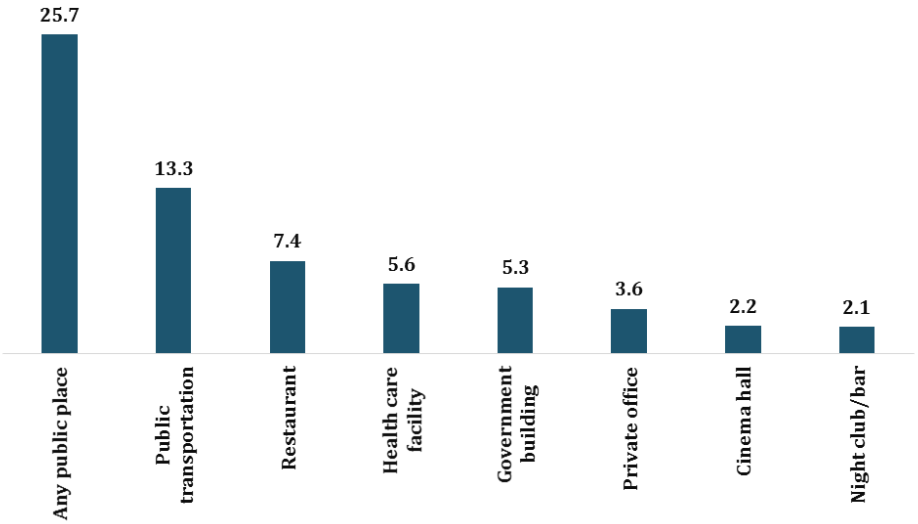
Among all the adults, an exposure to SHS is at these seven public places ranged between 2.1 percent in bar/ night club and 2.2 percent in cinema hall/ theatre to 13.3 in public transportation. The proportion of the adults exposed to second-hand smoke at Government offices/ buildings is seven percent and at heath care facilities is five percent. One in four (26%) of all the adults was exposed to SHS at least one of these seven public places. It may be noted that these percentages are the result of two proportions, a) proportion of adults who visited these places and b) exposure to SHS among those who visited these places. Following table (Table 6.3) presents exposure to SHS at various public places among all adults and those who visited those places during 30 days preceding the survey.

Table 6.3: Percentage of adults age 15 and above who reported exposer to second-hand smoke at public places, GATS 2, India, 2016-2017

Exposure to second hand smoke at	Among those who visited	Among all adults
Government office/ Government building	21.2	5.3
Health care facility	15.6	5.6
Restaurant/ public eating place	39.3	7.4
Public transportation	27.0	13.3
Private office/ workplace	24.1	3.6
Night club/ bar	79.2	2.1
Cinema hall/ theatre	35.4	2.2
Any of the above seven places	36.2	25.7

An exposure to SHS at the entertainment places like restaurant (39%), bar (79%) or cinema hall (35%) is quite high. In night club/ bar smoking is quite rampant. As only a small proportion of people visit bar/ night club, an extent of exposure to SHS among all adults there is quite low. At the same time a large proportion of adult visit health care facility or travel by public transportation, hence exposure to SHS among all adults there is relatively high. One in six adults (16%) who visited health care facility during the last 30 days were exposed to SHS there.

Figure No. 6.3 – Exposure to second hand smoke at different public places among all adults, GATS India 2016-17



Exposure to SHS at different public places is the least among adults aged 65 or older, partly due to their less mobility to visit different places. The proportion of adults exposed to SHS at any of the seven public places decreases from 28 percent among the persons aged 15-24 to 15.5 percent among the elderly aged 65 or above. Urban-rural differentials in the exposure to SHS at all the public places are quite narrow. At each of the seven public places higher proportion of men than women are exposed to SHS, again partly due to their mobility. More than one-third (36%) of men and 15 percent of women were exposed to SHS at any of the seven public places. With increase in education level, there is an increase in the exposure to SHS at each of the seven public places. The proportion of adults exposed to SHS at any of the seven public places increases from 18 percent among the persons with no formal schooling to 31 percent among those with secondary or above education. Among the adults engaged in different occupations, highest proportion of those who were Government of Non-Government employees (38%) were exposed to SHS at any public place. Even about one-third of self-employed (32%) or students (30%) were exposed to SHS at any public place. As those who are working, might get more opportunity to travel by public transport or visit Government building or restaurant, higher proportion of them are exposed to SHS at public places (Table 6.4).

Similar to the variation in the exposure to second hand smoke at home and workplace across the states/ UTs, the extent of SHS at various public places also varies across the states/ UTs (Appendix Table 6.3). In five states- Uttar Pradesh, Uttarakhand, Jammu & Kashmir, Haryana and Manipur one in every three (33-38%) of adults was exposed to SHS at any of the seven public places. The higher level of exposure to SHS at public places is mainly due to higher extent of exposure to SHS at public transportation, health care facility or Government office/ building.

Figure No. 6.4 – Exposure to second hand smoke at any public place (for all adults) among states/UTs, GATS India 2016-17

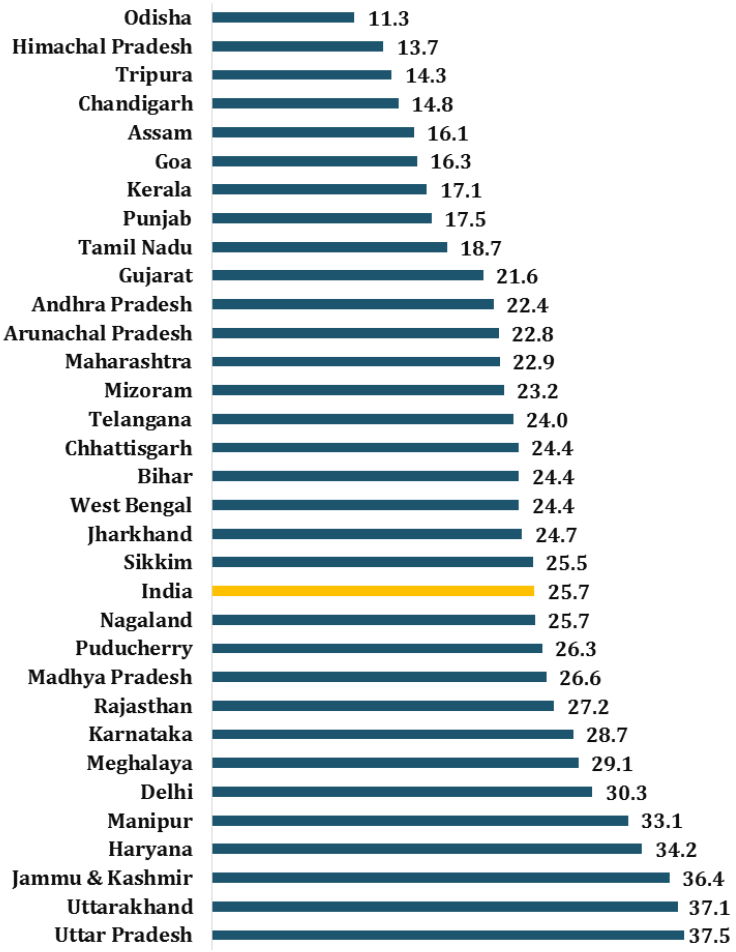


Table 6.4: Percentage of adults age 15 and above who were exposed to second-hand smoke in public places in the past 30 days, according to background characteristics, GATS 2, India, 2016-2017

	Percentage of all adults exposed to second hand smoke at							
Background characteristic	**Government building**	**Health care facility**	**Restaurant**	**Public transport**	**Private office**	**Bar**	**Cinema**	**Any of seven public place**
overall	5.3	5.6	7.4	13.3	3.6	2.1	2.2	25.7
Age								
15-24	5.1	5.2	8.7	15.7	3.4	1.3	3.5	28.1
25-44	5.5	5.9	8.6	13.4	4.0	3.0	2.4	27.4
45-64	6.0	5.9	5.7	12.4	3.7	2.0	0.9	23.4
65 or older	3.4	4.4	2.8	8.1	2.1	0.8	0.5	15.5
Residence								
Urban	5.9	5.7	8.4	13.0	5.0	2.5	3.5	27.4
Rural	5.0	5.5	7.0	13.5	2.9	2.0	1.6	24.8
Gender								
Male	8.1	6.8	13.0	16.6	5.8	4.1	3.9	35.7
Female	2.4	4.4	1.6	9.9	1.4	0.1	0.4	15.2
Education								
No formal schooling	2.8	4.3	3.6	10.8	1.5	1.5	0.6	18.0
Less than primary	4.1	5.9	6.5	12.7	3.1	2.3	1.4	24.1
Primary, but les than secondary	5.6	6.5	7.9	13.4	3.3	2.3	1.8	26.6
Secondary or above	7.3	5.8	10.1	15.3	5.5	2.4	3.9	30.9
Occupation								
Government ar non-governme employee	10.3	6.6	13.9	16.7	9.5	4.5	4.6	38.3
Self employed	6.1	6.3	9.9	14.7	3.9	3.5	2.6	29.8
Student	6.8	5.8	10.2	17.8	3.6	0.8	4.2	31.8
Home maker	1.9	4.4	1.3	9.3	1.0	0.1	0.3	14.2
Retired or unemployed	5.3	4.8	4.7	9.2	3.8	1.4	0.9	20.2

6.4. CHANGE IN EXPOSURE TO SECOND-HAND SMOKE AT VARIOUS PLACES; GATS 1 to GATS 2.

6.4.1 Change in SHS at workplace

The law enforcing ban on smoking at public places was enacted in 2008 and was modified in 2009. Immediately after the law was implemented, GATS 1 was conducted in 2009-10. Now 8 years after GATS 1, the difference in SHS exposure from GATS 1 to GATS 2 data may reflect the impact of the law enforcement. In this section, the changes in the exposure to SHS at enclosed workplaces, home and public places are discussed.

The difference in the exposure to all adults and non-smokers at their enclosed workplaces by selected characteristics of the respondents are presented in Table 6.5.

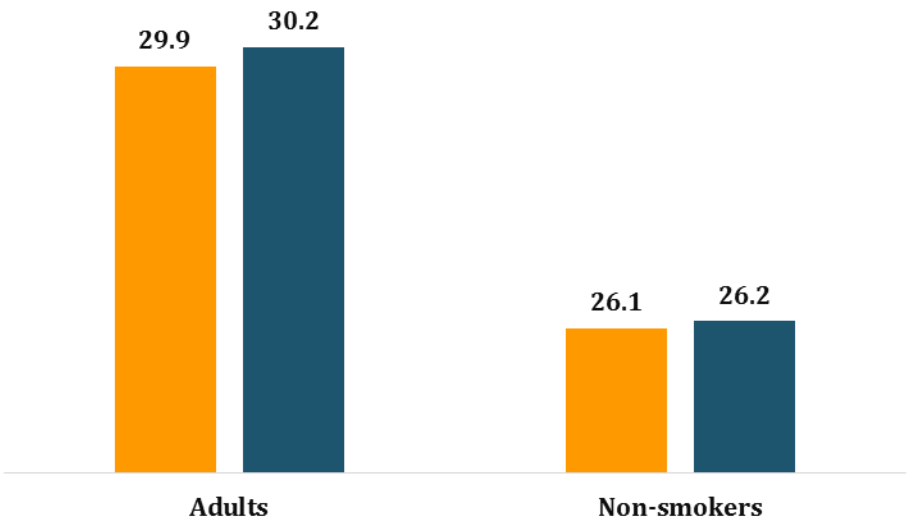
Table 6.5: Changes in the exposure to SHS at work[1] by smoking status, according to background characteristics, GATS India, 2009-10 and 2016-2017

	Percentage of adults exposed to SHS at work					
	Overall			Non-smoker		
Background characteristics	**GATS 1 2009-10**	**GATS 2 2016-17**	**Relative change**	**GATS 1 2009-10**	**GATS 2 2016-17**	**Relative change**
Overall	29.9	30.2	1.0	26.1	26.2	0.4
Gender						
Male	32.2	32.7	1.6	28.1	28.3	0.7
Female	19.4	17.9	-7.7	18.9	17.7	-6.3
Residence						
Urban	27.6	25.3	-8.3**	24.3	22.7	-6.6**
Rural	32.1	34.3	6.9**	27.8	29.4	5.8
Age (years)						
15-24	27.7	28.5	2.9	25.6	27.1	5.9
25-44	30.6	30.7	0.3	26.9	26.8	-0.4
45-64	30.3	30.3	0.0	24.2	23.8	-1.7
65+	31.4	31.7	1.0	27.2	26.1	-4.0

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.

From GATS 1 to GATS 2, there is an increase in the exposure to SHS at workplace among all adults as well as in non-smokers. However, the increase is not statistically significant. The increase in the exposure to SHS at workplaces has happened in rural areas, and the increase in the exposure to SHS among all respondents in rural areas is statistically significant. On the contrary, in urban areas, there has been a significant decrease in the exposure to SHS among all respondents and among non-smokers. Probably, ban on smoking at private and public workplaces is implemented in better way in urban than rural areas.

Figure 6.5 – Change in exposure to second hand smoke at work in the past 30 days among all adults and non-smokers, GATS 2009-10 and GATS 2016-17



There was no significant change in the exposure to SHS at workplace among all male and female adults and among non-smokers. There is also not significant change in SHS in all the four age-groups.

6.4.2 Change in SHS at home

Table 6.6 presents the difference in the exposure to all adults and non-smokers at home by their selected characteristics.In GATS 1, 60 percent of all respondents and 57 percent of non-smokers reported that smoking is allowed inside their home. By GATS 2 there was significant reduction in these proportions. In GATS 2, 49 percent of all respondents and 46 percent of smokers reported that smoking is allowed inside their home. As seen in Table 6.6 there is relative reduction of 26-27 percent in the exposure to SHS at home. Relative reduction in the range of 23 to 29 percent in the exposure to SHS at home has taken place in both urban and rural areas as well as among both male and female respondents and respondents from all the age-groups. In each category of age-group, residence and gender of both, all adults and non-smokers there is statistically significant reduction in the exposure to SHS at home.

Figure 6.6 – Change in percentage of adults who reported smoking is allowed at home among all adults and non-smokers, GATS 2009-10 and GATS 2016-17

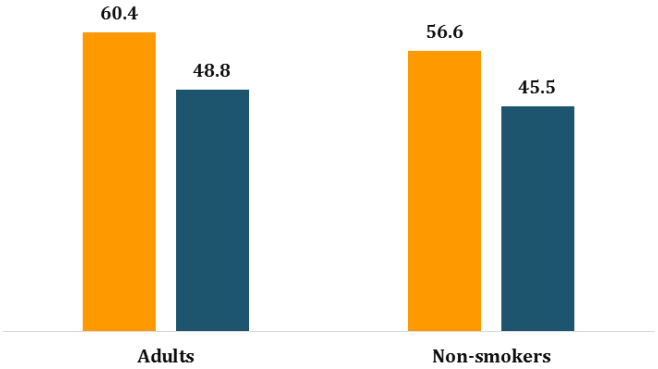


Figure 6.7 – Change in exposure to second hand smoke at home among all adults and non-smokers, GATS 2009-10 and GATS 2016-17

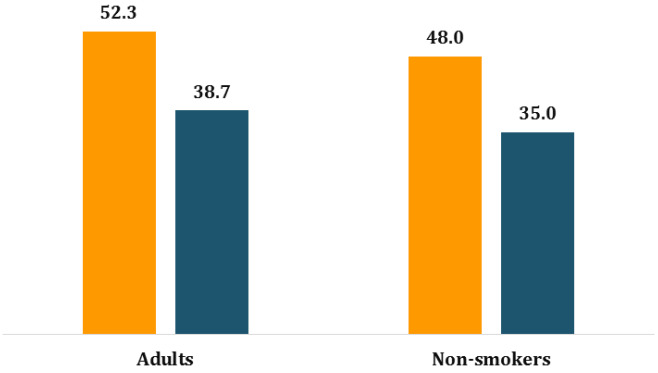


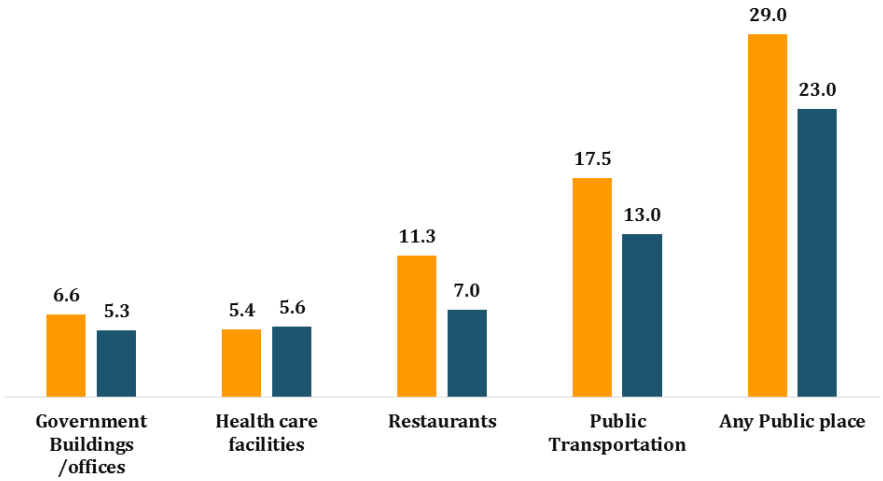
Table 6.6: Changes in the exposure to SHS at home and are exposed to second-hand smoke at home by smoking status, according to background characteristics, GATS India, 2009-10 and 2016-2017

	Percentage of adults exposed to SHS at home					
	Overall			Non-smoker		
	GATS 1 2009-10	GATS 2 2016-17	Relative change	GATS 1 2009-10	GATS 2 2016-17	Relative change
Overall	52.3	38.7	-26.0**	48.0	35.0	-27.1**
Gender						
Male	52.2	38.1	-27.0**	43.9	31.0	-29.4**
Female	52.5	39.3	-25.1**	51.3	38.4	-25.1**
Residence						
Urban	38.5	27.9	-27.5**	34.5	25.0	-27.5**
Rural	58.0	44.4	-23.4**	53.7	40.4	-24.8**
Age (years)						
15-24	51.9	38.6	-25.6**	50.9	37.9	-25.5**
25-44	52.2	38.6	-26.1**	47.8	34.8	-27.2**
45-64	53.0	39.0	-26.4**	44.3	32.4	-26.9**
65+	52.7	38.5	-26.9**	44.9	31.9	-29.0**

6.4.3 Change in SHS at public places:

Changes in the exposure to SHS among all adults at four public places, 1) Government office/ building, 2) Health care facility, 3) Restaurant and 4) Public transportation from GATS 1 to GATS 2 by selected characteristics of the respondents are presented in Table 6.7. GATS 2 collected data on exposure to SHS at seven different places, but in GATS 1 data on SHS was collected only for four public places, and hence comparison is presented for four public places.

Figure 6.8 – Change in exposure to second hand smoke at different public places among all adults, GATS 2009-10 and GATS 2016-17



Between GATS 1 to GATS 2, there has been has been sizeable relative reduction in the exposure to SHS at Government office/ building (20%), restaurant (35%), and public transportation (24%). The decrease in the prevalence of exposure to SHS at these three public places is statistically significant. In both, urban and rural areas there is statistically significant decrease in the exposure to SHS at Government office/ building, restaurant and public transportation.

On the contrary, there is a small increase in the extent of exposure to SHS at health care facility, though the increase is not statistically significant. In other words, in the seven years between GATS 1 to GATS 2, the prevalence of exposure to SHS at health care facility is has remained unchanged. In urban areas, there is some reduction in the prevalence of SHS at health care facility, but the reduction is not statistically significant. On the contrary, in rural areas there is significant increase (significant at 5% level of significance) in the extent of exposure to SHS at health care facility.

Table 6.7: Changes in the exposure to SHS at different public places in the past 30 days, according to background characteristics, GATS India, 2009-10 and 2016-2017

	Percentage of all adults exposed to SHS at											
	Government building/ office			Health care facility			Restaurant			Public transportation		
	GATS 1 2009-10	GATS 2 2016-17	Relative change	GATS 1 2009-10	GATS 2 2016-17	Relative change	GATS 1 2009-10	GATS 2 2016-17	Relative change	GATS 1 2009-10	GATS 2 2016-17	Relative change
Overall	6.6	5.3	-19.7**	5.4	5.6	3.7	11.3	7.4	-34.5**	17.5	13.3	-24.0**
Gender												
Male	10.3	8.1	-21.4**	6.0	6.8	13.3**	19.2	13.0	-32.3**	22.0	16.6	-24.5**
Female	2.6	2.4	-7.7	4.8	4.4	-8.3**	2.8	1.6	-42.9**	12.6	9.9	-21.4**
Residence												
Urban	7.9	5.9	-25.3**	5.8	5.7	-1.7	14.0	8.4	-40.0**	17.9	13.0	-27.4**
Rural	6.1	5.0	-18.0**	5.3	5.6	5.7*	10.2	7.0	-31.4**	17.3	13.5	-22.0**
Age (years)												
15-24	6.5	5.1	-21.5**	4.3	5.2	20.9**	13.1	8.7	-33.6**	19.7	15.7	-20.3**
25-44	7.0	5.5	-21.4**	6.1	5.9	-3.3	12.4	8.6	-30.6**	18.1	13.4	-26.0**
45-64	6.8	6.0	-11.8**	5.9	5.9	0.0	9.0	5.7	-36.7**	15.3	12.4	-19.0**
65+	3.9	3.4	-12.8	4.7	4.4	-6.4	4.2	2.8	-33.3**	10.8	8.1	-25.0**

CHAPTER SEVEN

ECONOMIC ASPECT OF TOBACCO USE

The economic aspect of tobacco use has multiple dimensions, as there are number of stakeholders involved in it. India is one of the largest tobacco producing country (16). Tobacco is an important commercial crop. It contributes US $ 900 million in the form of foreign exchange and 3.4 billion in the form of excise levied on manufactured tobacco. Tobacco farming provides employment to 36 million people (17). Besides in farming, many women and children are engaged in manufacturing bidis and various forms of smokeless tobacco products working from home. It is estimated that bidi manufacturing provides employment to more than 4.4 million workers (18). At the same time, tobacco consumption imposes high direct and indirect costs on the national economy in the form of treatment to a number of non-communicable diseases attributable to tobacco smoking and use of smokeless tobacco. According MoHFW, Government of India, the total economic costs attributable to tobacco use from all diseases in India in year 2011 for persons aged 35-69 amounted to Rs. 1,04,500 crores (US $ 22.4 billion), of which 16 percent was direct cost and 84 percent was indirect cost. Direct medical costs of hospital care and treatment of tobacco attributable diseases amounted to Rs. 16,800 crore (US $ 3.1 billion), and associated indirect morbidity cost to Rs. 14,700 crore (US $ 3.1 billion). The cost from premature mortality was Rs. 73,000 crores (US $ 15.6 billion) (19) .

Households of tobacco users bear expenditure incurred on buying tobacco products. GATS 1 gave estimates of monthly expenditure on cigarette and bidi. One study using nationally representative data collected at the household level by the NSSO during the year 2011–2012 showed that, tobacco budget shares of the total household budget were approximately 2% for all expenditure tertiles (20).

As stated above, though economics aspects of tobacco use has multiple dimensions, GATS 2 does not attempt to explore from the angle of the economy. Similar to GATS 1, GATS 2 explore only two aspects of it, a) source or place of purchasing cigarette, bidi and smokeless tobacco, and b) expenditure incurred by cigarette, bidi smokers and smokeless tobacco users while last purchase of these products respectively.

7.1 SOURCE OF LAST PURCHASE OF CIGARETTE

GATS India collected information on source of cigarettes purchased during the most recent purchase prior to the survey from all cigarette smokers. Percent distribution of current cigarette smokers by source of cigarettes purchased during the last time according to selected background characteristics is shown in Table 7.1. The Figure and Table 7.1 show that in India half (51%) of the current cigarette smokers have purchased cigarettes from the store. The other prominent places of cigarette purchase are kiosk/ *pan* shop (39%) and street vendor (9.2%). A small proportion of cigarette smokers have purchased cigarettes from other sources that includes vending machine, military store, duty free shop, outside country purchase, from other person or any other place. A similar pattern is found both in, rural and urban areas,

where more than half of smokers bought cigarettes from the store and 38-40 percent bought from kiosk/ *pan* shop. One-third of female smokers bought cigarettes from sources other than store, street vendor and kiosk/ *pan* shop.

The Section 6 of Cigarettes and Other Tobacco Products Act (COTPA) deals with prohibition of tobacco sale to minors or sale of tobacco around educational institutes. By the amended Juvenile Justice (Care and Protection of Children) Act 2015, those selling tobacco products or cigarettes to minors get stringent punishment. The offender can get a jail term of seven years and a fine of Rs 1 lakh against the earlier Rs 200 fine imposed under the Cigarettes and Other Tobacco Products Act (COTPA). Under this background it is quite surprising to note that 82 percent of current cigarette smokers aged 15–17 years could buy cigarettes from kiosk/ *pan* shop and 17 percent could buy cigarettes from store. Majority (57%) of the smokers aged 18-24 bought cigarettes from kiosk/ pan shop. There was no specific pattern of relationship between education level or occupational category of smoker and place of last purchase of cigarettes. The only point to mention is that about 10 percent of students bought cigarettes from other sources; probably their friends.

The variation in the place of last purchase of cigarette across the states/ UTs is quite evident in table A-7.1. Though, nationally half of the current cigarette smokers have purchased cigarettes from the store, in many states like, Rajasthan (98%), Mizoram (94%), Himachal Pradesh (92%), Jammu & Kashmir (87%), Punjab (85%) and Tamil Nadu (81%) more than 80 percent of cigarette smokers bought cigarette from stores. In comparison to other states, in Tripura (65%), Arunachal Pradesh (45%), Nagaland (45%) and Andhra Pradesh (35%) one-third or more of cigarette smokers bought cigarettes from street vendor. In Odisha (83%), Manipur (77%), Madhya Pradesh (67%), and Maharashtra (66%) kiosk/ pan shop was the main source of cigarette from where two-thirds or more cigarette smokers bought 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-2, India, 2016-2017

Background characteristic	Store	Street vendor	Kiosk/ *pan* shop	Others[1]	Total
Overall	50.8	9.2	38.7	1.4	100
Gender					
Male	50.9	9.2	39.0	0.9	100
Female	39.2	9.3	17.3	34.2	100
Age					
15-17	16.7	0.8	81.5	1.0	100
18-24	36.6	6.5	56.6	0.3	100
25+	53.9	9.8	34.8	1.6	100
Residence					
Urban	49.5	8.6	39.9	2.0	100
Rural	51.9	9.7	37.7	0.8	100
Education level					
No formal schooling	49.4	12.5	37.6	0.5	100
Less than primary	57.2	10.4	31.3	1.2	100
Primary but less than secondary	47.0	8.2	44.4	0.4	100
Secondary and above	52.3	8.4	36.7	2.5	100
Occupation					
Government and non-government employee	51.8	9.1	37.1	2.1	100
Self employed	50.0	9.4	40.2	0.5	100
Student	46.5	4.9	37.9	10.8	100
Home maker	65.7	7.9	24.3	2.1	100
Retired or unemployed	55.1	10.5	32.8	1.6	100

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

7. 2 SOURCE OF LAST PURCHASE OF *BIDI*S

The information on the source of last purchase of *bidi* by background characteristics is presented in Table 7.2 and Figure 7.2. The pattern of distribution of place of last purchase of *bidi* is more or less similar to that of place of last purchase of cigarette. A large proportion of *bidi* smokers have bought *bidi*s from store (60%), about one-third (32%) have bought it from the kiosk/ pan shop and a small proportion (7%) have bought it from street vendor. In comparison to men a higher proportion of women have bought *bidi*s from store (71% women vs. 60% men) and lower proportion bought *bidi*s from kiosk/ *pan* shop (22% women vs. 33% men). Similarly relatively higher proportion *bidi* smokers from rural areas bought bidis from store (62% from rural areas vs. 54% from urban areas) and lower proportion bought *bidi*s from kiosk/ *pan* shop (30% from rural areas vs. 38% from urban areas).

In spite of ban on selling tobacco products to minors, 48 percent of minor bidi smokers aged 15–17 years, bought *bidi*s from kiosk/ *pan* shop (48%) or store (28%). About one-fourth (24%) of them bought bidis from street vendor. *Bidi* smokers aged 18 or above bought bidis from store (61-62%). With increase in education the proportion of *bidi* smokers who bought *bidi*s from store decreased and who bought bidis from kiosk/ pan shop increased; but the difference in the place of buying bidis with increase in education level was quite small. Relatively higher proportion of home maker bidi smokers bought bidis from store (73%) and lesser proportion of them bought bidis from kiosk/ pan shop (22%).

The variation in the place of last purchase of *bidi* across the states/ UTs is quite similar to the variation in place of last purchase of cigarette (Appendix Table A-7.2). In Jammu & Kashmir, Rajasthan and Himachal Pradesh (98%) almost all *bidi* smokers bought *bidis* from store. Even in Kerala (87%), Goa (84%), Jharkhand (83%) and Chhattisgarh (80%) more than 80 percent of *bidi* smokers bought *bidis* from stores. Only in Tripura (63%) and Puducherry (40%) more than one-third of *bidi* smokers bought *bidis* from street vendor. Majority of *bidi* smokers in Odisha (73%), Manipur (79%), Nagaland (62%), West Bengal (58%), Meghalaya (56%) and Kerala and Sikkim (50 in both) purchased *bidis* from Kiosk/ pan shop.

Table 7.2: Percent distribution of current *bidi* smokers age 15 and above by source of last purchase of *bidi*, according to background characteristics, GATS-2, India, 2016-2017

Background characteristic	Store	Street vendor	Kiosk/ *pan* shop	Others[1]	Total
Overall	60.4	7.0	31.8	0.7	100
Gender					
Male	59.6	7.3	32.6	0.5	100
Female	71.4	3.2	21.5	3.9	100
Age					
15-17	28.2	23.9	47.9	0.0	100
18-24	61.5	7.2	29.2	2.1	100
25+	60.5	6.9	31.9	0.7	100
Residence					
Urban	53.6	7.9	38.1	0.4	100
Rural	62.3	6.8	30.2	0.8	100
Education level					
No formal schooling	62.6	6.4	30.0	1.0	100
Less than primary	60.1	8.2	31.0	0.7	100
Primary but less than secondary	58.5	7.4	33.5	0.6	100
Secondary and above	58.7	6.6	34.4	0.2	100
Occupation					
Government and non-government employee	61.6	6.4	31.6	0.4	100
Self employed	58.3	7.4	33.8	0.6	100
Student	63.7	2.6	33.4	0.3	100
Home maker	72.8	2.9	22.0	2.4	100
Retired or unemployed	69.4	7.2	22.2	1.2	100

7.3 SOURCE OF LAST PURCHASE OF SMOKELESS TOBACCO

The distribution of place of last purchase of smokeless tobacco is also similar to the distribution of place of last purchase of cigarette and bidi. Majority (56%) of the smokeless tobacco users have purchased it from the store, 36 percent have purchased it from kiosk/ pan shop and seven percent bought it from the street vendor (Table 7.3). The differentials in the place of purchase of smokeless tobacco by residence or gender were almost similar to the differentials in the place of purchase of cigarette or bidis. Again, in spite of ban on selling tobacco products to minors, 60 percent of smokeless tobacco users aged 15–17 years, bought smokeless tobacco products from store and 29 percent bought it from kiosk/ pan shop. With increase in education the proportion of smokeless tobacco users who bought smokeless tobacco products from store decreased and who bought it from kiosk/ pan shop increased. Kiosk/ pan shop was the main place of purchase of smokeless tobacco for Government and Non-Government employees and students as almost half (46%) of them bought tobacco from Kiosk/ pan shop. On the contrary most (62%) of home makers bought smokeless tobacco from store and only 27 percent bought it from kiosk/ pan shop.

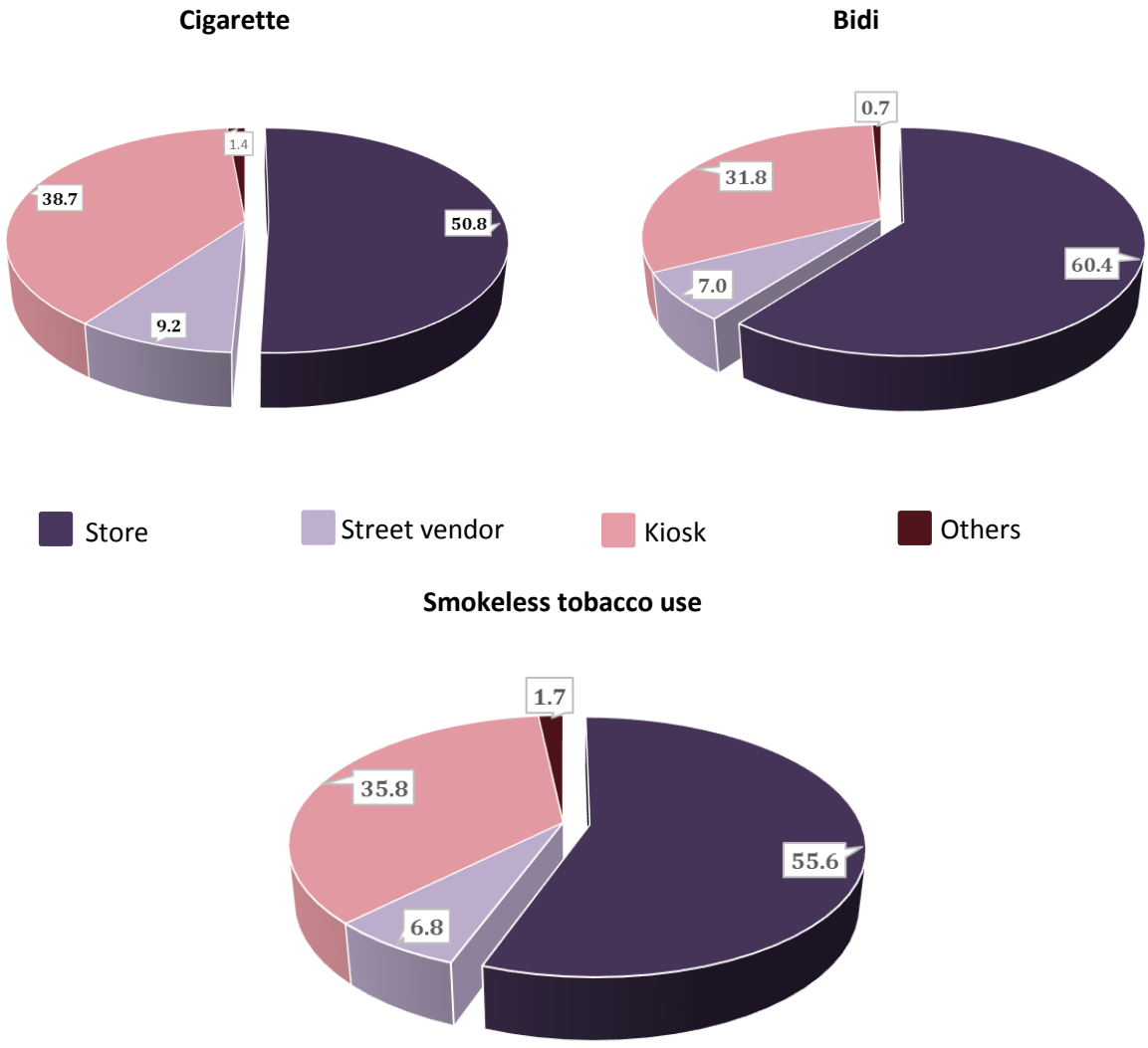
The state/ UT level variation in the place of last purchase of smokeless tobacco is also similar to the place of last purchase of cigarette and bidi (Appendix Table A- 7.3).

Table 7.3: 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-2, India, 2016-2017

Background characteristic	Store	Street vendor	Kiosk/ *pan* shop	Others[1]	Total
Overall	55.6	6.8	35.8	1.7	100
Gender					
Male	53.5	5.7	40.2	0.6	100
Female	60.8	9.6	25.3	4.4	100
Age					
15-17	60.4	9.9	28.8	0.8	100
18-24	50.4	6.6	42.6	0.5	100
25+	56.3	6.8	34.9	1.9	100
Residence					
Urban	49.9	7.1	41.5	1.5	100
Rural	57.5	6.8	33.9	1.8	100
Education level					
No formal schooling	59.9	7.9	29.4	2.8	100
Less than primary	56.1	7.1	35.5	1.4	100
Primary but less than secondary	54.8	6.3	38.0	1.0	100
Secondary and above	48.8	5.7	44.1	1.3	100

Occupation					
Government and non-government employee	48.8	5.2	45.5	0.5	100
Self employed	55.1	7.2	36.7	1.0	100
Student	48.6	5.1	45.7	0.6	100
Home maker	61.7	6.3	27.2	4.8	100
Retired or unemployed	57.9	8.0	30.9	3.2	100

Figure No. 7.1 – Percent distribution of current cigarette, bidi and smokeless tobacco users by source of their last purchase, GATS India 2016-17



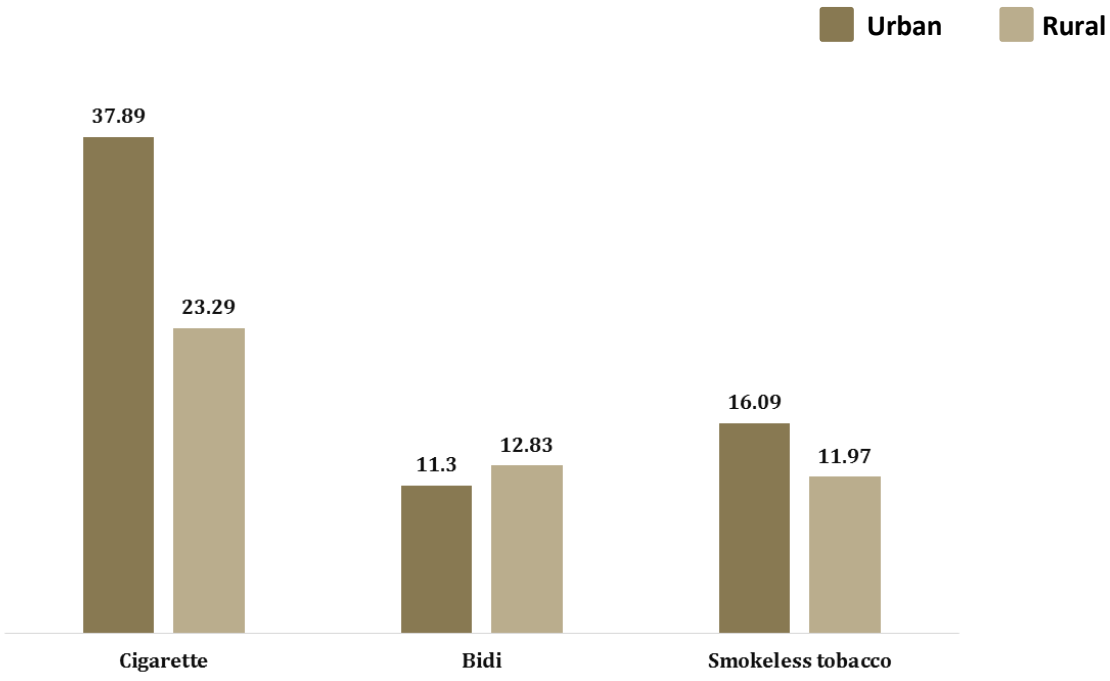
7.4 EXPENDITURE ON SMOKING AND SMOKELESS TOBACCO

7.4.1 Average expenditure (in Rs) on tobacco during last purchase

GATS 2 collected data on expenditure incurred during the last purchase of cigarette, bidi and smokeless tobacco from all current cigarette smokers, bidi smokers and smokeless tobacco users respectively. While, interpreting data on expenditure incurred during the last purchase one point need to be kept in mind that the quantity bought during last purchase is not considered and hence average amount is the average value of expenditure incurred on different quantities of tobacco products.

On an average, a cigarette smoker spent Rs 30 on the latest cigarette purchase. Compared to the amount spent on cigarette purchase, the amount spent by bidi smoker and smokeless tobacco users on bidi and smokeless tobacco was much less; about Rs. 12.5 and Rs. 12.8. Female cigarette and bidi smokers spent Rs. 1 to 3 less on buying cigarettes and bidis respectively, where as they spent Rs.3 more on buying smokeless tobacco. The average expenditure incurred by cigarette smoker and smokeless tobacco users from urban areas was higher than their rural counterparts (Rs 15 on cigarette and Rs 4 on smokeless tobacco).

Figure No. 7.2 – Average expenditure incurred by cigarette, bidi and smokeless tobacco during the last purchase according to residence, GATS India 2016-17



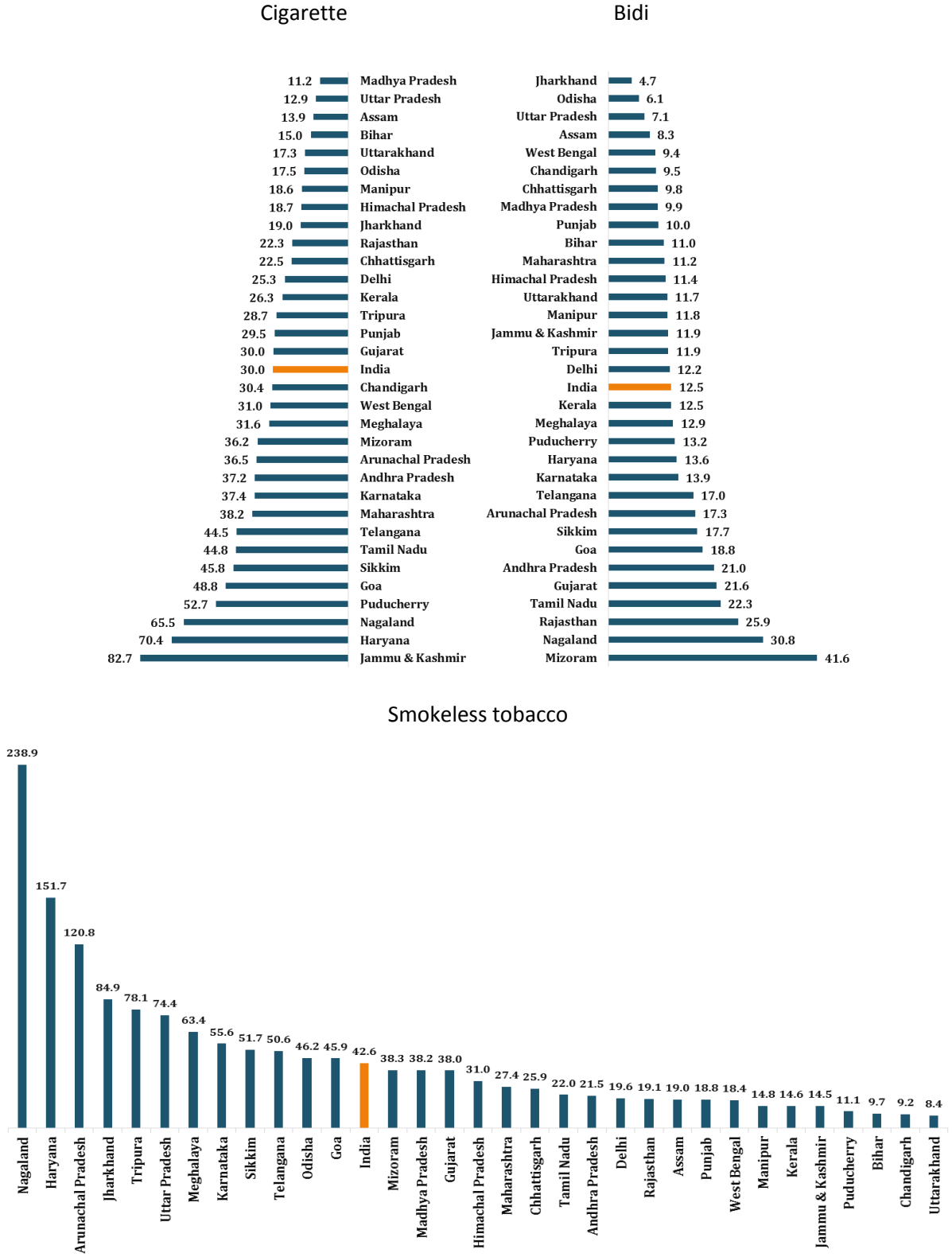
With increase in age there was an increase in the expenditure incurred during last purchase of cigarette and bidi, while it was almost same in the case of last purchase of smokeless tobacco products. Similarly, with increase in education level, there was an increase in the amount spent by cigarette smoker on the last purchase of cigarettes. However, there was no specific pattern in the expenditure spent on bidi or

smokeless tobacco. Government and Non-Government employees incurred higher amount on cigarette (Rs. 35) whereas home makers incurred more on smokeless tobacco products (Rs. 16.3). Students also spent Rs 31.2 on cigarettes.

Table 7.4: 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-2, India, 2016-2017

	Tobacco expenditure in the last purchase (in ₹)		
Background characteristic	**Cigarette**	***Bidi***	**Smokeless tobacco**
Overall	29.96	12.5	12.76
Gender			
Male	30.00	12.60	11.27
Female	27.11	11.26	14.93
Age			
15-17	10.39	6.66	11.49
18-24	17.02	10.04	9.65
25+	32.63	12.66	13.04
Residence			
Urban	37.89	11.30	16.09
Rural	23.29	12.83	11.97
Education level			
No formal schooling	22.75	12.44	14.34
Less than primary	18.74	12.42	13.26
Primary but less than secondary	25.91	12.20	10.04
Secondary and above	39.06	13.49	12.99
Occupation			
Government and non-government employee	34.97	11.04	10.73
Self employed	28.48	12.5	11.64
Student	31.20	7.47	8.62
Home maker	21.38	12.63	16.26
Retired or unemployed	28.84	14.07	13.71

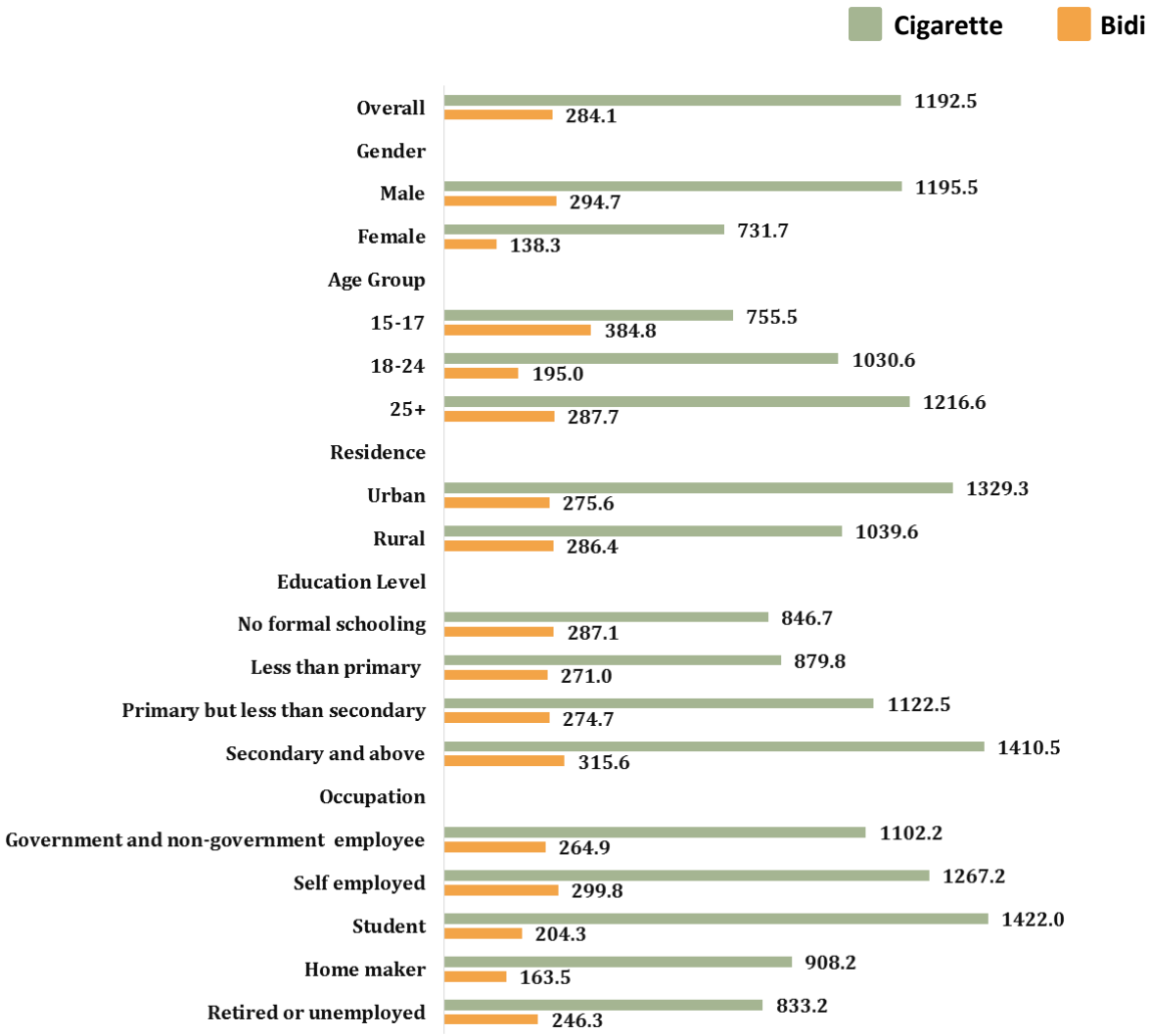
Figure No. 7.3 – Average expenditure (in Indian Rupees) incurred by cigarette, bidi and smokeless tobacco during the last purchase among states/UTs, GATS India 2016-17



7.4.2 Average monthly expenditure (in Rs) on manufactured cigarette and *bidi*

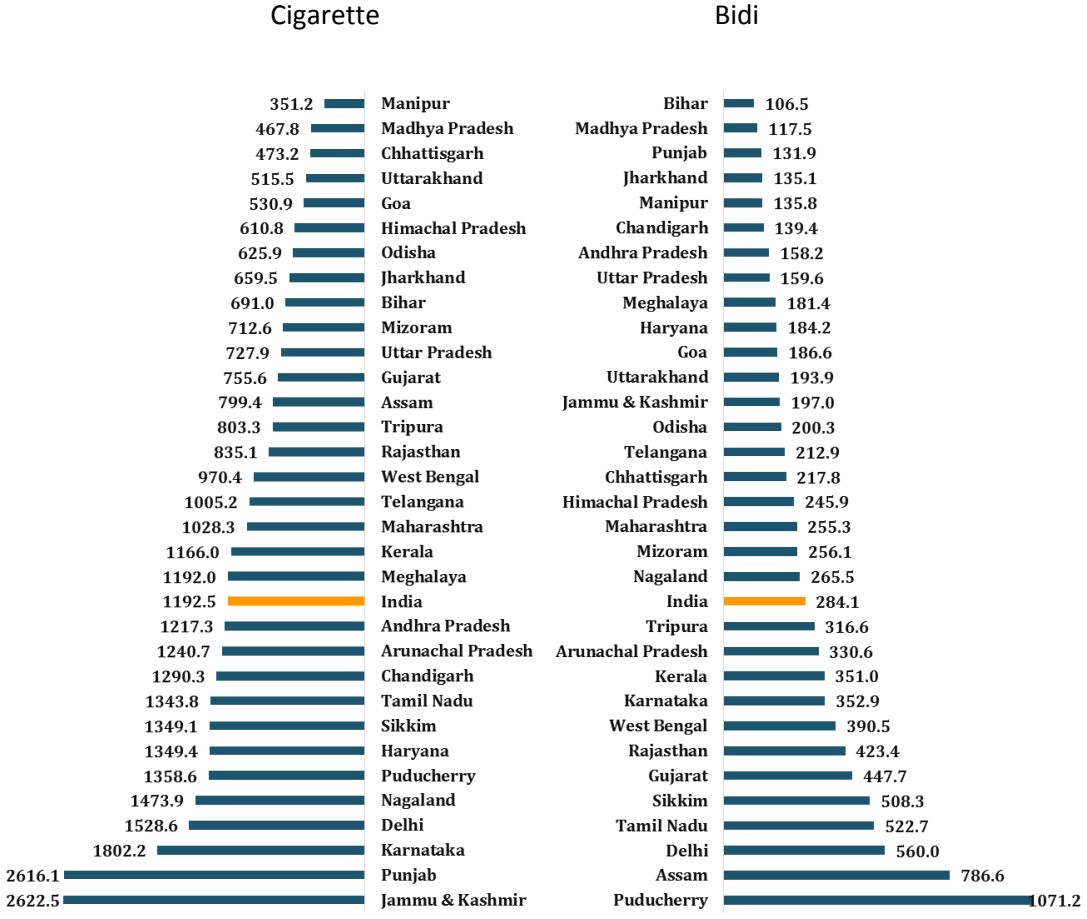
Table 7.5 presents estimated monthly expenditure on manufactured cigarette and bidis spent by a daily cigarette and bidi smoker respectively. In GATS 2 questionnaire there was no direct question on monthly expenditure. The monthly expenditure is estimated indirectly from data on i) the average number of manufactured cigarettes/ bidis smoked per day by a daily cigarette/ bidi smoker, ii) number of manufactured cigarettes/ bidis bought during last purchase of these tobacco products and iii) amount spent on last purchase. From the average number of manufactured cigarettes/ bidis smoked per day number of cigarettes/ bidis smoked per month is estimated and from the data on last purchase of cigarette/ bidi cost per manufactured cigarette/ bidi is estimated. Application of cost per cigarette/ bidi to the number of cigarettes/ bidis smoked per month provides the estimate of average monthly expenditure on cigarette/ bidi by a daily cigarette or bidi smoker.

Figure No. 7.4 – Average expenditure (in Indian Rupees) incurred by cigarette, bidi smokers by background characteristics, GATS India 2016-17



A daily cigarette smoker in India spends on an average Rs. 1192.45 per month on manufactured cigarettes; and a daily bidi smoker spends on an average Rs. 284.12 on bidis. Female smokers spent much lower amount on monthly expenses on both cigarettes and bidis. However it may be noted that the number of cigarettes/ bidis smoked per day by a daily female smoker was much less than that by a male smoker (Tables 4.** and 4.*). Monthly expenditure on both, cigarette and bidi was higher among daily smokers aged 25 years or above than among daily smokers aged 18-24 years. A daily cigarette smoker from urban areas spent more than Rs. 200 compared to his/ her rural counterpart, but spent almost Rs 10 less on bidis. With increase in education level there is an increase in the monthly expenditure on cigarettes and bidis. With increase in education level, there is a decrease in the average number of cigarettes/ bidis smoked per day by a daily cigarette/ bidi smoker. Probably educated smokers and smokers from urban areas may be smoking relatively expensive brand of cigarettes. Among daily cigarette smokers from all the categories of occupation, monthly expenditure on cigarettes by self-employed (Rs 1267) and students (Rs 1422) is at higher side and by home makers and retired/ unemployed cigarette smokers is at lower side. Home makers' and retired/ unemployed bidi smokers' monthly expenditure on bidis is also relatively low as compared to smokers from other occupations.

Figure No. 7.5 – Average monthly expenditure (in Indian Rupees) incurred by cigarette and bidi among states/UTs, GATS India 2016-17



The state/ UT level variation in the average monthly expenditure on cigarettes and bidis is evident from the Figure 7.** and Appendix Table A-7.5.

Table 7.5: Average monthly expenditure (in ₹) incurred by daily smoker of manufactured cigarettes and bidi, according to background characteristics, GATS-2, India, 2016-2017

	Monthly expenditure incurred by current smokers of manufactured cigarette and *bidi* (in ₹)	
Background characteristic	**Cigarette**	***Bidi***
Overall	1192.45	284.12
Gender		
Male	1195.53	294.73
Female	731.68	138.33
Age		
15-17	755.51*	384.79*
18-24	1030.58	194.95
25+	1216.6	287.69
Residence		
Urban	1329.25	275.59
Rural	1039.63	286.35
Education level		
No formal schooling	846.65	287.1
Less than primary	879.84	270.95
Primary but less than secondary	1122.47	274.69
Secondary and above	1410.51	315.6
Occupation		
Government and non-government employee	1102.16	264.87
Self employed	1267.17	299.83
Student	1421.97	204.28*
Home maker	908.19	163.53
Retired or unemployed	833.23	246.28

7.5 CHANGE IN AVERAGE MONTHLY EXPENDITURE (IN RS) ON MANUFACTURED CIGARETTE AND BIDI (GATS 1 TO GATS 2)

Monthly expenditure on cigarette and bidis incurred by daily smokers of cigarette and bidi is available from GATS 1. In this section expenditures on cigarette and bidi in GATS 1 and GATS 2 are compared. The monthly expenditure on cigarettes has increased from Rs. 399.2 in GATS 1 to Rs. 1192.5 in GATS 2 (Table 7.6). The expenditure in GATS 1 refers to the prices as they were seven years ago; so adjusting it to the inflation rates for the period 2010-2016, GATS 1 expenditure at current period is Rs. 668.0. In seven years the monthly expenditure on cigarette has increased by 78.5 percent. The increase in the monthly expenditure is statistically significant at one percent level of significance. During GATS 1 to GATS 2, there was no significant change in the number of cigarettes smoked per day by a daily cigarette smoker, so the increase in the monthly expenditure can be attributed to either a shift to smoking more expensive brands or an increase in cigarette prices. Between GATS 1 to GATS 2, there was a significant increase, of the order of 69-79 percent, in the average monthly expenditure on cigarettes of male daily cigarette smokers as well as smokers from both urban and rural areas. The monthly expenditure on cigarettes of female cigarette smokers increased by 146 percent from Rs. 297.5 in GATS 1 to Rs. 731.7 in GATS 2; however the increase was not statistically significant.

Figure No. 7.6 – Change in monthly expenditure (in Indian Rupees) for cigarette according to gender and residence, GATS India, 2009-10 and 2016-17

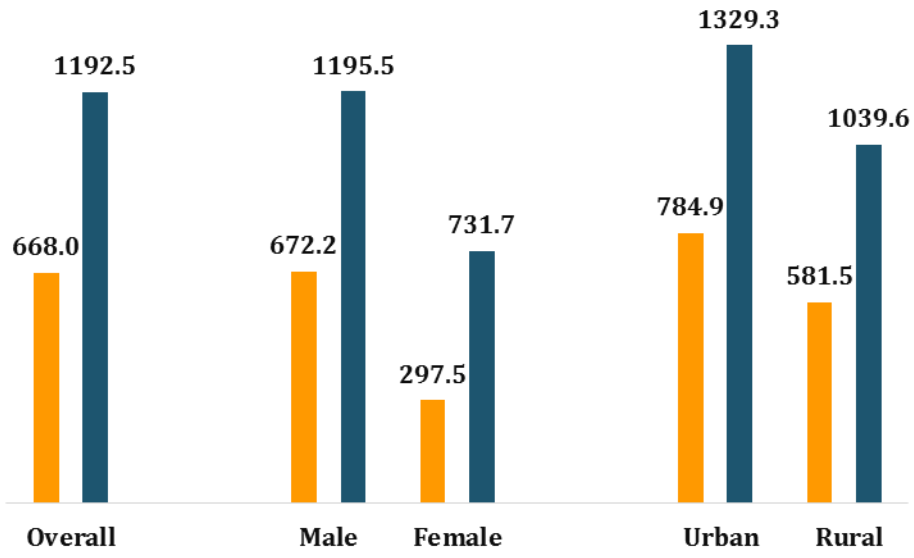
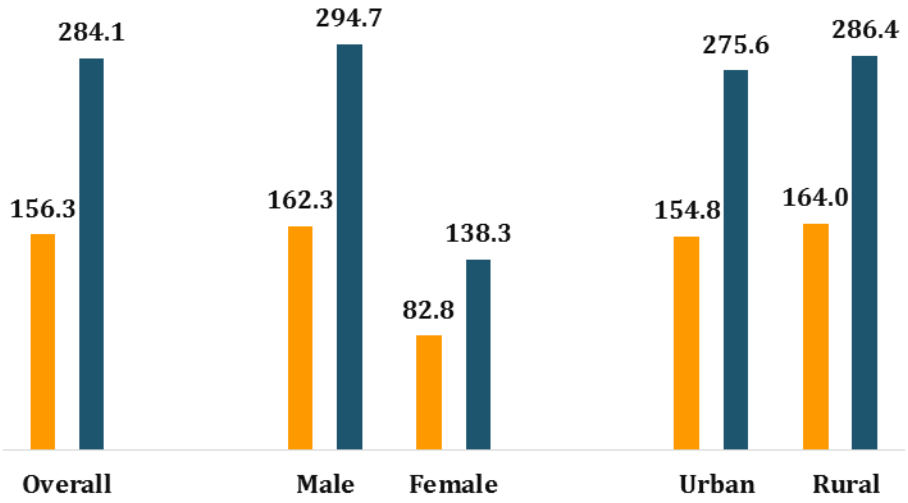


Figure No. 7.7 – Change in monthly expenditure (in Indian Rupees) for bidi according to gender and residence, GATS India, 2009-10 and 2016-17



In GATS 1 the estimate of average monthly expenditure on bidis for a daily bidi smoker was Rs. 93.4 which after adjustment of inflation was Rs. 156.3. By GATS 2 there was an increase of 81.8 percent in the monthly expenditure on bidis and the increase is statistically significant. Between GATS 1 and GATS 2, there was a significant increase (3.5 bidis per day) in the average number of bidis smoked per day by a daily bidi smoker. The increase in the monthly expenditure on bidis can be partly attributed to the increase in the consumption of bidis. Since GATS 1, there was significant increase, of the order of 67-82 percent, in the average monthly expenditure on bidis of both male and female daily cigarette smokers as well as smokers from both urban and rural areas.

Table 7.6 Change in Average monthly expenditure (in ₹) incurred by daily smoker of manufactured cigarettes and *bidi*, according to background characteristics, GATS India, 2009-10 and 2016-17

	Average monthly expenditure on cigarette			Average monthly expenditure on *bidi*		
	2009-10[1]	2016-17	Relative change	2009-10[1]	2016-17	Relative change
Overall	668.0	1192.5	78.5**	156.3	284.1	81.8**
Gender						
Male	672.2	1195.5	77.8**	162.3	294.7	81.5**
Female	297.5	731.7	145.9	82.8	138.3	67.0**
Residence						
Urban	784.9	1329.3	69.4 **	154.8	275.6	78.0**
Rural	581.5	1039.6	78.7**	164.0	286.4	74.6**

CHAPTER EIGHT

MEDIA

Media is a significant factor affecting tobacco consumption. Research indicates that media promoting tobacco products leads to initiation at younger ages, higher consumption and lesser likelihood of quitting. Concomitantly, media that provides information about the ill-effects of tobacco consumption and discourages its use has a significant relation with likelihood of making quit attempts, reduction in use and lower chance of initiation. The Control of Tobacco Products Act (COTPA), 2003 is the principal law governing tobacco advertising in India. The earlier version of COTPA had provisions for banning the direct and indirect advertisement of tobacco products (except at point of sale). An amendment in April 2016 increased the size of the warning on tobacco packets to a minimum of 3.5 cms (width) and 4 cms (height). This amounts to covering 85% of both sides of the tobacco package.

Additionally, the Cable Television Networks (Regulation) Act, 1995 (CTNA) along with the 2009 implementing rules disallow direct advertising of tobacco products on cable networks in India. A subsequent Ministry of Information and Broadcasting Directive, also disallows indirect advertising of tobacco products.

This chapter describes the results of the data collected on media under the GATS 2 survey. The first section presents information on the extent of anti-tobacco messaging in the media. The second section deals with exposure to tobacco marketing in the form of advertisements, promotions, etc. In the third and last section, comparisons are made between data collected in India at the time of GATS I (2009-10) and the second round of the survey in 2016-17.

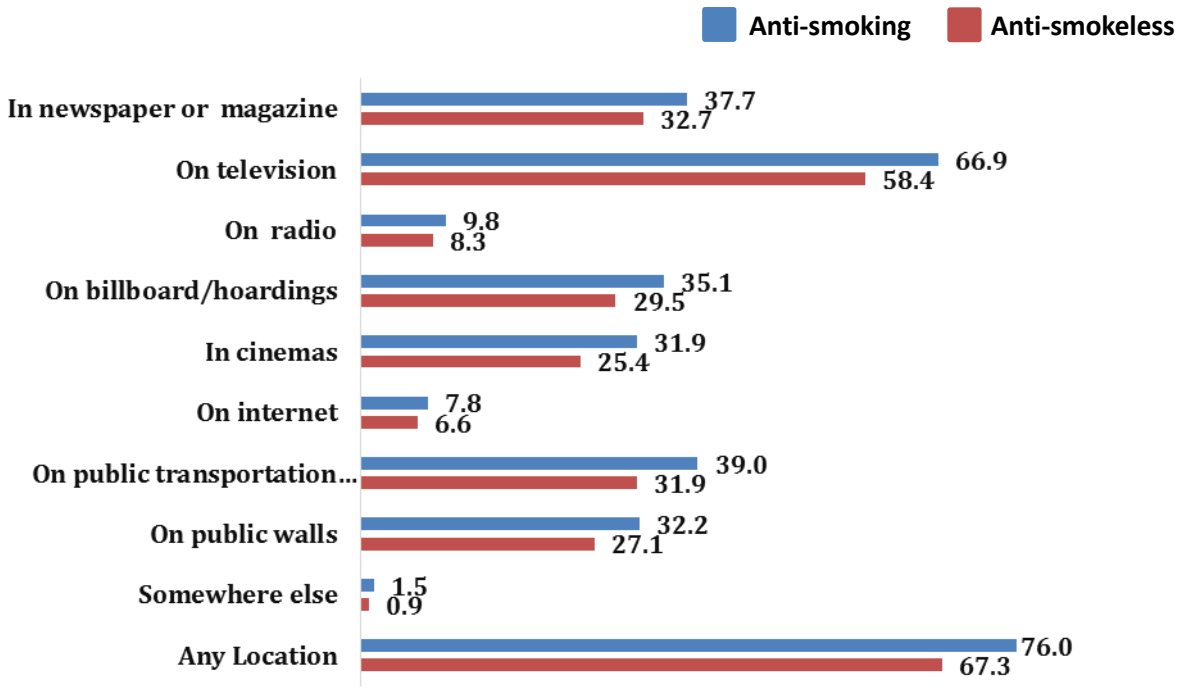
8.1 . ANTI – TOBACCO MESSAGING

8.1.1. Anti-tobacco information in the media

Table 8.1 shows that 76% of adults* (both smokers and non-smokers) noticed anti-smoking information in a public or other place (media, internet, public walls, transportation) during the last 30 days. There was no real difference between the percentage of current smokers (75%) and non-smokers (76.1%) who had noticed anti-smoking information. Television was the form of media where the highest percentage (67%) of the population had noticed anti-smoking information.

*Adults mean age 15 and above

Figure No. 8.1 – Percentage of adults who noticed anti-smoking tobacco & anti-smokeless tobacco information during the last 30 days at various places, GATS India 2016-17



With respect to smokeless tobacco, 67.3% of both smokeless tobacco users and non-users had noticed anti-smokeless tobacco information in any one or more forms of the media in the last 30 days. In this case, the percentage of non users (68.5%) noticing anti-tobacco information was higher than the percentage of smokeless tobacco users (62.9%). Television was the medium where the highest percentage of the population (58.4%) had noticed anti smokeless tobacco information.

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-2, India, 2016-2017

	Anti-smoking information			Anti-smokeless tobacco information		
Place	Overall	Current smoker	Current non-smoker	Overall	Current user of smokeless tobacco	Current non user of smokeless tobacco
In newspaper or magazine	37.7	37.4	37.7	32.7	28.7	33.8
On television	66.9	63.0	67.4	58.4	52.0	60.2
On radio	9.8	11.9	9.5	8.3	8.6	8.3
On billboard/hoardings	35.1	35.2	35.1	29.5	26.8	30.3
In cinemas	31.9	26.9	32.5	25.4	20.3	26.8
On internet	7.8	4.8	8.2	6.6	3.3	7.6
On public transportation vehicles/stations	39.0	41.0	38.7	31.9	30.5	32.3
On public walls	32.2	29.9	32.4	27.1	23.9	27.9
Somewhere else	1.5	0.8	1.5	0.9	0.7	1.0
Any Location	76.0	75.0	76.1	67.3	62.9	68.5

There is a difference between the overall percentage of the population that has noticed anti-smoking and anti-smokeless information in the media. Exposure to anti-smoking information was higher.

Table 8.2 presents the variation in exposure to anti-tobacco information in the media by background characteristics. A higher percentage of men (84.3%) had noticed anti-smoking information in the last 30 days than women (67.3%). With regards to anti smokeless tobacco too, more men (75.5%) had noticed information as compared with women (58.6%). And this difference between men and women persists irrespective of whether they are tobacco users or not. However, amongst both men and women, those who consume tobacco had lower rates of noticing anti-tobacco information than those who don't.

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-2, India, 2016-2017

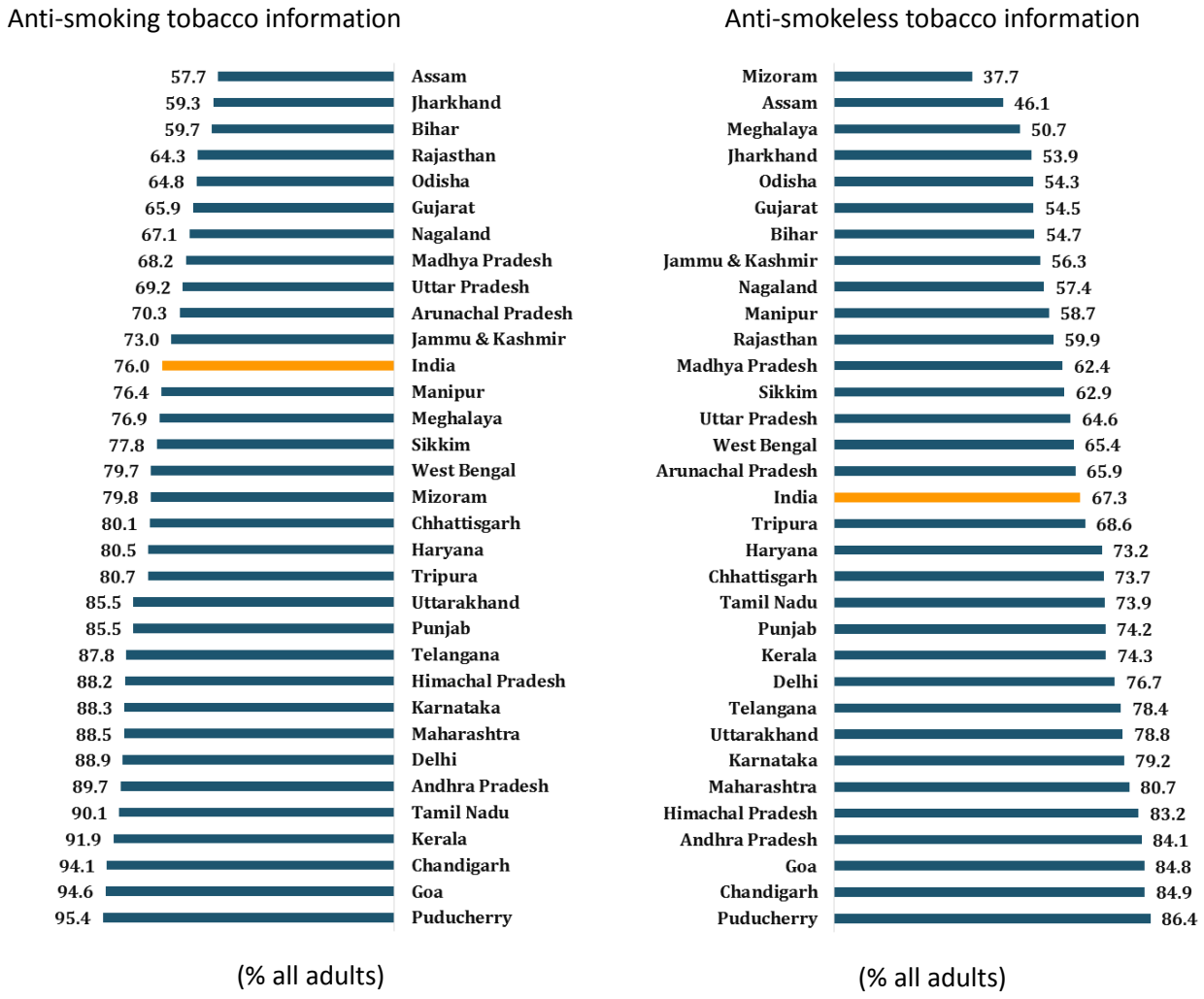
	Anti-smoking information			Anti-smokeless tobacco information		
Background characteristic	**Overall**	**Current smoker**	**Current non-smoker**	**Overall**	**Current user of smokeless tobacco**	**Current non user of smokeless tobacco**
Overall	76.0	75.0	76.1	67.3	62.9	68.5
Gender						
Male	84.3	78.4	85.7	75.5	70.3	77.7
Female	67.3	40.1	67.9	58.6	44.9	60.7
Age						
15-24	82.5	79.6	82.6	74.3	70.6	74.7
25+	73.6	74.6	73.5	64.7	61.7	65.7
Residence						
Urban	88.5	89	88.4	78.4	77	78.7
Rural	69.4	69.9	69.4	61.4	58.3	62.4

More adults in the 15-24 years age category had noticed anti-tobacco use messages (82.5%) than adults who were 25 years of age or above. (73.6%). This was true for both smokers and non-smokers and for those who used smokeless tobacco as well as those who did not- though those do not use tobacco notice it more than those who do.

The proportion of urban residents who reported noticing anti-tobacco information (88.5%) was much higher that the proportion of rural residents (69.4%) who had done so. This difference between urban and rural residents was present even when analyzed separately for smokers and for non-smokers and for those who used smokeless tobacco and for those who did not.

The appendix table A-8.1 presents data on the percentage of respondents from the various states who have noticed anti-tobacco information in the past 30 days. Puducherry (95.4%) Goa (94.6%) and Chandigarh (94.1%) are three states/UTs with the highest percentage of respondents who report noticing any anti-smoking information in the last 30 days. The same three states have the highest percentage of respondents who report noticing any anti smokeless tobacco information (86.4%, 84.8%, and 84.9% respectively). In general, across all states, respondents have reported noticing more anti-smoking than anti-smokeless tobacco information.

Figure No. 8.2 – Percentage of adults who noticed anti-smoking tobacco & anti-smokeless tobacco information among states/UTs, GATS India 2016-17



8.1.2. Health warnings on packages of tobacco products and thoughts of quitting

8.1.2.1 Health Warnings on cigarette packages

In table 8.3, data on the percentage of current cigarette smokers who noticed health warnings on cigarette packets is presented. Overall, 83% of all cigarette smokers had noticed health warnings on cigarette packets. There was a large difference between males (86.7%) and females (34.3%) for this indicator. Of those cigarette smokers who had noticed a warning label, 74.6% reported they had thought of quitting as a result of seeing the warning label. Though this warning was more effective in women (with 77.8% being prompted to quit) as compared to men (where only 74.5% were so persuaded), the overall effect of promoting the thought of quitting was more in men (64.6%) than in women (26.7%). This was because many more men (86.7%) than women (34.3%) notice the health warning on the cigarette package. We need to investigate why the proportion of women who notice the warning on the cigarette package is so low.

Figure No. 8.3 – Percentage of adults who noticed warning label on cigarette packages and adults who thought of quitting cigarette because of warning labels, GATS India 2016-17

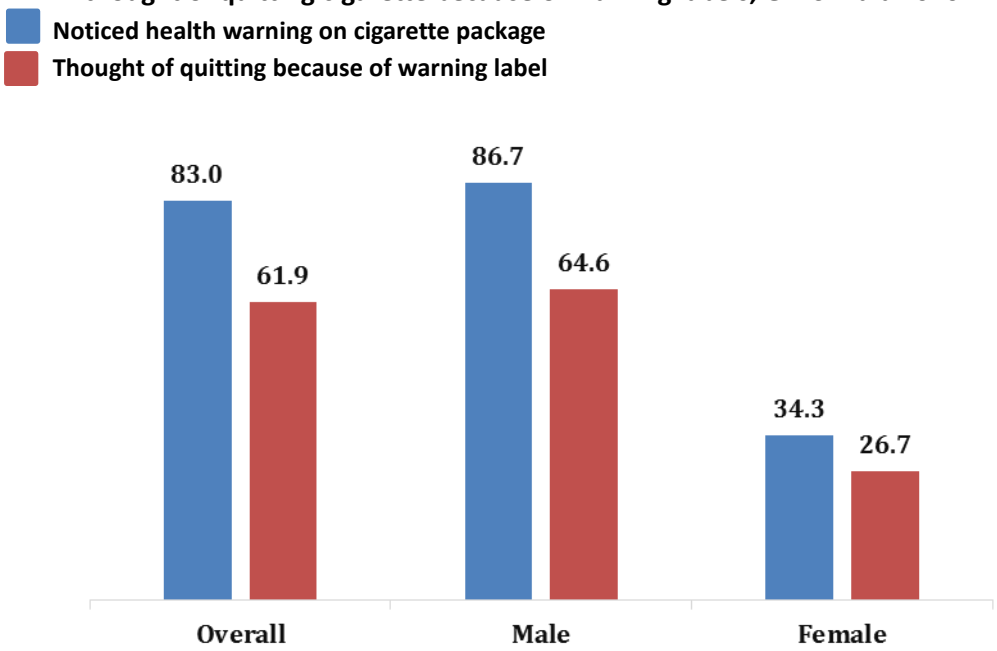


Table 8.3: Percentage of current cigarette smokers age 15 and above who noticed health warning on cigarette package and thought of quitting because of the warning label on cigarette packages during the last 30 days, according to background characteristics, GATS-2, India, 2016-2017

Background characteristic	Current cigarette smoker who:								
	Noticed health warning on cigarette package			Thought of quitting because of the warning label			Thought of quitting because of the warning label (Among those who noticed health warning on cigarette package)		
	Overa	Male	Female	Overall	Male	Female	Overall	Male	Female
Overall	83.0	86.7	34.3	61.9	64.6	26.7	74.6	74.5	77.8
Age									
15-24	92.5	93.0	45.0	63.4	64.0	9.5	68.6	68.8	21.1
25-44	87.3	89.0	52.0	66.2	67.2	44.5	75.8	75.5	85.6
45-64	78.2	84.1	31.2	60.2	64.7	23.5	76.9	77.0	75.5
65+	54.9	65.4	13.3	37.5	44.9	8.1	68.3	68.7	60.8
Residence									
Urban	91.2	91.7	74.7	67.8	67.9	62.3	74.3	74.1	83.4
Rural	77.9	83.4	27.2	58.3	62.4	20.4	74.8	74.8	75.1
Education level									
No formal schooling	59.1	69.5	23.5	42.4	49.0	19.9	71.8	70.6	84.6
Less than primary	80.5	80.9	72.8	62.1	62.2	60.4	77.1	76.8	82.9
Primary but less than secondary	89.5	90.6	47.3	63.9	65.1	16.7	71.4	71.8	35.4
Secondary and above	94.9	94.9	97.0	73.8	73.6	86.1	77.7	77.6	88.7
Occupation									
Government and non-government employee	93.8	94.0	87.1*	73.5	73.4	81.1*	78.4	78.1	93.1*
Self employed	83.8	85.5	47.8	62.1	63.1	39.8	74.1	73.9	83.3
Student	91.7	91.7	94.9*	59.3	59.7	31.3*	64.7	65.1	33.0*

Home maker	29.5	77.8	17.1	20.4	57.3	11.0	69.3	73.6	64.2
Retired or unemployed	73.0	76.0	23.8	54.0	56.8	9.4	74.1	74.7	39.5*

Note: *Based on less than 25

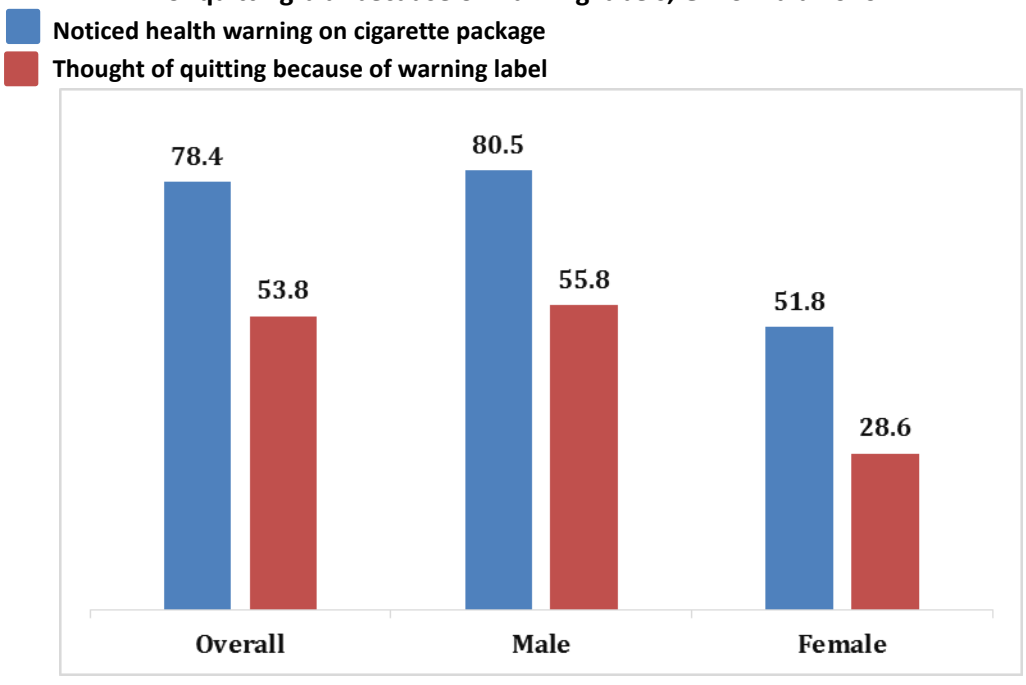
The percentage of cigarette smokers who had noticed health warnings was higher in the younger age groups than the older age groups, higher in urban areas as compared to rural areas, higher in those with higher educational levels. In occupational groups it was low only in home makers (29.5%).
On those who saw the warning, amongst men the thought of quitting arising as a result was more or less the same irrespective of age group (68.3% to 75.9%), residence (71.1 in urban and 74.8 in rural) educational level (70.6 % to 77.7%) and occupational category. (65 to 78 %). In women however it varies sharply with some background characteristics- notably in women in the 15 to 24 age group where it is only 21.1 %.

However net effect on current smokers which is a combination of 'noticing the warning on the package' and it then 'noticing giving rise to a thought of quitting' shows the effect to be in younger age groups, more with urban residence, more with higher education and similar gradients across the occupational categories as was seen in noticing the warning label. This would be consistent with measures to make the warnings larger and hence more noticeable.

8.1.2.2: Health warnings on bidi packages

In table 8.4, percentages are presented for current bidi smokers who noticed health warnings on bidi packets during the last 30 days. Overall, 78.4% of men and women reported seeing health warnings on bidi packets. Similar to the data for cigarettes, a much higher percentage of men (80.5%) noticed the warning as compared with the women (51.8%). Of all *bidi smokers who had noticed the health warning*, 68.6% % thought of quitting because of the warning label- *but of all current bidi smokers* those who thought of quitting was 53.8%.

Figure No. 8.4 – Percentage of adults who noticed warning label on bidi packages and adults who thought of quitting bidi because of warning labels, GATS India 2016-17



In men, the net effect of the warning label is that 55.8% of all current male bidi smokers thought of quitting due to the label. But in women the net effect is only 28.6% despite 55.2% of women who noticed the warning thinking of quitting because the proportion who notice the warning is so much lower.

The difference between urban and rural current bidi smokers is not much on all three indicators- proportion noticing the label, proportion who think of quitting amongst those who notice, and the proportion of those who think of quitting amongst all bidi smokers irrespective of whether they notie the label or not.
A higher percentage of bidi smokers with a secondary and above education (85.9%) reported noticing a health warning than those with no formal schooling (71%).

Table 8.4: 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-2, India, 2016-2017

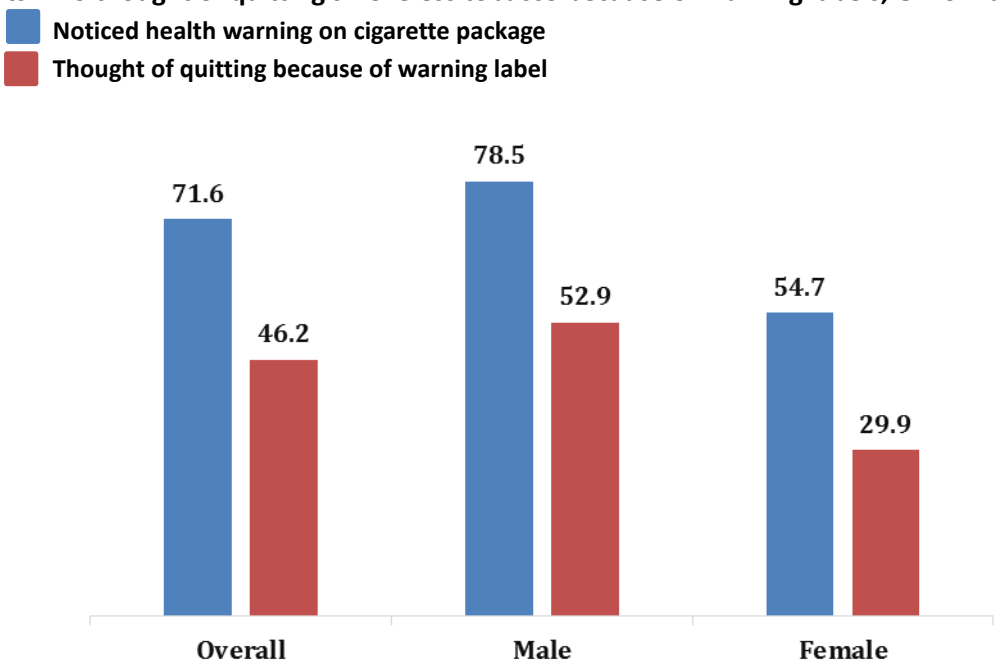
	Current *bidi* smoker who:								
	Noticed health warning on *bidi* package			Thought of quitting because of the warning label			Thought of quitting because of the warning label (Among those who noticed health warning on *bidi* package)		
Background characteristic	**Overall**	**Male**	**Female**	**Overall**	**Male**	**Female**	**Overall**	**Male**	**Female**
Overall	78.4	80.5	51.8	53.8	55.8	28.6	68.6	69.3	55.2
Age									
15-24	84.8	85.0	76.0*	60.3	60.6	51.6*	71.2	71.2	67.9*
25-44	80.9	81.7	63.9	58.1	58.8	42.8	71.8	72.0	67.0
45-64	78.2	80.7	51.8	51.8	54.3	26.4	66.3	67.3	51.0
65+	68.4	73.4	38.2	43.5	47.9	17.0	63.6	65.2	44.5
Residence									
Urban	80.9	81.1	75.6	55.6	56.0	43.1	68.7	69.1	57.0
Rural	77.7	80.3	49.2	53.3	55.7	27.0	68.6	69.4	54.9
Education level									
No formal schooling	71.0	75.4	48.5	46.0	50.3	23.9	64.8	66.7	49.4
Less than primary	84.5	84.5	85.6	59.0	58.8	67.3	69.8	69.6	78.6
Primary but less than secondary	81.1	81.2	72.0	56.9	56.8	65.6	70.2	69.9	91.2
Secondary and above	85.9	86.2	53.3*	63.0	63.3	19.9*	73.3	73.5	37.2*
Occupation									
Government and non-government employee	89.7	89.7	90.4*	68.7	68.7	65.3*	76.6	76.6	72.3*
Self employed	79.4	79.8	61.4	54.3	55.0	28.0	68.4	68.9	45.6
Student	81.9	82.1	68.3*	71.4	71.4	68.3*	87.1	87.0	100.0*
Home maker	52.7	73.7	48.5	33.8	53.3	29.9	64.1	72.4	61.6
Retired or unemployed	74.8	76.8	49.2	46.4	48.5	20.4	62.1	63.1	41.4

Note: *Based on less than 25 unweighted cases

8.1.2.3: Health warnings on packages of smokeless tobacco.

The main finding in table 8.5 is that 71.6% of adult users of smokeless tobacco products have noticed health warnings on packages of smokeless tobacco products. The percentage of men who did so was higher for this (78.5%) than with women (54.7%). In 46.2% of all current users of smokeless tobacco products the warning label had led to thinking about quitting. This indicator is including both those who saw and those who did not see the label at all- what we call the net effect. Amongst only those who noticed the warning label 64.5% had been stimulated to think of quitting.

Figure No. 8.5 – Percentage of adults who noticed warning label on smokeless tobacco packages and adults who thought of quitting smokeless tobacco because of warning labels, GATS India 2016-17



With respect to thinking of quitting, cnce again the net effect of warning labels on women (29.9%) is lower than for men (52.9%), though as many as 54.7% of women who saw the warning label and 67.4% of men who saw the warning label had thought of quitting as a result.

Table 8.5: 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-2, India, 2016-2017

	Current user of smokeless tobacco who:								
	Noticed health warning on smokeless tobacco products packages			Thought of quitting because of the warning label			Thought of quitting because of the warning label (Among those who noticed health warning on smokeless tobacco products package)		
Background characteristic	**Overall**	**Male**	**Female**	**Overall**	**Male**	**Female**	**Overall**	**Male**	**Female**
Overall	71.6	78.5	54.7	46.2	52.9	29.9	64.5	67.4	54.7
Age									
15-24	78.3	80.8	65.3	52.7	54.1	45.6	67.4	67.0	69.8
25-44	77.7	82.5	62	51.2	56.2	34.8	65.9	68.1	56.1
45-64	66.6	74.5	53.4	41.4	49.1	28.4	62.2	66.0	53.3
65+	52.6	64.4	38.8	31.2	43.5	17.1	59.4	67.5	43.9
Residence									
Urban	78	82.9	65	49.7	54.6	36.4	63.7	65.9	56.1
Rural	69.5	77	51.6	45	52.3	27.9	64.8	67.9	54.1
Education level									
No formal schooling	56.4	65.1	48.8	31.4	39.5	24.2	55.7	60.7	49.7
Less than primary	70.6	75.2	56.1	45.4	48.2	36.8	64.3	64.1	65.5
Primary but less than secondary	80.3	83.1	66.7	53.5	56.5	38.6	66.6	68.1	57.9
Secondary and above	85.9	86.5	80.2	62.2	62.9	53.6	72.3	72.8	66.8
Occupation									
Government and non-government employee	86	87.4	70.6	58.7	59.9	45.8	68.3	68.5	64.9
Self employed	74.4	77.3	58.7	48.9	52.3	30.3	65.7	67.6	51.6
Student	84.9	84.3	89.8	63.8	64.2	60.1	75.1	76.2	66.9
Home maker	53.6	74.3	52.8	30.5	52.4	29.6	56.9	70.5	56.1
Retired or unemployed	63.3	72.8	40.9	36.1	42.4	21.0	57.0	58.4	51.4

With regards to age, health warnings on packages led to thoughts of quitting in a greater proportion of younger users (15-24 years) (52.7%) than older users (45-64 and 65+) (41.4 and 31.2% respectively). It is again the proportion noticing the health warning that makes for much of the difference. In men age makes little difference to seeing leading to thoughts of quitting- whereas in women there is a decreasing effect in higher age groups..

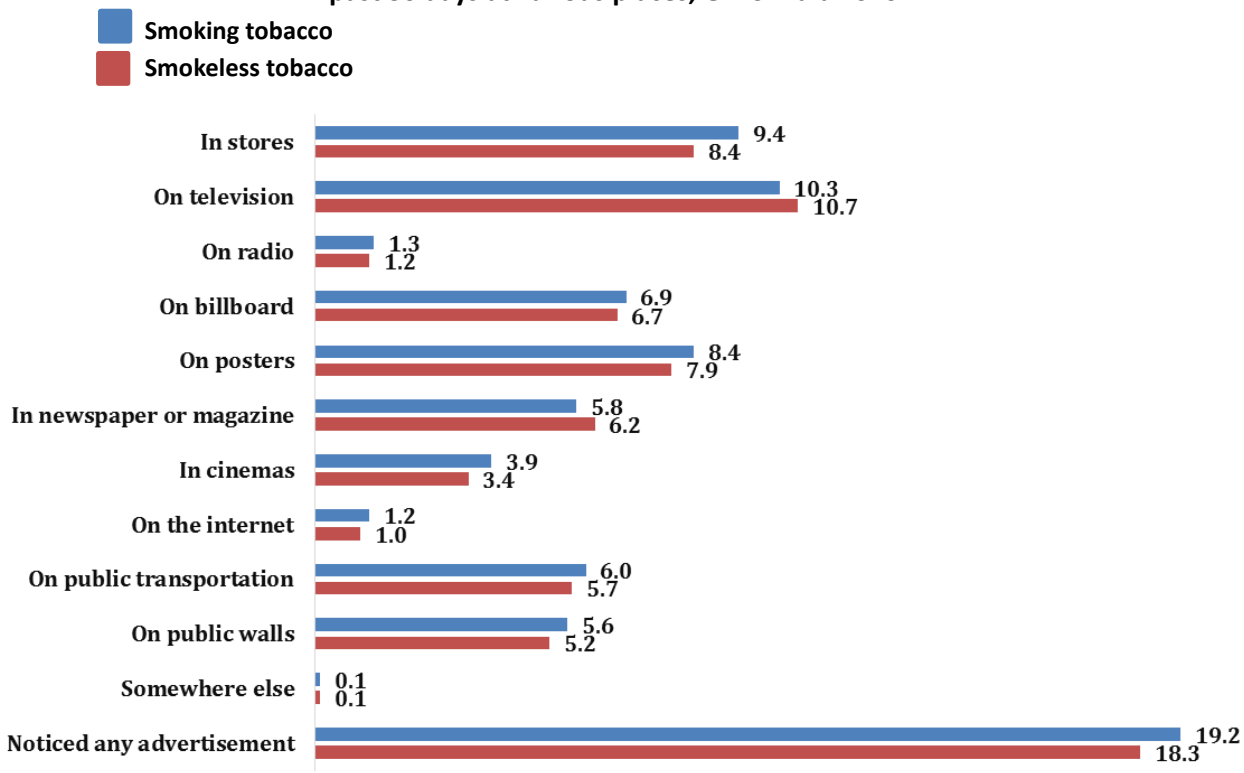
More people in urban areas (78%) noticed health warnings on smokeless tobacco products than people in rural areas (69.5%). A higher percentage of those with education levels of secondary schooling and above (85.9%) reported noticing health warnings on smokeless tobacco products as compared to those with no formal schooling (56.4%). The trend was similar for net effect of warning labels on quitting, with 62.2% of those with secondary school and above of education reporting thoughts of quitting and 31.4% of those with no formal schooling reporting the same.

8.2. EXPOSURE TO MARKETING/PROMOTION OF TOBACCO USE

8.2.1. Noticed marketing of smoking tobacco products

Forms of marketing that were queried in GATS 2 related to any form of advertisement or specific promotion measures by the industry in the last 30 days. Table 8.6 presents the survey findings on these forms of marketing for smoked forms of tobacco. Overall 22.3% of adults had noticed some form of marketing of either cigarettes or bidis. Analyzed by current smoking status, 30% of current smokers and 21.3% of current non-smokers had noticed some form of marketing of tobacco products.

Figure No. 8.6 – Percentage of adults who noticed smoking and smokeless tobacco marketing during the past 30 days at various places, GATS India 2016-17



The most prevalent form of marketing was advertisements. Overall, 19.2% of people reported that they had noticed any smoking tobacco advertisements. A higher percentage of current smokers (23.7%) reported that they had seen advertisements of smoking tobacco than non-smokers (18.7%). The most reported source of advertisements was the television with 10.3% of people reporting they had seen them in the last 30 days. Amongst smokers advertisements in stores was the main source of exposure (13.0%), followed by posters (11.7%), television (10.8%), and then billboards (10.2%) and even public transportation (8.9%).

Table 8.6: Percentage of adults age 15 and above who noticed smoking tobacco marketing during the last 30 days at various places by status of smoking, GATS-2, India, 2016-17

	Smoking tobacco		
Place/Source	**Overall**	**Current smoker**	**Current non-smoker**
Noticed any advertisement	19.2	23.7	18.7
In stores	9.4	13.0	8.9
On television	10.3	10.8	10.2
On radio	1.3	2.3	1.2
On billboard	6.9	10.2	6.5
On posters	8.4	11.7	8.0

In newspaper or magazine	5.8	6.9	5.7
In cinemas	3.9	4.0	3.9
On the internet	1.2	1.0	1.2
On public transportation	6.0	8.9	5.6
On public walls	5.6	7.7	5.3
Somewhere else	0.1	0.1	0.1
Noticed any cigarette promotion	5.3	8.1	4.9
Free samples	1.5	2.6	1.3
Sale prices	1.6	2.9	1.5
Coupons	1.6	3.4	1.4
Free gifts/discounts on other products	1.2	2.6	1.0
Clothing/item with brand name or logo	1.5	2.4	1.4
Mail promotion	0.5	0.7	0.4
Surrogate advertisement	1.3	2.2	1.2
Noticed any *bidi* promotion	5.4	11.0	4.7
Free samples	1.3	2.9	1.1
Sale prices	1.5	3.4	1.3
Coupons	2.8	7.8	2.2
Free gifts/discounts on other products	1.3	3.2	1.1
Clothing/item with brand name or logo	1.3	2.8	1.1
Mail promotion	0.3	0.4	0.3
Surrogate advertisement	1.0	2.0	0.8
Noticed any cigarette or *bidi* promotion	8.0	14.4	7.2
Noticed any advertisement or promotion of either cigarette or *bidi*	22.3	30.0	21.3

Cigarette promotion measures other than advertisements were noticed by 5.3% of adults and this included promotions in the form of free samples, sale offers, coupons, free gifts or discounts on other products, clothing or items with a brand or logo, and/ or surrogate advertisements. Each of these were noticed by 1 to 2% of the respondents. Amongst cigarette smokers 8.1% had witnessed such a promotion measure in the last 30 days whereas in non-smokers it was 4.9%.

Similar bidi promotion measures were noticed by 5.4% of people in the last 30 days. Amongst smokers those noticing such bidi promotion was 11% were smokers and amongst non-smokers it was 4.7%. Taken together 14.4% smokers of either bidi or cigarettes or both noticed any form of cigarette or bidi promotion other than advertisements and this rises to 30.0% if advertisements are included.

Table 8.7 contains information on the percentage of adults disaggregated by background characteristics of gender, age or residence, who noticed smoking tobacco marketing in the last 30 days. More men (26.6%) had noticed these than women (17.7%).

Much of the advertisements are perhaps aimed at younger people for those in the 15-24 years age group had noticed advertisements promoting smoking in any location more than those above the age of 25. The younger age group were also more exposed to promotion of cigarettes and bidi smoking.
People in urban areas (25%) reported that they had seen tobacco marketing more than people in rural areas (20.9%). Overall, outdoor media was the place where the highest percentage of people (12%) reported noticing tobacco marketing; and this was closely followed by electronic media (11.4%). The same pattern is seen in males and in any age group and in both urban and rural residence. Women were more exposed to electronic media than outdoor media.

Table 8.7: Percentage of adults age 15 and above who noticed smoking tobacco marketing during the last 30 days at various places by status of smoking, according to background characteristics, GATS-2, India, 2016-17

Place/Source	Overall	Gender		Age		Residence	
		Male	Female	15 - 24	25+	Urban	Rural
Overall							
Point of sale[1]	9.4	12.8	5.8	11.6	8.6	11.8	8.1
Electronic media[2]	11.4	12.7	10.2	13.9	10.6	13.7	10.3
Outdoor[3]	12.0	15.9	7.9	14.3	11.2	14.2	10.9
Print media[4]	5.8	8.3	3.3	7.7	5.1	7.6	4.9
Other[5]	0.1	0.2	0.1	0.2	0.1	0.1	0.1
Noticed advertisement in any location	19.2	23.0	15.2	22.8	17.9	22.1	17.7
Noticed any cigarette promotion[6]	5.3	6.9	3.6	6.5	4.8	6.2	4.8
Noticed any *bidi* promotion[6]	5.4	7.3	3.4	6.2	5.1	4.8	5.7
Noticed any advertisement or promotion of either cigarette or *bidi*	22.3	26.6	17.7	26.0	20.9	25.0	20.9
Current smoker							
Point of sale[1]	13.0	13.9	4.0	17.0	12.6	18.6	11.0
Electronic media[2]	12.2	12.9	6.1	18.9	11.6	14.5	11.4
Outdoor[3]	16.5	17.4	7.8	24.9	15.8	17.5	16.2
Print media[4]	6.9	7.5	0.6	11.4	6.5	7.8	6.6
Other[5]	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Noticed advertisement in any location	23.7	24.9	11.0	33.2	22.8	27.4	22.3
Noticed any cigarette promotion[6]	8.1	8.4	5.6	13.9	7.6	9.8	7.5
Noticed any *bidi* promotion[6]	11.0	11.2	8.9	11.8	10.9	10.7	11.1
Noticed any advertisement or promotion of either cigarette or *bidi*	30.0	31.0	19.7	40.4	29.0	34.8	28.2
Current non-smoker							
Point of sale[1]	8.9	12.5	5.8	11.4	7.9	11.1	7.7
Electronic media[2]	11.3	12.6	10.2	13.7	10.4	13.6	10.1
Outdoor[3]	11.5	15.6	7.9	13.9	10.5	13.9	10.2
Print media[4]	5.7	8.5	3.3	7.6	4.9	7.5	4.7
Other[5]	0.1	0.2	0.1	0.3	0.1	0.1	0.1
Noticed advertisement in any location	18.7	22.6	15.3	22.4	17.1	21.6	17.1
Noticed any cigarette promotion[6]	4.9	6.5	3.5	6.2	4.4	5.9	4.4
Noticed any *bidi* promotion[6]	4.7	6.3	3.3	6.0	4.2	4.3	4.9
Noticed any advertisement or promotion of either cigarette or *bidi*	21.3	25.6	17.7	25.5	19.6	24.1	19.9

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.

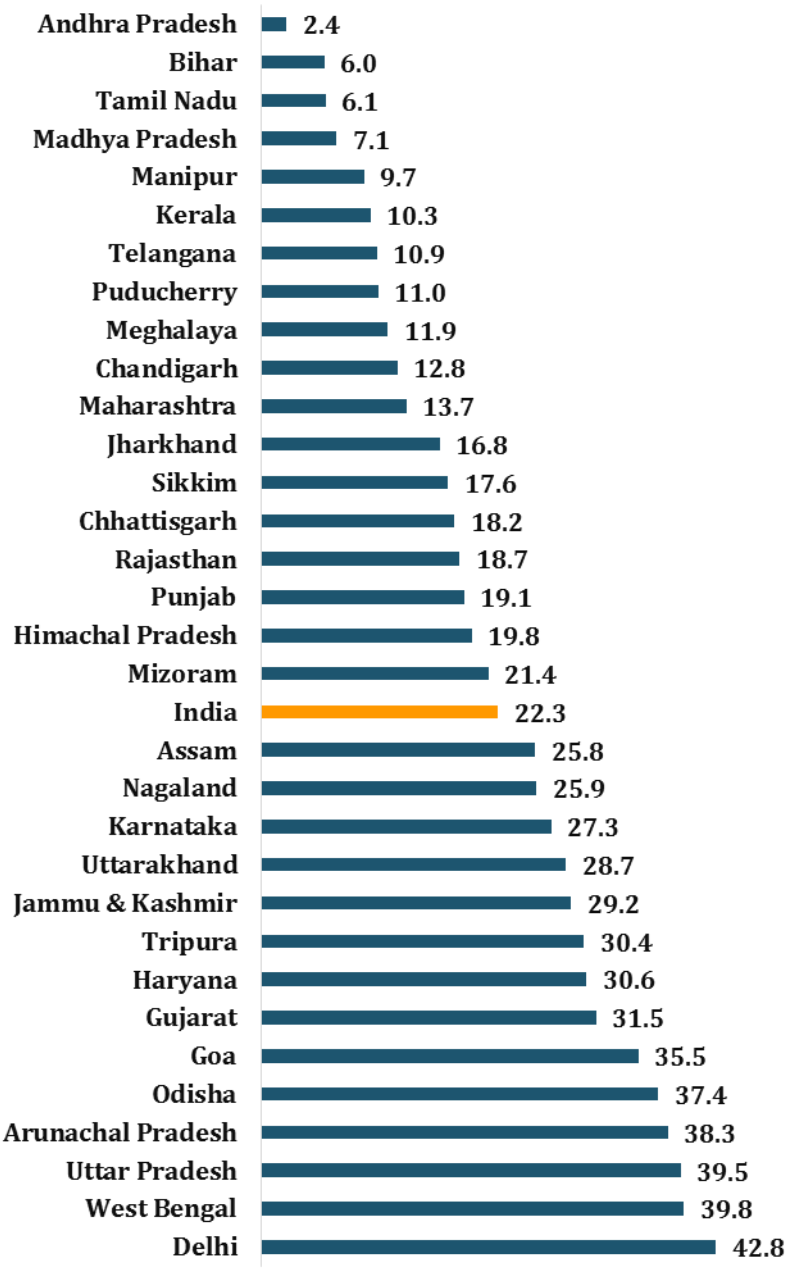
[4] Print media includes newspaper and magazine.

[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.

Information about the exposure to smoking tobacco marketing across the various states of India is presented in figure 8.2 The data collected was aggregated and the following three indicators were computed: 'noticed any advertisement', 'noticed any promotion' and 'noticed any advertisement or promotion' (appendix table A-8.2). The state/union territory with the highest values amongst all adults for all three indicators was Delhi (37.6%, 21.5% and 42.8% respectively). Among current smokers, the value was highest for Arunachal Pradesh (49% and 56.8%) for 'noticed any promotion' and 'noticed any advertisement or promotion' respectively. Haryana (40.3%) had the highest percentage among the smokers who had 'noticed any advertisement'.

Figure No. 8.7 – Percentage of adults who noticed any smoking tobacco advertisment or promotion among states/UTs, GATS India 2016-17



8.2.2. Noticed marketing of smokeless tobacco products

Table 8.8 presents the information on smokeless tobacco marketing in the last 30 days. Table 8.8 shows the findings in relation to the marketing of smokeless tobacco products. Overall 20.5% of adults had noticed any advertisement or promotion of smokeless tobacco use in the last 30 days. Among current users of smokeless tobacco products, 24.3% of them had noticed any advertisement or promotion whereas the same figure for non users was 19.5%.

When we look at exposure to advertisements alone, 18.3% of all adults, 21.4% of current users and 17.5%

of non users had noticed advertisements in the last 30 days.. Among those who had noticed any advertisement, the highest percentage (10.7%) had noticed it 'On television', with the next most frequent option being 'in stores' (8.4%).

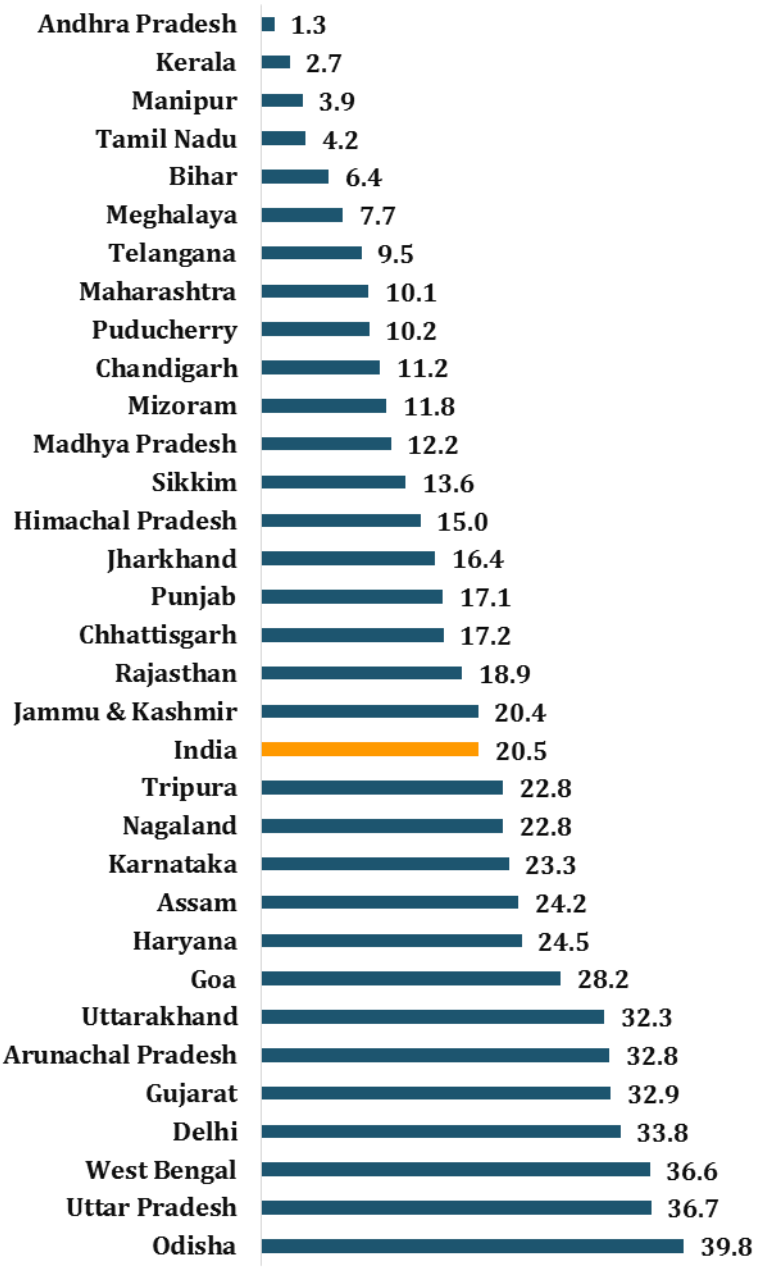
When we look at promotion of smokeless tobacco use other than through direct media advertisements, 5.7% of people had noticed such promotion. The highest percentage of these (2.0%) had noticed surrogate advertisements.

Table 8.8: Percentage of adults age 15 and above who noticed smokeless tobacco products marketing during the last 30 days at various places by use of smokeless tobacco, GATS-2, India, 2016-17

	Smokeless tobacco		
Place/Source	***Overall***	***Current users***	***Current non-users***
Noticed any advertisement	18.3	21.4	17.5
In stores	8.4	10.7	7.7
On television	10.7	11.4	10.6
On radio	1.2	1.6	1.1
On billboard	6.7	7.8	6.5
On posters	7.9	9.7	7.5
In newspaper or magazine	6.2	6.9	6.0
In cinemas	3.4	3.1	3.5
On the internet	1.0	0.5	1.2
On public transportation	5.7	6.3	5.6
On public walls	5.2	6.0	5.0
Somewhere else	0.1	0.1	0.1
Noticed any promotion	5.7	8.0	5.1
Free samples	1.5	2.5	1.2
Sale prices	1.5	2.6	1.2
Coupons	1.5	2.2	1.3
Free gifts/discounts on other products	1.1	1.5	1.0
Clothing/item with brand name or logo	1.9	2.3	1.8
Mail promotion	0.3	0.3	0.3
Surrogate advertisement	2.0	3.2	1.7
Noticed any advertisement or promotion	20.5	24.3	19.5

A higher percentage of users noticed such promotion in comparison with non users (8.0% vs 5.1% respectively). Just as was found for the overall sample, surrogate advertisement was the most commonly noticed point of such promotion among users and non users.

Figure No. 8.8 – Percentage of adults who noticed any smokeless tobacco advertisment or promotion among states/UTs, GATS India 2016-17



8.3. COMPARISON BETWEEN GATS-1 AND GATS-2 ON MEDIA RELATED INDICATORS.

8.3.1 Anti-Tobacco Information on Media.

In comparing data on media exposure to tobacco warnings between GATS I and GATS 2, there is a significant increases in the percentage of people who have noticed any media message. Table 8.9 displays the data on the changes in exposure. Overall, there is a 12-13 percentage point difference in the percentage of smokers who report having seen health warnings on cigarette packets between 2009-10 and 2016-17. This change is significant. While the percentage of men who are smokers and who have noticed health warnings has increased, the percentage of women has more than doubled. For both men and women, the increases are significant. Similarly, the difference is higher where in rural (relative change = 21.3) than urban areas (relative change = 10.4)- and since rural areas were performing poorly on this indicator, the urban- rural gap has decreased.

*Adults mean age 15 and above

Figure No. 8.9 – Change in percentage of adults who noticed warning labels on cigarette, bidi & smokeless tobacco packages, GATS India, 2009-10 and 2016-17

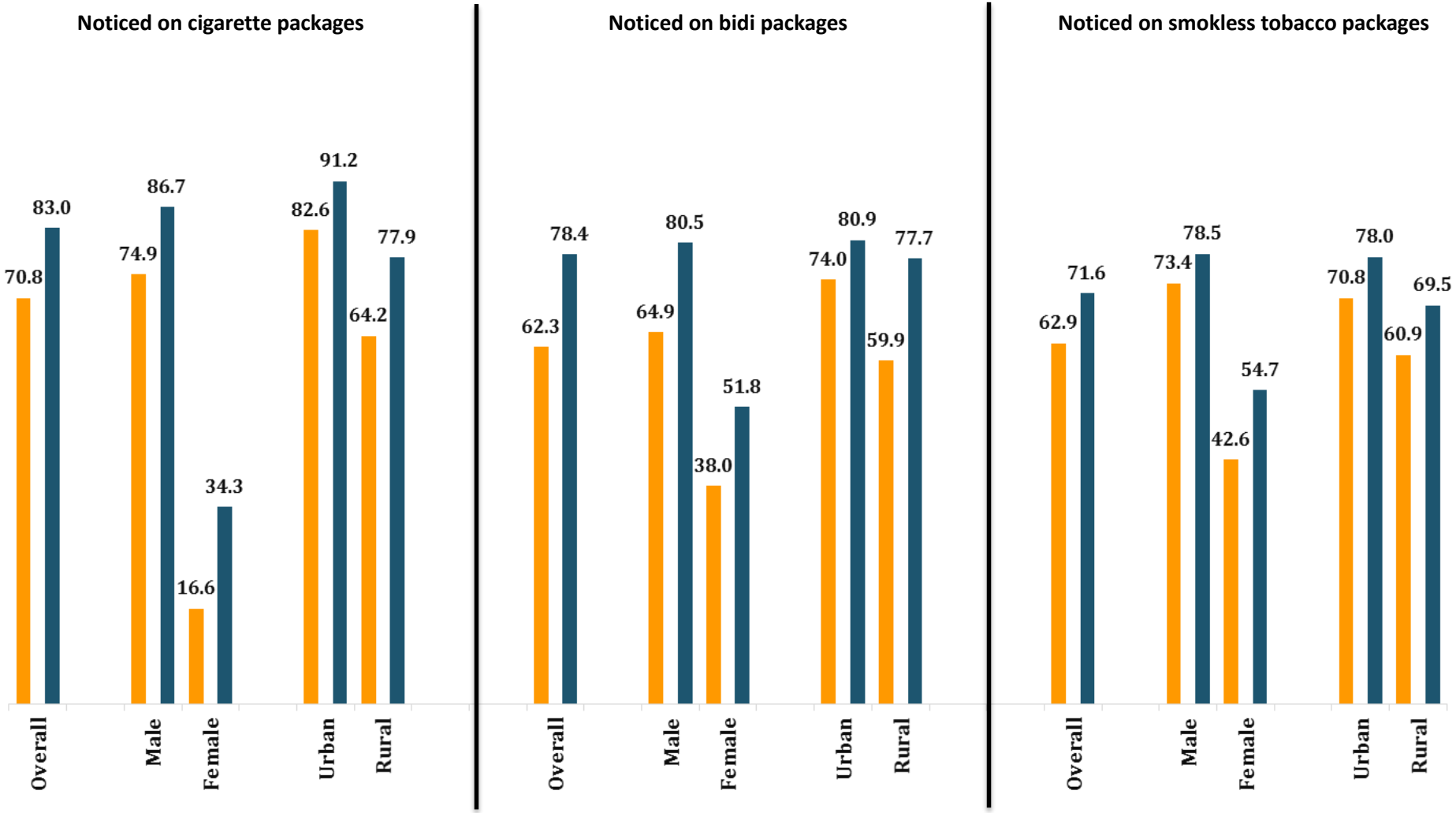


Figure No. 8.10 – Change in percentage of adults who quit because of warning labels on cigarette, bidi & smokeless tobacco packages, GATS India, 2009-10 and 2016-17

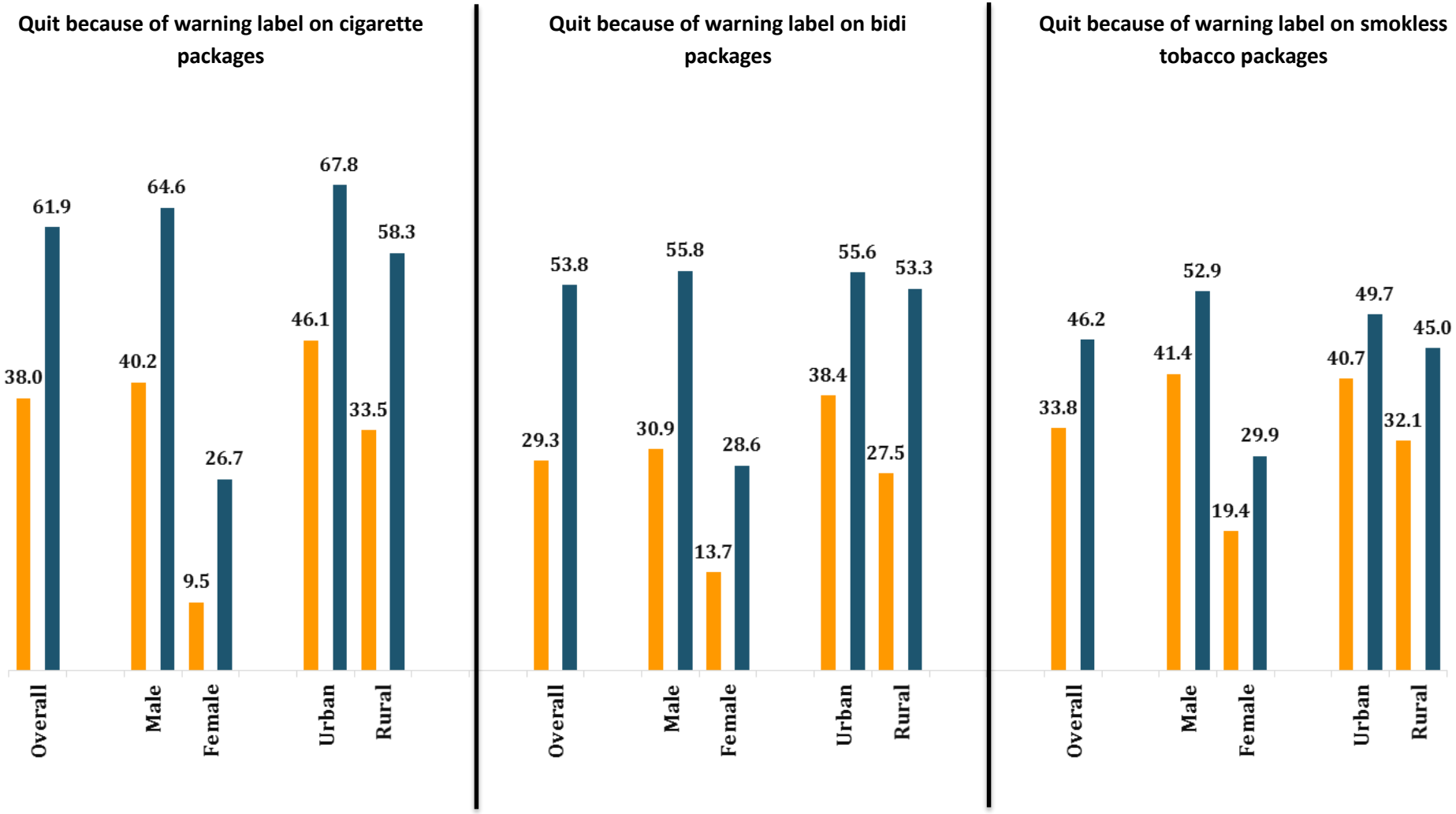


Table 8.9: Changes in current cigarette, *bidi* smokers and smokeless tobacco users age 15 and above who noticed health warning on cigarette, *bidi* and smokeless tobacco package and thought of quitting because of the warning label during the last 30 days, according to background characteristics, GATS India, 2009-10 and 2016-17

	Current smokers												Current smokeless tobacco user					
	Noticed health warnings on cigarette package			Thought about quitting smoking because of warning label			Noticed health warnings on *bidi* package			Thought about quitting smoking because of warning label			Noticed health warnings on smokeless tobacco package			Thought about quitting smokeless tobacco use because of warning label		
Characteristic	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**	**2009-10**	**2016-17**	**Relative change**
Overall	70.8	83.0	17.2**	38.0	61.9	62.9**	62.3	78.4	25.8**	29.3	53.8	83.6**	62.9	71.6	13.8**	33.8	46.2	36.7**
Gender																		
Male	74.9	86.7	15.8**	40.2	64.6	60.7**	64.9	80.5	24.0**	30.9	55.8	80.6**	73.4	78.5	6.9**	41.4	52.9	27.8**
Female	16.6	34.3	106.6**	9.5	26.7	181.1**	38.0	51.8	36.3**	13.7	28.6	108.8**	42.6	54.7	28.4**	19.4	29.9	54.1**
Residence																		
Urban	82.6	91.2	10.4**	46.1	67.8	47.1**	74.0	80.9	9.3**	38.4	55.6	44.8**	70.8	78.0	10.2**	40.7	49.7	22.1**
Rural	64.2	77.9	21.3**	33.5	58.3	74.0**	59.9	77.7	29.7**	27.5	53.3	93.8**	60.9	69.5	14.1**	32.1	45.0	40.2**

Note: * p>0.05, ** p<0.01.

8.3.2 Health warnings on tobacco product packages its effect on thinking of quitting.

Among smokers, the net effect of health warnings on a cigarette packet leading to quitting has increased between 2009-10 and 2016-17. This change of 23 percentage points is significant and represents a relative change of 62.9%. . As was described for noticing health warnings, there was a higher change among women (relative change of 106.6) as compared with men (15.8) and for cigarette smokers in rural areas (21.3) as compared to urban areas (10.4). All these changes are statistically significant.

Among smokers, those who have noticed warnings on *bidi* packets has increased by 16 percentage points between GATS 1 and GATS 2. Though less *bidi* smokers notice the warning label as compared to cigarette smokers, the relative change for smokers who notice health warnings on *bidi* packets (25.8) is higher than the change for smokers who noticed health warnings on cigarette packets (17.2). All these changes are statistically significant.

Although the rates for women noticing the warning label on *bidi* packages (36.3%) is much less than men (80.5%), and though the rates of noticing the warning label has increased for both men and women, the relative change is much higher for women (36.3) as compared to men (24.5). When it comes to net effect of warning label on quitting in *bidi* smokers relative change is 80.6 for men and 108.8 for women. The same catching up or narrowing of the gap in warning labels promoting quitting is seen for bidi smokers in urban and rural areas – relative change of 93.8 for rural areas and 44.8 for urban areas- both of which are statistically significant changes.

Among smokeless tobacco users, there has been an increase in the percentage of 8 percentage pints in noticing health warnings on smokeless tobacco products since GATS I and this is a relative change of 13.6. Though the changes are statistically significant, the change in noticing health warning is less for smokeless tobacco as compared to both cigarette and bidi smokers. The relative change in net effect of warning labels leading to thinking of quitting is also smaller for smokeless tobacco (36.7) as compared to *bidi* smokers (83.6) and cigarette smokers (62.9)

The increase in noticing the warning label in packages of smokeless tobacco is much smaller for men (relative change = 6.9) as compared to women (relative change = 28.4). Difference between smokeless tobacco users in urban vs. rural areas is not as high as seen for cigarettes and *bidis*; however, both changes are significant (table 8.9).

8.3.3 Changes in exposure to promotion of tobacco use.

As can be seen in Table 8.10 there has been a significant decrease in the percentage of people who have reported noticing cigarette, *bidi* and smokeless tobacco promotions between 2009-10 and 2016-17. The relative change between GATS 1 and GATS 2 for exposure to any form of cigarette smoking promotion is -28.4. Similarly, there was a relative change of -20.6 in the percentage of people who had noticed any *bidi* promotion. Lastly, the relative change for percentage of people who had noticed any smokeless tobacco product promotion was - 35.2. These values are all significant and indicate a decrease in percentages of people noticing any marketing related to tobacco products.

*Adults mean age 15 and above

The relative changes were higher for men in noticing cigarette promotions whereas they were higher for women in noticing *bidi* promotions and smokeless tobacco promotions. However, the changes were significant for men and women across all three tobacco product categories. Similarly, the relative changes, while small in certain cases, were significantly lower for both age groups (15-24 year olds and those above 25 years). The differences between GATS I and GATS 2 varied from 1 - 4 percentage points for both the age categories. The relative changes were also significant between the last round of the GATS and this survey for people in urban and rural areas. This indicates that people noticed less promotional activities in both areas than in GATS I. The biggest change was in noticing promotions of smokeless tobacco products in urban areas, which reduced by 4.2 percentage points. There is one exception to this trend of reduced exposure across all background characteristics. *Bidi* smokers experienced a small increase in exposure to promotional activities- but this change was not statistically significant.

Table 8.10: Changes in the percentages of adults who noticed cigarette, *bidi* and smokeless tobacco promotion during the last 30 days, according to background characteristics, GATS India, 2009-10 and 2016-17

	Noticed any cigarette promotion[1]			Noticed any *bidi* promotion[1]			Noticed any smokeless tobacco promotion[1]		
	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change	2009-10	2016-17	Relative change
Overall	7.4	5.3	-28.4**	6.8	5.4	-20.6**	8.8	5.7	-35.2**
Gender									
Male	9.9	6.9	-30.3**	8.8	7.3	-17.0**	11.5	7.8	-32.2**
Female	4.6	3.6	-21.7**	4.6	3.4	-26.1**	5.9	3.5	-40.7**
Age (years)									
15-24	9.2	6.5	-29.3**	7.6	6.2	-18.4**	10.7	6.7	-37.4**
25+	6.6	4.8	-27.3**	6.4	5.1	-20.3**	8.0	5.4	-32.5**
Residence									
Urban	9.8	6.2	-36.7**	7.6	4.8	-36.8**	10.8	6.6	-38.9**
Rural	6.3	4.8	-23.8**	6.5	5.7	-12.3**	8.0	5.3	-33.8**
Tobacco use status									
User	9.7	8.1	-16.5**	10.8	11.0	1.9	9.4	8.0	-14.9**
Non-user	7.0	4.9	-30.0**	6.1	4.7	-23.0**	8.6	5.1	-40.7**

Note: [1] Includes products at sale prices, free samples, free gifts or discount offers on other products when buying tobacco products, clothing or other items with brand name or logo of the product, promotion in mail and surrogate advertisement. *p>0.05, ** p<0.01.

CHAPTER NINE

KNOWELDGE, ATTITUDE AND PERCEPTIONS

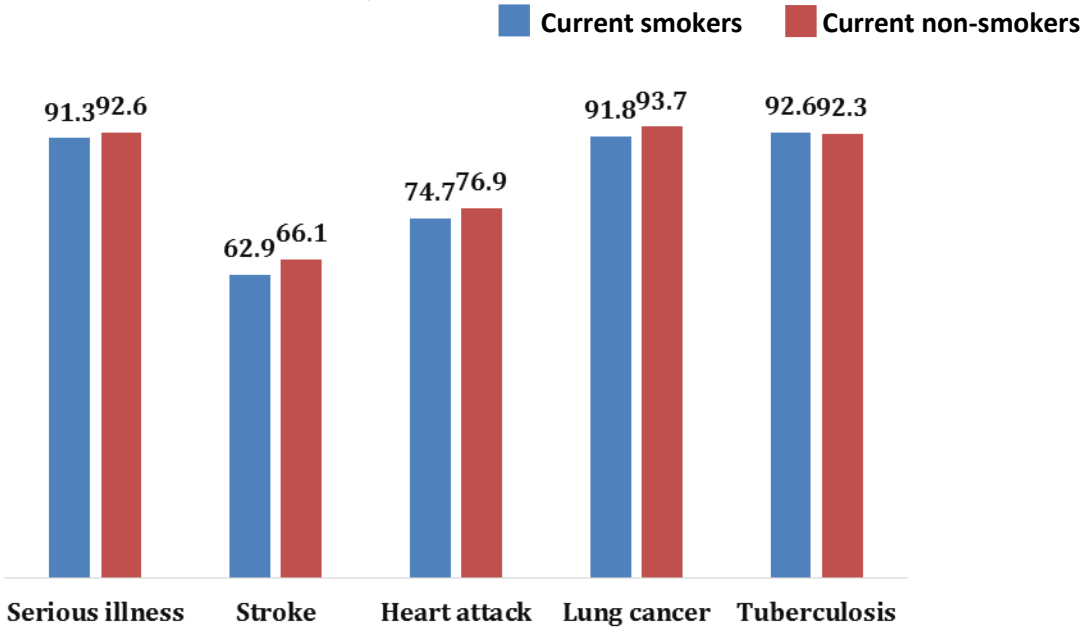
The harmful effects of tobacco use are well established in the scientific community, and acknowledged in both civil and political society. All tobacco control programmes aim to ensure dissemination of the harmful effects of tobacco to the entire population- through messages in the media, through schools, through healthcare providers and through community level initiatives. Such a widespread dissemination has been one of the key strategies of India's National Tobacco Control Programmes. It is also a necessary, though not sufficient, condition for the success of almost all other strategies of tobacco control.

This chapter presents the findings of India's second round of Global Adult Tobacco Survey on the knowledge of adults* about the health effects of smoking and of smokeless tobacco use. It also presents findings on the awareness of the harmful effects of second-hand smoking. And finally it presents the findings on the perception amongst tobacco users on the harm it has already done to them.

9.1. BELIEFS ABOUT HEALTH EFFECTS OF SMOKING:

The findings presented in table 9.1 show that 92.4 % of all adults aged 15 and above believe that smoking causes serious illness. The figures for this remain more or less the same in smokers (91.3%) and on non-smokers (92.6%).

Figure No. 9.1 – Percentage of adults who believe that smoking causes various diseases by smoking status, GATS India 2016-17



*Adults mean age 15 and above

The proportion of adults who believe that smoking affects health does not change much with gender. There is a small declining trend in the proportion with increasing age. It is 93.8% in the youngest age group of 15 to 24, and 93.2% in the 25 to 44 age group. However after that it declines further to 91.5% in the 45 to 64 age group and is 87% above the age of 65.

A similar trend can be seen in the relationship between education levels and the belief that smoking leads to serious illness. At one end 95.4% of those with secondary education or higher believe that smoking causes serious illness while at the other end 88.1% of those without any formal schooling believe so.

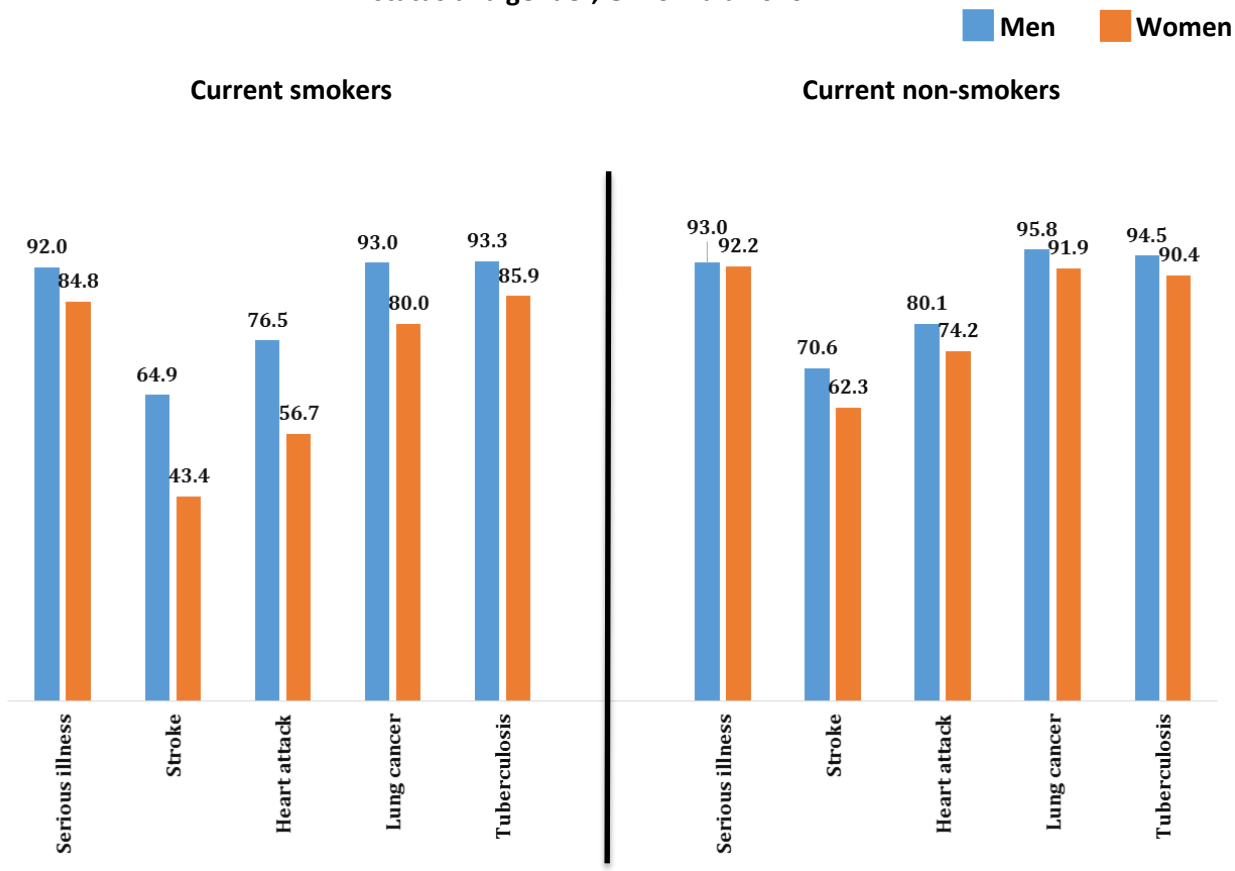
Belief amongst urban residents exceeds belief amongst rural residents by just 1%. And with different occupations the range is between 91.8% in the unemployed to 95.7% amongst students. In retired and unemployed, the proportion who believe that smoking causes serious illness is 87.8%.

Table 9.1: Percentage of adults age 15 and above who believe that smoking causes serious illness, stroke, heart attack lung cancer and tuberculosis by status of smoking, according to background characteristics, GATS-2, India, 2016-2017

Background characteristic	Who believe that smoking causes:														
	Overall					Current Smoker					Current non-smoker				
	Serious illness	Stroke	Heart attack	Lung cancer	Tuber-culosis	Serious illness	Stroke	Heart attack	Lung cancer	Tuber-culosis	Serious illness	Stroke	Heart attack	Lung cancer	Tuber-culosis
Overall	92.4	65.8	76.7	93.5	92.3	91.3	62.9	74.7	91.8	92.6	92.6	66.1	76.9	93.7	92.3
Gender															
Male	92.8	69.5	79.4	95.3	94.3	92.0	64.9	76.5	93.0	93.3	93.0	70.6	80.1	95.8	94.5
Female	92.0	61.9	73.8	91.6	90.3	84.8	43.4	56.7	80.0	85.9	92.2	62.3	74.2	91.9	90.4
Age															
15-24	93.8	68.1	78.0	95.6	93.9	90.5	68.4	80.4	93.8	92.2	94.0	68.1	77.9	95.7	93.9
25-44	93.2	66.7	78.0	94.2	92.8	92.4	63.7	75.5	93.9	93.4	93.3	67.0	78.3	94.3	92.7
45-64	91.5	64.5	75.8	92.4	91.7	91.5	63.3	74.5	91.4	92.9	91.5	64.8	76.1	92.5	91.5
65+	87.0	57.6	68.5	86.3	87.0	87.5	55.3	68.8	84.3	89.1	86.9	58.0	68.5	86.7	86.6
Residence															
Urban	93.1	68.8	81.8	95.7	93.6	92.0	67.4	82.0	95.2	92.6	93.2	68.9	81.8	95.7	93.7
Rural	92.1	64.2	74.0	92.4	91.6	91.1	61.3	72.1	90.5	92.6	92.2	64.6	74.3	92.6	91.5
Education level															
No formal schooling	88.1	55.4	65.5	87.2	87.1	87.6	54.0	65.9	87.6	89.9	88.1	55.6	65.4	87.1	86.6
Less than primary	90.2	63.0	74.9	91.2	90.9	90.6	61.8	75.2	90.8	91.5	90.1	63.3	74.9	91.3	90.8
Primary but less than secondary	93.5	67.6	78.4	94.6	93.2	93.4	68.0	79.3	93.6	95.3	93.5	67.6	78.2	94.7	92.9
Secondary and above	95.4	72.6	84.0	97.9	95.8	95.3	72.1	83.4	97.3	94.3	95.5	72.7	84.1	97.9	95.9
Occupation															
Government and non-government employee	94.2	73.6	85.3	96.9	95.4	94.2	70.6	82.3	97.1	95.3	94.2	74.0	85.6	96.9	95.4
Self employed	91.8	66.0	75.7	93.1	92.4	91.4	62.9	75.1	92.4	92.7	91.9	66.7	75.8	93.2	92.3
Student	95.7	72.4	82.5	98.2	95.8	91.6	80.0	83.5	98.9	89.8	95.8	72.3	82.5	98.1	95.9
Home maker	92.3	61.0	73.6	92.0	90.2	87.4	47.5	60.8	82.5	87.3	92.4	61.3	73.9	92.2	90.3
Retired or unemployed	87.8	61.1	72.2	88.9	90.2	89.4	60.4	70.0	85.1	92.2	87.5	61.2	72.6	89.6	89.8

Almost identical trends in the relationship between background characteristics and belief of smoking as causing serious illness when the population is disaggregated into smokers and with non-smokers. The findings show a similar decline in awareness with age group and gender and an increase in awareness with urban residence and with level of education in both smokers and non-smokers.

Figure No. 9.2 – Percentage of adults who believe that smoking causes various diseases by smoking status and gender, GATS India 2016-17

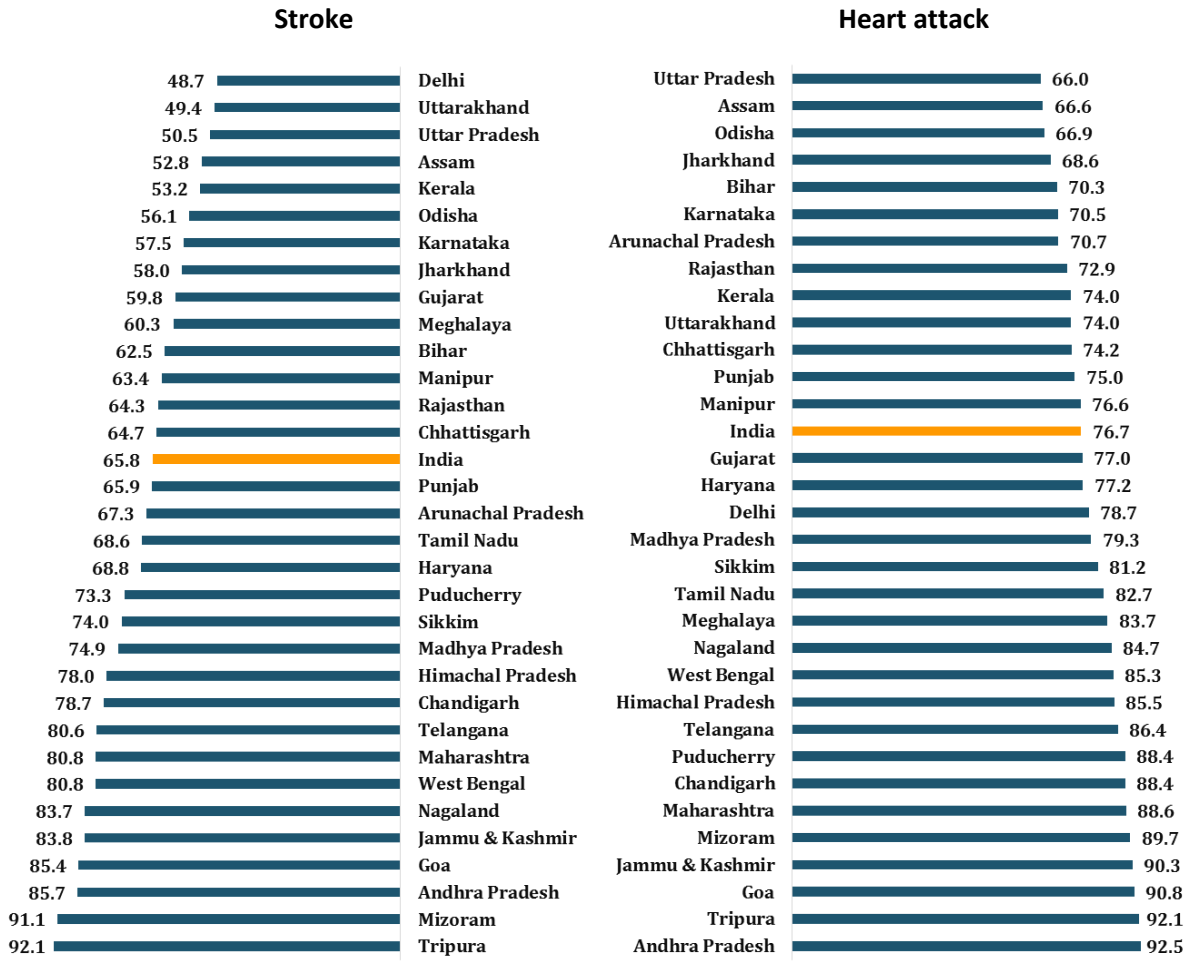


However as compared to non-smokers the proportions of those who believe that smoking causes serious illness is marginally less amongst smokers.

With respect to occupation – salaried employees- government or non-government have the same high proportion of those who believe in the serious ill-effects of smoking irrespective of whether they are smokers or non-smokers. (94.2%). In both smokers and non-smokers, a greater proportion of students believe in the relationship between smoking and serious illness and retired unemployed adults show less.

Across states (see appendix table A-9.1) the lowest levels of knowledge on this link is seen in Jharkhand (77.4%) and Sikkim (77.6%), Gujarat (82.7%), Karnataka (86.4%) Madhya Pradesh (88.6%), Nagaland (88.9%) and Odisha (89.2%). In all other states it is higher than 90%.

Figure No. 9.3 – Percentage of adults who believe that smoking causes stroke and heart attack among states/UTs, GATS India 2016-17



When the survey probes at what is the serious illness with which tobacco smoking is linked, the highest link is seen with lung cancer (overall 93.5% of the adult population) followed by tuberculosis (92.3%) and a much less perception for heart attack (76.7%) and lease of all for stroke (65.8%). This pattern of awareness remains the same in both smokers and non-smokers. This pattern also does not change with any of the background characteristics- gender, age, urban residence, educational level or occupation.

9.2. BELIEFS ABOUT HEALTH EFFECTS OF SMOKELESS TOBACCO USE.

It is evident from table 9.2 that over nine of ten adult aged 15 or above believe that use of smokeless tobacco causes serious illness and that its use can lead to oral cancers and dental disease. The proportion of smokeless tobacco users who believe so is 94.0% for serious illness, 92.3% for oral cancers and 88.9% for dental diseases. The proportion of non-users of smokeless tobacco is slightly higher- 96.1% for serious illness, 95.0% for oral cancers and 91.2 % for dental diseases. The proportion of all adults who believe that use of smokeless tobacco causes serious illnesses is 95.6%, and for oral cancers it is 94.4 % and for dental diseases it is 90.7%.

Figure No. 9.4 – Percentage of adults who believe that smoking causes various diseases by smoking status, GATS India 2016-17

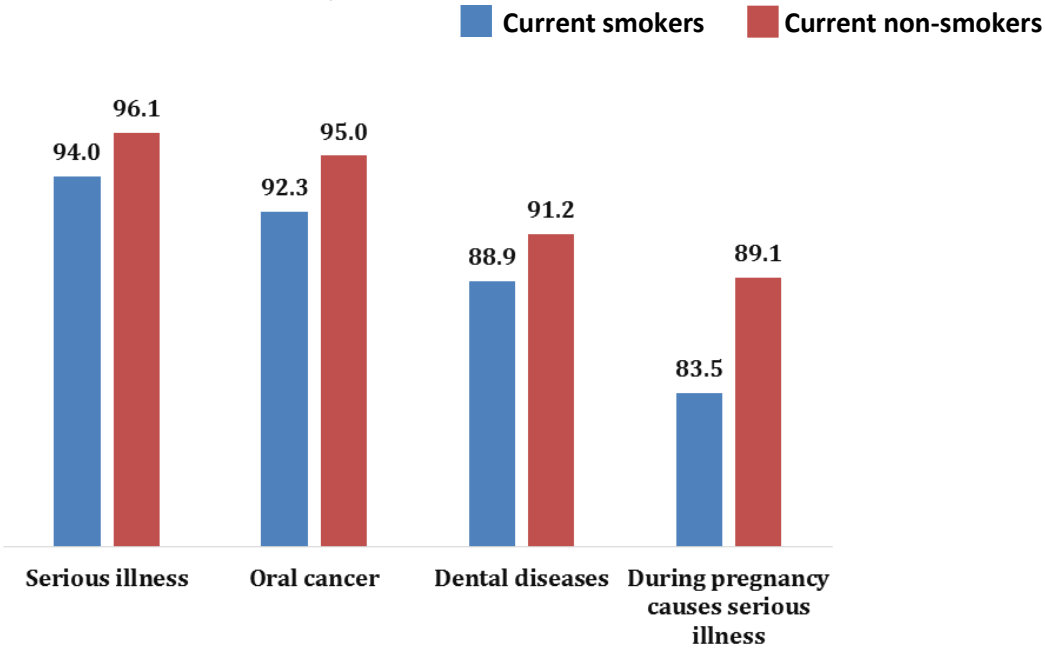


Figure No. 9.5 – Percentage of adults who believe that smoking causes various diseases by smoking status and gender, GATS India 2016-17

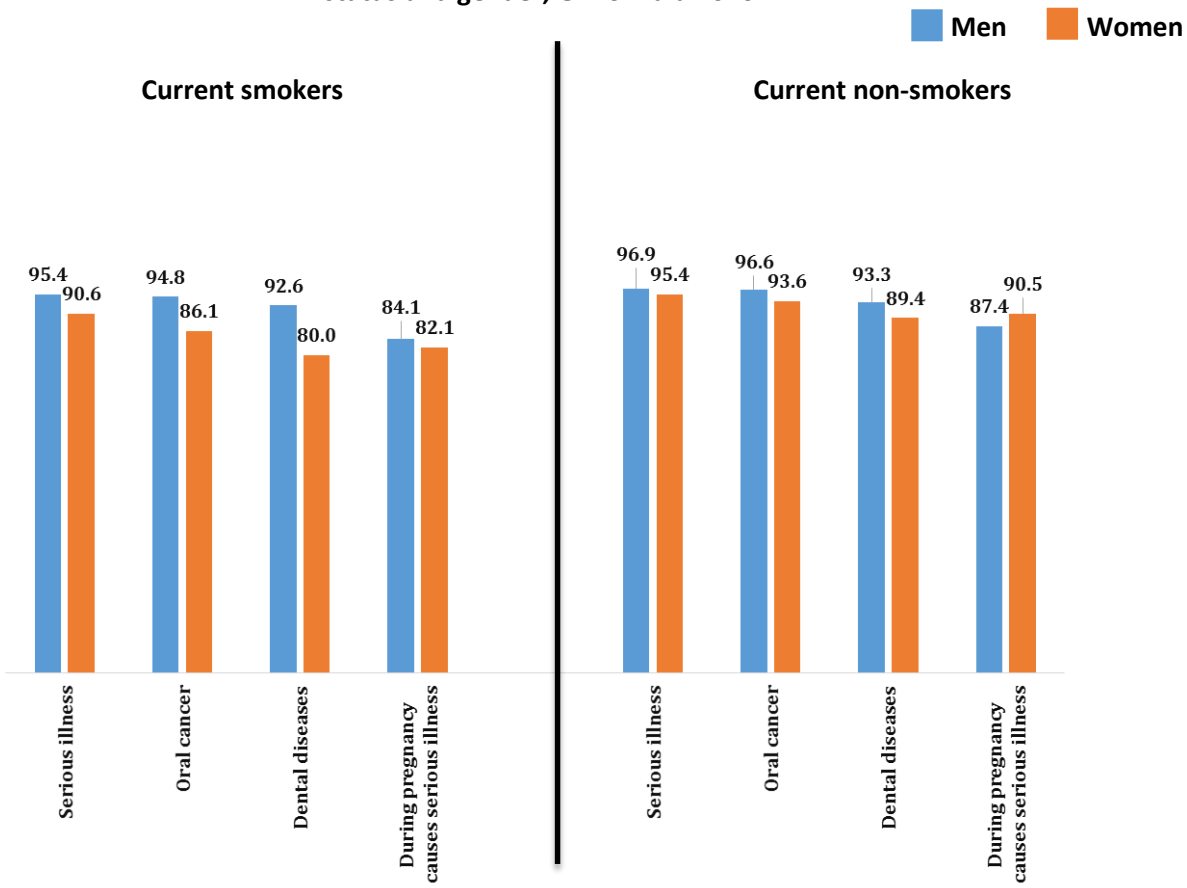


Table 9.2: Percentage of adults age 15 and above who believe that use of smokeless tobacco causes serious illness, oral cancer, dental diseases and serious illness during pregnancy by status of smokeless tobacco use, according to background characteristics, GATS-2, India, 2016-2017

	Who believe that smoking causes:											
	Overall				Current users of smokeless tobacco				Current non-users of smokeless tobacco			
Background characteristic	Serious illness	Oral cancer	Dental diseases	Smokeless tobacco use during pregnancy causes serious illness	Serious illness	Oral cancer	Dental diseases	Smokeless tobacco use during pregnancy causes serious illness	Serious illness	Oral cancer	Dental diseases	Smokeless tobacco use during pregnancy causes serious illness
Overall	95.6	94.4	90.7	87.9	94.0	92.3	88.9	83.5	96.1	95.0	91.2	89.1
Gender												
Male	96.4	96.1	93.1	86.4	95.4	94.8	92.6	84.1	96.9	96.6	93.3	87.4
Female	94.8	92.7	88.2	89.5	90.6	86.1	80.0	82.1	95.4	93.6	89.4	90.5
Age												
15-24	97.0	96.2	92.3	87.9	94.8	93.7	88.6	83.6	97.2	96.5	92.7	88.4
25-44	96.4	95.4	92.0	89.8	95.3	94.4	91.4	84.9	96.7	95.7	92.1	91.3
45-64	94.8	93.4	89.1	87.0	93.7	92.1	88.1	83.1	95.2	94.0	89.5	88.5
65+	90.1	86.6	84.1	81.0	88.6	82.8	82.0	78.8	90.7	88.2	85.0	81.9
Residence												
Urban	96.8	96.4	92.1	89.7	94.7	94.3	91.3	84.8	97.2	96.7	92.3	90.6
Rural	95.0	93.4	90.0	86.9	93.8	91.6	88.2	83.1	95.4	94.0	90.6	88.2
Education level												
No formal schooling	91.6	88.7	85.3	82.3	91.0	87.0	83.1	78.2	91.8	89.4	86.3	84.0
Less than primary	93.5	92.1	88.0	84.2	92.8	90.7	89.1	80.8	93.8	92.7	87.5	85.6
Primary but less than secondary	96.5	95.6	91.1	88.4	96.0	95.8	91.1	86.2	96.7	95.5	91.1	89.2
Secondary and above	98.5	98.3	95.0	92.5	97.2	97.4	96.1	90.7	98.7	98.4	94.9	92.7
Occupation												
Government and non-government employee	97.8	97.4	94.8	92.2	97.3	95.7	94.0	90.2	97.9	97.8	95.1	92.8
Self employed	95.2	94.5	90.8	85.8	94.5	93.5	90.8	82.4	95.6	95.1	90.8	87.4
Student	98.5	98.1	94.6	89.3	95.1	94.7	89.9	91.0	98.6	98.2	94.8	89.3
Home maker	95.1	92.6	88.4	90.1	91.4	87.0	80.7	84.4	95.6	93.4	89.4	90.9
Retired or unemployed	91.9	90.5	86.8	81.1	90.0	88.0	83.4	78.6	92.5	91.3	88.0	82.0

As we saw with smoking, knowledge of the harmful effects of smokeless tobacco also exhibit modest gradients with key background characteristics of gender, age, residence, education levels and occupation. The proportion for knowledge of the link with any serious illness is more in males (96.4%) as compared to females (94.8%), more with younger age as compared to older age groups (ranging from 97.0 % in the 15 to 24 age group to 90.1 % in the above 65 age group), more with urban residence (96.8%) as compared to rural residence (95.0%) ; more with secondary and above level of education (98.5%) to no formal schooling (91.6%) and more with students (98.5%) and regular employees(97.8%) as compared to those who are retired or unemployed (91.9%).

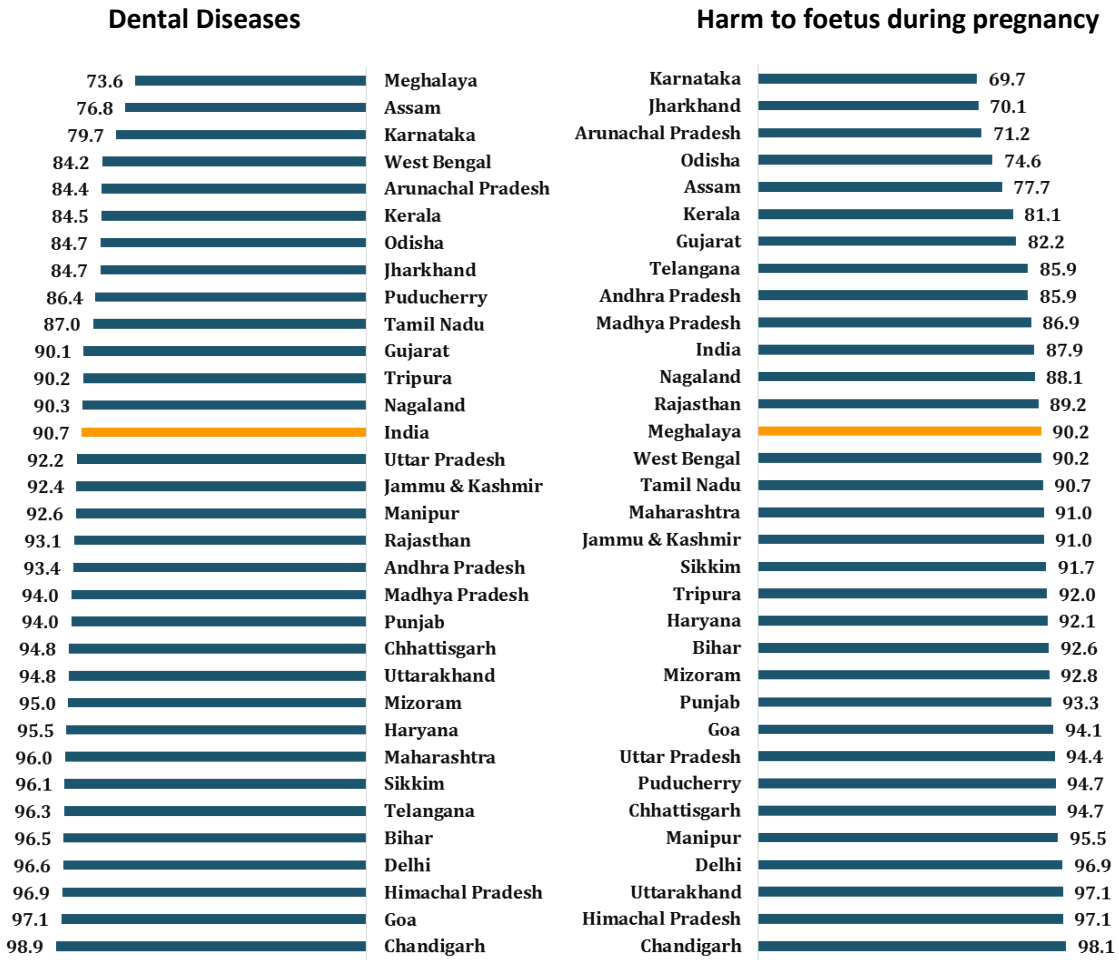
This pattern of background characteristics and beliefs is the same with oral cancers and dental diseases- and is also the same with current users of smokeless tobacco and current non-users of smokeless tobacco.

One additional question in GATS 2 was knowledge of the harm that use of smokeless tobacco can do in pregnancy. Belief of this ill effect was high – it was 87.9% in all adults, 83.5 % in users of smokeless tobacco, and 89.1% in non-users of smokeless tobacco. However as is evident this is much less than the belief in the other ill-effects of use of smokeless tobacco. The gradients in proportions having the belief with varying background characteristics displays the same trends as with beliefs in other ill effects of smokeless tobacco use. We note however that this means that in vulnerable populations like those with no formal schooling the proportion of those who believe that smokeless tobacco causes ill effects in pregnancies drops to as low as 78.2%.

The pattern across states is different across different associations with disease. (appendix table A-9.2). For any serious illness except for Karnataka (89.1%) all states show that well over 90% of the population believe use of smokeless tobacco causes serious illness. For oral cancer the awareness is less in Assam (84.8%); Odisha (86.4%), Meghalaya (87.8%) and Jharkhand (89.8%). The rest are above 90%. For dental diseases all the above named 5 states show less than 90% of adults with the desired belief- some as low as 73.6% (Assam). In West Bengal (84.2%) and Arunachal (84.4%), Puducherry (86.4%) and Tamil Nadu (87.0%) also less than 90% see the link between use of smokeless tobacco and dental disease.

When it comes to the ill effects on pregnancy-(appendix table A-9.2) in as many as 12 states out of 32 states and UTs, less than 90% are aware of the link and in 5 it is below 80% and in one state, Karnataka it is as low as 69.7%. In users of smokeless tobacco, the national indicator value for belief that use of smokeless tobacco causes serious illness is 83.5% of the adult population. In as many as 18 of 32 states and UTs this knowledge is present in less than 90% of the adult population, and in 8 states it is less than 80% of the adults and in 5 of these states it is less than 70% of adults- the lowest being Karnataka (52.7% and Jharkhand (59.6%) where only about one in two users of smokeless tobacco were aware of a serious harmful effect that this could have on pregnancy. In these states belief in the association was much higher in non-users of smokeless tobacco.

Figure No. 9.6 – Percentage of adults who believe that smokeless tobacco use causes dental diseases and during pregnancy harms foetus among states/UTs, GATS India 2016-17



9.3. BELIEF ABOUT HEALTH EFFECTS OF SECOND HAND SMOKE

There are a number of studies now available that second hand smoking is harmful to non-smokers- and it is important that not only non-smokers but even smokers know about it. GATS 2 India collected information on the perception of people about the adverse impact of exposure to second-hand smoke on adults and on children.

The main finding as seen in table 9.3 is that 92.4% of all adults aged 15 and above believe that second hand smoking does lead to serious illness in non-smokers and as many as 93.3% believed that it does so in children as well. The proportions are not very different between smokers and non-smokers though marginally higher in non-smokers (92.6 % in nonsmokers as compared to 91% in smokers).

Table 9.3: 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-2, India, 2016-2017

Background characteristic	Who believe that breathing other people's smoke causes serious illness in non-smokers			Who believe that breathing other people's smoke causes serious illness among children		
	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker
Overall	92.4	91	92.6	93.3	91.8	93.5
Gender						
Male	94	92	94.5	94.8	92.7	95.3
Female	90.8	80.9	91	91.8	82.9	91.9
Age						
15-24	94.4	93.5	94.4	95.3	95.8	95.3
25-44	93.3	93.2	93.4	94.2	93.7	94.3
45-64	91.1	90.1	91.3	91.9	90.8	92.1
65+	85.5	84.1	85.8	86.4	85.5	86.5
Residence						
Urban	94.5	94.7	94.5	95.2	94.8	95.2
Rural	91.3	89.6	91.6	92.3	90.7	92.5
Education level						
No formal schooling	86.3	86.1	86.3	87.1	86.6	87.2
Less than primary	90.3	91.1	90.2	90.6	91.8	90.3
Primary but less than secondary	93.6	93.2	93.6	94.6	94.1	94.7
Secondary and above	96.6	96.1	96.7	97.5	97.7	97.5
Occupation						
Government and non-government employee	96.1	96.3	96.1	96.6	97.3	96.5
Self employed	92.1	91.4	92.2	92.7	91.8	93
Student	96.9	97.1	96.9	97.4	98.7	97.4
Home maker	90.9	82.7	91.1	92.1	85.3	92.3
Retired or unemployed	87.7	85.5	88.1	89	87.6	89.2

In sub-groups made according to the background characteristics of gender, age, residence, education and occupation there is a modest variation. The same trends are seen as were seen for perceptions of harmful effect of both smoking and smokeless tobacco consumption. This trend is seen even in responses to the link between second hand smoking and serious illness in children. As described earlier the proportion is higher in males compared to females; in age 15 to 24 as compared to older age-groups; in urban residences as compared to rural residence; and with increasing years of schooling as compared to no formal schooling, and in students and employees as compared to self-employed, home makers and retired or unemployed.

The pattern of awareness of harmful effects of second hand smoke on non-smokers and on children across the 32 states/UTs studied is given in appendix table A-9.3. In most states over 90% of the adults believed that second hand smoking causes serious illnesses in non-smokers and in children. However in 8 states less than 90% of those surveyed believed in causation of serious illness in non-smokers. When it came to illness in children due to second hand smoke only 6 states had proportions less than 90%.

9.4. PERCEPTION ON HARM TO SELF; DUE TO TOBACCO USE

In the second round of GATS India, questions were added relating use of smoked forms of tobacco or smokeless forms to one own health. The answers were graded into definitely not affecting, to probably not effecting, probably affecting, definitely affecting and do not know. For ease of communication and interpretation we could aggregate the first two- definitely and probably not affecting into NO and the next two into YES. There is a case for aggregating the ''do not know'' with ''YES'' as that too is a reasonable answer, but for now we have chosen to leave that out.

9.4.1. Perception of Harm to self-due to Smoking.

Based on the finding shown in table 9.4, about 49.3 % respond with a NO to the question of whom 30.7 are quite definite in their perception of no harm having occurred and 18.6% are more tentative. When it comes to the YES, an almost equal proportion- 47.9% say so of whom 30.9% are tentative and 17 % are definite that it has caused harm.

When we further compute by background characteristics that the perception that bodily harm has resulted (an YES) is more in men (50.3%) as compared to women (39.2%) ; more with urban residence (50.9%) as compared to rural residence (48.7%), more with higher levels of education (50.8%) as compared to no formal schooling (45.0%) and more in regular employees as compared to those who are retired or unemployed. All of this matches the patterns seen with belief that tobacco use or second hand smoking causes harm. What is different and unexpected is that younger adults aged 15 to 24 (44.9%) perceive less harm to themselves than older age groups (51.2% in 15 to 64 age group) and matching this students (39.2%) also perceive harm to themselves less.

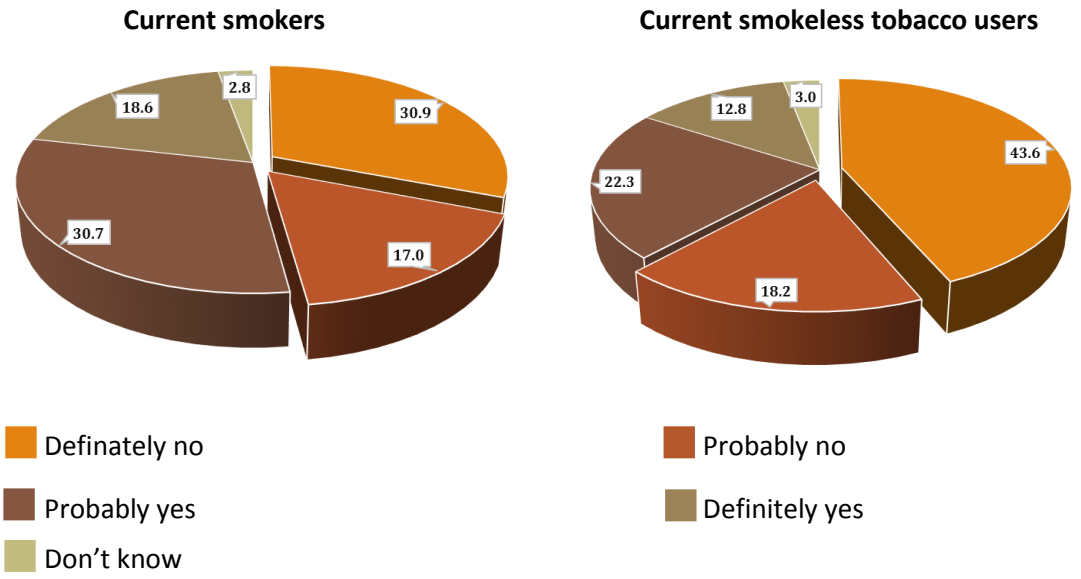
Table 9.4: Percent distribution of current smokers by perception about the effects of smoking on health, according to background characteristics, GATS-2, India, 2016-2017

Background characteristic	Know or believe, has smoking already done any harm to your body				
	Definitely no	Probably no	Probably yes	Definitely Yes	Do not know
Overall	30.9	17.0	30.7	18.6	2.8
Gender					
Male	30.1	17.0	31.7	18.6	2.6
Female	39.6	16.5	20.7	18.5	4.7
Age					
15-24	34.6	18.1	27.6	17.3	2.4
25-44	30.9	17.5	31.3	17.8	2.4
45-64	29.0	16.8	31.2	20.0	3.1
65+	34.4	15.1	29.2	17.8	3.6
Residence					
Urban	26.2	19.7	32.4	18.5	3.2
Rural	32.7	16.0	30.1	18.6	2.7
Education level					
No formal schooling	34.2	17.7	28.2	16.8	3.0
Less than primary	33.0	16.1	28.2	20.2	2.4
Primary but less than secondary	27.1	16.6	34.3	19.4	2.6
Secondary and above	29.3	16.9	31.6	19.2	3.0

Occupation	30.9	17.0	30.7	18.6	2.8
Government and non-government employee					
Self employed	30.1	17.0	31.7	18.6	2.6
Student	39.6	16.5	20.7	18.5	4.7
Home maker					
Retired or unemployed	34.6	18.1	27.6	17.3	2.4

There is also a sharp variation in the proportion who report YES (Definitely or probably yes) across the states (appendix table A-9.4) and the pattern does not match the patterns seen for belief that smoking causes serious illness. The perception that smoking has affected ones body is least amongst the smokers of Gujarat(16.4%), Maharashtra (26.8%), Chhattisgarh (28.4%) and Chandigarh (29.4%) Clearly the perception that tobacco smoking is causing harm to oneself can vary widely from the knowledge that tobacco smoking can lead to serious illness.

Figure No. 9.7 – Percentage distribution of current smokers and smokeless tobacco users by perception of the effects of smoking and smokeless tobacco use on health, GATS India 2016-17



9.4.2. Perception of Harm to Oneself due to use of smokeless tobacco.

In table 9.5 we present the perception of harm already done to one's own body in the users of smokeless tobacco. Though earlier we had found that there was little difference in the knowledge of harm caused by either form of tobacco use, when it comes to perception of harms to one's own body, the figures are much lessor for smokeless tobacco. Only 13.0 percent of smokeless tobacco users perceived definite harm and another 24.4% perceived a probable harm- a total of 35.1 % saying YES. In contrast 61.8% perceived no harm, of whom as many as 43.6% replied with a definite NO.

Perception of harm varied with background characteristics. Males clearly more often perceived harm (37.4%) as compared to females (29.6%). There was little difference in the perception of harm between urban residence (35.0) and rural residence (35.2). Those with higher education levels (38.5 % in secondary school level and above) perceived harm more than those with no formal schooling (32.0%). And government employees (35.1%) or self –employed (37.4%) perceived harm more than the retired or unemployed (30.8%). As with smokers, the users of smokeless tobacco in the age group of 45 to 64 perceived harm (37.4%) more than younger adults in the 15 to 24 age group did (30.8%). And this despite significantly higher knowledge levels in the younger group. Matching this observation, the perception of harm was least in student users of smokeless tobacco (29.4%).

Table 9.5: Percent distribution of current smokers by perception about the effects of smokeless tobacco use on health, according to background characteristics, GATS-2, India, 2016-2017

	know or believe, has using smokeless tobacco already done any harm to your body				
Background characteristic	**Definitely no**	**Probably no**	**Probably yes**	**Definitely Yes**	**Do not know**
Overall	43.6	18.2	22.3	12.8	3.0
Gender					
Male	41.9	18.8	24.4	13.0	1.9
Female	47.8	16.9	17.2	12.4	5.6
Age					
15-24	48.3	18.3	19.2	11.6	2.5
25-44	43.2	18.9	22.7	12.2	3.0
45-64	41.6	17.9	22.9	14.5	3.2
65+	45.2	16.5	22.9	12.4	3.1
Residence					
Urban	41.2	20.5	22.0	13.0	3.4
Rural	44.4	17.5	22.4	12.8	2.9
Education level					
No formal schooling	46.6	17.4	19.0	13.0	4.0
Less than primary	39.6	20.5	24.4	11.9	3.6
Primary but less than secondary	43.7	18.1	23.2	12.9	2.1
Secondary and above	40.9	18.6	25.3	13.2	2.1
Occupation	43.6	18.2	22.3	12.8	3.0
Government and non-government employee					
Self employed	41.9	18.8	24.4	13.0	1.9
Student	47.8	16.9	17.2	12.4	5.6
Home maker					
Retired or unemployed	48.3	18.3	19.2	11.6	2.5

Across states and UTs, (appendix table A-9.5) the perception that harm had resulted from use of smokeless tobacco amongst users of the same was least in Gujarat (16.9%) and then in Chandigarh (17.7%), Chhattisgarh (25.7%), Odisha (26.2%), Bihar (26.5%) and Maharashtra (29.2%). These patterns across states bear further investigation.

9.5. CHANGES FROM GATS 1 TO GATS 2

It is important to study the changes in the proportion of people who believed that smoking or use of smokeless tobacco and second hand smoke had harmful effects. These findings are presented in table 9.6 . The change with respect to perception of harm to oneself cannot be studied because GATS-1 did not have that question.

The relative changes in the belief that serious illness could be caused by smoking was a modest 2.4, for smokeless tobacco use it was 7.7 and for second hand smoke it was a healthy 11.6- but all these three changes are statistically significant. Part of the reasons for this pattern could be because already at the time of GATS 1, 90.2 % of adults believed that smoking caused serious illness and this went upto 92.4 in GATS 2. On the other hand only 88.8% of adults believed that use of smokeless tobacco caused serious illness and that has now risen to 95.6%. With respect to smokeless tobacco the change is even more visible- with only 82.9% in 2009 believing it was harmful and now 92.5% believe this- almost the same as for smoking.

This 'catching up phenomena' is seen across all background characteristics as well and for all three areas of knowledge- the harmful effects of smoking, smokeless tobacco and second hand smoke.

Thus relative change is *more* in current smokers (4.5) as compared to non-smokers (2.1), in women (3.6) as compared to men(1.4), in rural areas (3.8) as compared to urban areas (-0.7), in older adults (6.1 in the 65+ age group) as compared to younger adults (1.5 in the 15 to 24 age group) with a gradation in the in-between age groups. All these changes between GATS 1 and GATS 2 were statistically significant. Of course the proportion who link tobacco smoking to serious illness is still less in smokers as compared to non-smokers, in women as compared to me, in rural areas as compared to urban areas, and in older adults as compared to younger adults – but the gap between the groups has become less.

With respect to the adults who believe that smokeless tobacco use causes serious illness also the changes are statistically significant across all background characteristics. The changes are more in current smokers (8.7) as compared to non-smokers (7.3), in women (8.6) as compared to men (7.0), in rural areas (9.2) as compared to urban areas (4.1), in older adults (12.9 in the 65+ age group) as compared to younger adults (5.9 in the 15 to 24 age group) with a gradation in the in-between age groups.

This pattern of catching up with greater movement in the sub-groups with lessor proportion of adults believing the linkage is not only seen, but even more visible, with second hand smoking. Relative change between GATS – 1 and GATS 2 in adults who believe that breathing other people's smoke causes serious illness in non-smokers is more in current smokers (16.8) as compared to non-smokers (10.6), in women (12.4) as compared to men(10.7), in rural areas (13.1) as compared to urban areas (7.4), in older adults (17.4 in the 65+ age group) as compared to younger adults (8.5 in the 15 to 24 age group) with a gradation in the in-between age groups. And in all these instances even after a greater change in the former sub-group, it is the latter that has the better levels of awareness. Again all these changes were statistically significant.

In conclusion there are significant changes since GATS 1 in knowledge on the harmful effects of smoking, use of smokeless tobacco and of second hand smoking on non-smokers overall and across all sub-groups based on background characteristics, of status of using tobacco products, gender, age and residence. These changes are more in the sub-groups where knowledge gaps were higher- and even though the gaps are not closed they are less.

Table 9.6: Changes in the percentage of adults age 15 and above who believe that use of smoking, smokeless tobacco use and breathing other people's smoke causes serious illness, according to background characteristics, GATS India, 2009-10 and 2016-17

Adults who believe that smoking causes serious illness				Adults who believe that smokeless tobacco use causes serious illness				Adults who believe that breathing other people's smoke causes serious illness in non-smokers			
Characteristic	**2009-10**	**2016-17**	**Relative change**	**Characteristic**	**2009-10**	**2016-17**	**Relative change**	**Characteristic**	**2009-10**	**2016-17**	**Relative change**
Overall	90.2	92.4	2.4**	**Overall**	88.8	95.6	7.7**	**Overall**	82.9	92.4	11.5**
Smoking Status				**Smokeless tobacco use Status**				**Smoking Status**			
Current smokers	87.4	91.3	4.5**	Current smokeless tobacco user	86.5	94.0	8.7**	Current smokers	77.9	91.0	16.8**
Non-smokers	90.7	92.6	2.1**	Non-user	89.6	96.1	7.3**	Non-smokers	83.7	92.6	10.6**
Gender				**Gender**				**Gender**			
Male	91.5	92.8	1.4**	Male	90.1	96.4	7.0**	Male	84.9	94.0	10.7**
Female	88.8	92.0	3.6**	Female	87.3	94.8	8.6**	Female	80.8	90.8	12.4**
Age (years)				**Age (years)**				**Age (years)**			
15-24	92.4	93.8	1.5**	15-24	91.6	97.0	5.9**	15-24	86.6	94.4	9.0**
25-44	91.1	93.2	2.3**	25-44	89.6	96.4	7.6**	25-44	83.5	93.3	11.7**
45-64	88.1	91.5	3.9**	45-64	86.1	94.8	10.1**	45-64	79.8	91.1	14.2**
65+	82.0	87.0	6.1**	65+	79.8	90.1	12.9**	65+	72.9	85.5	17.3**
Residence				**Residence**				**Residence**			
Urban	93.8	93.1	-0.7**	Urban	93.0	96.8	4.1**	Urban	88.0	94.5	7.4**
Rural	88.7	92.1	3.8**	Rural	87.0	95.0	9.2**	Rural	80.8	91.3	13.0**

Note: . *p>0.05, ** p<0.01.

CHAPTER TEN

CONCLUSION AND RECOMMENDATIONS

The Global Adult Tobacco Survey (GATS) is a global standard for systematically monitoring adult tobacco use (smoking and smokeless) and tracking key tobacco control indicators. This second round of the Global Adult Tobacco Survey for India too place in 2016, seven years after the first round that was organized in 2009. A multi-stage sample design was used for both rounds of GATS. From each of the sampled household, one household member 15 years of age or older was randomly selected for individual interview. In the first round 69,296 individual interviews were completed with an overall response rate of 91.8%. In the second round, a total of 74,037 individual interviews were completed with an overall response rate of 92.9%.

10.1 MAIN FINDINGS OF THE SURVEY:

Tobacco Use

- 42.4% of men, 14.2% of women and 28.6% (266.8 million) of all adults* currently use some form of tobacco.
- 19.0% of men, 2.0% of women and 10.7% (99.5 million) of all adults currently smoke tobacco.
- 29.6% of men, 12.8% of women and 21.4% (199.4 million) of all adults currently use smokeless tobacco.
- There has been a decrease in use of tobacco from 34.6% of all adults in GATS 1 to 28.6% in GATS 2. This decline is significant.
- There has also been a decline in prevalence of tobacco use between GATS 1 and GATS 2 – in smokers of both cigarettes and bidis, in users of smokeless tobacco in all its forms, in both men and women, in both urban are rural areas, in all age groups and in all occupational groups. All these decreases are statistically significant.
- Amongst smokers, bidi is the most prevalent form of tobacco use (7.7%) and amongst smokeless tobacco users it is khani(the tobacco-lime mixture) at 11.2% followed by gutka at 6.8%. In women, betel quid with tobacco is the most frequent(6%), followed by oral application(3.8%). Across states the product that dominates the form of smoked or smokeless tobacco use varies widely and this has implications for state level strategy.
- There has been an increase in the average age of initiation – rising from 17.9 to 18.9 for smoking and from 17.9 to 18.8 for use of smokeless tobacco and these changes are statistically significant. Changes remain significant for both men and women and in rural areas- but change is less not statistically significant in urban areas.
- A significant proportion of pregnant women are using smokeless tobacco when they are pregnant in many states- and in some it reaches alarming proportions.
- A significant proportion of the population ingest Areca nut (8 %) which is a known carcinogen. Another 8.7% chew betel leaves without tobacco, and a 4% take paan masala without tobacco. While on their own

Cessation:

- 55.4% of current smokers are planning or ‘thinking of quitting’ smoking and 49.6% of current smokeless tobacco users are planning or ‘thinking of quitting’ smokeless tobacco use.

- 48.8% of current smokers were advised by health care provider to quit smoking and 31.7% of current smokeless tobacco users were advised by health care provider to quit use of smokeless tobacco.
- The penetration of different methods to support cessation remain low- and most are attempting to quit, usually unsuccessfully without any support. A small 4.1% of smokers even make the wrong choice of trying smokeless tobacco as an approach to quitting.
- The quit ratio for smokers is 16.8% and for smokeless tobacco is 5.8%- measured as proportion of former daily users of tobacco of each form as a proportion of ever daily users of that form of tobacco.
- As compared to GATS 1, thinking of quitting has remained stagnant for smokers and declined significantly for smokeless tobacco users. There is also a significant decrease in urban smokers and smokers in the 15 to 24 age group.

Secondhand Smoke

- 38.7% of adults were exposed to second hand smoke at home.
- 30.2% of adults who work indoors are exposed to second-hand smoke at their workplace.
- 7.4% of adults were exposed to second hand smoke at restaurants.
- Between GATS 1 and GATS 2 the exposure to second hand smoke at the work place stagnates at a high 26.2% of non-smokers. A modest but significant decrease was seen in urban areas.
- At home however there was major decrease in second hand smoking between GATS 1 and GATS 2 - a relative change of - 27.1. This large decrease is for men as well as women, for rural as well as urban areas and across all age groups. However even after such a decrease 35.0% of non-smokers are getting exposed to second hand smoke at home.
- There is a significant decrease in exposure to second hand smoke in government buildings, restaurants and with public transportation- but not in healthcare facilities. In the latter there is a small increase which however is not statistically significant.
- One urgent concerns is the large proportion of pregnant women exposed to second-hand smoking in some of the states.

Economics:

- A daily cigarette smoker in India spends on an average Rs. 1192.45 per month on manufactured cigarettes; and a daily bidi smoker spends on an average Rs. 284.12 on bidis. Female smokers spent much lower amount on monthly expenses on both cigarettes and bidis. Expenditure increases with age group and urban residence for cigarettes. With increase education level there are less cigarettes smoked but more expenditure incurred.
- A smokeless tobacco user spent Rs 12.75 on an average in their last purchase, which is about the same as what a bidi smoker spends. However it is difficult to estimate what is their monthly expenditure since monthly consumption is difficult to estimate.
- The main sources of purchase are stores, the kiosk or paan shop and the street vendor with the relative importance of these varying across states. Of great concern is that most tobacco users who were underage (below 18) were still able to buy tobacco from any of these outlets.
- Between GATS 1 and GATS 2, after adjusting for inflation, there is an increasing monthly expenditure on cigarettes from Rs 668 to Rs 1192 (at current prices) – a relative change of

78.5 and an increase from Rs 156 to Rs 284 for bidis (at current prices) – a relagive change of 81.8

Media and Messaging:

- 19.2% of adults noticed smoking tobacco advertisement and 18.3% of adults noticed smokeless tobacco advertisement.
- 68.0% of adults noticed anti-smoking tobacco information on television or radio and 59.3% of adults noticed anti-smokeless tobacco information on television or radio.
- The net effect of warning labels on giving rise to thoughts of quitting – was 61.9% for smokers, 53.8% for bidis, and 46.2% for users of smokeless tobacco. Success with this strategy required users to first notice the warning on the label, and then for noticing to stimulate the thought. The greater constraint of the two was in noticing the warning at all- as amongst those who noticed over 85% in most sub-groups and overall thought of quitting.
- Between GATS 1 and GATS 2 there had been a significant increase in those who noticed health warnings on health packages, and those who thought of quitting as a consequence – and this change was seen for all three products cigarettes (relative change 62.9); bidis (relative change 83.6) and smokeless tobacco (relative change 36.7)
- Between GATS 1 and GATS 2 exposure to strategies of tobacco, bidi and smokeless tobacco promotion all decreased significantly- and it did so across all sub-groups based on background characteristics of gender, age, residence, and whether they are currently using tobacco products,

Knowledge & Perceptions

- 92.4% of adults believed that smoking causes serious illness and 95.6% of adults believed that use of smokeless tobacco causes serious illness.
- However as many as 49.3 % of smokers do *not* perceive their health as having been affected by tobacco (some of them with certainty and some more tentative)and as many 61.8% of smokeless tobacco users did not perceive that their health has been adversely affected, and 43.6% of the latter were certain of this.
- Though even at the baseline of GATS 1, there was a high level of knowledge with regard to the harmful effects of tobacco, in the years since there has been a further improvement- and this improvement is statistically significant for smoking, use of smokeless tobacco and for second hand smoking. More important where in terms of product or background characteristic, the levels of knowledge were lower in GATS 1 the improvement has been relatively more- thus narrowing the gaps in knowledge.

10.2. PREVALENCE AND CHANGE ACROSS STATES:

There is a wide variation not only in prevalence but in almost every indicator studied across the states. These variations are instructive. Further they are essential to study since almost all action on tobacco control has to take place under the leadership of state administration and state departments of health.

The pattern of current prevalence across the states is shown in the table below:

Table 4.26: Classification of states/ UTs according to prevalence of smokeless tobacco use among men/ women, GATS 2, India, 2016-17.

Smokeless tobacco prevalence %	Total	Male	Female
Less than 5%	*Jammu & Kashmir,* ***Himachal Pradesh,*** ***Puducherry***	Puducherry	Jammu & Kashmir, Himachal Pradesh, Puducherry, Punjab, Chandigarh, Uttarkhand, Haryana, Delhi, Bihar, Goa, Kerala
5% - 10%	Punjab, Chandigarh, Haryana, ***Delhi,*** ***Sikkim,*** Goa, Andhra Pradesh, ***Kerala***	Jammu & Kashmir, Himachal Pradesh, Goa, Andhra Pradesh, Kerala	Rajasthan, Sikkim, Andhra Pradesh, Telangana, Tamil Nadu
10% - 20%	*Uttarakhand,* ***Rajasthan****, Gujarat*, Telangana, *Karnataka*, Tamil Nadu	Punjab, , Chandigarh, Haryana, Delhi, Sikkim, Meghalaya, Telangana, Tamil Nadu	Uttar Pradesh, Madhya Pradesh, West Bengal, Jharkhand, Gujarat, Maharashtra, Karnataka
20% - 30%	Uttar Pradesh, *Madhya Pradesh, West Bengal,* ***Bihar,*** *Meghalaya*, *Maharashtra*	Uttarakhand, Rajasthan, West Bengal, Mizoram, Gujarat, Karnataka	Chhattisgarh, Arunachal Pradesh, Meghalaya
30% - 40%	***Chhattisgarh,*** ***Jharkhand,*** Arunachal Pradesh, ***Nagaland,*** *Mizoram*	Madhya Pradesh, Maharashtra	Odisha, Nagaland, Assam
40% - 50%	Odisha, Manipur, Tripura, Assam	Uttar Pradesh, Chhattisgarh, Bihar, Nagaland, Tripura	Manipur, Mizoram
50% and above		Jharkhand, Odisha, Arunachal Pradesh, Manipur, Assam	Tripura

Note: Of the above states those states that have shown a significant and major decrease in tobacco use between GATS 1 and GATS 2 (relative change over 20) are shown in bold italics in the first column and those that have

shown a significant but more modest decrease in tobacco use(relative change less than 20)are shown in italics. Those states which experienced an increased tobacco use are shown in red. The others did not show significant change.

Just as we can see many patterns in the table above, variations abound not only with many indicators related to prevalence which describe the nature of the problem, but also on indicators related to cessation, second hand smoking impact of media, and knowledge levels- which reflect the impact of different strategies of tobacco control across the states. These have to be followed up in each state to understand where they are, how they got there and what they can do about it.

The Recommendations we give below are more general and as part of a national overview.

10.3. RECOMMENDATIONS:

1. There can be no slackening in the measures against tobacco use. Despite the overall decline, the levels of tobacco use are unacceptably high and call for effective implementation of all strategies that come with the FCTC, COTPA and the National Tobacco Control Programme.
2. Given the variations in prevalence and effectiveness of strategies across states, there is a need for state specific evidence based intervention plans. The evidence presented in this survey on state specific variations in forms of tobacco used, the pattern of use across age groups, the frequency and sites of exposure to second-hand smoke, the access to media messages against smoking and the penetration of promotional strategies by industry all need to be factored in while finalizing the state level strategy.
3. While some states have shown major improvements, others have remained at same levels and a few have actually worsened. Central attention and support would need to be prioritized to address this uneven improvement in tobacco control across states, and ensure that the relatively under-performing states receive greater support.
4. All large populous states also need attention because in absolute numbers they contribute to the major part of India's tobacco users. Three states- Uttar Pradesh, West Bengal and Maharashtra together contribute to 38% of the burden of tobacco use. Eight states which includes these three plus Bihar, Madhya Pradesh, Odisha, Rajasthan and Gujarat together account for 67% of India's burden. So despite some of these states having relatively better ranks in terms of performance, an accelerated intervention in these states is essential to achieve the goals of tobacco control at the national level earlier.
5. Media messages that warn against tobacco are clearly working- and need to be persisted with and strengthened. There is scope to tailor messages and messaging strategies to reach those sections which are lagging behind, with those key messages which have lessor penetration.
6. Warning labels make an impact only if noticed- and there is much work to be done in this area- especially in some states. The larger warning label that has been mandated more recently should make a big difference over time.
7. Cessation support programmes need to be strengthened. Their current presence is low and there is a long way to go. A rapid expansion and strengthening of these programmes is required.
8. Strict enforcement of laws against allowing minors to purchase tobacco products is an urgent necessity.
9. There needs to be even greater emphasis on action against smokeless tobacco. India has the world's largest problem in this, and even though some progress has been made – with all MPOWER strategies the impact on smokeless tobacco is less than that on smoked forms. State or even district specific strategies based on identifying the forms of smokeless tobacco used and identifying the channels through which tobacco industry is promoting smokeless tobacco use is essential. Practices like the application of tobacco on gums, or even khani or gutka are very community and locale specific and district plans that can identify communities at risk and develop supplementary strategies to reach them must be considered.
10. The situation amongst students and in the 15 to 24 age group remains of much concern. There is a need to strengthen coordination with institutions of higher education and youth fora and community based organizations to reach this section of the population more effectively. The penetration of the strategies of tobacco control to this section needs to be accelerated.

11. There is a need for strong media inputs against (a) pregnant women consuming smokeless tobacco even when pregnant- and (b) pregnant women being exposed to second hand smoke. In some states where the proportion of pregnant women so exposed is high- this should become a mandatory part of the ante-natal check-up protocol. Whereas the association with smoking is widely appreciated, the problems of smokeless tobacco and second hand smoking are not- and this is where the campaign against tobacco use needs to focus.
12. There is a need to make special efforts to reach to the poorest, and those with least education, and the elderly population who are clearly most in the grip of tobacco use, and who will be least able to bear its consequences.
13. Reduction of second hand smoking at the work place must be a priority as no progress has been made on this indicator. This requires much better inter-sectoral coordination and greater involvement of relevant ministries. Since male and female workers in unorganized sector with no formal schooling are also most
14. There is a need to address smoking in health care facilities more effectively. One target is to reduce second hand smoking in healthcare facilities. Another is to screen for tobacco users amongst patient groups most at risk and send them in for counselling and support mechanisms. A third is to sensitize health care providers to invest more time and effort in anti-tobacco messaging and counselling of their clients.
15. There is a need to strengthen messages against smoking at home. Though this indicator has shown considerable improvement exposure to second hand smoke is much higher at home than in any other place- and this is the site where children would get most affected.
16. Though awareness on the links between tobacco use and cancer and respiratory illness and addiction is good, the ill effects on pregnancy and dental health need more inputs. There is also a need to build awareness against the mis-perception, that perhaps, because one has no symptoms, one has not been so far affected bodily by tobacco use. Most the ill effects of tobacco are latent for long periods, before their effects becomes visible, and the best time to quit is now.

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Appendix A – GATS 2 Appendix Tables

Appendix A-4.1: Percentage of adults age 15 and above by detailed status of tobacco use, by states/UTs, GATS-2, India, 2016-17

	Current tobacco user					Current non-user				
States/UT	Current tobacco users	Daily users	Occasional users	Occasional users, former daily	Occasional users, never daily	Current non-users	Former daily users	Never daily users	Former occasional users	Never users
India	28.6	24.9	3.7	1.0	2.7	71.4	1.9	69.5	1.2	68.4
Jammu & Kashmir	23.7	21.1	2.6	0.7	1.9	76.3	1.8	74.5	0.8	73.7
Himachal Pradesh	16.1	13.0	3.1	0.8	2.3	83.9	1.6	82.3	0.9	81.4
Punjab	13.4	11.2	2.3	0.4	1.8	86.6	0.4	86.2	0.7	85.6
Chandigarh	13.7	10.9	2.8	0.7	2.1	86.3	0.9	85.4	0.5	84.8
Uttarakhand	26.5	22.7	3.9	0.9	3.0	73.5	2.2	71.3	1.4	69.9
Haryana	23.6	20.9	2.7	0.9	1.9	76.4	1.1	75.3	0.2	75.1
Delhi	17.8	13.4	4.4	1.0	3.3	82.2	1.9	80.4	1.8	78.5
Rajasthan	24.7	21.1	3.6	0.9	2.7	75.3	2.4	72.9	1.3	71.6
Uttar Pradesh	35.5	30.4	5.1	1.3	3.8	64.5	2.2	62.2	1.9	60.3
Chhattisgarh	39.1	36.6	2.5	0.3	2.2	60.9	1.2	59.7	1.1	58.5
Madhya Pradesh	34.2	30.2	4.0	0.9	3.1	65.8	2.1	63.6	0.9	62.7
West Bengal	33.5	30.2	3.4	0.9	2.5	66.5	1.4	65.1	0.7	64.4
Jharkhand	38.9	33.0	5.8	1.1	4.8	61.1	0.9	60.2	1.0	59.3
Odisha	45.6	40.3	5.3	1.9	3.5	54.4	2.3	52.1	1.3	50.7
Bihar	25.9	24.2	1.7	0.4	1.3	74.1	0.8	73.3	0.6	72.7
Sikkim	17.9	13.9	4.0	1.3	2.7	82.1	1.3	80.8	0.4	80.4
Arunachal Pradesh	45.5	36.7	8.8	2.7	6.1	54.5	1.4	53.0	2.5	50.5
Nagaland	43.3	28.9	14.4	3.3	11.1	56.7	2.3	54.4	1.7	52.8
Manipur	55.1	40.7	14.5	1.8	12.7	44.9	2.7	42.2	2.0	40.2
Mizoram	58.7	52.7	6.0	2.4	3.6	41.3	2.2	39.2	1.1	38.1
Tripura	64.5	48.5	16.0	6.1	9.9	35.5	0.9	34.6	0.4	34.2
Meghalaya	47.0	38.4	8.6	2.8	5.8	53.0	2.1	50.9	1.5	49.4
Assam	48.2	41.6	6.6	1.5	5.1	51.8	3.4	48.4	2.1	46.3
Gujarat	25.1	22.6	2.5	0.5	2.0	74.9	1.4	73.5	0.7	72.8
Maharashtra	26.6	23.6	3.0	1.0	2.0	73.4	1.4	72.0	1.2	70.8
Goa	9.7	5.4	4.3	2.0	2.3	90.3	0.6	89.7	1.2	88.5
Andhra Pradesh	20.0	17.2	2.8	0.4	2.3	80.0	2.5	77.6	1.2	76.4
Telangana	17.8	15.5	2.4	1.0	1.4	82.2	1.2	81.0	0.9	80.0
Karnataka	22.8	19.6	3.2	1.4	1.8	77.2	2.3	74.9	0.3	74.6
Kerala	12.7	9.3	3.4	1.0	2.4	87.3	6.0	81.3	3.8	77.5
Tamil Nadu	20.0	16.7	3.3	0.5	2.8	80.0	1.5	78.5	0.5	77.9
Puducherry	11.2	8.9	2.3	1.3	1.0	88.8	2.2	86.7	0.8	85.9

Appendix A-4.2: Percentage of males age 15 and above by detailed status of tobacco use, by states/UTs, GATS-2, India, 2016-17

States/UT	Current tobacco user					Current non-user				
	Current tobacco users	Daily users	Occasional users	Occasional users, former daily	Occasional users, never daily	Current non-users	Former daily users	Never daily users	Former occasional users	Never users
India	42.4	36.9	5.5	1.4	4.1	57.6	2.6	55.0	1.7	53.2
Jammu & Kashmir	39.7	35.7	4.0	0.9	3.0	60.3	2.5	57.8	0.6	57.2
Himachal Pradesh	30.4	24.3	6.1	1.6	4.5	69.6	3.2	66.4	1.7	64.7
Punjab	25.3	20.9	4.3	0.8	3.5	74.7	0.7	74.1	1.3	72.8
Chandigarh	23.3	19.1	4.3	1.1	3.2	76.7	1.7	75.0	1.0	74.0
Uttarakhand	43.6	38.0	5.6	0.9	4.7	56.4	3.3	53.1	2.0	51.1
Haryana	39.1	35.3	3.9	1.1	2.7	60.9	2.0	58.9	0.3	58.6
Delhi	28.9	21.6	7.3	1.7	5.6	71.1	2.9	68.1	2.6	65.6
Rajasthan	39.6	34.5	5.1	1.5	3.7	60.4	3.2	57.2	2.2	55.0
Uttar Pradesh	52.1	45.3	6.8	1.6	5.2	47.9	2.7	45.1	2.2	42.9
Chhattisgarh	53.7	49.6	4.1	0.4	3.7	46.3	1.3	45.0	1.8	43.2
Madhya Pradesh	50.2	43.5	6.7	1.4	5.3	49.8	3.0	46.8	1.4	45.4
West Bengal	48.5	43.2	5.3	1.3	4.0	51.5	1.9	49.6	1.1	48.5
Jharkhand	59.7	51.4	8.2	1.6	6.7	40.3	1.1	39.2	0.9	38.3
Odisha	57.6	49.3	8.3	2.5	5.8	42.4	3.0	39.4	1.9	37.6
Bihar	43.4	40.6	2.8	0.5	2.4	56.6	1.1	55.5	1.0	54.5
Sikkim	26.4	20.9	5.5	1.9	3.6	73.6	1.5	72.1	0.3	71.8
Arunachal Pradesh	61.1	51.6	9.6	2.4	7.1	38.9	2.0	36.8	4.1	32.7
Nagaland	54.1	32.2	21.9	4.8	17.1	45.9	3.7	42.2	1.0	41.2
Manipur	62.5	42.9	19.6	2.1	17.5	37.5	3.4	34.2	2.6	31.6
Mizoram	64.9	58.9	6.0	2.6	3.4	35.1	2.0	33.2	0.6	32.6
Tripura	67.5	48.9	18.6	8.3	10.3	32.5	1.4	31.1	0.6	30.5
Meghalaya	59.8	54.9	4.9	2.0	2.9	40.2	1.9	38.3	2.3	36.0
Assam	62.9	53.7	9.3	1.9	7.4	37.1	4.7	32.3	3.7	28.6
Gujarat	38.7	34.6	4.0	0.5	3.5	61.3	1.8	59.6	1.1	58.5
Maharashtra	35.5	31.3	4.2	1.5	2.7	64.5	1.8	62.7	2.1	60.6
Goa	15.3	8.3	6.9	3.0	4.0	84.7	0.6	84.1	2.2	81.9
Andhra Pradesh	30.0	26.0	4.0	0.7	3.3	70.0	4.1	65.9	1.8	64.1
Telangana	25.9	22.1	3.8	1.7	2.1	74.1	1.9	72.1	1.7	70.4
Karnataka	35.2	29.9	5.2	2.0	3.2	64.8	3.6	61.2	0.6	60.7
Kerala	22.9	16.1	6.8	2.0	4.9	77.1	10.9	66.2	7.2	59.0
Tamil Nadu	31.0	26.2	4.8	1.0	3.8	69.0	2.5	66.5	0.8	65.7
Puducherry	17.7	13.3	4.3	2.5	1.8	82.3	3.3	79.0	1.3	77.6

Appendix A-4.3: Percentage of females age 15 and above by detailed status of tobacco use, by states/UTs, GATS-2, India, 2016-17

	Current tobacco user					Current non-user				
States/UT	Current tobacco users	Daily users	Occasional users	Occasional users, former daily	Occasional users, never daily	Current non-users	Former daily users	Never daily users	Former occasional users	Never users
India	14.2	12.4	1.8	0.5	1.3	85.8	1.1	84.7	0.6	84.2
Jammu & Kashmir	6.2	5.1	1.1	0.4	0.7	93.8	1.1	92.7	0.9	91.8
Himachal Pradesh	1.7	1.5	0.2	0.1	0.1	98.3	0.0	98.3	0.1	98.2
Punjab	0.5	0.4	0.0	0.0	0.0	99.5	0.0	99.5	0.0	99.5
Chandigarh	1.7	0.8	0.9	0.1	0.7	98.3	0.0	98.3	0.0	98.3
Uttarakhand	9.3	7.2	2.1	0.9	1.3	90.7	1.0	89.7	0.9	88.8
Haryana	6.3	4.9	1.5	0.5	0.9	93.7	0.1	93.5	0.2	93.4
Delhi	4.8	3.9	0.9	0.2	0.7	95.2	0.6	94.6	0.9	93.7
Rajasthan	9.0	7.1	2.0	0.3	1.6	91.0	1.5	89.4	0.4	89.0
Uttar Pradesh	17.7	14.4	3.3	1.0	2.3	82.3	1.7	80.6	1.6	79.0
Chhattisgarh	24.6	23.7	1.0	0.3	0.7	75.4	1.1	74.2	0.5	73.8
Madhya Pradesh	17.3	16.1	1.2	0.3	0.8	82.7	1.2	81.5	0.4	81.1
West Bengal	17.9	16.5	1.4	0.4	0.9	82.1	0.9	81.3	0.3	81.0
Jharkhand	17.0	13.6	3.3	0.6	2.8	83.0	0.8	82.3	1.0	81.3
Odisha	33.6	31.3	2.3	1.2	1.1	66.4	1.6	64.7	0.8	64.0
Bihar	6.9	6.4	0.5	0.2	0.2	93.1	0.5	92.6	0.2	92.4
Sikkim	8.4	6.0	2.4	0.6	1.7	91.6	0.9	90.7	0.5	90.2
Arunachal Pradesh	28.7	20.8	8.0	3.0	4.9	71.3	0.8	70.5	0.8	69.7
Nagaland	31.7	25.3	6.3	1.6	4.7	68.3	0.8	67.5	2.4	65.1
Manipur	47.8	38.5	9.4	1.5	7.9	52.2	2.0	50.2	1.4	48.8
Mizoram	52.4	46.4	6.0	2.2	3.7	47.6	2.4	45.3	1.6	43.7
Tripura	61.4	48.2	13.3	3.8	9.5	38.6	0.3	38.2	0.3	38.0
Meghalaya	34.2	21.9	12.3	3.6	8.7	65.8	2.3	63.5	0.7	62.8
Assam	32.9	29.0	3.9	1.2	2.7	67.1	2.1	65.0	0.4	64.6
Gujarat	10.4	9.7	0.7	0.4	0.3	89.6	1.0	88.6	0.4	88.2
Maharashtra	17.0	15.3	1.7	0.5	1.3	83.0	1.0	82.0	0.2	81.7
Goa	4.0	2.5	1.6	1.0	0.6	96.0	0.6	95.4	0.2	95.2
Andhra Pradesh	10.1	8.6	1.5	0.1	1.4	89.9	0.9	89.0	0.5	88.5
Telangana	9.8	8.9	0.9	0.2	0.7	90.2	0.5	89.7	0.1	89.6
Karnataka	10.3	9.2	1.1	0.8	0.3	89.7	0.9	88.8	0.0	88.8
Kerala	3.6	3.1	0.4	0.2	0.2	96.4	1.7	94.8	0.7	94.1
Tamil Nadu	9.3	7.5	1.9	0.1	1.8	90.7	0.5	90.2	0.3	89.9
Puducherry	5.1	4.8	0.3	0.2	0.1	94.9	1.0	93.9	0.3	93.6

Appendix A-4.4: Percent distribution of males age 15 and above who are current tobacco users by tobacco use pattern, by states/UTs, GATS-2, India, 2016-17

States/UT	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both smoked and smokeless		
India	42.4	12.8	23.4	6.3	57.6	100
Jammu & Kashmir	39.7	32.9	4.5	2.3	60.3	100
Himachal Pradesh	30.4	24.3	3.7	2.4	69.6	100
Punjab	25.3	10.3	11.6	3.3	74.7	100
Chandigarh	23.3	13	7.1	3.2	76.7	100
Uttarakhand	43.6	22.4	13.8	7.4	56.4	100
Haryana	39.1	29.1	6.1	4	60.9	100
Delhi	28.9	15.3	9.5	4.2	71.1	100
Rajasthan	39.6	17.6	17.4	4.6	60.4	100
Uttar Pradesh	52.1	9.6	29	13.6	47.9	100
Chhattisgarh	53.7	6.1	42.9	4.8	46.3	100
Madhya Pradesh	50.2	11.5	31.2	7.5	49.8	100
West Bengal	48.5	25.7	16.8	6	51.5	100
Jharkhand	59.7	5.6	39.4	14.7	40.3	100
Odisha	57.6	5.4	43.6	8.5	42.4	100
Bihar	43.4	1.6	36.8	5.1	56.6	100
Sikkim	26.4	12.5	9	4.8	73.6	100
Arunachal Pradesh	61.1	11	22.4	27.7	38.9	100
Nagaland	54.1	8.2	29.1	16.8	45.9	100
Manipur	62.5	12.2	26.6	23.6	37.5	100
Mizoram	64.9	43.5	10.7	10.6	35.1	100
Tripura	67.5	26.7	23.1	17.8	32.5	100
Meghalaya	59.8	48.2	6.1	5.5	40.2	100
Assam	62.9	12.4	37.6	12.9	37.1	100
Gujarat	38.7	11	24.5	3.2	61.3	100
Maharashtra	35.5	3.8	29.5	2.2	64.5	100
Goa	15.3	6	7.3	1.9	84.7	100
Andhra Pradesh	30	22.4	6	1.6	70	100
Telangana	25.9	14.7	10.6	0.6	74.1	100
Karnataka	35.2	13	18.4	3.8	64.8	100
Kerala	22.9	15.6	3.4	4	77.1	100
Tamil Nadu	31	19.1	9.9	2	69	100
Puducherry	17.7	13.1	3	1.6	82.3	100

Appendix A-4.5: Percent distribution of females age 15 and above who are current tobacco users by tobacco use pattern, by states/UTs, GATS-2, India, 2016-17

States/UT	Current tobacco user	Type of current tobacco use			Non-user	Total
		Smoked only	Smokeless only	Both smoked and smokeless		
India	14.2	1.5	12.3	0.5	85.8	100
Jammu & Kashmir	6.2	4.7	1.1	0.4	93.8	100
Himachal Pradesh	1.7	1.6	0.1	0.0	98.3	100
Punjab	0.5	0.2	0.1	0.2	99.5	100
Chandigarh	1.7	0.9	0.8	0.0	98.3	100
Uttarakhand	9.3	5.9	3.0	0.4	90.7	100
Haryana	6.3	4.2	1.6	0.6	93.7	100
Delhi	4.8	1.6	3.0	0.2	95.2	100
Rajasthan	9.0	3.2	5.3	0.6	91.0	100
Uttar Pradesh	17.7	2.5	14.5	0.7	82.3	100
Chhattisgarh	24.6	0.1	24.5	0.0	75.4	100
Madhya Pradesh	17.3	0.5	16.4	0.3	82.7	100
West Bengal	17.9	0.7	17.0	0.3	82.1	100
Jharkhand	17.0	1.3	15.4	0.3	83.0	100
Odisha	33.6	0.1	33.6	0.0	66.4	100
Bihar	6.9	3.3	3.5	0.1	93.1	100
Sikkim	8.4	3.3	4.7	0.3	91.6	100
Arunachal Pradesh	28.7	1.0	23.4	4.4	71.3	100
Nagaland	31.7	0.1	31.1	0.4	68.3	100
Manipur	47.8	2.6	41.8	3.4	52.2	100
Mizoram	52.4	6.4	38.1	7.9	47.6	100
Tripura	61.4	4.9	51.2	5.4	38.6	100
Meghalaya	34.2	5.1	24.7	4.3	65.8	100
Assam	32.9	0.3	32.1	0.5	67.1	100
Gujarat	10.4	0.4	9.8	0.3	89.6	100
Maharashtra	17.0	0.5	15.6	1.0	83.0	100
Goa	4.0	0.4	3.6	0.0	96.0	100
Andhra Pradesh	10.1	3.5	5.5	1.1	89.9	100
Telangana	9.8	0.8	8.4	0.5	90.2	100
Karnataka	10.3	0.0	9.6	0.7	89.7	100
Kerala	3.6	0.0	3.4	0.2	96.4	100
Tamil Nadu	9.3	0.0	9.2	0.1	90.7	100
Puducherry	5.1	0.1	4.9	0.0	94.9	100

Appendix A-4.6: Percentage of adults age 15 and above by detailed status of smoking by states/UTs, GATS-2, India, 2016-17

State/UT	Current smokers					Current non-smoker				
	Current Smokers	Daily Smokers	Occasional Smokers	Occasional Smoker former Daily	Occasional Smoker never Daily	Current non Smoker	Former daily smoker	Never daily Smoker	Former occasional Smoker	Never smoker
India	10.7	8.6	2.1	0.5	1.6	89.3	1.8	87.5	1.3	86.1
Jammu & Kashmir	20.8	18.5	2.3	0.5	1.8	79.2	1.8	77.4	0.7	76.7
Himachal Pradesh	14.2	11.4	2.8	0.8	2.0	85.8	1.6	84.3	1.0	83.2
Punjab	7.3	5.7	1.6	0.2	1.4	92.7	0.5	92.2	0.5	91.8
Chandigarh	9.4	7.2	2.1	0.3	1.8	90.6	1.3	89.3	0.3	89.0
Uttarakhand	18.1	15.5	2.6	0.9	1.7	81.9	2.5	79.4	1.3	78.1
Haryana	19.7	17.7	2.0	0.6	1.4	80.3	1.1	79.2	0.3	79.0
Delhi	11.3	7.8	3.4	0.8	2.7	88.7	1.8	87.0	1.8	85.2
Rajasthan	13.2	11.1	2.1	0.6	1.5	86.8	2.6	84.2	1.3	82.9
Uttar Pradesh	13.5	10.1	3.5	0.6	2.8	86.5	2.4	84.0	2.7	81.3
Chhattisgarh	5.5	4.6	0.9	0.1	0.8	94.5	1.4	93.1	1.3	91.7
Madhya Pradesh	10.2	8.4	1.8	0.3	1.5	89.8	1.5	88.3	1.4	86.8
West Bengal	16.7	14.6	2.1	0.3	1.7	83.3	1.4	81.9	0.6	81.3
Jharkhand	11.1	5.6	5.6	1.0	4.5	88.9	0.8	88.1	2.2	85.9
Odisha	7.0	4.7	2.3	0.4	2.0	93.0	2.8	90.2	2.7	87.5
Bihar	5.1	4.2	0.9	0.2	0.6	94.9	2.2	92.7	0.9	91.9
Sikkim	10.9	7.9	3.0	0.8	2.2	89.1	0.7	88.4	0.4	88.0
Arunachal Pradesh	22.7	15.2	7.4	2.4	5.0	77.3	1.8	75.5	3.2	72.3
Nagaland	13.2	8.0	5.2	1.9	3.4	86.8	2.3	84.5	0.7	83.8
Manipur	20.9	14.0	6.9	1.0	5.9	79.1	3.0	76.1	3.2	72.9
Mizoram	34.4	30.4	4.0	1.3	2.7	65.6	2.8	62.8	1.3	61.5
Tripura	27.7	20.6	7.1	2.9	4.2	72.3	1.1	71.2	1.1	70.1
Meghalaya	31.6	26.6	5.0	1.4	3.6	68.4	1.2	67.1	1.1	66.0
Assam	13.3	9.7	3.6	0.9	2.6	86.7	3.7	83.1	4.2	78.9
Gujarat	7.7	6.8	0.9	0.1	0.8	92.3	0.8	91.5	0.4	91.1
Maharashtra	3.8	2.9	0.9	0.3	0.6	96.2	0.7	95.4	0.6	94.9
Goa	4.2	1.6	2.6	1.0	1.6	95.8	0.2	95.6	1.1	94.4
Andhra Pradesh	14.2	12.9	1.3	0.4	0.9	85.8	2.2	83.6	1.0	82.5
Telangana	8.3	7.1	1.2	0.5	0.7	91.7	1.2	90.5	0.8	89.8
Karnataka	8.8	7.2	1.6	0.8	0.8	91.2	1.7	89.5	0.4	89.1
Kerala	9.3	6.5	2.8	1.1	1.7	90.7	5.1	85.6	2.8	82.8
Tamil Nadu	10.5	9.1	1.4	0.5	0.9	89.5	1.4	88.1	0.5	87.6
Puducherry	7.2	5.6	1.6	0.9	0.7	92.8	1.6	91.2	0.5	90.7

Appendix A-4.7: Percentage of males age 15 and above by detailed status of smoking by states/UTs, GATS-2, India, 2016-17

State/UT	Current Smokers	Current smokers				Current non-smoker				
		Daily Smokers	Occasional Smokers	Occasional Smoker former Daily	Occasional Smoker never Daily	Current non Smoker	Former daily smoker	Never daily Smoker	Former occasional Smoker	Never smoker
India	19.0	15.2	3.8	0.9	2.9	81.0	3.2	77.7	2.4	75.3
Jammu & Kashmir	35.2	31.9	3.3	0.5	2.8	64.8	2.7	62.2	0.5	61.6
Himachal Pradesh	26.7	21.2	5.5	1.6	3.9	73.3	3.1	70.2	2.0	68.3
Punjab	13.6	10.6	3.0	0.4	2.6	86.4	0.9	85.5	0.9	84.6
Chandigarh	16.2	12.9	3.3	0.5	2.8	83.8	2.4	81.4	0.5	81.0
Uttarakhand	29.8	25.7	4.1	0.9	3.2	70.2	3.9	66.3	1.9	64.4
Haryana	33.1	30.0	3.1	0.8	2.3	66.9	2.0	65.0	0.4	64.6
Delhi	19.4	13.1	6.3	1.4	4.9	80.6	3.1	77.5	2.8	74.7
Rajasthan	22.2	18.7	3.5	1.0	2.5	77.8	4.3	73.5	2.3	71.2
Uttar Pradesh	23.1	17.0	6.1	1.2	4.9	76.9	4.1	72.8	4.3	68.5
Chhattisgarh	10.8	9.1	1.8	0.1	1.7	89.2	2.4	86.7	2.5	84.2
Madhya Pradesh	19.0	15.6	3.4	0.6	2.8	81.0	3.0	78.0	2.8	75.3
West Bengal	31.7	27.8	3.9	0.6	3.3	68.3	2.8	65.5	1.1	64.4
Jharkhand	20.3	9.8	10.4	1.7	8.7	79.7	1.4	78.4	4.3	74.1
Odisha	13.9	9.3	4.6	0.7	3.9	86.1	5.3	80.8	5.4	75.4
Bihar	6.6	5.3	1.3	0.3	1.0	93.4	3.5	89.8	1.5	88.4
Sikkim	17.4	13.0	4.4	1.1	3.3	82.6	1.1	81.5	0.4	81.1
Arunachal Pradesh	38.7	26.6	12.1	3.5	8.6	61.3	3.1	58.1	5.9	52.3
Nagaland	25.0	15.0	10.0	3.5	6.4	75.0	4.5	70.5	1.3	69.2
Manipur	35.9	23.2	12.6	1.7	10.9	64.1	4.4	59.8	4.4	55.4
Mizoram	54.1	49.8	4.3	1.7	2.6	45.9	3.6	42.3	1.3	40.9
Tripura	44.4	32.3	12.2	4.7	7.5	55.6	2.2	53.4	2.1	51.3
Meghalaya	53.7	49.1	4.6	2.2	2.4	46.3	2.2	44.1	1.9	42.2
Assam	25.3	18.3	6.9	1.9	5.1	74.7	6.3	68.4	8.2	60.2
Gujarat	14.2	12.6	1.6	0.1	1.5	85.8	1.3	84.5	0.9	83.7
Maharashtra	6.0	4.4	1.6	0.5	1.2	94.0	1.3	92.6	1.0	91.6
Goa	7.9	2.9	5.0	1.9	3.1	92.1	0.4	91.6	2.1	89.5
Andhra Pradesh	24.0	21.4	2.6	0.9	1.7	76.0	3.6	72.4	1.8	70.6
Telangana	15.3	13.0	2.3	1.0	1.4	84.7	2.1	82.6	1.4	81.2
Karnataka	16.8	13.6	3.2	1.6	1.6	83.2	3.1	80.1	0.8	79.3
Kerala	19.6	13.6	6.0	2.3	3.7	80.4	10.7	69.8	5.9	63.9
Tamil Nadu	21.1	18.3	2.8	1.0	1.8	78.9	2.8	76.1	1.1	75.0
Puducherry	14.7	11.3	3.4	1.9	1.5	85.3	3.2	82.1	1.1	81.0

Appendix A-4.8: Percentage of females age 15 and above by detailed status of smoking by states/UTs, GATS-2, India, 2016-17

State/UT	Current Smokers	Current smokers				Current non-smoker				
		Daily Smokers	Occasional Smokers	Occasional Smoker former Daily	Occasional Smoker never Daily	Current non Smoker	Former daily smoker	Never daily Smoker	Former occasional Smoker	Never smoker
India	2.0	1.7	0.3	0.1	0.2	98.0	0.4	97.7	0.2	97.4
Jammu & Kashmir	5.1	3.9	1.1	0.4	0.7	94.9	0.8	94.1	0.9	93.2
Himachal Pradesh	1.6	1.5	0.1	0.1	0.0	98.4	0.0	98.4	0.1	98.3
Punjab	0.4	0.3	0.1	0.1	0.0	99.6	0.0	99.6	0.0	99.6
Chandigarh	0.9	0.2	0.7	0.0	0.6	99.1	0.0	99.1	0.0	99.1
Uttarakhand	6.3	5.2	1.1	0.8	0.2	93.7	1.1	92.6	0.8	91.9
Haryana	4.8	4.0	0.8	0.4	0.4	95.2	0.1	95.1	0.1	95.0
Delhi	1.8	1.6	0.1	0.1	0.0	98.2	0.2	98.1	0.6	97.5
Rajasthan	3.7	3.1	0.7	0.1	0.5	96.3	0.8	95.4	0.2	95.2
Uttar Pradesh	3.2	2.6	0.7	0.0	0.7	96.8	0.7	96.1	0.9	95.2
Chhattisgarh	0.1	0.1	0.1	0.1	0.0	99.9	0.5	99.4	0.2	99.3
Madhya Pradesh	0.8	0.7	0.1	0.0	0.1	99.2	0.0	99.1	0.0	99.1
West Bengal	0.9	0.8	0.1	0.0	0.1	99.1	0.0	99.1	0.0	99.1
Jharkhand	1.6	1.1	0.4	0.3	0.1	98.4	0.1	98.3	0.0	98.3
Odisha	0.1	0.1	0.0	0.0	0.0	99.9	0.3	99.6	0.1	99.5
Bihar	3.4	3.0	0.4	0.2	0.2	96.6	0.7	95.9	0.2	95.7
Sikkim	3.6	2.2	1.5	0.6	0.9	96.4	0.1	96.2	0.4	95.8
Arunachal Pradesh	5.4	3.1	2.3	1.1	1.2	94.6	0.4	94.3	0.4	93.9
Nagaland	0.5	0.4	0.1	0.0	0.1	99.5	0.0	99.5	0.0	99.5
Manipur	6.0	4.8	1.2	0.4	0.8	94.0	1.7	92.3	1.9	90.4
Mizoram	14.3	10.7	3.6	0.9	2.7	85.7	1.9	83.8	1.4	82.5
Tripura	10.3	8.4	1.9	1.0	0.8	89.7	0.0	89.7	0.1	89.6
Meghalaya	9.5	3.9	5.5	0.7	4.9	90.5	0.3	90.3	0.3	89.9
Assam	0.8	0.7	0.1	0.0	0.1	99.2	0.9	98.3	0.0	98.2
Gujarat	0.7	0.6	0.1	0.0	0.1	99.3	0.3	99.0	0.0	99.0
Maharashtra	1.4	1.3	0.2	0.1	0.1	98.6	0.1	98.4	0.1	98.3
Goa	0.4	0.3	0.1	0.1	0.0	99.6	0.1	99.5	0.1	99.4
Andhra Pradesh	4.6	4.5	0.1	0.0	0.1	95.4	0.8	94.5	0.3	94.3
Telangana	1.4	1.3	0.1	0.1	0.0	98.6	0.2	98.4	0.1	98.3
Karnataka	0.7	0.7	0.0	0.0	0.0	99.3	0.2	99.1	0.0	99.1
Kerala	0.2	0.2	0.0	0.0	0.0	99.8	0.1	99.7	0.0	99.7
Tamil Nadu	0.1	0.1	0.0	0.0	0.0	99.9	0.0	99.9	0.0	99.9
Puducherry	0.1	0.1	0.0	0.0	0.0	99.9	0.0	99.9	0.0	99.8

Appendix A-4.9: Percentage of males age 15 and above who are current smokers of various smoked tobacco products, by states/UTs, GATS-2, India, 2016-17

State/UT	Any smoked tobacco product	Any cigarette[1]	*Bidi*	Cigars, cheroots or cigarillos	*Hookah*	Other smoked tobacco
India	19.0	7.3	14.0	0.6	1.1	0.2
Jammu & Kashmir	35.2	19.5	11.7	0.4	6.7	0.1
Himachal Pradesh	26.7	5.5	23.8	0.3	0.6	0.2
Punjab	13.6	3.2	11.0	0.1	0.1	0.0
Chandigarh	16.2	6.1	10.9	0.0	0.1	0.0
Uttarakhand	29.8	9.6	25.9	0.0	2.1	0.6
Haryana	33.1	4.8	26.6	0.3	12.0	0.3
Delhi	19.4	8.9	13.9	0.0	0.5	0.0
Rajasthan	22.2	4.8	19.7	3.4	4.8	0.3
Uttar Pradesh	23.1	8.8	19.5	0.5	2.0	0.1
Chhattisgarh	10.8	3.4	8.1	0.1	0.0	0.2
Madhya Pradesh	19.0	2.4	17.2	0.7	0.2	0.4
West Bengal	31.7	9.8	27.4	1.1	0.3	0.1
Jharkhand	20.3	12.7	9.1	0.0	0.0	0.7
Odisha	13.9	6.9	8.8	0.2	0.0	0.2
Bihar	6.6	1.4	5.5	0.0	0.2	0.3
Sikkim	17.4	14.9	4.2	2.7	0.3	0.0
Arunachal Pradesh	38.7	21.5	25.2	5.2	1.4	0.6
Nagaland	25.0	10.5	18.8	0.7	0.0	0.0
Manipur	35.9	34.1	7.7	1.6	0.8	0.8
Mizoram	54.1	44.1	1.9	1.0	1.8	8.5
Tripura	44.4	16.4	32.6	1.0	5.5	0.1
Meghalaya	53.7	37.6	29.4	2.0	1.4	0.6
Assam	25.3	11.9	16.3	0.6	0.6	0.6
Gujarat	14.2	2.2	11.9	0.4	0.3	0.1
Maharashtra	6.0	2.8	3.6	0.3	0.0	0.1
Goa	7.9	5.1	3.8	2.1	0.2	0.1
Andhra Pradesh	24.0	13.4	12.6	0.1	0.0	0.0
Telangana	15.3	7.1	9.4	0.1	0.0	0.0
Karnataka	16.8	8.0	11.8	0.3	0.5	0.3
Kerala	19.6	14.2	7.9	0.1	0.2	0.0
Tamil Nadu	21.1	12.6	10.8	0.3	0.0	0.0
Puducherry	14.7	10.8	4.6	0.2	0.0	0.3

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

Appendix A-4.10: Percentage of females age 15 and above who are current smokers of various smoked tobacco products, by states/UTs, GATS-2, India, 2016-17

State/UT	Any smoked tobacco product	Any cigarette1	*Bidi*	Cigars, cheroots or cigarillos	*Hookah*	Other smoked tobacco
India	2.0	0.6	1.2	0.1	0.3	0.1
Jammu & Kashmir	5.1	0.4	0.3	0.2	5.0	0.2
Himachal Pradesh	1.6	0.1	1.2	0.0	0.4	0.0
Punjab	0.4	0.1	0.3	0.0	0.0	0.0
Chandigarh	0.9	0.3	0.8	0.0	0.0	0.0
Uttarakhand	6.3	0.1	5.4	0.0	1.6	0.0
Haryana	4.8	0.3	3.2	0.1	1.7	0.1
Delhi	1.8	0.1	1.6	0.0	0.1	0.0
Rajasthan	3.7	0.7	2.8	0.2	0.5	0.2
Uttar Pradesh	3.2	0.2	2.6	0.1	0.4	0.0
Chhattisgarh	0.1	0.1	0.0	0.0	0.0	0.0
Madhya Pradesh	0.8	0.1	0.4	0.0	0.0	0.3
West Bengal	0.9	0.3	0.8	0.0	0.0	0.0
Jharkhand	1.6	0.0	1.1	0.0	0.4	0.0
Odisha	0.1	0.1	0.0	0.0	0.0	0.0
Bihar	3.4	0.4	2.9	0.1	0.6	0.0
Sikkim	3.6	2.6	1.7	0.0	0.0	0.1
Arunachal Pradesh	5.4	2.6	3.7	0.4	1.1	0.0
Nagaland	0.5	0.4	0.4	0.2	0.2	0.2
Manipur	6.0	5.5	1.0	0.2	0.0	0.0
Mizoram	14.3	13.7	1.1	0.8	0.5	0.1
Tripura	10.3	0.6	5.3	0.2	7.3	0.1
Meghalaya	9.5	9.1	5.0	2.5	3.4	2.4
Assam	0.8	0.2	0.7	0.0	0.0	0.0
Gujarat	0.7	0.2	0.5	0.0	0.0	0.0
Maharashtra	1.4	0.9	0.1	0.0	0.0	0.4
Goa	0.4	0.1	0.3	0.0	0.0	0.0
Andhra Pradesh	4.6	4.6	0.0	0.0	0.0	0.0
Telangana	1.4	1.0	0.3	0.1	0.1	0.1
Karnataka	0.7	0.7	0.0	0.0	0.0	0.0
Kerala	0.2	0.0	0.2	0.0	0.0	0.0
Tamil Nadu	0.1	0.1	0.0	0.0	0.0	0.0
Puducherry	0.1	0.0	0.0	0.1	0.0	0.0

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

Appendix A-4.11: Percent distribution of adults age 15 and above by status of smoking, by states/UTs, GATS-2, India, 2016-2017

State/UT	Smoking status			Total
	Daily	Occasional[1]	Non-smoker	
India	8.6	2.1	89.3	100
Jammu & Kashmir	18.5	2.3	79.2	100
Himachal Pradesh	11.4	2.8	85.8	100
Punjab	5.7	1.6	92.7	100
Chandigarh	7.2	2.1	90.6	100
Uttarakhand	15.5	2.6	81.9	100
Haryana	17.7	2.0	80.3	100
Delhi	7.8	3.4	88.7	100
Rajasthan	11.1	2.1	86.8	100
Uttar Pradesh	10.1	3.5	86.5	100
Chhattisgarh	4.6	0.9	94.5	100
Madhya Pradesh	8.4	1.8	89.8	100
West Bengal	14.6	2.1	83.3	100
Jharkhand	5.6	5.6	88.9	100
Odisha	4.7	2.3	93.0	100
Bihar	4.2	0.9	94.9	100
Sikkim	7.9	3.0	89.1	100
Arunachal Pradesh	15.2	7.4	77.3	100
Nagaland	8.0	5.2	86.8	100
Manipur	14.0	6.9	79.1	100
Mizoram	30.4	4.0	65.6	100
Tripura	20.6	7.1	72.3	100
Meghalaya	26.6	5.0	68.4	100
Assam	9.7	3.6	86.7	100
Gujarat	6.8	0.9	92.3	100
Maharashtra	2.9	0.9	96.2	100
Goa	1.6	2.6	95.8	100
Andhra Pradesh	12.9	1.3	85.8	100
Telangana	7.1	1.2	91.7	100
Karnataka	7.2	1.6	91.2	100
Kerala	6.5	2.8	90.7	100
Tamil Nadu	9.1	1.4	89.5	100
Puducherry	5.6	1.6	92.8	100

Note:[1]Includes less than daily smokers

Appendix A-4.12: Percent distribution of current daily cigarette smokers age 15 and above by the number of cigarettes smoked on an average per day, by states/UTs, GATS-2, India, 2016-17

State/UT	Number of cigarettes smoked on average per day						Mean number of cigarettes smoked per day
	<5	5-9	10-14	15-24	25+	Total	
India	47.9	29.6	14.3	5.2	3.0	100	6.8
Jammu & Kashmir	26.8	36.5	26.3	9.6	0.8	100	7.6
Himachal Pradesh	58.4*	16.3*	25.3*	0.0*	0.0*	100	4.5*
Punjab	39.7*	27.5*	12.5*	3.9*	16.4*	100	13.6*
Chandigarh	62.1	23.5	12.4	2.1	0.0	100	4.6
Uttarakhand	75.1	18.8	6.0	0.0	0.0	100	3.5
Haryana	39.1*	53.7*	5.4*	1.8*	0.0*	100	5.2*
Delhi	66.6	12.2	10.6	10.7	0.0	100	5.5
Rajasthan	92.7*	0.0*	3.9*	0.0*	3.4*	100	3.2*
Uttar Pradesh	59.6	26.8	6.5	7.0	0.0	100	4.8
Chhattisgarh	86.1*	13.9*	0.0*	0.0*	0.0*	100	2.8*
Madhya Pradesh	71.9*	11.3*	9.9*	6.9*	0.0*	100	5.1*
West Bengal	29.7	35.2	22.2	6.4	6.5	100	9.0
Jharkhand	61.9	33.1	0.0	0.0	5.1	100	6.7
Odisha	59.7	19.4	18.7	2.2	0.0	100	4.8
Bihar	40.3*	28.5*	12.1*	0.0*	19.1*	100	12.8*
Sikkim	48.9	21.5	5.5	11.0	13.1	100	13.7
Arunachal Pradesh	39.1	35.7	18.7	5.8	0.6	100	6.5
Nagaland	32.7	16.1	35.5	10.6	5.1	100	9.7
Manipur	21.9	41.4	26.6	9.5	0.6	100	7.9
Mizoram	40.5	21.6	24.2	9.6	4.2	100	7.6
Tripura	35.7	30.0	19.0	8.2	7.1	100	9.9
Meghalaya	17.9	46.2	24.1	10.8	0.9	100	8.2
Assam	46.1	35.1	18.1	0.7	0.0	100	5.1
Gujarat	49.0*	26.3*	21.9*	2.9*	0.0*	100	5.3*
Maharashtra	45.3	38.0	16.7	0.0	0.0	100	5.0
Goa	36.1*	22.7*	41.1*	0.0*	0.0*	100	6.1*
Andhra Pradesh	60.0	27.1	9.0	3.2	0.7	100	4.5
Telangana	59.2	25.1	14.2	1.5	0.0	100	4.4
Karnataka	49.4	23.7	14.9	8.5	3.5	100	7.0
Kerala	33.6	36.0	21.7	8.1	0.7	100	6.8
Tamil Nadu	45.6	35.8	13.1	2.7	2.7	100	6.2
Puducherry	35.0	37.8	18.5	7.0	1.6	100	7.0

Appendix A-4.13: Percent distribution of current daily bidi smokers age 15 and above by the number of *bidis* smoked on an average per day, by states/UTs, GATS-2, India, 2016-17

States/UT	Number of *bidis* smoked on average per day					Total	Mean number of bidis smoked per day
	<5	5-9	10-14	15-24	25+		
India	25.4	21.4	20.9	17.9	14.4	100	15.1
Jammu & Kashmir	14.9	34.7	26.5	22.0	1.9	100	10.0
Himachal Pradesh	19.9	22.5	27.2	25.2	5.2	100	12.2
Punjab	23.3	41.2	26.0	9.6	0.0	100	7.7
Chandigarh	47.0	16.6	28.3	6.3	1.7	100	6.6
Uttarakhand	15.7	27.8	27.6	19.3	9.6	100	12.0
Haryana	24.7	26.6	26.3	20.4	2.1	100	9.5
Delhi	20.7	23.1	25.5	21.7	9.1	100	11.3
Rajasthan	25.6	22.2	18.1	22.4	11.7	100	11.7
Uttar Pradesh	27.1	16.7	23.1	17.9	15.2	100	12.8
Chhattisgarh	14.2	36.2	28.8	9.7	11.1	100	10.0
Madhya Pradesh	44.3	22.4	15.4	14.2	3.6	100	7.7
West Bengal	11.1	22.1	19.8	18.8	28.1	100	28.7
Jharkhand	23.0	55.5	19.7	0.0	1.8	100	7.1
Odisha	34.6	34.7	16.9	5.0	8.9	100	8.3
Bihar	44.3	30.5	17.2	4.5	3.5	100	7.5
Sikkim	47.8	20.7	10.4	21.1	0.0	100	7.2
Arunachal Pradesh	15.4	51.1	16.4	12.1	4.9	100	9.0
Nagaland	48.5	11.9	15.7	15.2	8.6	100	8.4
Manipur	31.0	38.4	19.7	8.9	2.0	100	7.1
Mizoram	21.3*	73.5*	5.1*	0.0*	0.0*	100	5.9*
Tripura	17.8	26.7	20.4	20.8	14.3	100	15.6
Meghalaya	20.4	17.0	34.4	20.8	7.4	100	11.1
Assam	3.2	8.2	9.8	16.4	62.3	100	51.8
Gujarat	13.8	18.5	22.0	19.7	26.0	100	14.8
Maharashtra	30.3	37.0	14.2	8.4	10.2	100	10.3
Goa	21.0*	58.0*	5.7*	8.0*	7.3*	100	9.4*
Andhra Pradesh	39.4	17.3	24.2	16.2	2.9	100	8.4
Telangana	42.8	8.7	15.6	25.4	7.5	100	9.8
Karnataka	27.4	16.2	19.4	32.4	4.6	100	11.7
Kerala	17.6	9.4	30.1	32.8	10.1	100	13.9
Tamil Nadu	32.5	11.1	21.1	19.0	16.4	100	17.2
Puducherry	17.6	17.2	11.4	19.5	34.3	100	26.1

Appendix A-4.14: Percent distribution of ever daily smokers age 20-34 by age at smoking initiation, by states/UTs, GATS-2, India, 2016-17

State/UT	Age at smoking initiation				Total	Mean age
	<15	15-17	18-19	20-34		
India	10.6	22.5	18.0	48.9	100	18.9
Jammu & Kashmir	12.4	33.8	19.4	34.4	100	18.1
Himachal Pradesh	3.6	9.2	19.5	67.7	100	20.5
Punjab	0.0	29.8	19.1	51.2	100	19.7
Chandigarh	19.1	10.2	4.4	66.3	100	18.9
Uttarakhand	5.5	33.3	18.6	42.6	100	18.7
Haryana	4.4	21.3	34.1	40.2	100	19.4
Delhi	10.9	17.6	28.5	42.9	100	19.2
Rajasthan	14.1	23.2	17.1	45.5	100	18.5
Uttar Pradesh	10.7	34.7	10.2	44.4	100	18.1
Chhattisgarh	0.0*	43.0*	27.9*	29.1*	100	18.5*
Madhya Pradesh	7.9	17.6	20.0	54.4	100	19.6
West Bengal	10.3	15.8	21.9	52.0	100	19.0
Jharkhand	5.9	18.1	27.6	48.4	100	19.2
Odisha	28.9	11.3	18.5	41.3	100	16.9
Bihar	4.6	29.9	18.5	47.1	100	19.0
Sikkim	29.3	19.2	18.0	33.5	100	16.3
Arunachal Pradesh	22.5	47.5	12.2	17.8	100	16.3
Nagaland	4.5	25.1	34.1	36.2	100	18.2
Manipur	2.8	30.0	13.7	53.4	100	20.1
Mizoram	13.8	37.5	24.9	23.8	100	17.5
Tripura	8.4	28.9	15.5	47.3	100	18.5
Meghalaya	8.9	50.2	22.0	19.0	100	17.0
Assam	10.5	28.3	21.1	40.2	100	18.5
Gujarat	33.1*	7.3*	17.9*	41.7*	100	16.7*
Maharashtra	44.9*	12.3*	10.2*	32.7*	100	16.0*
Goa	0.0*	27.5*	0.0*	72.5*	100	20.3*
Andhra Pradesh	7.0	17.7	11.2	64.0	100	19.8
Telangana	0.0*	32.5*	9.8*	57.8*	100	21.0*
Karnataka	8.7	17.0	17.4	56.9	100	19.9
Kerala	7.4	11.5	16.8	64.3	100	20.6
Tamil Nadu	1.0	8.9	16.8	73.3	100	20.6
Puducherry	9.9	16.9	16.2	57.0	100	19.0

Note: *Based on less than 25 unweighted cases

Appendix A-4.15: Percentage of adults age 15 and above who were former daily smokers, percentage of ever daily smokers who were former daily smokers, by states/UTs, GATS-2, India, 2016-17

States/UT	Former daily smokers [1] (Among all adults)	Former daily smokers[1] (Among ever daily smokers)[2]
India	1.8	16.8
Jammu & Kashmir	1.8	8.6
Himachal Pradesh	1.6	11.3
Punjab	0.5	7.3
Chandigarh	1.3	14.8
Uttarakhand	2.5	13.2
Haryana	1.1	5.6
Delhi	1.8	16.9
Rajasthan	2.6	18.3
Uttar Pradesh	2.4	18.6
Chhattisgarh	1.4	23.6
Madhya Pradesh	1.5	15.0
West Bengal	1.4	8.7
Jharkhand	0.8	10.4
Odisha	2.8	35.6
Bihar	2.2	32.9
Sikkim	0.7	7.0
Arunachal Pradesh	1.8	9.3
Nagaland	2.3	19.2
Manipur	3.0	16.7
Mizoram	2.8	8.1
Tripura	1.1	4.6
Meghalaya	1.2	4.2
Assam	3.7	25.6
Gujarat	0.8	10.6
Maharashtra	0.7	19.1
Goa	0.2	8.2
Andhra Pradesh	2.2	14.2
Telangana	1.2	13.1
Karnataka	1.7	17.3
Kerala	5.1	40.2
Tamil Nadu	1.4	12.5
Puducherry	1.6	19.3

Note: [1] Includes current non-smokers

[2] Also known as the quit ratio for daily smoking

Appendix A-4.16: Percent distribution of former daily smokers age 15 and above by time since quitting smoking, by states/UTs, GATS-2, India, 2016-2017

State/UT	Time since quitting smoking (in years)				Total
	<1	1 - 4	5 – 9	10+	
India	12.1	21.7	20.0	46.1	100
Jammu & Kashmir	7.0	22.2	25.1	45.6	100
Himachal Pradesh	7.9	20.8	15.4	55.9	100
Punjab	41.4*	0.0*	32.9*	25.7*	100
Chandigarh	44.1*	9.3*	22.2*	24.4*	100
Uttarakhand	6.5	28.9	18.0	46.6	100
Haryana	29.7*	14.9*	15.6*	39.8*	100
Delhi	11.3	35.7	16.5	36.5	100
Rajasthan	14.6	38.9	20.5	25.9	100
Uttar Pradesh	13.2	16.2	22.7	47.8	100
Chhattisgarh	9.5	30.3	22.4	37.9	100
Madhya Pradesh	11.7	29.9	7.9	50.5	100
West Bengal	13.1	22.2	14.7	50.0	100
Jharkhand	8.1*	11.6*	3.7*	76.6*	100
Odisha	9.1	20.0	7.4	63.5	100
Bihar	10.5	21.8	22.1	45.6	100
Sikkim	5.1*	58.5*	28.3*	8.0*	100
Arunachal Pradesh	9.4	16.4	31.7	42.5	100
Nagaland	7.6	16.0	12.6	63.8	100
Manipur	10.0	21.1	31.9	37.0	100
Mizoram	29.7	15.5	18.8	35.9	100
Tripura	3.5*	33.1*	18.6*	44.8*	100
Meghalaya	3.0*	42.6*	20.6*	33.9*	100
Assam	13.3	27.1	13.8	45.9	100
Gujarat	7.2*	44.6*	15.4*	32.8*	100
Maharashtra	9.4*	27.3*	29.5*	33.8*	100
Goa	14.9*	12.1*	27.1*	45.9*	100
Andhra Pradesh	10.2	14.1	41.6	34.1	100
Telangana	13.6	35.0	5.2	46.2	100
Karnataka	21.0	12.6	16.3	50.2	100
Kerala	7.0	11.2	27.8	53.9	100
Tamil Nadu	10.5	16.4	12.7	60.4	100
Puducherry	28.1	36.3	3.7	31.9	100

Note: *Based on less than 25 unweighted cases

Appendix A-4.17: Percentage of adult age 15 and above by detailed status of smokeless tobacco use, by states/ UTs, GATS-2, India, 2016-17

State/UT	Current user of smokeless tobacco					Current non-user of smokeless tobacco				
	Current user of smokeless tobacco	Daily user	Occasional user	Occasional user, formerly daily	Occasional user, never daily	Current non-user of smokeless tobacco	Former daily users	Never daily users	Former occasional users	Never users
India	21.4	18.2	3.1	0.8	2.4	78.6	1.2	77.5	0.8	76.6
Jammu & Kashmir	4.3	3.4	0.9	0.4	0.6	95.7	0.5	95.2	0.4	94.8
Himachal Pradesh	3.1	2.0	1.1	0.3	0.8	96.9	0.6	96.3	0.4	95.9
Punjab	8.0	6.5	1.5	0.2	1.3	92.0	0.1	91.9	0.5	91.4
Chandigarh	6.1	4.8	1.3	0.4	0.9	93.9	0.2	93.7	0.3	93.4
Uttarakhand	12.4	9.5	2.9	0.2	2.6	87.6	1.2	86.5	1.0	85.4
Haryana	6.3	4.8	1.5	0.2	1.3	93.7	0.3	93.4	0.2	93.2
Delhi	8.8	6.5	2.3	0.4	1.9	91.2	1.2	90.0	0.7	89.3
Rajasthan	14.1	11.7	2.4	0.6	1.8	85.9	1.4	84.5	0.7	83.8
Uttar Pradesh	29.4	23.9	5.5	1.4	4.1	70.6	1.7	69.0	1.7	67.3
Chhattisgarh	36.0	33.7	2.3	0.3	2.0	64.0	1.2	62.7	0.6	62.1
Madhya Pradesh	28.1	24.3	3.8	0.9	3.0	71.9	1.9	70.0	0.8	69.2
West Bengal	20.1	17.4	2.7	0.9	1.8	79.9	0.8	79.1	0.8	78.4
Jharkhand	35.4	31.0	4.3	0.8	3.5	64.6	0.9	63.8	0.8	62.9
Odisha	42.9	38.0	4.8	1.5	3.3	57.1	2.1	55.0	1.1	53.9
Bihar	23.5	21.9	1.6	0.3	1.3	76.5	0.6	75.9	0.2	75.7
Sikkim	9.7	7.7	2.1	0.8	1.3	90.3	0.8	89.5	0.4	89.1
Arunachal Pradesh	39.3	30.6	8.7	2.4	6.3	60.7	0.9	59.7	1.5	58.3
Nagaland	39.0	24.2	14.8	2.9	11.9	61.0	1.6	59.4	2.3	57.0
Manipur	47.7	32.4	15.3	1.6	13.8	52.3	1.6	50.6	2.3	48.3
Mizoram	33.5	27.9	5.6	2.4	3.2	66.5	1.3	65.1	2.6	62.5
Tripura	48.5	34.1	14.4	5.7	8.7	51.5	0.4	51.0	0.5	50.6
Meghalaya	20.3	13.5	6.8	1.8	5.0	79.7	1.2	78.4	0.7	77.7
Assam	41.7	35.8	5.9	1.5	4.4	58.3	2.5	55.8	1.6	54.3
Gujarat	19.2	17.1	2.0	0.5	1.5	80.8	1.1	79.8	0.7	79.1
Maharashtra	24.4	21.7	2.7	0.8	1.9	75.6	1.0	74.6	0.8	73.8
Goa	6.5	3.9	2.6	1.2	1.4	93.5	0.4	93.1	0.4	92.7
Andhra Pradesh	7.1	5.1	2.0	0.1	1.9	92.9	0.5	92.4	0.4	91.9
Telangana	10.1	8.8	1.3	0.4	0.9	89.9	0.6	89.3	0.3	89.0
Karnataka	16.3	13.9	2.4	1.0	1.4	83.7	1.3	82.4	0.1	82.3
Kerala	5.4	3.4	2.0	0.4	1.6	94.6	2.3	92.3	2.2	90.0
Tamil Nadu	10.6	8.1	2.5	0.1	2.3	89.4	0.5	88.9	0.2	88.8
Puducherry	4.7	4.0	0.7	0.4	0.3	95.3	0.7	94.6	0.5	94.1

Appendix A-4.18: Percentage of males age 15 and above by detailed status of smokeless tobacco use, by states/ UTs, GATS-2; India, 2016-17

	Current user of smokeless tobacco					Current non-user of smokeless tobacco				
States/UT	Current user of smokeless tobacco	Daily user	Occasional user	Occasional user, formerly daily	Occasional user, never daily	Current non-user of smokeless tobacco	Former daily users	Never daily users	Former occasional users	Never users
India	29.6	25.1	4.5	1.0	3.5	70.4	1.4	68.9	1.2	67.7
Jammu & Kashmir	6.8	5.3	1.5	0.7	0.8	93.2	0.7	92.5	0.6	91.9
Himachal Pradesh	6.1	4.0	2.1	0.6	1.5	93.9	1.2	92.8	0.7	92.1
Punjab	15.0	12.2	2.8	0.4	2.4	85.0	0.3	84.8	0.9	83.9
Chandigarh	10.4	8.2	2.2	0.7	1.5	89.6	0.3	89.3	0.5	88.8
Uttarakhand	21.2	16.9	4.4	0.2	4.1	78.8	2.1	76.7	1.9	74.8
Haryana	10.0	8.4	1.6	0.3	1.3	90.0	0.5	89.5	0.2	89.2
Delhi	13.7	10.1	3.6	0.7	2.9	86.3	1.6	84.7	0.9	83.8
Rajasthan	22.0	18.7	3.3	1.0	2.3	78.0	1.9	76.2	1.2	75.0
Uttar Pradesh	42.6	34.9	7.7	1.8	5.9	57.4	1.9	55.5	2.2	53.3
Chhattisgarh	47.7	43.9	3.8	0.4	3.4	52.3	1.4	51.0	0.8	50.1
Madhya Pradesh	38.7	32.3	6.4	1.4	5.0	61.3	2.4	58.9	1.2	57.7
West Bengal	22.8	18.8	4.0	1.3	2.7	77.2	0.7	76.5	1.2	75.3
Jharkhand	54.1	48.5	5.6	1.3	4.3	45.9	1.0	44.9	0.7	44.2
Odisha	52.1	44.8	7.4	1.8	5.6	47.9	2.7	45.2	1.5	43.7
Bihar	41.9	38.9	2.9	0.5	2.4	58.1	0.8	57.4	0.4	57.0
Sikkim	13.8	11.1	2.8	1.3	1.4	86.2	0.7	85.4	0.4	85.0
Arunachal Pradesh	50.1	40.5	9.6	1.8	7.7	49.9	1.2	48.7	2.1	46.6
Nagaland	46.0	23.5	22.5	4.2	18.4	54.0	2.2	51.8	2.3	49.5
Manipur	50.2	28.5	21.7	1.9	19.8	49.8	1.6	48.2	3.3	44.9
Mizoram	21.3	15.9	5.4	2.7	2.8	78.7	1.3	77.4	3.6	73.8
Tripura	40.8	25.7	15.1	7.5	7.6	59.2	0.2	58.9	0.5	58.4
Meghalaya	11.6	8.6	3.0	0.5	2.4	88.4	0.2	88.2	0.9	87.3
Assam	50.5	42.6	7.9	1.8	6.1	49.5	3.4	46.1	2.7	43.5
Gujarat	27.6	24.3	3.3	0.6	2.7	72.4	1.5	70.9	0.9	70.0
Maharashtra	31.7	28.1	3.5	1.1	2.5	68.3	1.0	67.4	1.4	66.0
Goa	9.2	5.5	3.7	1.6	2.1	90.8	0.2	90.5	0.7	89.8
Andhra Pradesh	7.6	5.1	2.5	0.1	2.4	92.4	1.0	91.4	0.6	90.8
Telangana	11.3	9.6	1.7	0.6	1.1	88.7	0.9	87.8	0.7	87.1
Karnataka	22.2	18.6	3.6	1.1	2.5	77.8	1.9	75.9	0.1	75.8
Kerala	7.4	3.7	3.7	0.5	3.2	92.6	3.2	89.4	4.0	85.4
Tamil Nadu	11.9	8.8	3.0	0.2	2.8	88.1	0.6	87.6	0.1	87.5
Puducherry	4.5	3.4	1.1	0.6	0.5	95.5	0.3	95.1	0.6	94.5

Appendix A-4.19: Percentage of females age 15 and above by detailed status of smokeless tobacco use, by states/ UTs, GATS-2; India, 2016-17

States/UT	Current user of smokeless tobacco	Current user of smokeless tobacco				Current non-user of smokeless tobacco				
		Daily user	Occasional user	Occasional user, formerly daily	Occasional user, never daily	Current non-user of smokeless tobacco	Former daily users	Never daily users	Former occasional users	Never users
India	12.8	11.1	1.7	0.5	1.2	87.2	0.9	86.4	0.4	85.9
Jammu & Kashmir	1.5	1.2	0.3	0.0	0.3	98.5	0.3	98.2	0.2	98.0
Himachal Pradesh	0.1	0.0	0.1	0.0	0.1	99.9	0.0	99.8	0.1	99.8
Punjab	0.3	0.3	0.0	0.0	0.0	99.7	0.0	99.7	0.0	99.7
Chandigarh	0.8	0.6	0.2	0.1	0.1	99.2	0.0	99.2	0.0	99.2
Uttarakhand	3.4	2.1	1.4	0.2	1.2	96.6	0.3	96.3	0.1	96.2
Haryana	2.2	0.8	1.4	0.1	1.2	97.8	0.0	97.8	0.2	97.6
Delhi	3.2	2.4	0.8	0.1	0.7	96.8	0.6	96.2	0.5	95.7
Rajasthan	5.8	4.4	1.4	0.2	1.2	94.2	0.9	93.3	0.2	93.0
Uttar Pradesh	15.2	12.0	3.1	1.0	2.1	84.8	1.4	83.4	1.2	82.3
Chhattisgarh	24.5	23.6	0.9	0.2	0.7	75.5	1.0	74.5	0.5	74.0
Madhya Pradesh	16.8	15.7	1.0	0.3	0.7	83.2	1.3	81.9	0.4	81.5
West Bengal	17.2	15.9	1.3	0.4	0.9	82.8	0.9	81.9	0.3	81.6
Jharkhand	15.7	12.7	3.0	0.2	2.8	84.3	0.7	83.6	1.0	82.6
Odisha	33.6	31.2	2.3	1.2	1.1	66.4	1.5	64.9	0.7	64.2
Bihar	3.6	3.5	0.1	0.0	0.1	96.4	0.4	96.0	0.1	96.0
Sikkim	5.1	3.8	1.3	0.1	1.1	94.9	0.8	94.1	0.3	93.8
Arunachal Pradesh	27.7	20.0	7.8	3.0	4.8	72.3	0.7	71.6	0.7	70.9
Nagaland	31.5	25.0	6.5	1.6	4.9	68.5	0.9	67.5	2.4	65.1
Manipur	45.2	36.2	9.0	1.2	7.8	54.8	1.7	53.1	1.3	51.7
Mizoram	46.0	40.1	5.9	2.2	3.7	54.0	1.4	52.6	1.5	51.0
Tripura	56.5	42.9	13.7	3.9	9.8	43.5	0.6	42.8	0.5	42.4
Meghalaya	29.1	18.4	10.6	3.2	7.5	70.9	2.3	68.7	0.6	68.1
Assam	32.5	28.7	3.8	1.1	2.7	67.5	1.6	65.8	0.4	65.4
Gujarat	10.0	9.4	0.7	0.4	0.3	90.0	0.7	89.3	0.5	88.8
Maharashtra	16.6	14.8	1.8	0.5	1.3	83.4	1.0	82.4	0.2	82.2
Goa	3.6	2.2	1.4	0.9	0.6	96.4	0.6	95.8	0.1	95.7
Andhra Pradesh	6.6	5.1	1.4	0.1	1.3	93.4	0.1	93.3	0.2	93.0
Telangana	9.0	8.1	0.8	0.2	0.7	91.0	0.2	90.8	0.0	90.8
Karnataka	10.3	9.2	1.1	0.8	0.3	89.7	0.8	88.9	0.0	88.9
Kerala	3.6	3.1	0.4	0.2	0.2	96.4	1.5	94.9	0.7	94.2
Tamil Nadu	9.3	7.4	1.9	0.1	1.8	90.7	0.5	90.2	0.3	90.0
Puducherry	4.9	4.6	0.3	0.2	0.1	95.1	1.0	94.1	0.3	93.7

Appendix A-4.20: Percentage of males age 15 and above who are current users of various smokeless tobacco products by state/ UTs, GATS-2, India, 2016-17

State/UT	Any smokeless tobacco product	*Betel quid with tobacco*	*Khaini or tobacco lime mixture*	*Gutkha, tobacco lime, areca nut mixture*	*Oral tobacco*	Pan masala	Snuff	Other smokeless tobacco
India	29.6	7.1	17.9	10.8	3.3	4.5	0.7	0.3
Jammu & Kashmir	6.8	1.3	4.0	0.6	0.8	0.3	0.3	0.8
Himachal Pradesh	6.1	0.1	5.3	1.0	0.1	0.2	0.1	0.2
Punjab	15.0	0.7	9.8	4.1	0.9	0.4	0.0	0.0
Chandigarh	10.4	1.4	8.6	1.7	1.4	0.6	0.0	0.0
Uttarakhand	21.2	3.7	14.4	4.1	0.2	6.1	0.0	0.0
Haryana	10.0	1.3	5.8	4.4	0.3	0.1	0.0	0.0
Delhi	13.7	4.1	8.3	4.9	2.4	2.2	0.2	0.2
Rajasthan	22.0	7.0	14.5	14.6	7.0	8.2	5.6	0.4
Uttar Pradesh	42.6	15.7	25.1	18.5	4.0	12.5	0.2	0.1
Chhattisgarh	47.7	3.2	26.3	14.4	20.3	3.6	0.1	0.9
Madhya Pradesh	38.7	5.0	15.0	21.8	1.9	7.6	0.4	0.3
West Bengal	22.8	5.4	17.5	2.6	1.5	1.8	0.2	0.2
Jharkhand	54.1	8.4	44.3	15.5	3.3	2.0	0.4	0.5
Odisha	52.1	11.1	22.6	12.2	13.3	12.2	0.1	2.4
Bihar	41.9	6.1	37.3	6.9	2.2	2.6	1.4	0.0
Sikkim	13.8	3.4	12.4	2.3	0.2	0.8	0.0	0.1
Arunachal Pradesh	50.1	11.9	34.0	29.7	1.4	6.0	1.2	0.0
Nagaland	46.0	24.2	11.9	9.4	8.1	23.5	0.1	0.1
Manipur	50.2	37.5	26.8	4.5	3.4	5.6	0.9	1.4
Mizoram	21.3	3.4	8.0	2.5	10.8	1.2	0.0	4.5
Tripura	40.8	26.4	16.0	3.8	0.4	9.2	0.0	0.5
Meghalaya	11.6	3.7	8.2	1.3	1.5	0.9	0.3	0.1
Assam	50.5	15.2	37.3	10.0	0.9	4.4	0.2	0.0
Gujarat	27.6	1.8	5.8	20.5	4.7	2.0	0.1	0.1
Maharashtra	31.7	3.6	23.8	13.7	1.9	2.1	0.4	0.2
Goa	9.2	3.0	7.4	4.9	0.7	2.3	0.1	0.2
Andhra Pradesh	7.6	0.4	5.6	1.1	0.7	0.2	0.1	0.1
Telangana	11.3	2.1	5.5	3.2	4.0	0.8	0.0	0.0

Karnataka	22.2	10.8	4.3	10.4	1.3	1.0	0.5	0.9
Kerala	7.4	6.0	0.8	0.5	0.6	0.7	0.9	0.0
Tamil Nadu	11.9	4.7	4.1	1.5	2.6	0.1	0.9	0.0
Puducherry	4.5	1.9	2.2	1.3	0.2	0.1	0.4	0.1

Appendix A-4.21: Percentage of females age 15 and above who are current users of various smokeless tobacco products by state/ UT, GATS-2, India, 2016-17

States/UT	Any smokeless tobacco product	*Betel quid with tobacco*	*Khaini or tobacco lime mixture*	*Gutkha, tobacco lime, areca nut mixture*	*Oral tobacco*	Pan masala	Snuff	Other smokeless tobacco
India	12.8	4.5	4.2	2.7	4.3	1.1	0.6	0.3
Jammu & Kashmir	1.5	0.2	0.5	0.1	0.5	0.1	0.6	0.0
Himachal Pradesh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Punjab	0.3	0.0	0.1	0.2	0.0	0.0	0.0	0.0
Chandigarh	0.8	0.4	0.1	0.2	0.2	0.0	0.0	0.0
Uttarakhand	3.4	1.7	1.7	0.3	0.3	0.0	0.0	0.0
Haryana	2.2	1.0	0.2	0.4	0.2	0.8	0.2	0.0
Delhi	3.2	0.9	0.9	0.7	0.7	0.2	0.5	0.0
Rajasthan	5.8	0.8	1.6	3.1	2.2	0.8	0.6	0.0
Uttar Pradesh	15.2	4.3	5.9	4.0	4.7	1.4	0.0	0.0
Chhattisgarh	24.5	0.7	5.9	1.3	19.1	0.0	0.0	0.0
Madhya Pradesh	16.8	3.2	8.2	5.0	6.0	1.0	0.9	0.3
West Bengal	17.2	7.3	3.8	3.1	8.4	2.7	0.1	0.0
Jharkhand	15.7	1.2	7.9	0.6	5.8	0.1	0.0	3.0
Odisha	33.6	6.2	11.2	6.5	16.6	5.0	0.3	0.6
Bihar	3.6	0.4	2.2	0.1	0.9	0.1	0.0	0.0
Sikkim	5.1	1.7	4.5	0.0	0.1	0.3	0.0	0.0
Arunachal Pradesh	27.7	18.0	11.0	7.4	6.8	3.4	0.1	0.4
Nagaland	31.5	10.3	8.1	9.4	1.9	18.4	0.2	0.0
Manipur	45.2	39.8	8.2	1.0	1.0	2.8	0.3	2.2
Mizoram	46.0	5.3	14.3	5.5	32.6	0.5	0.1	1.6
Tripura	56.5	53.0	2.4	1.2	0.5	11.6	0.7	0.5
Meghalaya	29.1	20.4	7.2	3.5	10.6	4.1	2.7	4.3

Assam	32.5	22.9	8.4	6.2	1.3	1.4	0.3	0.0
Gujarat	10.0	0.3	0.6	4.6	1.3	0.8	2.7	1.9
Maharashtra	16.6	3.8	6.6	3.2	8.2	1.2	1.3	0.1
Goa	3.6	2.3	0.7	0.4	0.1	0.3	0.2	0.7
Andhra Pradesh	6.6	4.3	3.5	2.7	2.6	0.2	0.2	0.0
Telangana	9.0	5.6	4.9	2.6	2.1	1.4	0.9	0.6
Karnataka	10.3	8.0	2.4	1.3	1.3	0.4	0.5	0.1
Kerala	3.6	3.0	0.5	0.9	0.1	0.1	0.2	0.1
Tamil Nadu	9.3	7.3	0.7	0.0	0.6	0.1	1.5	0.0
Puducherry	4.9	4.9	0.2	0.1	0.1	0.0	0.0	0.0

Appendix A-4.22: Percent distribution of adults age 15 and above by status of use of smokeless tobacco, by states/UTs, GATS-2, India, 2016-2017

State/UT	Status of smokeless tobacco use			Total
	Daily	Occasional[1]	Non-users	
India	18.2	3.1	78.6	100
Jammu & Kashmir	3.4	0.9	95.7	100
Himachal Pradesh	2.0	1.1	96.9	100
Punjab	6.5	1.5	92.0	100
Chandigarh	4.8	1.3	93.9	100
Uttarakhand	9.5	2.9	87.6	100
Haryana	4.8	1.5	93.7	100
Delhi	6.5	2.3	91.2	100
Rajasthan	11.7	2.4	85.9	100
Uttar Pradesh	23.9	5.5	70.6	100
Chhattisgarh	33.7	2.3	64.0	100
Madhya Pradesh	24.3	3.8	71.9	100
West Bengal	17.4	2.7	79.9	100
Jharkhand	31.0	4.3	64.6	100
Odisha	38.0	4.8	57.1	100
Bihar	21.9	1.6	76.5	100

Sikkim	7.7	2.1	90.3	100
Arunachal Pradesh	30.6	8.7	60.7	100
Nagaland	24.2	14.8	61.0	100
Manipur	32.4	15.3	52.3	100
Mizoram	27.9	5.6	66.5	100
Tripura	34.1	14.4	51.5	100
Meghalaya	13.5	6.8	79.7	100
Assam	35.8	5.9	58.3	100
Gujarat	17.1	2.0	80.8	100
Maharashtra	21.7	2.7	75.6	100
Goa	3.9	2.6	93.5	100
Andhra Pradesh	5.1	2.0	92.9	100
Telangana	8.8	1.3	89.9	100
Karnataka	13.9	2.4	83.7	100
Kerala	3.4	2.0	94.6	100
Tamil Nadu	8.1	2.5	89.4	100
Puducherry	4.0	0.7	95.3	100

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

Appendix A-4.23: Percent distribution of ever daily users of smokeless tobacco age 20-34 by age at use of smokeless tobacco initiation by states/UTs, GATS-2, India, 2016-2017

	Age at smokeless tobacco initiation					
State/UT	**<15**	**15 - 17**	**18 - 19**	**20-34**	**Total**	**Mean age**
India	12.1	24.1	19.6	44.2	100	18.8
Jammu & Kashmir	7.0*	46.1*	23.0*	23.8*	100	18.4*
Himachal Pradesh	0.0*	22.9*	29.8*	47.3*	100	20.0*
Punjab	2.0	27.7	19.5	50.8	100	20.0
Chandigarh	3.9	23.8	15.1	57.1	100	19.5
Uttarakhand	3.8	14.6	36.2	45.4	100	20.6
Haryana	8.9	35.3	27.0	28.8	100	18.3
Delhi	17.0	29.2	20.1	33.7	100	17.6
Rajasthan	12.5	26.0	19.7	41.8	100	18.4
Uttar Pradesh	12.6	24.4	19.6	43.5	100	19.0

Chhattisgarh	7.5	29.8	26.7	36.0	100	18.6
Madhya Pradesh	13.1	26.4	17.0	43.5	100	18.4
West Bengal	7.6	17.4	16.7	58.2	100	20.0
Jharkhand	6.7	17.0	26.3	50.0	100	19.6
Odisha	22.0	26.1	16.7	35.2	100	17.5
Bihar	6.0	23.9	27.5	42.5	100	18.9
Sikkim	29.0	25.0	24.8	21.3	100	16.1
Arunachal Pradesh	26.0	40.8	15.1	18.1	100	16.2
Nagaland	13.8	32.1	21.3	32.7	100	17.3
Manipur	2.6	11.9	20.6	64.9	100	21.3
Mizoram	8.6	29.8	25.3	36.3	100	18.3
Tripura	7.2	22.1	16.4	54.3	100	19.7
Meghalaya	9.9	25.0	27.3	37.9	100	18.4
Assam	12.1	27.2	19.5	41.2	100	18.8
Gujarat	10.0	24.0	16.7	49.3	100	18.9
Maharashtra	20.1	30.6	16.1	33.2	100	17.4
Goa	25.1*	23.5*	16.7*	34.8*	100	17.3*
Andhra Pradesh	15.5	16.4	14.8	53.3	100	19.0
Telangana	9.4	22.5	1.3	66.7	100	19.4
Karnataka	13.2	6.5	23.1	57.2	100	20.0
Kerala	5.6*	7.5*	20.1*	66.8*	100	21.3*
Tamil Nadu	9.6	19.7	7.4	63.2	100	21.2
Puducherry	27.3*	14.6*	2.1*	56.0*	100	19.4*

Note: *Based on less than 25 unweighted cases

Appendix A-4.24: 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, by states/UTs, GATS-2, India, 2016-2017

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	5.8

Jammu & Kashmir	0.5	12.2
Himachal Pradesh	0.6	20.6
Punjab	0.1	2.1
Chandigarh	0.2	3.7
Uttarakhand	1.2	10.8
Haryana	0.3	5.0
Delhi	1.2	14.3
Rajasthan	1.4	10.1
Uttar Pradesh	1.7	6.2
Chhattisgarh	1.2	3.4
Madhya Pradesh	1.9	7.0
West Bengal	0.8	4.1
Jharkhand	0.9	2.6
Odisha	2.1	5.1
Bihar	0.6	2.5
Sikkim	0.8	8.4
Arunachal Pradesh	0.9	2.7
Nagaland	1.6	5.6
Manipur	1.6	4.6
Mizoram	1.3	4.2
Tripura	0.4	1.1
Meghalaya	1.2	7.3
Assam	2.5	6.3
Gujarat	1.1	5.8
Maharashtra	1.0	4.2
Goa	0.4	7.5
Andhra Pradesh	0.5	9.3
Telangana	0.6	5.8
Karnataka	1.3	8.2
Kerala	2.3	38.5
Tamil Nadu	0.5	5.9
Puducherry	0.7	13.4

Note: [1] Includes current non- users of smokeless tobacco.

[2] Also known as quit ratio for daily use of smokeless tobacco

Appendix A-4.25: Percent distribution of former daily users of smokeless tobacco age 15 and above by time since quitting smokeless tobacco, by states/UTs, GATS-2, India, 2016-2017

	Time since quitting smokeless tobacco (in years)				
State/UT	**<1**	**1 – 4**	**5 - 9**	**10+**	**Total**
India	20.5	33.2	18.4	27.9	100
Jammu & Kashmir	38.6*	5.0*	37.8*	18.6*	100
Himachal Pradesh	9.2*	25.9*	20.4*	44.6*	100
Punjab	35.3*	27.5*	21.0*	16.2*	100
Chandigarh	54.3*	0.0*	0.0*	45.7*	100
Uttarakhand	1.6	29.1	27.7	41.6	100
Haryana	17.3*	64.6*	0.0*	18.1*	100
Delhi	6.5	26.6	45.3	21.6	100
Rajasthan	17.4	43.7	24.2	14.7	100
Uttar Pradesh	21.1	35.8	11.9	31.2	100
Chhattisgarh	8.4	53.5	15.2	23.0	100
Madhya Pradesh	17.5	26.6	18.2	37.7	100
West Bengal	28.3*	20.0*	15.7*	36.0*	100
Jharkhand	38.6*	19.3*	28.4*	13.7*	100
Odisha	21.7	20.4	27.5	30.3	100
Bihar	19.7*	41.0*	6.0*	33.3*	100
Sikkim	29.5*	40.1*	30.4*	0.0*	100
Arunachal Pradesh	17.9*	14.3*	36.3*	31.5*	100
Nagaland	14.4*	35.4*	15.9*	34.3*	100
Manipur	16.0	21.1	32.6	30.3	100
Mizoram	19.7*	31.0*	25.3*	23.9*	100
Tripura	7.8*	5.5*	0.0*	86.7*	100
Meghalaya	8.6*	31.0*	29.4*	31.0*	100
Assam	13.6	43.9	21.1	21.3	100
Gujarat	26.8	52.4	13.5	7.3	100
Maharashtra	12.4	37.0	22.6	28.0	100
Goa	55.1*	19.6*	0.0*	25.3*	100
Andhra Pradesh	5.9*	68.9*	11.2*	13.9*	100
Telangana	0.0*	34.1*	11.3*	54.5*	100
Karnataka	50.8	13.4	9.2	26.6	100
Kerala	16.8	21.3	35.0	27.0	100
Tamil Nadu	21.5*	34.5*	16.4*	27.6*	100

Puducherry	39.8*	33.5*	7.4*	19.3*	100

Note: *Based on less than 25 unweighted cases

Appendix A-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, by states/UTs, GATS-2, India, 2016-2017

State/UT	Smoking cessation and health care seeking behavior			
	Made quit attempt[1]	Visited an HCP[1]	Asked by HCP if a smoker[2]	Advised to quit by HCP[2]
India	38.5	50.2	54.5	48.8
Jammu & Kashmir	24.8	41.7	54.7	50.1
Himachal Pradesh	41.3	53.9	63.4	53.3
Punjab	24.6	46.3	43.6	33.9
Chandigarh	45.0	40.1	39.3	37.3
Uttarakhand	35.7	62.7	42.5	37.6
Haryana	37.4	57.5	67.3	55.0
Delhi	45.7	52.9	30.4	25.6
Rajasthan	44.3	44.7	60.6	53.0
Uttar Pradesh	45.7	71.4	39.7	36.5
Chhattisgarh	30.0	62.0	67.0	48.1
Madhya Pradesh	42.2	44.4	45.1	43.0
West Bengal	35.2	41.5	72.9	64.4
Jharkhand	18.4	23.8	25.8	25.8
Odisha	39.6	50.2	26.4	19.7
Bihar	32.2	49.3	49.0	45.1
Sikkim	22.8	20.5	43.1	35.2
Arunachal Pradesh	26.9	17.7	52.3	42.2
Nagaland	29.3	25.6	64.5	49.0
Manipur	30.0	23.9	60.7	50.2
Mizoram	27.4	25.0	55.2	51.8
Tripura	33.9	33.9	67.4	64.3
Meghalaya	20.7	32.7	48.5	41.6

Assam	39.8	38.9	37.5	26.1
Gujarat	24.0	21.8	48.8	48.0
Maharashtra	20.9	58.2	53.0	45.2
Goa	20.6	56.7	51.5	49.1
Andhra Pradesh	43.1	50.3	82.9	80.1
Telangana	53.2	58.3	88.3	88.3
Karnataka	51.5	52.9	60.6	51.7
Kerala	48.1	55.4	72.3	60.5
Tamil Nadu	31.7	34.8	76.4	73.8
Puducherry	51.9	46.5	54.9	52.1

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.

Appendix A-5.2: 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, by states/UTs, GATS-2, India, 2016-2017

	Smokeless cessation and health care seeking behavior			
State/UT	**Made quit attempt[1]**	**Visited an HCP[1]**	**Asked by HCP if a user[2] of smokeless tobacco**	**Advised to quit by HCP[2]**
India	33.2	47.7	37.4	31.7
Jammu & Kashmir	27.0	41.8	42.5	38.8
Himachal Pradesh	38.3	52.6	38.3	27.9
Punjab	23.0	38.4	26.9	23.9
Chandigarh	33.7	20.8	55.4	54.4
Uttarakhand	36.8	62.0	22.3	19.1
Haryana	45.2	59.4	60.3	46.6
Delhi	48.0	54.3	15.0	12.3
Rajasthan	46.8	42.6	42.0	37.5
Uttar Pradesh	44.9	65.0	31.1	25.5
Chhattisgarh	21.4	47.2	37.7	31.3
Madhya Pradesh	36.4	39.6	35.6	28.9
West Bengal	26.0	44.9	39.9	35.3

Jharkhand	18.7	27.7	23.8	19.5
Odisha	33.9	45.9	21.7	19.7
Bihar	27.1	36.2	47.9	37.0
Sikkim	28.3	24.7	31.1	29.5
Arunachal Pradesh	25.1	21.8	34.3	30.9
Nagaland	16.9	18.8	42.5	42.2
Manipur	19.9	24.3	28.6	20.8
Mizoram	31.3	27.9	42.8	37.5
Tripura	27.0	45.2	47.5	38.8
Meghalaya	32.4	39.8	57.7	53.8
Assam	30.1	45.8	35.4	30.2
Gujarat	25.6	21.9	39.6	33.4
Maharashtra	22.9	53.1	38.3	30.2
Goa	33.5	56.7	46.5	44.4
Andhra Pradesh	41.3	35.0	52.9	47.1
Telangana	35.7	57.4	52.6	49.4
Karnataka	44.6	45.7	64.7	63.9
Kerala	51.7	65.9	41.3	36.4
Tamil Nadu	24.0	51.7	62.4	59.1
Puducherry	55.6	67.0	49.5	47.9

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.

Appendix A-5.3: 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, by states/UTs, GATS-2, India, 2016-2017

State/UT	Use of cessation method[1]			
	Pharmacotherapy[2]	Counseling/Advice[3]	Others[4]	Without any assistance
India	4.1	8.6	8.7	71.7
Jammu & Kashmir	4.4	7.6	11.0	54.4
Himachal Pradesh	4.4	28.1	7.1	94.0
Punjab	3.9	4.2	4.9	72.8
Chandigarh	2.2	0.4	0.5	72.8
Uttarakhand	1.5	7.5	12.3	83.7
Haryana	2.5	3.1	8.0	81.2
Delhi	8.4	4.4	1.4	81.7
Rajasthan	2.4	13.8	10.0	77.5
Uttar Pradesh	2.2	5.0	9.9	86.6
Chhattisgarh	0.0	18.4	3.3	87.0
Madhya Pradesh	2.5	4.3	4.3	76.4
West Bengal	8.3	20.8	10.9	48.9
Jharkhand	0.0	11.7	14.7	47.5
Odisha	4.4	10.6	18.7	56.1
Bihar	0.0	5.8	10.4	79.4
Sikkim	0.0	5.8	2.6	7.5
Arunachal Pradesh	6.8	3.4	13.6	88.7
Nagaland	18.5	10.7	9.0	51.6
Manipur	0.5	0.0	11.4	84.3
Mizoram	10.5	2.1	3.5	89.0
Tripura	5.7	5.8	4.5	49.4
Meghalaya	4.0	10.5	9.0	78.6
Assam	2.3	8.2	5.9	64.4
Gujarat	4.2	3.5	0.6	86.6
Maharashtra	9.5	3.1	16.1	72.0
Goa	32.1*	20.3*	8.3*	67.7*
Andhra Pradesh	5.4	1.7	2.5	73.1
Telangana	1.6	5.7	7.2	75.4
Karnataka	10.1	19.8	8.2	41.3
Kerala	2.1	0.7	18.9	56.0

Tamil Nadu	4.9	8.6	3.8	68.4
Puducherry	5.8	3.6	0.0	59.6

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.

Appendix A-5.4: 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, by states/UTs, GATS-2, India, 2016-2017

	Use of cessation method[1]			
State/UT	**Pharmacotherapy[2]**	**Counseling/Advice[3]**	**Others[4]**	**Without any assistance**
India	3.2	7.3	5.2	74.9
Jammu & Kashmir	7.0	13.7	9.9	57.2
Himachal Pradesh	1.2*	19.7*	1.2*	82.0*
Punjab	0.0	1.5	0.0	67.1
Chandigarh	1.3	0.0	0.0	65.6
Uttarakhand	3.0	3.5	12.3	89.5
Haryana	8.3	9.7	5.1	82.1
Delhi	10.5	3.1	4.8	76.5
Rajasthan	4.8	16.4	3.1	80.8
Uttar Pradesh	2.4	4.6	4.0	86.5
Chhattisgarh	0.0	18.7	6.1	85.4
Madhya Pradesh	3.3	2.7	3.6	77.2
West Bengal	6.2	17.2	10.0	55.0
Jharkhand	0.8	6.6	9.9	74.3
Odisha	3.6	11.6	5.8	62.8
Bihar	0.7	5.9	6.2	82.7

Sikkim	7.5	0.0	2.9	10.6
Arunachal Pradesh	8.8	3.0	1.3	87.7
Nagaland	10.0	1.0	0.6	54.9
Manipur	1.4	0.0	3.1	68.4
Mizoram	3.4	0.6	7.0	89.2
Tripura	2.1	9.1	0.9	47.5
Meghalaya	4.7	7.7	3.3	78.3
Assam	2.3	7.2	1.5	63.0
Gujarat	4.2	3.6	1.0	78.7
Maharashtra	5.3	5.4	8.6	76.3
Goa	9.8	2.2	33.8	45.8
Andhra Pradesh	0.0	5.1	0.5	59.6
Telangana	7.3	12.6	8.1	73.8
Karnataka	3.2	9.0	8.6	45.6
Kerala	0.0	1.0	7.8	62.9
Tamil Nadu	4.6	8.2	3.8	64.3
Puducherry	10.6	0.3	4.1	63.9

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]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 and other products.

*Based on less than 25 unweighted cases

Appendix A-5.5: Percent distribution of current smokers age 15 and above by their interest in quitting smoking, by states/UTs, GATS-2, India, 2016-2017

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	8.4	13.1	33.9	42.0	2.6	100
Jammu & Kashmir	6.9	10.6	38.6	37.7	6.2	100
Himachal Pradesh	5.7	17.0	47.1	29.4	0.9	100
Punjab	8.9	11.2	27.4	52.5	0.0	100
Chandigarh	17.4	7.0	39.7	35.8	0.0	100
Uttarakhand	13.0	13.1	22.4	51.0	0.5	100

Haryana	10.8	10.8	34.5	39.8	4.0	100
Delhi	6.4	2.6	70.5	20.5	0.0	100
Rajasthan	8.3	11.8	24.7	53.1	2.1	100
Uttar Pradesh	8.7	14.8	32.8	40.2	3.4	100
Chhattisgarh	8.1	15.7	17.0	59.2	0.0	100
Madhya Pradesh	13.9	7.8	26.5	50.6	1.2	100
West Bengal	14.2	20.6	22.4	42.2	0.7	100
Jharkhand	3.8	3.6	29.3	60.5	2.9	100
Odisha	6.3	5.9	57.2	26.2	4.4	100
Bihar	3.6	13.3	23.6	59.5	0.0	100
Sikkim	1.3	4.0	58.9	22.8	13.0	100
Arunachal Pradesh	4.0	6.3	38.4	40.8	10.5	100
Nagaland	3.1	9.9	67.4	12.3	7.3	100
Manipur	1.4	1.7	66.9	24.9	5.1	100
Mizoram	1.5	4.2	47.9	46.1	0.4	100
Tripura	11.4	11.8	15.8	52.7	8.3	100
Meghalaya	4.9	6.4	56.6	22.5	9.6	100
Assam	6.3	14.5	42.1	29.6	7.4	100
Gujarat	5.1	14.5	16.5	61.2	2.7	100
Maharashtra	6.2	14.0	36.5	38.6	4.7	100
Goa	13.7	11.6	25.7	44.8	4.2	100
Andhra Pradesh	5.0	5.5	49.5	39.9	0.0	100
Telangana	9.1	1.2	64.2	21.3	4.3	100
Karnataka	7.4	17.3	41.2	30.6	3.5	100
Kerala	7.7	7.5	64.2	19.9	0.8	100
Tamil Nadu	5.5	21.5	25.9	43.6	3.5	100
Puducherry	10.6	22.5	36.1	30.8	0.0	100

Appendix A-5.6: Percent distribution of current users of smokeless tobacco age 15 and above by their interest in quitting smokeless tobacco, by states/UTs, GATS-2, India, 2016-2017

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	7.8	11.7	30.2	47.8	2.6	100
Jammu & Kashmir	9.6	8.9	47.5	25.0	9.0	100
Himachal Pradesh	4.3	12.4	52.4	30.1	0.9	100
Punjab	8.4	16.2	25.1	50.3	0.0	100
Chandigarh	15.8	5.6	40.3	37.8	0.5	100
Uttarakhand	12.2	15.3	36.3	35.7	0.5	100
Haryana	13.7	18.0	31.9	33.7	2.7	100
Delhi	4.2	4.7	65.6	25.5	0.0	100
Rajasthan	11.7	9.0	27.8	49.6	1.9	100
Uttar Pradesh	10.1	14.0	28.3	44.5	3.2	100
Chhattisgarh	8.5	8.7	24.2	58.4	0.2	100
Madhya Pradesh	12.5	9.8	30.2	46.4	1.2	100
West Bengal	7.0	16.5	12.3	62.7	1.5	100
Jharkhand	2.4	5.8	19.4	68.8	3.7	100
Odisha	7.0	8.6	40.8	42.1	1.4	100
Bihar	2.0	7.7	34.4	55.1	0.7	100
Sikkim	0.7	2.5	58.9	28.8	9.2	100
Arunachal Pradesh	4.2	7.0	43.7	36.9	8.1	100
Nagaland	4.1	5.9	69.0	9.3	11.7	100
Manipur	1.2	2.0	58.7	33.0	5.1	100
Mizoram	4.6	3.1	63.6	28.2	0.6	100
Tripura	10.7	13.4	17.3	53.1	5.5	100
Meghalaya	3.2	10.7	41.3	29.7	15.2	100
Assam	4.7	12.4	41.6	36.0	5.4	100
Gujarat	4.2	13.3	28.9	48.2	5.3	100
Maharashtra	9.8	15.2	29.3	44.9	0.9	100
Goa	16.4	13.6	32.5	34.4	3.0	100
Andhra Pradesh	9.9	5.5	52.0	32.5	0.0	100
Telangana	5.7	5.5	45.1	32.8	10.9	100
Karnataka	7.9	13.2	27.1	47.3	4.5	100

Kerala	9.1	12.1	46.0	31.2	1.6	100
Tamil Nadu	4.9	10.0	25.3	55.7	4.0	100
Puducherry	9.1	14.6	34.1	41.2	1.0	100

Appendix A-5.7: 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, by states/UTs, GATS-2, India, 2016-2017

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	47.4	30.2	22.4	100	48.7	28.7	22.6	100	49.5	29.2	21.3	100
Jammu & Kashmir	60.0	14.9	25.2	100	53.6	34.3	12.1	100	76.0	14.3	9.6	100
Himachal Pradesh	28.3*	43.4*	28.3*	100	33.6	45.0	21.5	100	39.5*	33.1*	27.4*	100
Punjab	57.4*	18.9*	23.7*	100	56.9	18.0	25.1	100	42.6	43.4	14.0	100
Chandigarh	34.3*	49.2*	16.6*	100	52.9	25.7	21.4	100	64.1	28.0	7.9	100
Uttarakhand	45.5	40.5	14.1	100	54.2	35.2	10.6	100	58.2	32.0	9.8	100
Haryana	50.7*	49.3*	0.0*	100	62.1	21.6	16.3	100	59.4	24.0	16.6	100
Delhi	47.2	25.5	27.3	100	46.3	29.0	24.7	100	51.8	35.9	12.3	100
Rajasthan	41.9	45.9	12.2	100	43.0	31.6	25.4	100	46.1	32.6	21.3	100
Uttar Pradesh	56.5	30.0	13.5	100	57.8	26.3	15.9	100	56.4	27.0	16.6	100
Chhattisgarh	69.9*	25.0*	5.1*	100	72.6*	23.1*	4.3*	100	42.2	41.8	16.0	100
Madhya Pradesh	87.4*	11.5*	1.2*	100	52.6	30.6	16.8	100	56.3	26.7	17.0	100
West Bengal	14.3	35.4	50.3	100	27.3	29.7	43.0	100	26.0	25.5	48.5	100
Jharkhand	38.4*	41.3*	20.3*	100	33.5*	48.0*	18.5*	100	39.3	37.1	23.6	100
Odisha	32.0*	20.3*	47.7*	100	34.6	29.2	36.3	100	39.9	34.4	25.7	100
Bihar	36.9*	40.1*	22.9*	100	54.0	35.5	10.5	100	48.1	33.1	18.8	100
Sikkim	45.8	44.3	9.9	100	67.6*	21.7*	10.7*	100	70.5	16.6	12.8	100

Arunachal Pradesh	61.4	29.0	9.7	100	71.9	21.5	6.5	100	68.7	27.4	3.9	100
Nagaland	56.5	11.2	32.2	100	53.0	20.7	26.3	100	65.6	20.2	14.1	100
Manipur	65.4	21.0	13.6	100	53.8	28.8	17.5	100	61.8	22.3	15.9	100
Mizoram	62.6	18.6	18.8	100	55.9*	44.1*	0.0*	100	65.3	20.7	14.0	100
Tripura	62.6	20.2	17.2	100	52.9	26.4	20.7	100	59.8	23.0	17.3	100
Meghalaya	58.7	22.9	18.4	100	52.1	25.5	22.4	100	82.6	8.7	8.8	100
Assam	39.4	36.4	24.1	100	51.3	23.7	25.0	100	51.4	31.8	16.8	100
Gujarat	39.6*	37.8*	22.6*	100	35.1	35.2	29.6	100	58.3	17.3	24.5	100
Maharashtra	51.2*	45.4*	3.4*	100	43.5*	47.4*	9.1*	100	38.1	32.0	29.9	100
Goa	92.1*	0.0*	7.9*	100	41.6*	58.4*	0.0*	100	37.2	43.5	19.3	100
Andhra Pradesh	47.8	23.8	28.4	100	55.2	32.3	12.5	100	61.1	28.7	10.3	100
Telangana	40.4	42.7	16.9	100	66.0	27.2	6.7	100	53.9	33.4	12.7	100
Karnataka	47.6	28.3	24.1	100	41.8	26.5	31.7	100	46.3	26.3	27.4	100
Kerala	30.3	28.7	41.0	100	39.9	16.5	43.5	100	48.6	28.1	23.3	100
Tamil Nadu	58.9	21.5	19.6	100	58.1	23.6	18.3	100	54.4	25.7	19.9	100
Puducherry	47.8	25.5	26.7	100	62.8*	22.2*	15.0*	100	49.0	29.9	21.1	100

Note: *Based on less than 25 unweighted cases

Appendix A-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, by states/UTs, GATS-2, India, 2016-2017

State/UT	Adults exposed to second-hand smoke at work[1]	
	Overall	Non-smoker
India	30.2	26.2
Jammu & Kashmir	57.5	51.8
Himachal Pradesh	20.5	17.4
Punjab	23.3	18.4
Chandigarh	20.0	18.0
Uttarakhand	24.5	18.1
Haryana	52.9	44.1
Delhi	20.4	18.0
Rajasthan	25.3	23.2
Uttar Pradesh	35.7	30.9
Chhattisgarh	21.3	21.9
Madhya Pradesh	38.0	35.5
West Bengal	57.5	51.2
Jharkhand	34.0	29.0
Odisha	16.7	15.0
Bihar	16.8	15.6
Sikkim	21.9	18.4
Arunachal Pradesh	19.7	17.3
Nagaland	26.5	24.1
Manipur	43.3	36.6
Mizoram	44.4	29.5
Tripura	25.0	21.4
Meghalaya	45.7	40.2
Assam	30.8	25.2
Gujarat	20.9	20.3
Maharashtra	20.1	19.7
Goa	17.9	17.3
Andhra Pradesh	43.3	40.0
Telangana	30.9	28.7
Karnataka	24.8	22.9

Kerala	20.8	16.9
Tamil Nadu	20.2	18.0
Puducherry	25.3	23.1

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

Appendix A-6.2: 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, by states/UTs, GATS-2, India, 2016-2017

	Adults who reported that smoking is allowed in home		Adults exposed to second-hand smoke at home (once in a month)		Adults exposed to second-hand smoke at home (any time)	
State/UT	**Overall**	**Non-smoker**	**Overall**	**Non-smoker**	**Overall**	**Non-smoker**
India	48.8	45.5	29.4	25.7	38.7	35.0
Jammu & Kashmir	78.1	74.1	67.9	61.5	73.3	68.0
Himachal Pradesh	49.1	44.1	25.4	20.7	32.9	27.4
Punjab	35.0	30.8	27.0	22.6	31.4	26.9
Chandigarh	37.7	33.5	21.4	16.6	28.2	23.8
Uttarakhand	64.0	59.7	40.1	34.6	62.2	57.8
Haryana	71.5	65.7	59.4	51.9	65.2	58.1
Delhi	43.2	39.4	28.4	23.7	38.4	34.2
Rajasthan	52.5	48.7	32.2	29.3	38.8	36.3
Uttar Pradesh	65.4	61.4	40.7	36.2	59.1	55.0
Chhattisgarh	40.2	40.1	31.2	30.9	35.0	34.7
Madhya Pradesh	71.0	68.7	48.2	44.9	65.0	62.3
West Bengal	74.4	71.7	49.5	44.2	56.1	51.2
Jharkhand	47.6	44.8	23.1	19.5	32.0	28.4
Odisha	42.5	41.1	19.2	16.8	26.4	24.3
Bihar	47.1	45.1	30.2	28.1	38.5	36.4
Sikkim	47.0	43.0	13.4	8.0	17.5	12.0
Arunachal Pradesh	55.6	51.4	41.2	35.0	49.8	45.2
Nagaland	74.0	71.3	43.0	38.1	67.6	64.2
Manipur	79.6	76.9	46.0	40.5	75.4	71.7
Mizoram	85.3	79.0	81.0	73.7	84.1	77.5
Tripura	76.3	70.1	56.9	49.5	71.0	62.9
Meghalaya	78.6	72.1	69.5	61.6	76.8	69.9
Assam	49.2	45.7	31.0	26.2	39.8	35.4
Gujarat	64.1	61.8	33.5	29.6	37.9	34.3

Maharashtra	33.9	32.8	10.9	9.6	19.9	18.5
Goa	27.7	25.6	10.0	7.7	13.9	11.5
Andhra Pradesh	22.7	18.6	10.0	7.6	15.6	10.8
Telangana	26.5	24.0	11.1	9.4	16.6	13.9
Karnataka	29.4	26.2	19.2	16.3	25.2	22.2
Kerala	27.5	25.9	12.8	10.6	16.0	13.7
Tamil Nadu	13.6	11.1	6.7	5.4	11.0	9.3
Puducherry	6.3	5.0	3.9	3.1	5.1	4.0

Appendix A-6.3: 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, by states/UTs, GATS-2, India, 2016-2017

	Adults1 exposed to second-hand smoke at							Adults[1]exposed to second-hand smoke at any public place
	Government building	Private office	Health care facility	Restaurant	Public transportation	Night club/bar	Cinema hall	
India	5.3	3.6	5.6	7.4	13.3	2.1	2.2	25.7
Jammu & Kashmir	11.3	8.3	13.8	9.0	23.7	0.3	0.2	36.4
Himachal Pradesh	3.1	3.2	2.4	4.7	4.7	1.0	0.2	13.7
Punjab	3.5	2.4	3.8	2.0	9.0	0.4	0.3	17.5
Chandigarh	4.5	3.2	3.4	2.4	4.5	0.9	0.7	14.8
Uttarakhand	5.6	3.6	5.7	18.4	15.5	5.5	1.3	37.1
Haryana	10.5	7.9	11.9	6.0	25.4	1.9	3.1	34.2
Delhi	6.7	4.4	8.8	3.6	17.3	0.9	1.0	30.3
Rajasthan	6.3	4.3	8.7	5.3	15.8	3.8	0.9	27.2
Uttar Pradesh	9.3	5.1	9.8	13.2	21.7	3.8	1.4	37.5
Chhattisgarh	8.7	3.3	7.5	5.7	11.2	1.5	1.2	24.4
Madhya Pradesh	6.3	3.2	6.5	8.7	12.6	1.9	0.8	26.6
West Bengal	5.3	5.0	5.3	4.0	14.7	0.6	0.3	24.4
Jharkhand	4.4	2.6	4.2	9.8	13.7	2.1	1.0	24.7
Odisha	3.5	1.6	2.2	3.5	3.4	0.2	1.2	11.3
Bihar	5.7	4.3	4.1	4.2	15.9	0.2	0.5	24.4
Sikkim	4.5	6.4	2.6	14.7	12.7	1.6	4.1	25.5
Arunachal Pradesh	5.9	3.6	2.8	14.5	6.2	0.7	1.2	22.8

Nagaland	10.7	9.6	3.6	8.8	12.4	1.0	0.1	25.7
Manipur	6.7	3.8	1.3	15.5	14.9	5.2	2.0	33.1
Mizoram	2.6	5.7	1.1	10.7	8.6	2.4	0.3	23.2
Tripura	5.5	1.3	1.0	0.7	10.6	0.1	0.0	14.3
Meghalaya	4.1	2.7	4.1	21.3	13.1	1.3	0.3	29.1
Assam	2.5	1.4	1.7	8.2	6.7	0.5	0.5	16.1
Gujarat	3.3	3.6	3.0	2.5	14.5	0.7	0.3	21.6
Maharashtra	3.8	2.9	5.2	5.4	12.1	1.9	2.4	22.9
Goa	2.4	2.4	2.8	5.1	6.6	1.7	0.6	16.3
Andhra Pradesh	1.7	1.3	1.9	10.4	7.6	4.2	7.7	22.4
Telangana	3.9	3.2	4.0	11.2	6.2	2.9	7.8	24.0
Karnataka	3.4	2.6	4.6	14.0	9.6	3.2	7.5	28.7
Kerala	1.8	2.0	3.4	6.6	5.1	1.2	4.3	17.1
Tamil Nadu	2.7	2.1	2.4	3.3	5.8	3.4	4.4	18.7
Puducherry	4.5	5.9	3.9	6.9	7.7	8.9	6.9	26.3
Note:[1] Those who have visited in the past 30 days.								

Appendix A-7.1: Percent distribution of current cigarette smokers age 15 and above by source of last purchase of cigarette, by states/UTs, GATS-2, India, 2016-2017

State/UT	Store	Street vendor	Kiosk/ *pan* shop	Others[1]	Total
India	50.8	9.2	38.7	1.4	100
Jammu & Kashmir	86.5	5.6	6.2	1.8	100
Himachal Pradesh	92.0	0.0	1.7	6.2	100
Punjab	85.2	0.0	14.8	0.0	100
Chandigarh	40.9	14.1	45.0	0.0	100
Uttarakhand	50.9	0.0	49.1	0.0	100
Haryana	73.0	5.5	13.6	7.9	100
Delhi	35.7	21.3	41.9	1.1	100
Rajasthan	97.5	0.0	2.5	0.0	100
Uttar Pradesh	39.8	0.0	58.1	2.1	100
Chhattisgarh	71.8*	2.5*	25.7*	0.0*	100
Madhya Pradesh	32.9	0.0	67.1	0.0	100
West Bengal	22.3	15.9	59.0	2.7	100
Jharkhand	56.5	10.3	32.2	0.9	100
Odisha	14.4	2.7	82.9	0.0	100
Bihar	67.9	8.3	23.8	0.0	100
Sikkim	33.9	2.5	63.1	0.4	100
Arunachal Pradesh	31.0	44.7	24.0	0.3	100
Nagaland	13.4	44.5	42.2	0.0	100
Manipur	20.7	1.3	76.6	1.3	100
Mizoram	93.9	6.1	0.0	0.0	100
Tripura	33.6	64.9	1.5	0.0	100
Meghalaya	20.6	30.2	38.1	11.1	100
Assam	51.2	1.8	47.0	0.0	100
Gujarat	40.7*	0.0*	59.3*	0.0*	100
Maharashtra	27.9	5.9	66.2	0.0	100
Goa	64.2	2.0	27.1	6.6	100

Andhra Pradesh	62.3	34.7	3.0	0.0	100
Telangana	70.4	16.3	13.4	0.0	100
Karnataka	33.3	11.9	52.2	2.6	100
Kerala	73.8	8.9	15.6	1.7	100
Tamil Nadu	80.7	5.9	13.4	0.0	100
Puducherry	66.0	31.7	1.4	0.9	100

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

Appendix A-7.2: Percent distribution of current *bidi* smoker age 15 and above by source of last purchase of *bidi*, by states/UTs, GATS-2, India, 2016-2017

State/UT	Store	Street vendor	Kiosk	Others[1]	Total
India	60.4	7.0	31.8	0.7	100
Jammu & Kashmir	98.3	1.7	0.0	0.0	100
Himachal Pradesh	97.5	0.5	1.8	0.2	100
Punjab	89.1	7.0	4.0	0.0	100
Chandigarh	61.5	12.6	24.8	1.1	100
Uttarakhand	62.1	0.0	36.5	1.4	100
Haryana	71.4	5.2	23.2	0.2	100
Delhi	43.1	14.7	39.6	2.6	100
Rajasthan	98.0	0.0	0.8	1.2	100
Uttar Pradesh	55.5	1.4	42.9	0.1	100
Chhattisgarh	79.8	0.6	19.7	0.0	100
Madhya Pradesh	74.1	8.5	17.0	0.4	100
West Bengal	28.6	11.5	58.1	1.8	100
Jharkhand	82.7	1.9	15.4	0.0	100
Odisha	19.2	6.7	73.0	1.0	100
Bihar	75.3	0.0	22.7	2.0	100
Sikkim	50.5	0.0	49.5	0.0	100
Arunachal Pradesh	51.0	32.4	15.9	0.8	100
Nagaland	27.9	10.4	61.8	0.0	100
Manipur	24.3	2.9	69.4	3.4	100
Mizoram	75.1*	0.0*	24.9*	0.0*	100

Tripura	36.9	62.5	0.6	0.0	100
Meghalaya	9.2	28.8	55.5	6.4	100
Assam	64.8	1.9	33.2	0.0	100
Gujarat	58.1	0.7	40.4	0.8	100
Maharashtra	74.5	3.1	22.4	0.0	100
Goa	84.2	11.3	4.5	0.0	100
Andhra Pradesh	67.7	31.5	0.8	0.0	100
Telangana	64.9	25.9	7.9	1.3	100
Karnataka	40.7	8.8	50.2	0.3	100
Kerala	87.0	10.8	1.4	0.8	100
Tamil Nadu	67.7	11.4	20.9	0.0	100
Puducherry	58.5	39.5	2.0	0.0	100

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

Appendix A-7.3: Percent distribution of current users of smokeless tobacco age 15 and above by source of last purchase of smokeless tobacco, by states/UTs, GATS-2, India, 2016-2017

State/UT	Store	Street vendor	Kiosk/ *pan* shop	Others[1]	Total
India	55.6	6.8	35.8	1.7	100
Jammu & Kashmir	95.4	1.8	1.1	1.7	100
Himachal Pradesh	95.9	0.9	3.2	0.0	100
Punjab	87.9	5.5	6.6	0.0	100
Chandigarh	44.7	15.4	40.0	0.0	100
Uttarakhand	50.9	0.3	48.8	0.0	100
Haryana	66.6	4.3	26.5	2.6	100
Delhi	38.0	23.4	38.0	0.6	100
Rajasthan	97.7	0.2	1.5	0.6	100
Uttar Pradesh	49.6	0.5	48.9	0.9	100
Chhattisgarh	83.2	1.6	12.3	2.9	100
Madhya Pradesh	63.6	13.4	21.2	1.8	100

West Bengal	22.2	11.7	61.5	4.6	100
Jharkhand	65.0	10.2	20.5	4.3	100
Odisha	30.8	4.9	62.9	1.4	100
Bihar	68.8	0.2	29.7	1.3	100
Sikkim	33.2	4.2	62.6	0.0	100
Arunachal Pradesh	49.9	29.4	16.7	4.0	100
Nagaland	14.3	12.3	71.5	1.9	100
Manipur	30.4	1.4	67.3	1.0	100
Mizoram	91.4	8.3	0.0	0.2	100
Tripura	37.4	61.2	1.4	0.0	100
Meghalaya	40.5	20.4	31.2	7.8	100
Assam	67.8	3.4	25.8	3.0	100
Gujarat	48.0	2.3	48.7	1.0	100
Maharashtra	59.9	5.6	33.9	0.6	100
Goa	80.6	10.2	9.1	0.0	100
Andhra Pradesh	35.4	60.1	2.0	2.5	100
Telangana	74.2	16.2	5.3	4.3	100
Karnataka	58.2	4.3	36.2	1.3	100
Kerala	61.0	22.5	13.0	3.4	100
Tamil Nadu	58.3	24.8	15.1	1.8	100
Puducherry	57.6	34.8	7.6	0.0	100

Note: [1] Includes vending machine, military store, duty free shop, outside country purchase, from

Appendix A-7.4: Average tobacco expenditure (in ₹) in the last purchase incurred by current cigarette smoker, *bidi* smoker and user of smokeless tobacco, by states/UTs, GATS-2, India, 2016-2017

State/UT	Tobacco expenditure in the last purchase (in ₹)		
	Cigarette	*Bidi*	Smokeless tobacco
India	29.96	12.50	12.76
Jammu & Kashmir	82.73	11.90	10.49*
Himachal Pradesh	18.73	11.41	0.00*
Punjab	29.45	9.96	11.51*

Chandigarh	30.36	9.47	6.80*
Uttarakhand	17.28	11.71	7.47*
Haryana	70.39	13.61	132.87*
Delhi	25.34	12.23	7.70*
Rajasthan	22.29	25.87	8.97*
Uttar Pradesh	12.94	7.13	10.32
Chhattisgarh	22.52*	9.81	9.53
Madhya Pradesh	11.22	9.85	20.62
West Bengal	30.99	9.38	8.68
Jharkhand	18.99	4.65	9.72
Odisha	17.46	6.10	14.71
Bihar	14.97	11.00	8.72
Sikkim	45.82	17.73	6.75*
Arunachal Pradesh	36.52	17.27	21.06
Nagaland	65.54	30.83	22.82
Manipur	18.60	11.80	11.08
Mizoram	36.18	41.61*	23.80*
Tripura	28.67	11.91	12.99
Meghalaya	31.59	12.89	13.27
Assam	13.90	8.27	10.85
Gujarat	29.95*	21.58	13.84
Maharashtra	38.17	11.22	22.63
Goa	48.75	18.80	26.65*
Andhra Pradesh	37.20	21.01	13.87
Telangana	44.46	16.96	10.66
Karnataka	37.38	13.92	12.98
Kerala	26.32	12.52	15.50
Tamil Nadu	44.75	22.33	12.28
Puducherry	52.67	13.23	19.03*

Appendix A-7.5: Average monthly expenditure (in ₹) incurred by daily smoker of manufactured cigarette and *bidi*, by states/UTs, GATS-2, India, 2016-2017		
State/UT	**Monthly expenditure incurred by current manufactured cigarette and *bidi* smokers (in ₹)**	
	Cigarette	***Bidi***
India	1192.45	284.12
Jammu & Kashmir	2622.46	197.04
Himachal Pradesh	610.84*	245.85
Punjab	2616.05*	131.93
Chandigarh	1290.3	139.41
Uttarakhand	515.54	193.92
Haryana	1349.42*	184.18
Delhi	1528.6	560.01
Rajasthan	835.05*	423.38
Uttar Pradesh	727.91	159.63
Chhattisgarh	473.23*	217.79
Madhya Pradesh	467.80*	117.47
West Bengal	970.38	390.46
Jharkhand	659.49	135.06
Odisha	625.92*	200.25
Bihar	690.96*	106.46
Sikkim	1349.05	508.26
Arunachal Pradesh	1240.7	330.58
Nagaland	1473.9	265.53
Manipur	351.21	135.81
Mizoram	712.61	256.14*
Tripura	803.32	316.64
Meghalaya	1191.97	181.38
Assam	799.41	786.62
Gujarat	755.59*	447.66

Maharashtra	1028.33*	255.28
Goa	530.89*	186.57*
Andhra Pradesh	1217.33	158.16
Karnataka	1005.24	212.94
Kerala	1802.2	352.92
Tamil Nadu	1166.02	351.01
Puducherry	1343.76	522.74
Note: Extreme values (in `) for average monthly expenditure of cigarettes and *bidis*have been excluded from the analysis.		

Appendix A-8.1: 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, by states/UTs, GATS-2, India, 2016-2017

	Anti-smoking information			Anti smokeless tobacco information		
	Overall	Current smoker	Current non-smoker	Overall	Current user of smokeless tobacco	Current non-user of smokeless tobacco
India	76	75	76.1	67.3	62.9	68.5
Jammu & Kashmir	73	73.6	72.9	56.3	58.9	56.1
Himachal Pradesh	88.2	86.1	88.5	83.2	80.3	83.3
Punjab	85.5	90	85.2	74.2	76.1	74
Chandigarh	94.1	95.2	94	84.9	83	85
Uttarakhand	85.5	80	86.7	78.8	82.8	78.3
Haryana	80.5	81.8	80.1	73.2	82.4	72.5
Delhi	88.9	80.8	90	76.7	69.4	77.3
Rajasthan	64.3	63.1	64.5	59.9	67.3	58.7
Uttar Pradesh	69.2	66.3	69.6	64.6	63.9	64.8
Chhattisgarh	80.1	90.4	79.5	73.7	66.5	77.7
Madhya Pradesh	68.2	71.5	67.8	62.4	56.3	64.8
West Bengal	79.7	86.9	78.2	65.4	60.1	66.8
Jharkhand	59.3	64.8	58.7	53.9	53	54.4
Odisha	64.8	64.2	64.9	54.3	51.3	56.5
Bihar	59.7	48.4	60.3	54.7	63.4	52.1
Sikkim	77.8	91.5	76.1	62.9	71	62
Arunachal Pradesh	70.3	72.7	69.6	65.9	71.5	62.2
Nagaland	67.1	60	68.2	57.4	56	58.2
Manipur	76.4	80.4	75.4	58.7	59.6	57.9
Mizoram	79.8	78.2	80.7	37.7	36	38.6
Tripura	80.7	81	80.6	68.6	67.9	69.2
Meghalaya	76.9	69.2	80.5	50.7	49.3	51.1
Assam	57.7	63.4	56.9	46.1	49.4	43.7
Gujarat	65.9	60.4	66.3	54.5	57.1	53.8
Maharashtra	88.5	76.2	89	80.7	73.5	83.1
Goa	94.6	91.6	94.8	84.8	63.3	86.3

Andhra Pradesh	89.7	81.5	91.1	84.1	73.1	84.9
Telangana	87.8	82.5	88.3	78.4	72	79.2
Karnataka	88.3	88	88.3	79.2	70.5	80.9
Kerala	91.9	90	92.1	74.3	63.8	74.9
Tamil Nadu	90.1	94.3	89.6	73.9	69.6	74.4
Puducherry	95.4	91.9	95.6	86.4	69.9	87.2

Appendix A-8.2: Percentage of adults age 15 and above who noticed smoking tobacco marketing during the last 30 days at any place by status of smoking, by states/UTs, GATS-2, India, 2016-17

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	19.2	8.0	22.3	23.7	14.4	30.0	18.7	7.2	21.3
Jammu & Kashmir	24.1	12.1	29.2	20.7	18.8	27.1	25.0	10.4	29.7
Himachal Pradesh	15.3	7.3	19.8	16.0	9.4	21.8	15.1	7.0	19.4
Punjab	15.3	8.5	19.1	24.2	21.8	38.0	14.6	7.5	17.6
Chandigarh	9.4	4.8	12.8	8.4	8.2	14.1	9.5	4.4	12.6
Uttarakhand	22.7	10.8	28.7	26.5	17.9	36.0	21.8	9.2	27.1
Haryana	22.4	18.4	30.6	29.5	40.3	49.2	20.6	13.0	26.0
Delhi	37.6	21.5	42.8	42.1	28.1	51.6	37.1	20.6	41.7
Rajasthan	15.4	6.6	18.7	10.9	12.3	17.2	16.1	5.7	18.9
Uttar Pradesh	33.1	19.0	39.5	33.9	26.1	43.7	32.9	17.8	38.8
Chhattisgarh	17.4	2.8	18.2	13.8	2.3	14.3	17.6	2.9	18.4
Madhya Pradesh	3.6	4.1	7.1	2.2	7.8	9.5	3.8	3.7	6.8
West Bengal	37.0	10.4	39.8	43.7	14.9	48.9	35.6	9.5	38.0
Jharkhand	15.2	3.3	16.8	16.2	3.2	17.6	15.1	3.3	16.7
Odisha	36.4	10.4	37.4	29.4	14.6	30.4	36.9	10.0	38.0
Bihar	4.6	2.7	6.0	4.0	4.0	7.7	4.6	2.6	5.9

Sikkim	16.3	2.4	17.6	19.3	3.3	21.6	15.9	2.3	17.2
Arunachal Pradesh	35.5	8.5	38.3	49.0	20.6	56.8	31.5	4.9	32.8
Nagaland	17.5	9.1	25.9	27.0	12.9	37.6	16.0	8.6	24.1
Manipur	1.4	8.5	9.7	0.5	11.2	11.7	1.6	7.7	9.2
Mizoram	11.8	9.9	21.4	16.1	15.2	30.6	9.5	7.2	16.5
Tripura	25.0	13.1	30.4	32.6	21.5	40.6	22.1	9.9	26.5
Meghalaya	4.5	9.3	11.9	8.2	16.3	20.8	2.8	6.1	7.8
Assam	23.5	6.8	25.8	22.0	12.3	26.9	23.7	6.0	25.6
Gujarat	29.6	9.6	31.5	32.6	9.3	36.5	29.3	9.6	31.1
Maharashtra	11.6	3.2	13.7	17.2	8.9	21.3	11.4	3.0	13.4
Goa	30.0	9.7	35.5	22.9	20.5	36.8	30.3	9.3	35.4
Andhra Pradesh	1.9	0.5	2.4	3.6	1.5	5.1	1.6	0.3	2.0
Telangana	9.8	1.6	10.9	12.6	3.2	15.4	9.6	1.5	10.5
Karnataka	25.8	4.4	27.3	40.0	9.4	41.6	24.4	3.9	26.0
Kerala	6.2	4.9	10.3	7.0	5.0	10.4	6.1	4.9	10.3
Tamil Nadu	5.2	1.7	6.1	10.8	3.6	13.8	4.5	1.4	5.2
Puducherry	10.7	0.7	11.0	10.7	0.0	10.7	10.7	0.7	11.0

Appendix A-8.3: 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, by states/UTs, GATS-2, India, 2016-17

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	18.3	5.7	20.5	21.4	8.0	24.3	17.5	5.1	19.5

Jammu & Kashmir	18.0	6.7	20.4	10.5	6.2	15.6	18.4	6.7	20.7
Himachal Pradesh	13.2	2.7	15.0	18.2	2.3	20.4	13.1	2.7	14.8
Punjab	15.4	4.5	17.1	16.7	7.9	21.6	15.3	4.2	16.8
Chandigarh	9.2	2.9	11.2	10.0	2.2	12.2	9.2	3.0	11.1
Uttarakhand	27.5	9.6	32.3	33.3	15.4	40.0	26.7	8.7	31.2
Haryana	21.8	10.7	24.5	36.6	27.5	40.6	20.8	9.5	23.4
Delhi	30.8	12.0	33.8	23.2	11.0	27.8	31.5	12.1	34.4
Rajasthan	17.4	3.7	18.9	21.7	6.4	24.2	16.7	3.3	18.0
Uttar Pradesh	33.9	11.9	36.7	36.2	13.9	38.9	33.0	11.1	35.9
Chhattisgarh	16.4	1.7	17.2	13.8	1.9	14.2	17.9	1.6	18.9
Madhya Pradesh	3.7	9.6	12.2	4.8	11.3	15.0	3.3	9.0	11.1
West Bengal	35.9	4.1	36.6	38.7	3.5	39.5	35.1	4.2	35.8
Jharkhand	15.4	3.0	16.4	16.6	3.8	17.5	14.8	2.5	15.7
Odisha	38.6	9.3	39.8	34.7	11.5	36.1	41.6	7.7	42.6
Bihar	4.9	2.5	6.4	4.3	3.2	5.7	5.1	2.3	6.6
Sikkim	12.2	1.5	13.6	5.8	0.3	6.1	12.9	1.7	14.5
Arunachal Pradesh	31.1	5.3	32.8	44.2	10.0	47.1	22.6	2.2	23.5
Nagaland	15.4	7.6	22.8	15.4	13.5	28.6	15.4	3.8	19.0
Manipur	0.8	3.2	3.9	0.6	3.8	4.4	1.0	2.7	3.5
Mizoram	8.1	4.0	11.8	5.2	4.8	9.6	9.5	3.5	12.9
Tripura	19.7	4.4	22.8	20.7	7.1	26.1	18.8	1.9	19.6
Meghalaya	2.7	5.5	7.7	6.6	8.9	13.2	1.7	4.6	6.2
Assam	21.2	5.7	24.2	18.3	7.8	22.6	23.3	4.2	25.4
Gujarat	28.5	12.0	32.9	30.8	15.4	38.5	28.0	11.3	31.6
Maharashtra	8.4	2.6	10.1	8.8	4.0	10.7	8.3	2.2	9.9
Goa	24.6	5.1	28.2	21.5	14.6	30.9	24.8	4.5	28.0
Andhra Pradesh	1.1	0.2	1.3	4.3	0.0	4.3	0.9	0.2	1.1

Telangana	8.7	1.1	9.5	10.4	2.0	11.3	8.6	1.0	9.3
Karnataka	22.2	3.9	23.3	23.6	5.5	24.9	21.9	3.6	23.0
Kerala	1.6	1.1	2.7	4.4	0.2	4.7	1.4	1.2	2.5
Tamil Nadu	3.5	0.9	4.2	2.9	0.1	3.0	3.6	1.0	4.3
Puducherry	9.9	0.4	10.2	0.9	0.0	0.9	10.4	0.5	10.6

Appendix A-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, by states/UTs, GATS-2, India, 2016-2017

State/UT	Overall					Current smoker					Current non-smoker				
	Serious illness	Stroke	Heart attack	Lung cancer	Tuber-culosis	Serious illness	Stroke	Heart attack	Lung cancer	Tuber-culosis	Serious illness	Stroke	Heart attack	Lung cancer	Tuber-culosis
India	92.4	65.8	76.7	93.5	92.3	91.3	62.9	74.7	91.8	92.6	92.6	66.1	76.9	93.7	92.3
Jammu & Kashmir	91.5	83.8	90.3	96.9	97.5	94.4	83.4	87.8	96.3	95.9	90.7	83.9	90.9	97.1	98.0
Himachal Pradesh	95.6	78.0	85.5	96.7	96.8	96.5	67.9	81.8	95.0	95.7	95.4	79.7	86.1	97.0	97.0
Punjab	94.6	65.9	75.0	97.0	97.6	81.9	61.6	69.2	96.0	99.2	95.6	66.3	75.5	97.1	97.4
Chandigarh	94.1	78.7	88.4	99.3	97.8	90.4	76.6	91.5	100.0	98.3	94.5	78.9	88.0	99.2	97.8
Uttarakhand	98.3	49.4	74.0	97.5	97.1	98.2	49.4	71.5	95.9	95.5	98.3	49.4	74.5	97.9	97.4
Haryana	92.6	68.8	77.2	95.8	97.6	90.8	65.7	71.2	93.7	98.2	93.1	69.5	78.7	96.3	97.5
Delhi	92.9	48.7	78.7	96.9	96.8	92.9	46.4	81.4	97.0	96.1	92.9	49.0	78.4	96.9	96.9
Rajasthan	94.6	64.3	72.9	91.1	91.8	92.5	60.3	67.2	84.5	86.0	94.9	64.9	73.8	92.1	92.7
Uttar Pradesh	95.4	50.5	66.0	95.2	93.7	95.5	49.1	64.5	92.3	94.1	95.3	50.7	66.3	95.7	93.6
Chhattisgarh	96.4	64.7	74.2	96.0	95.4	97.5	65.1	70.3	98.7	98.3	96.4	64.7	74.4	95.9	95.2
Madhya Pradesh	88.6	74.9	79.3	93.5	94.8	82.9	68.8	74.7	87.8	93.4	89.3	75.6	79.8	94.1	94.9
West Bengal	96.3	80.8	85.3	95.9	93.7	97.4	84.4	88.1	97.7	97.3	96.0	80.1	84.7	95.5	93.0
Jharkhand	77.4	58.0	68.6	86.2	91.1	70.9	48.5	63.8	88.0	96.3	78.3	59.2	69.1	85.9	90.4

Odisha	89.2	56.1	66.9	85.8	78.4	90.8	56.8	69.1	80.5	84.2	89.0	56.1	66.8	86.2	78.0
Bihar	96.8	62.5	70.3	93.9	94.3	95.4	56.5	67.6	93.0	96.6	96.8	62.8	70.4	94.0	94.2
Sikkim	77.6	74.0	81.2	95.2	94.4	74.0	69.9	72.6	90.5	90.8	78.0	74.5	82.3	95.8	94.8
Arunachal Pradesh	90.5	67.3	70.7	91.4	85.8	88.5	56.8	58.9	84.8	77.3	91.1	70.4	74.2	93.3	88.3
Nagaland	88.9	83.7	84.7	94.0	95.1	86.2	84.8	80.8	94.6	90.9	89.3	83.5	85.3	93.9	95.7
Manipur	94.9	63.4	76.6	93.3	97.5	95.3	57.1	67.0	85.3	96.7	94.8	65.1	79.2	95.4	97.7
Mizoram	96.7	91.1	89.7	97.4	96.5	96.3	88.8	85.0	96.6	96.9	96.8	92.3	92.2	97.8	96.3
Tripura	96.1	92.1	92.1	96.1	96.5	95.9	86.9	86.9	94.2	93.9	96.1	94.0	94.1	96.9	97.5
Meghalaya	91.0	60.3	83.7	92.0	94.2	85.9	59.2	79.8	86.6	91.4	93.3	60.9	85.4	94.5	95.5
Assam	90.2	52.8	66.6	86.9	89.0	91.2	51.8	69.3	86.4	86.3	90.0	52.9	66.2	87.0	89.4
Gujarat	82.7	59.8	77.0	90.1	82.2	80.3	48.2	77.7	88.6	80.6	82.9	60.8	76.9	90.2	82.3
Maharashtra	92.2	80.8	88.6	95.4	93.1	84.9	69.5	84.2	91.3	83.3	92.5	81.3	88.8	95.5	93.5
Goa	89.3	85.4	90.8	96.8	93.8	87.6	91.3	91.1	96.3	94.8	89.4	85.1	90.8	96.8	93.8
Andhra Pradesh	96.5	85.7	92.5	96.4	96.1	94.2	76.1	83.1	92.9	93.1	96.9	87.3	94.1	96.9	96.6
Telangana	94.1	80.6	86.4	94.9	95.5	93.2	75.8	85.0	94.4	95.1	94.2	81.1	86.6	95.0	95.6
Karnataka	86.4	57.5	70.5	90.4	87.2	82.3	54.1	68.3	91.7	87.2	86.8	57.8	70.7	90.2	87.2
Kerala	93.9	53.2	74.0	90.9	90.9	90.3	47.1	67.0	78.8	83.8	94.2	53.8	74.8	92.2	91.6
Tamil Nadu	91.1	68.6	82.7	93.2	91.7	90.4	76.4	89.1	96.6	96.4	91.2	67.7	82.0	92.8	91.2
Puducherry	96.4	73.3	88.4	96.9	93.8	94.8	58.2	82.7	93.7	88.5	96.6	74.5	88.8	97.2	94.2

Appendix A-9.2: Percentage of adult age 15 and above who believe that use of smokeless tobacco causes serious illness, oral cancer, dental diseases and serious illness during pregnancy by status of smokeless tobacco use, by states/UTs, GATS-2, India, 2016-2017

	Who believe that use of smokeless tobacco causes											
	Overall				Current users of smokeless tobacco				Current non- users of smokeless tobacco			
State/UT	Serious illness	Oral cancer	Dental diseases	Use of smokeless tobacco during pregnancy causes serious illness	Serious illness	Oral cancer	Dental diseases	Smokeless tobacco use during pregnancy causes serious illness	Serious illness	Oral cancer	Dental diseases	Use of smokeless tobacco during pregnancy causes serious illness
India	95.6	94.4	90.7	87.9	94.0	92.3	88.9	83.5	96.1	95.0	91.2	89.1
Jammu & Kashmir	94.8	93.9	92.4	91.0	87.4	92.4	89.3	83.4	95.1	94.0	92.6	91.4
Himachal Pradesh	98.1	97.5	96.9	97.1	96.7	95.4	99.1	96.1	98.1	97.6	96.8	97.2
Punjab	98.3	97.4	94.0	93.3	98.7	97.2	96.1	91.7	98.3	97.4	93.9	93.4
Chandigarh	99.2	99.5	98.9	98.1	98.6	100.0	99.7	90.6	99.3	99.4	98.9	98.6
Uttarakhand	99.2	97.9	94.8	97.1	99.2	98.8	93.7	94.4	99.2	97.8	95.0	97.5
Haryana	97.8	96.2	95.5	92.1	97.4	93.4	87.7	86.2	97.9	96.4	96.0	92.5
Delhi	97.9	97.9	96.6	96.9	94.2	95.6	93.3	94.2	98.2	98.1	96.9	97.2
Rajasthan	95.7	92.2	93.1	89.2	94.9	90.7	91.5	86.0	95.8	92.4	93.3	89.7
Uttar Pradesh	97.9	97.0	92.2	94.4	96.8	95.6	91.1	93.0	98.4	97.5	92.7	94.9
Chhattisgarh	98.2	98.0	94.8	94.7	97.6	97.3	92.7	91.9	98.5	98.4	96.0	96.2
Madhya Pradesh	96.5	96.4	94.0	86.9	94.9	96.0	93.9	81.9	97.2	96.6	94.0	88.9
West Bengal	95.7	94.1	84.2	90.2	94.7	92.0	86.9	86.1	95.9	94.6	83.6	91.3
Jharkhand	91.2	89.8	84.7	70.1	89.6	89.7	80.6	59.6	92.0	89.9	86.9	75.8
Odisha	92.4	86.4	84.7	74.6	90.7	82.8	83.5	68.7	93.6	89.0	85.7	79.0
Bihar	98.0	95.6	96.5	92.6	98.9	96.7	98.5	92.6	97.7	95.2	95.9	92.6
Sikkim	93.1	95.4	96.1	91.7	94.8	95.4	92.6	93.4	92.9	95.4	96.5	91.6

Arunachal Pradesh	92.2	91.0	84.4	71.2	89.1	89.1	83.6	67.0	94.2	92.2	84.9	74.0
Nagaland	96.0	94.3	90.3	88.1	95.9	95.8	90.6	86.3	96.1	93.4	90.1	89.3
Manipur	99.0	95.1	92.6	95.5	98.9	95.4	91.4	96.4	99.1	94.9	93.6	94.6
Mizoram	96.7	97.1	95.0	92.8	96.9	97.1	94.7	91.6	96.7	97.1	95.2	93.4
Tripura	97.6	95.9	90.2	92.0	96.1	93.0	88.4	88.6	98.9	98.6	92.0	95.2
Meghalaya	94.2	87.8	73.6	90.2	93.7	86.0	64.7	91.4	94.4	88.2	75.9	89.9
Assam	91.1	84.8	76.8	77.7	90.1	82.8	76.7	78.8	91.8	86.3	76.9	76.9
Gujarat	91.6	92.5	90.1	82.2	91.0	92.0	90.6	79.0	91.7	92.7	90.0	83.0
Maharashtra	96.4	96.9	96.0	91.0	94.8	95.4	94.8	89.2	96.9	97.4	96.4	91.6
Goa	98.2	98.6	97.1	94.1	99.6	99.6	97.6	89.6	98.1	98.5	97.0	94.4
Andhra Pradesh	96.6	96.5	93.4	85.9	91.6	86.8	79.8	68.8	97.0	97.3	94.5	87.2
Telangana	96.9	95.9	96.3	85.9	87.7	88.6	89.9	75.1	97.9	96.7	97.0	87.1
Karnataka	89.1	90.6	79.7	69.7	82.4	85.0	71.2	52.7	90.5	91.7	81.4	73.0
Kerala	93.2	91.3	84.5	81.1	76.4	68.6	62.3	65.1	94.2	92.6	85.8	82.0
Tamil Nadu	95.1	93.1	87.0	90.7	92.0	88.8	82.2	80.7	95.5	93.6	87.6	91.9
Puducherry	97.6	97.4	86.4	94.7	91.2	88.0	57.0	80.1	98.0	97.8	87.9	95.4

Appendix A-9.3: 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, by states/UTs, GATS-2, India, 2016-2017

State/UT	Who believe that breathing other people's smoke causes serious illness in non-smokers			Who believe that breathing other people's smoke causes serious among children		
	Overall	Current smoker	Current non-smoker	Overall	Current smoker	Current non-smoker
India	92.4	91	92.6	93.3	91.8	93.5
Jammu & Kashmir	89.5	93.4	88.5	91.5	94.9	90.6
Himachal Pradesh	94.7	96.1	94.5	96.5	98.5	96.1
Punjab	96.5	96.8	96.5	96.9	97.8	96.8
Chandigarh	97.9	94.6	98.3	99.1	99.1	99.1
Uttarakhand	97.9	97.9	97.9	98.4	98.2	98.4
Haryana	94.7	93.9	94.8	96	95.2	96.1
Delhi	95.7	91.9	96.1	96	93.1	96.4
Rajasthan	91.7	85.5	92.7	93.1	86.2	94.1
Uttar Pradesh	94.4	93.4	94.6	95.9	94	96.1
Chhattisgarh	94.7	94.4	94.7	95.1	95.1	95.1
Madhya Pradesh	90.6	86.9	91	92.1	88.8	92.5
West Bengal	94.8	94.1	94.9	95.9	96.5	95.7
Jharkhand	84.2	85.4	84.1	84.5	80.3	85.1
Odisha	85.7	87.7	85.6	85.7	86	85.7
Bihar	96.7	93.2	96.9	96.4	92.8	96.6
Sikkim	83	81.7	83.1	87.8	88.6	87.7
Arunachal Pradesh	86.4	79.8	88.4	86.2	80.7	87.8
Nagaland	86.9	85.2	87.2	92.5	94.5	92.2
Manipur	98	97.9	98	97.7	97.5	97.7
Mizoram	93.6	92.2	94.3	95.5	94.2	96.1
Tripura	96.9	96.7	97	98.5	97.4	98.9
Meghalaya	94.3	90.3	96.2	95	91.3	96.8
Assam	87	88	86.8	90.9	92.6	90.6
Gujarat	88.1	82.2	88.5	88.7	83.1	89.2
Maharashtra	93.2	88.7	93.3	93.9	88	94.2
Goa	91.4	85.9	91.6	96.7	92.9	96.9
Andhra Pradesh	95.4	94.4	95.6	95.9	95.6	95.9
Telangana	94.9	94.3	95	95.3	94.6	95.3
Karnataka	84.8	77.1	85.5	84.9	80.7	85.3
Kerala	90.1	85.1	90.7	90.6	86.7	91

Tamil Nadu	93.2	96.8	92.8	93.4	94.2	93.3
Puducherry	96.7	94.9	96.8	97.1	97.5	97.1

Appendix B – Sample Design

Sample design text to be inserted

Appendix B-1.: Sample design implementation and number of households and PSUs selected, GATS India, 2016-2017

Region and state/UT	Population counts (2011 census)			Target sample size			Non response adjusted/inflated sample size					No. of sampled PSUs
	Total	Urban	Rural	Total	Urban	Rural	Total	Male	Female	Urban	Rural	
INDIA	1,21,05,69,573	37,71,06,125	83,34,63,448	76,500	28,108	48,392	84,047	39,284	44,763	30,821	53,226	2,547
Jammu & Kashmir	12541302	3433242	9108060	2500	685	1815	2673	1068	1605	726	1947	83
Himachal Pradesh	6864602	688552	6176050	2500	250	2250	2739	1095	1644	264	2475	83
Punjab	27743338	10399146	17344192	2500	938	1562	2739	1095	1644	1023	1716	83
Chandigarh	1055450	1026459	28991	2500	2432	68	2739	1095	1644	2673	66	83
Uttarakhand	10086292	3049338	7036954	2500	755	1745	2739	1095	1644	825	1914	83
Haryana	25351462	8842103	16509359	2500	873	1627	2739	1095	1644	957	1782	83
Delhi	16787941	16368899	419042	2500	2437	63	2739	1095	1644	2673	66	83
Rajasthan	68548437	17048085	51500352	3000	747	2253	3300	1650	1650	825	2475	100
Uttar Pradesh	199812341	44495063	155317278	3500	780	2720	3861	1930	1931	858	3003	117
Chhattisgarh	25545198	5937237	19607961	2000	464	1536	2211	1106	1105	495	1716	67
Madhya Pradesh	72626809	20069405	52557404	3000	828	2172	3300	1650	1650	924	2376	100
West Bengal	91276115	29093002	62183113	3000	957	2043	3300	1650	1650	1056	2244	100
Jharkhand	32988134	7933061	25055073	2000	480	1520	2211	1105	1106	528	1683	67
Odisha	41974218	7003656	34970562	2000	334	1666	2210	1105	1105	362	1848	66
Bihar	104099452	11758016	92341436	3000	339	2661	3300	1650	1650	363	2937	100
Sikkim	610577	153578	456999	1500	378	1122	1650	825	825	429	1221	50
Arunachal Pradesh	1383727	317369	1066358	1500	344	1156	1650	825	825	363	1287	50
Nagaland	1978502	570966	1407536	1500	434	1066	1650	825	825	462	1188	50
Manipur	2570390	834154	1736236	1500	488	1012	1647	823	824	528	1119	49
Mizoram	1097206	571771	525435	1500	782	718	1650	825	825	858	792	50
Tripura	3673917	961453	2712464	1500	393	1107	1650	825	825	429	1221	50
Meghalaya	2966889	595450	2371439	1500	302	1198	1650	825	825	330	1320	50
Assam	31205576	4398542	26807034	3000	423	2577	3300	1650	1650	462	2838	100
Gujarat	60439692	25745083	34694609	3000	1278	1722	3300	1650	1650	1419	1881	100
Maharashtra	112374333	50818259	61556074	3500	1582	1918	3861	1930	1931	1749	2112	117
Goa	1458545	906814	551731	2500	1555	945	2739	1095	1644	1716	1023	83
Andhra Pradesh	84580777	28219075	56361702	2000	668	1332	2211	1106	1105	726	1485	67
Telangana				2000	668	1332	2211	1106	1105	726	1485	67
Karnataka	61095297	23625962	37469335	3000	1161	1839	3300	1650	1650	1287	2013	100
Kerala	33406061	15934926	17471135	2500	1193	1307	2739	1095	1644	1320	1419	83
Tamil Nadu	72147030	34917440	37229590	3000	1452	1548	3300	1650	1650	1584	1716	100
Puducherry	1247953	852753	395200	2500	1708	792	2739	1095	1644	1881	858	83

Note: The following Union Territories (UTs) were excluded from India: Daman & Diu; Dadra Nagar Haveli; Andaman; and Lakshadweep.

Appendix C – Sampling Error

Sampling Error Text to be inserted

Appendix C-1: List of indicator for sampling errors, GATS India, 2016-2017		
Indicators	**Estimate**	**Base Population**
Current tobacco smokers		
Daily tobacco smokers		
Current cigarette smokers		
Current bidi smokers		
Current smokeless tobacco users		
Daily smokeless tobacco users		
Current 'betel quid with tobacco' users		
Current khaini users		
Current gutka users		
Current 'oral tobacco application' users		
Current 'pan masala with tobacco' users		
Current tobacco users (smoked and/or smokeless)		
Current dual tobacco users (smoked and smokeless)		
Smokers who made a quit attempt in past 12 months		
Current smokers who planned to or were thinking about quitting		
Smokers advised to quit by a heath care provider in past 12 months		
Smokeless tobacco users who made a quit attempt in past 12 months		
Current smokeless tobacco users who planned to or were thinking about quitting		
Smokeless tobacco users advised to quit by a heath care provider in past 12 months		
Adults exposed to tobacco smoke at home		
Adults exposed to tobacco smoke at the workplace		
Adults exposed to tobacco smoke at government buildings		
Adults exposed to tobacco smoke at private offices		
Adults exposed to tobacco smoke at health care facility		
Adults exposed to tobacco smoke at restaurants		
Adults exposed to tobacco smoke in public transportation		
Adults exposed to tobacco smoke at night club/bar		
Adults exposed to tobacco smoke at cinema		
Adults exposed to tobacco smoke at any of the seven public places		
Average monthly expenditure on cigarette (for daily cigarette smokers)(in Indian Rupees)		
Average monthly expenditure on bidi (for daily bidi smokers)(in Indian Rupees)		

Adults who noticed advertisements of smoking tobacco products at point of sale		
Adults who noticed advertisements of smoking tobacco products at places other than point of sale		
Adults who noticed any type of cigarette promotion		
Adults who noticed any type of bidi promotion		
Adults who noticed advertisements of smokeless tobacco products at point of sale		
Adults who noticed advertisements of smokeless tobacco products at places other than point of sale		
Adults who noticed any type of smokeless tobacco promotion		
Current cigarette smokers who thought about quitting because of a warning label		
Current bidi smokers who thought about quitting because of a warning label		
Current smokeless tobacco users who thought about quitting because of a warning label		
Adults who noticed anti-smoking tobacco warning on television or radio		
Adults who noticed anti-smokeless tobacco warning on television or radio		
Adults who believed smoking causes serious illness		
Adults who believed secondhand smoke causes serious illness		
Adults who believed secondhand smoke causes serious illness in children		
Adults who believed use of smokeless tobacco causes serious illness		
Adults who believed use of smokeless tobacco during pregnancy causes harm to foetus		

Appendix C-2: Sampling errors for national sample, GATS India, 2016-2017									
Indicators	**Estimate**	**Standard Error (SE)**	**Number of respondents**		**Design Effect**	**Square Root Design Effect**	**Coefficient of Variation**	**Confidence limits**	
			Unweighted Count(N)	**Weighted Count(WN) (000s)**				**Lower limit (R- 1.96SE)**	**Upper limit (R+1.96SE)**
Current tobacco smokers	.1067	.0024	74037	932487795	4.3667	2.0897	.02222	.1021	.1114
Daily tobacco smokers	.0859	.0020	74037	932487795	3.9015	1.9752	.02368	.0819	.0899
Current cigarette smokers	.0403	.0019	74037	932487795	6.8349	2.6144	.04691	.0366	.0440
Current bidi smokers	.0770	.0021	74037	932487795	4.4346	2.1058	.02679	.0730	.0811
Current smokeless tobacco users	.2138	.0035	74037	932487795	5.3208	2.3067	.01625	.2070	.2206
Daily smokeless tobacco users	.1824	.0033	74037	932487795	5.3646	2.3162	.01802	.1760	.1889
Current 'betel quid with tobacco' users	.0580	.0022	74037	932487795	6.4427	2.5382	.03759	.0537	.0623
Current khaini users	.1116	.0026	74037	932487795	5.1264	2.2642	.02347	.1065	.1168
Current gutka users	.0682	.0023	74037	932487795	5.9238	2.4339	.03307	.0638	.0726
Current 'oral tobacco application' users	.0383	.0015	74037	932487795	4.4234	2.1032	.03874	.0354	.0412
Current 'pan masala with tobacco' users	.0285	.0015	74037	932487795	5.6798	2.3832	.05117	.0256	.0313
Current tobacco users (smoked and/or smokeless)	.2861	.0035	74037	932487795	4.3650	2.0893	.01213	.2793	.2929
Current dual tobacco users (smoked and smokeless)	.0344	.0014	74037	932487795	4.1102	2.0274	.03946	.0318	.0371
Smokers who made a quit attempt in past 12 months	.3853	.0097	9748	102981214	3.8648	1.9659	.02515	.3663	.4043
Current smokers who planned to or were thinking about quitting	.5538	.0101	9482	99320576	3.8863	1.9714	.01817	.5340	.5735
Smokers advised to quit by a heath care provider in past 12 months	.4882	.0132	4197	51717170	2.9143	1.7071	.02698	.4624	.5140
Smokeless tobacco users who made a quit attempt in past 12 months	.3321	.0070	15479	202899960	3.4489	1.8571	.02117	.3183	.3458
Current smokeless tobacco users who planned to or were thinking about quitting	.4963	.0078	15213	199045726	3.6774	1.9177	.01566	.4810	.5115
Smokeless tobacco users advised to quit by a heath care provider in past 12 months	.3174	.0100	6500	96796557	2.9909	1.7294	.03146	.2979	.3370
Adults exposed to tobacco smoke at home	.3868	.0056	73334	925750831	9.5884	3.0965	.01440	.3759	.3977
Adults exposed to tobacco smoke at the workplace	.3017	.0079	15766	189290368	4.6502	2.1564	.02613	.2863	.3172
Adults exposed to tobacco smoke at government buildings	.0534	.0018	73773	929562848	4.7761	2.1854	.03388	.0498	.0569
Adults exposed to tobacco smoke at private offices	.0361	.0016	73827	930515776	5.2046	2.2814	.04336	.0331	.0392
Adults exposed to tobacco smoke at health care facility	.0561	.0020	73901	931320173	5.4804	2.3410	.03533	.0522	.0599
Adults exposed to tobacco smoke at restaurants	.0744	.0022	73887	931104970	5.1319	2.2654	.02939	.0701	.0787
Adults exposed to tobacco smoke in public transportation	.1333	.0031	73911	931486273	6.3077	2.5115	.02356	.1271	.1394
Adults exposed to tobacco smoke at night club/bar	.0214	.0010	73739	929607403	3.7295	1.9312	.04810	.0194	.0234
Adults exposed to tobacco smoke at cinema	.0221	.0012	73814	930641942	4.9625	2.2277	.05456	.0197	.0244
Adults exposed to tobacco smoke at any of the seven public places	.2565	.0038	73997	932157637	5.6175	2.3701	.01483	.2490	.2640
Average monthly expenditure on cigarette (for daily cigarette smokers)(in Indian Rupees)	1192.45	104.0940	1818	15023467	4.5410	2.1310	.08729	988.15	1396.76

Average monthly expenditure on bidi (for daily bidi smokers)(in Indian Rupees)	284.12	13.8883	4869	58695874	1.7866	1.3366	.04888	256.88	311.36
Adults who noticed advertisements of smoking tobacco products at point of sale	.0936	.0031	74007	932255807	8.2860	2.8785	.03292	.0876	.0997
Adults who noticed advertisements of smoking tobacco products at places other than point of sale	.1675	.0040	73970	931880607	8.5168	2.9184	.02392	.1596	.1753
Adults who noticed any type of cigarette promotion	.0526	.0023	73961	931761659	7.6355	2.7632	.04311	.0482	.0571
Adults who noticed any type of bidi promotion	.0538	.0023	73954	931607483	7.3705	2.7149	.04186	.0494	.0582
Adults who noticed advertisements of smokeless tobacco products at point of sale	.0837	.0031	74011	932306404	9.0721	3.0120	.03664	.0776	.0897
Adults who noticed advertisements of smokeless tobacco products at places other than point of sale	.1676	.0041	73963	931714532	9.0701	3.0117	.02468	.1595	.1757
Adults who noticed any type of smokeless tobacco promotion	.0571	.0026	73962	931787699	9.2915	3.0482	.04554	.0520	.0622
Current cigarette smokers who thought about quitting because of a warning label	.6188	.0161	4235	37541090	4.6724	2.1616	.02607	.5872	.6505
Current bidi smokers who thought about quitting because of a warning label	.5380	.0113	6069	71830588	3.1257	1.7680	.02103	.5158	.5602
Current smokeless tobacco users who thought about quitting because of a warning label	.4617	.0082	15229	199254178	4.1043	2.0259	.01773	.4456	.4777
Adults who noticed anti-smoking tobacco warning on television or radio	.6796	.0047	74018	932208062	7.4297	2.7258	.00688	.6705	.6888
Adults who noticed anti-smokeless tobacco warning on television or radio	.5932	.0050	74018	932311634	7.5481	2.7474	.00836	.5834	.6029
Adults who believed smoking causes serious illness	.9243	.0025	74017	932343009	6.3656	2.5230	.00265	.9195	.9291
Adults who believed secondhand smoke causes serious illness	.9245	.0020	74031	932411050	4.4537	2.1104	.00222	.9205	.9285
Adults who believed secondhand smoke causes serious illness in children	.9329	.0019	74031	932388340	4.4000	2.0976	.00207	.9292	.9367
Adults who believed use of smokeless tobacco causes serious illness	.9564	.0015	74019	932309713	3.9506	1.9876	.00156	.9535	.9594
Adults who believed use of smokeless tobacco during pregnancy causes harm to foetus	.8791	.0030	74005	932128101	6.3204	2.5140	.00343	.8732	.8850

Appendix C-3: Sampling errors for men, GATS India, 2016-2017									
Indicators	Estimate	Standard Error (SE)	Number of respondents		Design Effect	Square Root Design Effect	Coefficient of Variation	Confidence limits	
			Unweighted Count(N)	Weighted Count(WN) (000s)				Lower limit (R- 1.96SE)	Upper limit (R+1.96SE)
Current tobacco smokers	.1901	.0044	33772	476498941	4.8308	2.1979	.02332	.1814	.1988
Daily tobacco smokers	.1521	.0037	33772	476498941	4.1041	2.0259	.02459	.1448	.1595
Current cigarette smokers	.0732	.0036	33772	476498941	7.3998	2.7203	.04978	.0660	.0803
Current bidi smokers	.1397	.0039	33772	476498941	4.7394	2.1770	.02777	.1321	.1473
Current smokeless tobacco users	.2963	.0050	33772	476498941	4.5039	2.1222	.01681	.2865	.3061
Daily smokeless tobacco users	.2509	.0049	33772	476498941	4.7423	2.1777	.01935	.2414	.2604
Current 'betel quid with tobacco' users	.0706	.0032	33772	476498941	5.9363	2.4364	.04543	.0644	.0769
Current khaini users	.1786	.0043	33772	476498941	4.8450	2.2011	.02427	.1701	.1871
Current gutka users	.1078	.0037	33772	476498941	5.4183	2.3277	.03444	.1005	.1150
Current 'oral tobacco application' users	.0333	.0018	33772	476498941	3.9027	1.9755	.05469	.0298	.0369
Current 'pan masala with tobacco' users	.0451	.0026	33772	476498941	5.7756	2.4033	.05684	.0401	.0501
Current tobacco users (smoked and/or smokeless)	.4239	.0054	33772	476498941	4.5263	2.1275	.01275	.4133	.4345
Current dual tobacco users (smoked and smokeless)	.0625	.0026	33772	476498941	4.2441	2.0601	.04101	.0575	.0675
Smokers who made a quit attempt in past 12 months	.3883	.0099	8640	93424654	3.6324	1.9059	.02544	.3690	.4077
Current smokers who planned to or were thinking about quitting	.5626	.0104	8417	90383975	3.7976	1.9487	.01850	.5422	.5831
Smokers advised to quit by a heath care provider in past 12 months	.5030	.0135	3677	46122484	2.7357	1.6540	.02687	.4765	.5295
Smokeless tobacco users who made a quit attempt in past 12 months	.3518	.0088	9798	143448478	3.6919	1.9214	.02493	.3346	.3690
Current smokeless tobacco users who planned to or were thinking about quitting	.5270	.0095	9635	140933971	3.8607	1.9649	.01794	.5085	.5455
Smokeless tobacco users advised to quit by a heath care provider in past 12 months	.3329	.0122	3958	64895622	2.9310	1.7120	.03671	.3089	.3569
Adults exposed to tobacco smoke at home	.3809	.0064	33426	473092796	6.6068	2.5704	.01693	.3682	.3935
Adults exposed to tobacco smoke at the workplace	.3271	.0091	12300	156874275	4.8934	2.2121	.02776	.3093	.3449
Adults exposed to tobacco smoke at government buildings	.0812	.0031	33672	475408130	4.9079	2.2154	.03836	.0751	.0873
Adults exposed to tobacco smoke at private offices	.0679	.0034	33718	476171288	6.7929	2.6063	.04970	.0612	.0745
Adults exposed to tobacco smoke at health care facility	.1303	.0041	33709	476045366	5.7087	2.3893	.03176	.1222	.1384
Adults exposed to tobacco smoke at restaurants	.1659	.0049	33724	476155795	6.6089	2.5708	.02965	.1563	.1756
Adults exposed to tobacco smoke in public transportation	.0577	.0029	33681	475765038	5.9859	2.4466	.05089	.0519	.0635
Adults exposed to tobacco smoke at night club/bar	.0406	.0020	33689	475911034	3.8804	1.9699	.04930	.0367	.0445
Adults exposed to tobacco smoke at cinema	.0394	.0023	33682	475951057	5.1542	2.2703	.05770	.0349	.0438
Adults exposed to tobacco smoke at any of the seven public places	.3565	.0061	33762	476416217	6.1448	2.4789	.01712	.3445	.3685

Average monthly expenditure on cigarette (for daily cigarette smokers)(in Indian Rupees)	**1195.53**	**104.79**	**1752**	**14923698**	**4.5761**	**2.1392**	**.08765**	**989.87**	**1401.20**
Average monthly expenditure on bidi (for daily bidi smokers)(in Indian Rupees)	**294.73**	**14.80**	**4488**	**54714611**	**1.7892**	**1.3376**	**.05021**	**265.70**	**323.75**
Adults who noticed advertisments of smoking tobacco products at point of sale	**.1278**	**.0048**	**33754**	**476350215**	**7.7576**	**2.7853**	**.03742**	**.1184**	**.1371**
Adults who noticed advertisments of smoking tobacco products at places other than point of sale	**.1983**	**.0062**	**33726**	**476069448**	**9.0273**	**3.0045**	**.03108**	**.1862**	**.2103**
Adults who noticed any type of cigarette promotion	**.0687**	**.0036**	**33736**	**476170644**	**7.5103**	**2.7405**	**.05190**	**.0617**	**.0757**
Adults who noticed any type of bidi promotion	**.0726**	**.0038**	**33739**	**476198221**	**7.9555**	**2.8205**	**.05185**	**.0652**	**.0800**
Adults who noticed advertisments of smokeless tobacco products at point of sale	**.1146**	**.0048**	**33753**	**476349693**	**8.5516**	**2.9243**	**.04181**	**.1052**	**.1239**
Adults who noticed advertisments of smokeless tobacco products at places other than point of sale	**.2064**	**.0061**	**33729**	**475999530**	**8.6402**	**2.9394**	**.02965**	**.1944**	**.2184**
Adults who noticed any type of smokeless tobacco promotion	**.0784**	**.0039**	**33739**	**476165740**	**8.1537**	**2.8555**	**.05034**	**.0707**	**.0862**
Current cigarette smokers who thought about quitting because of a warning label	**.6459**	**.0168**	**3764**	**34857691**	**4.8431**	**2.2007**	**.02599**	**.6130**	**.6788**
Current bidi smokers who thought about quitting because of a warning label	**.5579**	**.0119**	**5521**	**66573707**	**3.2386**	**1.7996**	**.02136**	**.5345**	**.5812**
Current smokeless tobacco users who thought about quitting because of a warning label	**.5289**	**.0099**	**9646**	**141049341**	**4.2285**	**2.0563**	**.01869**	**.5095**	**.5483**
Adults who noticed anti-smoking tobacco warning on television or radio	**.7472**	**.0053**	**33758**	**476245637**	**5.5459**	**2.3550**	**.00704**	**.7369**	**.7575**
Adults who noticed anti-smokeless tobacco warning on television or radio	**.6561**	**.0060**	**33759**	**476336254**	**6.1265**	**2.4752**	**.00922**	**.6442**	**.6679**
Adults who believed smoking causes serious illness	**.9284**	**.0034**	**33759**	**476382733**	**6.4029**	**2.5304**	**.00361**	**.9218**	**.9349**
Adults who believed secondhand smoke causes serious illness	**.9402**	**.0026**	**33768**	**476433313**	**4.3969**	**2.0969**	**.00272**	**.9352**	**.9452**
Adults who believed secondhand smoke causes serious illness in children	**.9477**	**.0022**	**33768**	**476400694**	**3.8364**	**1.9587**	**.00237**	**.9433**	**.9521**
Adults who believed use of smokeless tobacco causes serious illness	**.9644**	**.0018**	**33760**	**476370986**	**3.7364**	**1.9330**	**.00191**	**.9608**	**.9680**
Adults who believed use of smokeless tobacco during pregnancy causes harm to foetus	**.8642**	**.0045**	**33753**	**476307168**	**6.5320**	**2.5558**	**.00521**	**.8554**	**.8730**

Appendix C-4: Sampling errors for women, GATS India, 2016-2017									
Indicators	Estimate	Standard Error (SE)	Number of respondents		Design Effect	Square Root Design Effect	Coefficient of Variation	Confidence limits	
			Unweighted Count(N)	Weighted Count(WN) (000s)				Lower limit (R- 1.96SE)	Upper limit (R+1.96SE)
Current tobacco smokers	.0196	.0014	40265	455988853	3.8555	1.9636	.07299	.0168	.0224
Daily tobacco smokers	.0166	.0013	40265	455988853	3.7819	1.9447	.07861	.0141	.0192
Current cigarette smokers	.0059	.0008	40265	455988853	3.8576	1.9641	.13416	.0043	.0074
Current bidi smokers	.0115	.0009	40265	455988853	2.7604	1.6614	.08085	.0097	.0134
Current smokeless tobacco users	.1276	.0039	40265	455988853	4.8379	2.1995	.03022	.1201	.1352
Daily smokeless tobacco users	.1109	.0036	40265	455988853	4.6407	2.1542	.03206	.1039	.1178
Current 'betel quid with tobacco' users	.0448	.0026	40265	455988853	5.6435	2.3756	.05764	.0397	.0499
Current khaini users	.0416	.0021	40265	455988853	4.1037	2.0258	.05108	.0375	.0458
Current gutka users	.0268	.0019	40265	455988853	5.0323	2.2433	.07099	.0231	.0306
Current 'oral tobacco application' users	.0435	.0022	40265	455988853	4.2755	2.0677	.05097	.0391	.0478
Current 'pan masala with tobacco' users	.0110	.0011	40265	455988853	4.0965	2.0240	.10063	.0089	.0132
Current tobacco users (smoked and/or smokeless)	.1422	.0040	40265	455988853	4.6995	2.1678	.02798	.1344	.1500
Current dual tobacco users (smoked and smokeless)	.0051	.0007	40265	455988853	3.4010	1.8442	.13581	.0037	.0064
Smokers who made a quit attempt in past 12 months	.3552	.0277	1108	9556560	3.0356	1.7423	.07805	.3009	.4096
Current smokers who planned to or were thinking about quitting	.4642	.0332	1065	8936601	3.7725	1.9423	.07145	.3991	.5292
Smokers advised to quit by a heath care provider in past 12 months	.3660	.0372	520	5594686	2.7092	1.6460	.10168	.2930	.4390
Smokeless tobacco users who made a quit attempt in past 12 months	.2844	.0115	5681	59451483	2.9578	1.7198	.04051	.2618	.3070
Current smokeless tobacco users who planned to or were thinking about quitting	.4218	.0130	5578	58111755	3.0641	1.7504	.03075	.3964	.4472
Smokeless tobacco users advised to quit by a heath care provider in past 12 months	.2860	.0152	2542	31900935	2.4319	1.5594	.05324	.2561	.3159
Adults exposed to tobacco smoke at home	.3930	.0071	39908	452658035	7.4807	2.7351	.01795	.3792	.4068
Adults exposed to tobacco smoke at the workplace	.1790	.0125	3466	32416094	2.8577	1.6905	.06966	.1546	.2035
Adults exposed to tobacco smoke at government buildings	.0242	.0016	40101	454154718	3.6944	1.9221	.06422	.0212	.0273
Adults exposed to tobacco smoke at private offices	.0437	.0019	40183	455148885	3.2745	1.8096	.04452	.0399	.0475
Adults exposed to tobacco smoke at health care facility	.0159	.0012	40178	455059604	3.5820	1.8926	.07824	.0135	.0184
Adults exposed to tobacco smoke at restaurants	.0992	.0035	40187	455330478	4.9634	2.2279	.03532	.0923	.1060
Adults exposed to tobacco smoke in public transportation	.0136	.0011	40146	454750738	3.1838	1.7843	.08002	.0115	.0157
Adults exposed to tobacco smoke at night club/bar	.0013	.0004	40050	453696369	4.5950	2.1436	.31737	.0005	.0021

Adults exposed to tobacco smoke at cinema	.0040	.0006	40132	454690885	2.7776	1.6666	.13911	.0029	.0050
Adults exposed to tobacco smoke at any of the seven public places	.1520	.0042	40235	455741420	4.9002	2.2136	.02749	.1438	.1601
Average monthly expenditure on cigarette (for daily cigarette smokers)(in Indian Rupees)	731.68	261.97	66	99769	0.1714	0.4141	.35804	217.51	1245.86
Average monthly expenditure on bidi (for daily bidi smokers)(in Indian Rupees)	138.33	14.66	381	3981263	0.7576	0.8704	.10600	109.57	167.09
Adults who noticed advertisments of smoking tobacco products at point of sale	.0580	.0038	40253	455905591	9.6286	3.1030	.06575	.0505	.0654
Adults who noticed advertisments of smoking tobacco products at places other than point of sale	.1354	.0053	40244	455811159	8.7144	2.9520	.03922	.1250	.1458
Adults who noticed any type of cigarette promotion	.0358	.0023	40225	455591014	5.5669	2.3594	.06436	.0313	.0403
Adults who noticed any type of bidi promotion	.0342	.0023	40215	455409262	5.6801	2.3833	.06663	.0297	.0386
Adults who noticed advertisments of smokeless tobacco products at point of sale	.0514	.0036	40258	455956711	9.3893	3.0642	.06920	.0444	.0584
Adults who noticed advertisments of smokeless tobacco products at places other than point of sale	.1270	.0053	40234	455715002	9.0947	3.0157	.04157	.1167	.1374
Adults who noticed any type of smokeless tobacco promotion	.0348	.0024	40223	455621959	6.2123	2.4925	.06900	.0301	.0395
Current cigarette smokers who thought about quitting because of a warning label	.2669	.0532	471	2683399	4.3752	2.0917	.19925	.1626	.3712
Current bidi smokers who thought about quitting because of a warning label	.2861	.0366	548	5256881	2.9133	1.7068	.12794	.2143	.3579
Current smokeless tobacco users who thought about quitting because of a warning label	.2989	.0114	5583	58204837	2.7582	1.6608	.03814	.2765	.3212
Adults who noticed anti-smoking tobacco warning on television or radio	.6091	.0060	40260	455962425	5.4205	2.3282	.00980	.5974	.6208
Adults who noticed anti-smokeless tobacco warning on television or radio	.5275	.0062	40259	455975381	5.6017	2.3668	.01177	.5153	.5396
Adults who believed smoking causes serious illness	.9201	.0030	40258	455960277	4.4546	2.1106	.00327	.9142	.9260
Adults who believed secondhand smoke causes serious illness	.9081	.0030	40263	455977737	3.9210	1.9801	.00331	.9022	.9140
Adults who believed secondhand smoke causes serious illness in children	.9175	.0029	40263	455987647	4.0131	2.0033	.00316	.9119	.9232
Adults who believed use of smokeless tobacco causes serious illness	.9481	.0022	40259	455938727	3.4570	1.8593	.00229	.9439	.9524
Adults who believed use of smokeless tobacco during pregnancy causes harm to foetus	.8946	.0033	40252	455820933	4.1412	2.0350	.00367	.8881	.9010

Appendix C-5: Sampling errors for urban, GATS India, 2016-2017									
Indicators	Estimate	Standard Error (SE)	Number of respondents		Design Effect	Square Root Design Effect	Coefficient of Variation	Confidence limits	
			Unweighted Count(N)	Weighted Count(WN) (000s)				Lower limit (R- 1.96SE)	Upper limit (R+1.96SE)
Current tobacco smokers	.0826	.0029	26488	321648429	2.9296	1.7116	.03570	.0768	.0884
Daily tobacco smokers	.0632	.0026	26488	321648429	2.9179	1.7082	.04115	.0581	.0683
Current cigarette smokers	.0443	.0023	26488	321648429	3.1940	1.7872	.05194	.0398	.0488
Current bidi smokers	.0467	.0025	26488	321648429	3.6109	1.9002	.05371	.0418	.0516
Current smokeless tobacco users	.1525	.0064	26488	321648429	7.9941	2.8274	.04171	.1400	.1650
Daily smokeless tobacco users	.1278	.0057	26488	321648429	7.5730	2.7519	.04498	.1165	.1391
Current 'betel quid with tobacco' users	.0426	.0034	26488	321648429	7.0479	2.6548	.07875	.0360	.0492
Current khaini users	.0681	.0042	26488	321648429	6.9956	2.6449	.06122	.0599	.0763
Current gutka users	.0629	.0037	26488	321648429	5.8163	2.4117	.05825	.0557	.0701
Current 'oral tobacco application' users	.0281	.0024	26488	321648429	5.4185	2.3278	.08567	.0234	.0328
Current 'pan masala with tobacco' users	.0229	.0022	26488	321648429	5.5453	2.3548	.09622	.0186	.0272
Current tobacco users (smoked and/or smokeless)	.2120	.0063	26488	321648429	5.9750	2.4444	.02949	.1997	.2242
Current dual tobacco users (smoked and smokeless)	.0231	.0019	26488	321648429	4.1443	2.0358	.08278	.0194	.0269
Smokers who made a quit attempt in past 12 months	.4149	.0181	2595	27560784	3.5095	1.8734	.04356	.3795	.4503
Current smokers who planned to or were thinking about quitting	.6114	.0195	2515	26516100	4.0422	2.0105	.03186	.5732	.6496
Smokers advised to quit by a heath care provider in past 12 months	.5314	.0258	1124	12931555	2.8053	1.6749	.04855	.4808	.5820
Smokeless tobacco users who made a quit attempt in past 12 months	.3666	.0144	3699	50371767	3.4439	1.8558	.03935	.3383	.3949
Current smokeless tobacco users who planned to or were thinking about quitting	.5473	.0154	3613	48870379	3.5909	1.8950	.02820	.5170	.5776
Smokeless tobacco users advised to quit by a heath care provider in past 12 months	.3517	.0251	1576	24027707	4.4576	2.1113	.07136	.3025	.4010
Adults exposed to tobacco smoke at home	.2789	.0079	26274	319155739	7.7728	2.7880	.02820	.2634	.2943
Adults exposed to tobacco smoke at the workplace	.2531	.0102	7349	86483379	3.9280	1.9819	.04012	.2332	.2730
Adults exposed to tobacco smoke at government buildings	.0591	.0035	26402	320462111	5.5378	2.3533	.05885	.0523	.0660
Adults exposed to tobacco smoke at private offices	.0572	.0036	26456	321217815	6.0552	2.4607	.06257	.0502	.0642
Adults exposed to tobacco smoke at health care facility	.0837	.0040	26451	321100083	5.3230	2.3072	.04782	.0759	.0916
Adults exposed to tobacco smoke at restaurants	.1303	.0054	26464	321259151	6.4816	2.5459	.04119	.1198	.1409
Adults exposed to tobacco smoke in public transportation	.0496	.0028	26423	320822190	4.2226	2.0549	.05636	.0441	.0551
Adults exposed to tobacco smoke at night club/bar	.0246	.0019	26403	320469930	3.9743	1.9936	.07875	.0208	.0284
Adults exposed to tobacco smoke at cinema	.0346	.0026	26425	320967162	5.3096	2.3042	.07634	.0294	.0397

Adults exposed to tobacco smoke at any of the seven public places	.2736	.0069	26484	321598903	6.1414	2.4782	.02527	.2600	.2871
Average monthly expenditure on cigarette (for daily cigarette smokers)(in Indian Rupees)	1329.25	179.54	830	7927623	4.8836	2.2099	.13507	976.85	1681.64
Average monthly expenditure on bidi (for daily bidi smokers)(in Indian Rupees)	275.59	25.12	954	12151646	2.8666	1.6931	.09115	226.32	324.86
Adults who noticed advertisments of smoking tobacco products at point of sale	.1177	.0060	26472	321501424	8.7249	2.9538	.05063	.1060	.1293
Adults who noticed advertisments of smoking tobacco products at places other than point of sale	.1910	.0072	26463	321407557	8.6130	2.9348	.03782	.1768	.2051
Adults who noticed any type of cigarette promotion	.0619	.0044	26452	321265607	8.3115	2.8830	.07028	.0534	.0704
Adults who noticed any type of bidi promotion	.0484	.0037	26444	321072054	7.5556	2.7487	.07633	.0412	.0557
Adults who noticed advertisments of smokeless tobacco products at point of sale	.1047	.0059	26476	321537359	9.5013	3.0824	.05641	.0931	.1163
Adults who noticed advertisments of smokeless tobacco products at places other than point of sale	.1971	.0079	26463	321389566	10.0953	3.1773	.04015	.1816	.2126
Adults who noticed any type of smokeless tobacco promotion	.0658	.0050	26443	321144331	10.3080	3.2106	.07575	.0560	.0756
Current cigarette smokers who thought about quitting because of a warning label	.6777	.0247	1536	14249018	4.4839	2.1175	.03643	.6292	.7261
Current bidi smokers who thought about quitting because of a warning label	.5558	.0274	1210	15024683	3.8466	1.9613	.04922	.5021	.6094
Current smokeless tobacco users who thought about quitting because of a warning label	.4966	.0167	3616	48965515	4.1582	2.0392	.03356	.4639	.5293
Adults who noticed anti-smoking tobacco warning on television or radio	.8338	.0069	26478	321430828	8.8511	2.9751	.00831	.8202	.8474
Adults who noticed anti-smokeless tobacco warning on television or radio	.7217	.0081	26480	321503845	8.3059	2.8820	.01120	.7058	.7375
Adults who believed smoking causes serious illness	.9310	.0045	26476	321527858	8.1520	2.8552	.00486	.9221	.9399
Adults who believed secondhand smoke causes serious illness	.9454	.0032	26485	321588628	5.0342	2.2437	.00337	.9391	.9516
Adults who believed secondhand smoke causes serious illness in children	.9521	.0028	26483	321549194	4.3550	2.0869	.00293	.9466	.9576
Adults who believed use of smokeless tobacco causes serious illness	.9684	.0021	26477	321538000	3.6379	1.9073	.00216	.9643	.9725
Adults who believed use of smokeless tobacco during pregnancy causes harm to foetus	.8975	.0052	26473	321487915	7.5063	2.7398	.00580	.8873	.9077

Appendix C-6: Sampling errors for rural, GATS India, 2016-2017									
Indicators	Estimate	Standard Error (SE)	Number of respondents		Design Effect	Square Root Design Effect	Coefficient of Variation	Confidence limits	
			Unweighted Count(N)	Weighted Count(WN) (000s)				Lower limit (R- 1.96SE)	Upper limit (R+1.96SE)
Current tobacco smokers	.1194	.0032	47549	610839366	4.8154	2.1944	.02705	.1131	.1258
Daily tobacco smokers	.0978	.0028	47549	610839366	4.1765	2.0437	.02818	.0924	.1032
Current cigarette smokers	.0381	.0026	47549	610839366	9.1313	3.0218	.06891	.0330	.0433
Current bidi smokers	.0930	.0028	47549	610839366	4.5945	2.1435	.03040	.0875	.0985
Current smokeless tobacco users	.2461	.0042	47549	610839366	4.6404	2.1542	.01712	.2379	.2544
Daily smokeless tobacco users	.2112	.0041	47549	610839366	4.9101	2.2159	.01945	.2031	.2192
Current 'betel quid with tobacco' users	.0661	.0028	47549	610839366	6.2969	2.5094	.04282	.0606	.0717
Current khaini users	.1345	.0034	47549	610839366	4.8453	2.2012	.02535	.1278	.1412
Current gutka users	.0710	.0029	47549	610839366	6.0438	2.4584	.04039	.0653	.0766
Current 'oral tobacco application' users	.0437	.0019	47549	610839366	4.1653	2.0409	.04337	.0399	.0474
Current 'pan masala with tobacco' users	.0314	.0019	47549	610839366	5.7404	2.3959	.06044	.0277	.0351
Current tobacco users (smoked and/or smokeless)	.3252	.0042	47549	610839366	3.8411	1.9599	.01282	.3170	.3334
Current dual tobacco users (smoked and smokeless)	.0404	.0018	47549	610839366	4.1228	2.0305	.04495	.0368	.0439
Smokers who made a quit attempt in past 12 months	.3744	.0115	7153	75420430	4.0184	2.0046	.03067	.3519	.3969
Current smokers who planned to or were thinking about quitting	.5328	.0119	6967	72804476	3.9592	1.9898	.02235	.5095	.5562
Smokers advised to quit by a heath care provider in past 12 months	.4738	.0152	3073	38785615	2.9280	1.7111	.03215	.4439	.5037
Smokeless tobacco users who made a quit attempt in past 12 months	.3206	.0080	11780	152528194	3.4364	1.8537	.02501	.3049	.3364
Current smokeless tobacco users who planned to or were thinking about quitting	.4797	.0089	11600	150175347	3.6682	1.9152	.01862	.4622	.4972
Smokeless tobacco users advised to quit by a heath care provider in past 12 months	.3061	.0105	4924	72768850	2.5468	1.5959	.03437	.2855	.3268
Adults exposed to tobacco smoke at home	.4436	.0072	47060	606595093	10.1801	3.1906	.01630	.4294	.4578
Adults exposed to tobacco smoke at the workplace	.3426	.0115	8417	102806990	5.0467	2.2465	.03363	.3200	.3652
Adults exposed to tobacco smoke at government buildings	.0504	.0021	47371	609100736	4.3232	2.0792	.04107	.0463	.0544
Adults exposed to tobacco smoke at private offices	.0555	.0024	47445	610102358	5.1731	2.2745	.04266	.0508	.0601
Adults exposed to tobacco smoke at health care facility	.0695	.0026	47436	610004886	5.0486	2.2469	.03736	.0644	.0746
Adults exposed to tobacco smoke at restaurants	.1348	.0039	47447	610227122	6.2094	2.4919	.02868	.1272	.1424
Adults exposed to tobacco smoke in public transportation	.0290	.0019	47404	609693586	6.2773	2.5055	.06586	.0253	.0328
Adults exposed to tobacco smoke at night club/bar	.0197	.0012	47336	609137473	3.5549	1.8854	.06049	.0174	.0220
Adults exposed to tobacco smoke at cinema	.0155	.0012	47389	609674780	4.6496	2.1563	.07810	.0131	.0179
Adults exposed to tobacco smoke at any of the seven public places	.2475	.0045	47513	610558734	5.3760	2.3186	.01836	.2386	.2564

Average monthly expenditure on cigarette (for daily cigarette smokers)(in Indian Rupees)	1039.63	90.67	988	7095844	3.4181	1.8488	.08722	861.66	1217.59
Average monthly expenditure on bidi (for daily bidi smokers)(in Indian Rupees)	286.35	16.24	3915	46544229	1.6825	1.2971	.05670	254.50	318.19
Adults who noticed advertisments of smoking tobacco products at point of sale	.0810	.0034	47535	610754383	7.7445	2.7829	.04257	.0742	.0877
Adults who noticed advertisments of smoking tobacco products at places other than point of sale	.1551	.0047	47507	610473050	8.2835	2.8781	.03051	.1459	.1644
Adults who noticed any type of cigarette promotion	.0477	.0026	47509	610496052	7.0940	2.6635	.05404	.0427	.0528
Adults who noticed any type of bidi promotion	.0566	.0028	47510	610535429	7.3010	2.7020	.05009	.0511	.0622
Adults who noticed advertisments of smokeless tobacco products at point of sale	.0726	.0034	47535	610769045	8.5530	2.9245	.04748	.0658	.0793
Adults who noticed advertisments of smokeless tobacco products at places other than point of sale	.1520	.0047	47500	610324966	8.2260	2.8681	.03077	.1429	.1612
Adults who noticed any type of smokeless tobacco promotion	.0525	.0030	47519	610643368	8.5683	2.9272	.05646	.0467	.0584
Current cigarette smokers who thought about quitting because of a warning label	.5828	.0205	2699	23292072	4.5452	2.1319	.03519	.5426	.6231
Current bidi smokers who thought about quitting because of a warning label	.5333	.0124	4859	56805906	2.9449	1.7161	.02317	.5090	.5575
Current smokeless tobacco users who thought about quitting because of a warning label	.4503	.0094	11613	150288663	4.1318	2.0327	.02095	.4318	.4688
Adults who noticed anti-smoking tobacco warning on television or radio	.5985	.0061	47540	610777234	7.4011	2.7205	.01012	.5866	.6104
Adults who noticed anti-smokeless tobacco warning on television or radio	.5255	.0062	47538	610807789	7.5353	2.7450	.01184	.5133	.5377
Adults who believed smoking causes serious illness	.9208	.0029	47541	610815151	5.5840	2.3631	.00315	.9151	.9265
Adults who believed secondhand smoke causes serious illness	.9135	.0027	47546	610822423	4.3373	2.0826	.00291	.9083	.9187
Adults who believed secondhand smoke causes serious illness in children	.9229	.0026	47548	610839147	4.4772	2.1159	.00278	.9178	.9279
Adults who believed use of smokeless tobacco causes serious illness	.9501	.0020	47542	610771713	4.0959	2.0238	.00211	.9462	.9541
Adults who believed use of smokeless tobacco during pregnancy causes harm to foetus	.8694	.0037	47532	610640186	5.9188	2.4329	.00428	.8621	.8767

Appendix D – 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.
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
Cheroot	It is like a cigar with two closed ends.
Chillum	The *chillum* is a straight, conical pipe made of clay, 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 Act, 2003
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. Respondents who have noticed any sport or sporting event associated with either *bidi* brands/companies. Respondents who noticed 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. Respondents who have noticed any sport or sporting event associated with either cigarette brands/companies. Respondents who noticed any free samples of cigarettes with a brand name or logo of either cigarette.
Exposure to secondhand 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 secondhand 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 secondhand smoke in public places	Indicates percentage of respondents who reported someone smoking inside the public places of interest, in the past 30 days:
	Government Buildings: Covering indoor areas which are non-smoking areas by the national smoke free laws.
	Health Care Facilities: Covering indoor areas of both public and private health care facilities which are non-smoking areas by the national smoke free laws.
	Restaurants: Covering food and/ or beverage selling place inside the building, not including place in front of any building and wayside.
	Public Transportation: All public transport with both air conditioner and non-air conditioner.

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. Respondents who have noticed any sport or sporting event associated with either smokeless tobacco. Respondents who noticed any free samples of cigarettes with a brand name or logo of either 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.
GHPSS	Global Health Professions Students Survey
GoI	Government of India
GSPS	Global School Personnel Survey
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.
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	Monitor, Protect, Offer, Warn, Enforce, Raise
NFHS	National Family Health Survey
NHSDAA	National Household Survey of Drugs and Alcohol Abuse in India
Non-smoker	Person currently does not smoke at all.
Non-user of smokeless tobacco	Person currently does not use smokeless tobacco at all.
NSS	National Sample Survey
NSSO	National Sample Survey Organization
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.
Pharmacotherapy	Nicotine replacement therapy (NRT) or Prescription medication (such as Buproprion).
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
RTI International	Research Triangle Initiative
Secondhand smoke (SHS)	Inhalation of smoke from tobacco products used by others.
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).
SRC	Sample Review Committee
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

WHO	World Health Organization
WHO- SEARO	WHO South East Asia Regional Office

Appendix E – Technical & Survey Staff

Ministry of Health & Family Welfare

To be inserted by MoHFW

Name	Designation

Organizations in GATS 2016-17 Fieldwork

Research Agency	States(s)
Academy of Management Studies (AMS), Lucknow	Himachal Pradesh, Rajasthan, Chhattisgarh, Odisha, Bihar, Gujarat
CMI Social Research Centre Pvt Ltd (CMI-SRC), New Delhi	Delhi, Mizoram, Tripura
Center for Research Evaluation Analysis Training and Education (CREATE), Lucknow	Uttarakhand, Uttar Pradesh
Centre for Socio-economic and Environmental Studies (CSES), Kochi	Karnataka, Kerala, Tamil Nadu, Puducherry
Development & Research Services Pvt. Ltd. (DRS), New Delhi	Jharkhand, Andhra Pradesh, Telangana

Economic Information Technology (EIT), Kolkata	West Bengal, Sikkim, Arunachal Pradesh
Helping Organization for Poverty Alleviation & Rural Development (HOPARD), Imphal	Nagaland, Manipur, Meghalaya
Nielsen India Pvt. Ltd., Gurgaon	Madhya Pradesh, Assam
Sigma Research and Consulting, New Delhi	Maharashtra, Goa
Vimarsh Development Solutions Pvt. Ltd., Gurgaon	Jammu and Kashmir, Punjab, Chandigarh, Haryana

Tata Institute of Social Sciences, Mumbai

Name	Designation
Prof. S Parasuraman	Project Director (GATS 2) & Director (TISS)
Prof. T Sundararaman	Project Co-ordinator (GATS 2) & Dean (School of Health System Studies, TISS)
Prof. Sulabha Parasuraman	Senior Consultant (Sampling & Technical)
Prof. Nilesh Gawde Prof. Gowri. V Prof. Hemal Shroff Prof. Sivakami Muthusamy Prof. Priyanka Dixit Mr. Alok Ranjan	Faculty Co-ordinators (School of Health System Studies, TISS)

Data Management Team

Name	Designation
Mr V. Sivakumar	Systems Manager
Mr Raghu Varier	I.T Specialist
Ms Mridula Pitla	Senior Software Developer

Research Management Team

Name	Designation
Mr Prakash Mishra	Senior Programme Manager
Ms Sharayu Shinde	Head Research Officer
Ms Amrita Gupta	Research Associate
Ms Daksha Parmar	Research Associate

Field-based Research Officers

Mr.Abhishek kumar singh

Mr.Aijaz Ahmad Mir

Mr.Anurag Singh

Ms.Aparna Makwe

Ms.Arpita Mukherjee

Mr.Bhagwat Singh

Mr.Irshad Rashid Ganta

Ms.Kavita Pawar

Mr.Kumar Chiman Sinha

Mr.Lokhnath Sahoo

Ms.Manti Debnath

Mr.Nidhish ET

Mr.Ravindra Singh

Mr.Ronu Mathew

Mr.Sandeep Nayak

Mr.Santosh Nipanikar

Mr.Sayed Ejaz Ahmed

Mr.Shailendra Singh Tomar

Ms.Sonal Ashok Choudhari

Mr.Sovan Singh

Ms.Stephanie Phankon

Ms.Sujata Bori

Mr.T. Masthanaiah

Accounts & Administration

Name	**Designation**
Mrs Sarita Uniyal	Accountant

Questionnaire Review Committee (QRC)

To be inserted

Name	**Designation**

Sample Review Committee (SRC)

To be inserted

Name	**Designation**

World Health Organization

To be inserted

Name	**Designation**

Centers for Disease Control and Prevention (CDC)

To be inserted

Name	Designation

GATS Partner Organization

Centers for Disease Control and Prevention (CDC)
CDC Foundation
RTI International
World Health Organization (WHO)

Appendix F – GATS 2016-17 Questionnaire

Household and Individual Questionnaire

GATS Core Questionnaire Formatting Conventions

Text in **RED FONT** = Programming logic and skip instructions.

Text in [ALL CAPS SURROUNDED BY BRACKETS] = Specific question instructions for interviewers—not to be read to the respondents.

Text <u>underlined</u> = Words that interviewers should emphasize when reading to respondents.

Household Questionnaire

INTRO. [THE HOUSEHOLD SCREENING RESPONDENT SHOULD 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.

THE HOUSEHOLD SCREENING RESPONDENT CAN BE LESS THAN 18 YEARS OLD, ONLY IF NO HOUSEHOLD MEMBERS ARE 18 YEARS OF AGE OR OLDER.]

INTRO1. I am working with Tata Institute of Social Sciences (TISS), 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.

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 USUAL PLACE OF RESIDENCE]

HH2. How many of these household members are 15 years of age or older?

[IF HH2 = 00 (NO HOUSEHOLD MEMBERS ≥ 15 IN HOUSEHOLD)]

[THERE ARE NO ELIGIBLE HOUSEHOLD MEMBERS.

THANK THE RESPONDENT FOR HIS/HER TIME.

THIS WILL BE RECORDED IN THE RECORD OF CALLS AS A CODE 201.]

HH3. How many (male/female) household members are 15 years of age or older?

[IF HH3 = 00 (NO MALE/FEMALE HOUSEHOLD MEMBERS ≥ 15 IN HOUSEHOLD)]

[THERE ARE NO ELIGIBLE HOUSEHOLD MEMBERS.

THANK THE RESPONDENT FOR HIS/HER TIME.

THIS WILL BE RECORDED IN THE RECORD OF CALLS AS A CODE 201.]

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.

a. What is this {oldest/next oldest} person's first name? _____

b. What is this person's age?

[IF RESPONDENT DOESN'T KNOW, PROBE FOR AN ESTIMATE]

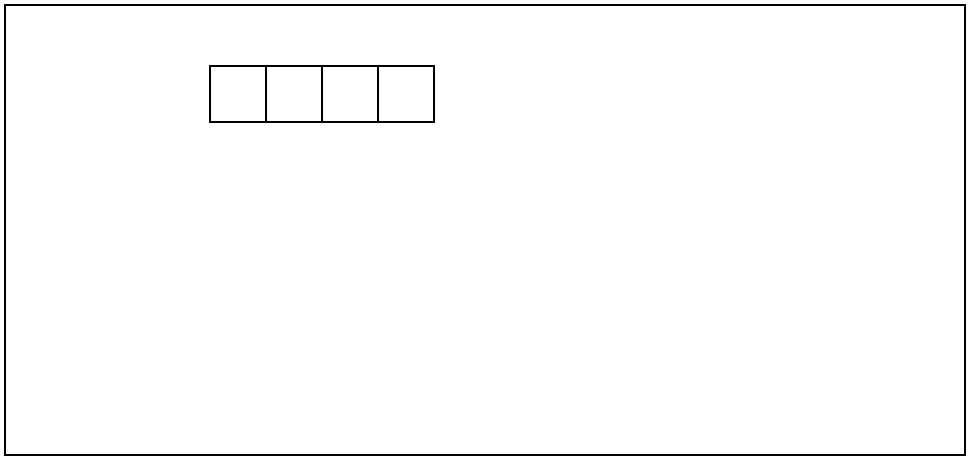
[IF REPORTED AGE IS 15 THROUGH 17, BIRTH DATE IS ASKED]

HH4c. What is the month of this person's date of birth?

HH4cYEAR. What is the year of this person's date of birth?

[IF DON'T KNOW, ENTER 7777

IF REFUSED, ENTER 9999]



d. [RECORD GENDER (FOR VERIFICATION IF NECESSARY)]

MALE..... ☐1

FEMALE..... ☐2

e. Does this person currently smoke tobacco, including bidis, cigarettes, hukkah, cigars, etc.?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW .. ☐7

REFUSED ..... ☐9

f. Does this person currently use smokeless tobacco, including betel quid with tobacco, sada/surti, khaini or tobacco lime mixture, gutkha, gul, mishri, etc.?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW .. ☐7

REFUSED ..... ☐9

[REPEAT HH4a – HH4f FOR EACH PERSON REPORTED IN HH2]

HH5. [NAME OF THE SELECTED ELIGIBLE PERSON IS:

{FILL SELECTED HH MEMBER'S FIRST NAME}

ASK IF SELECTED RESPONDENT IS AVAILABLE AND IF SO, PROCEED TO THE INDIVIDUAL QUESTIONNAIRE.

IF SELECTED RESPONDENT IS NOT AVAILABLE, MAKE AN APPOINTMENT AND RECORD IT AS A COMMENT ON RECORD OF CALLS.]

Individual Questionnaire

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 Tata Institute of Social Sciences (TISS), 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.

We will leave the necessary contact information with you. If you have any questions about this survey, you can contact the telephone numbers listed.

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. [WAS 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 Tata Institute of Social Sciences (TISS), 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.

We will leave the necessary contact information with you. If you have any questions about this survey, you can contact the telephone numbers listed.

{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]

INTLANG. [INTERVIEW LANGUAGE]

☐1 ASSAMESE	☐11 MALAYALAM
☐2 BENGALI	☐12 MANIPURI OR MEITHEI
☐3 ENGLISH	☐13 MARATHI
☐4 GARO	☐14 MIZO
☐5 GUJARATI	☐15 NAGAMESE
☐6 HINDI	☐16 NEPALESE
☐7 KANNADA	☐17 ORIYA

☐8 KASHMIRI	☐18 PUNJABI
☐9 KHASI	☐19 TAMIL
☐10 KONKANI	☐20 TELUGU

SECTION A. BACKGROUND CHARACTERISTICS

A00. I am going to first ask you a few questions about your background.

A01. [RECORD GENDER FROM OBSERVATION. ASK IF NECESSARY.]

MALE..... ☐1

FEMALE .... ☐2

A02a. What is the month of your date of birth?

01 ..... ☐1

02 ..... ☐2

03 ..... ☐3

04 ..... ☐4

05 ..... ☐5

06 ..... ☐6

07 ..... ☐7

08 ..... ☐8

09 ..... ☐9

10 ..... ☐10

11 ..... ☐11

12 ..... ☐12

DON'T KNOW .. ☐77

REFUSED ..... ☐99

A02b. What is the year of your date of birth?

[IF DON'T KNOW, ENTER 7777

IF REFUSED, ENTER 9999]

[IF MONTH=77/99 OR YEAR=7777/9999, ASK A03. OTHERWISE SKIP TO A04.]

A03. How old are you?

[IF RESPONDENT IS UNSURE, PROBE FOR AN ESTIMATE AND RECORD AN ANSWER.
IF REFUSED, BREAK-OFF AS WE CANNOT CONTINUE INTERVIEW WITHOUT AGE]

A03a. [WAS RESPONSE ESTIMATED?]

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

A04. What is the highest level of education you have completed?

[SELECT ONLY ONE CATEGORY]

NO FORMAL SCHOOLING ..... ☐1
LESS THAN PRIMARY SCHOOL COMPLETED ..... ☐2
PRIMARY SCHOOL COMPLETED ..... ☐3
LESS THAN SECONDARY SCHOOL COMPLETED ..... ☐4
SECONDARY SCHOOL COMPLETED..... ☐5
HIGHER SECONDARY SCHOOL COMPLETED..... ☐6
COLLEGE/UNIVERSITY COMPLETED ..... ☐7
POST GRADUATE DEGREE COMPLETED..... ☐8
DON'T KNOW ..... ☐77
REFUSED ..... ☐99

A05. Which of the following best describes your <u>main</u> work status over the past 12 months? Government employee, non-government employee, daily wage/casual labourer, self-employed, student, homemaker, retired, unemployed-able to work, or unemployed-unable to work?

[INCLUDE SUBSISTENCE FARMING AS SELF-EMPLOYED]

GOVERNMENT EMPLOYEE..... ☐1
NON-GOVERNMENT EMPLOYEE ..... ☐2
DAILY WAGE/CASUAL LABOURER ..... ☐3
SELF-EMPLOYED ..... ☐4
STUDENT ..... ☐5
HOMEMAKER..... ☐6
RETIRED..... ☐7
UNEMPLOYED, ABLE TO WORK ..... ☐8
UNEMPLOYED, UNABLE TO WORK .... ☐9
DON'T KNOW ..... ☐77
REFUSED ..... ☐99

A06. Please tell me whether this household or any person who lives in the household has the following items:

YES	NO	DON'T KNOW	REFUSED

a. Electricity?	☐1	☐2	☐7	☐9
n. Electric fan?	☐1	☐2	☐7	☐9
m. Air conditioner?	☐1	☐2	☐7	☐9
g. Refrigerator?	☐1	☐2	☐7	☐9
j. Washing machine?	☐1	☐2	☐7	☐9
f. Radio?	☐1	☐2	☐7	☐9
e. Television?	☐1	☐2	☐7	☐9
k. Computer/ laptop?	☐1	☐2	☐7	☐9
l. Internet connection?	☐1	☐2	☐7	☐9
i. Moped/ scooter/ motorcycle?	☐1	☐2	☐7	☐9
h. Car?	☐1	☐2	☐7	☐9
b. Flush toilet?	☐1	☐2	☐7	☐9
c. Fixed telephone?	☐1	☐2	☐7	☐9
d. Cell telephone?	☐1	☐2	☐7	☐9

A09. Do you belong to a scheduled caste, scheduled tribe, other backward caste, or none of these groups?

SCHEDULED CASTE ..... ☐1
SCHEDULED TRIBE ..... ☐2
OTHER BACKWARD CASTE..... ☐3
NONE OF THESE..... ☐4
DON'T KNOW ..... ☐7
REFUSED ..... ☐9

A10. What is your religion?

HINDU ..... ☐1
MUSLIM ..... ☐2
CHRISTIAN..... ☐3
BUDDHISM ..... ☐4
JAIN..... ☐5
SIKH ..... ☐6
OTHER..... ☐7→ A10a. [SPECIFY]:_____
NONE ..... ☐8
DON'T KNOW ..... ☐77
REFUSED ..... ☐99

A11. What is your marital status? Would you say single, married, separated, divorced, or widowed?

SINGLE ..... ☐1
MARRIED..... ☐2
SEPARATED ..... ☐3
DIVORCED ..... ☐4
WIDOWED ..... ☐5
REFUSED ..... ☐9

SECTION B. TOBACCO SMOKING

B00. 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, hukkah, pipes, chillum, chutta.

Please do not answer about electronic cigarettes and smokeless tobacco at this time.

B01. Do you currently smoke tobacco on a daily basis, less than daily, or not at all?

DAILY ..... ☐1→ SKIP TO B04
LESS THAN DAILY..... ☐2
NOT AT ALL..... ☐3→ SKIP TO B03
DON'T KNOW ..... ☐7→ SKIP TO NEXT SECTION (WP)
REFUSED…….. ☐9→ SKIP TO NEXT SECTION (WP)

B02. Have you smoked tobacco daily in the past?

YES ..... ☐1→ SKIP TO B08
NO ..... ☐2→ SKIP TO B10
DON'T KNOW ..... ☐7→ SKIP TO B10
REFUSED ..... ☐9→ SKIP TO B10

B03. In the past, have you smoked tobacco on a daily basis, less than daily, or not at all?

[IF RESPONDENT HAS DONE BOTH "DAILY" AND "LESS THAN DAILY" IN THE PAST, CHECK "DAILY"]

DAILY ..... ☐1→ SKIP TO B11
LESS THAN DAILY..... ☐2→ SKIP TO B13
NOT AT ALL..... ☐3→ SKIP TO NEXT SECTION (WP)
DON'T KNOW ..... ☐7→ SKIP TO NEXT SECTION (WP)

REFUSED ..... ☐9→ SKIP TO NEXT SECTION (WP)

[**CURRENT DAILY SMOKERS]**

B04. How old were you when you first started smoking tobacco daily?

[IF DON'T KNOW OR REFUSED, ENTER 99]

[IF B04 = 99, ASK B05. OTHERWISE SKIP TO B06.]

B05. How many years ago did you first start smoking tobacco daily?

[IF REFUSED, ENTER 99]

B06. 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.

[IF RESPONDENT REPORTS SMOKING THE PRODUCT BUT NOT EVERY DAY, ENTER 888

IF RESPONDENT REPORTS IN PACKS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER]

a.	Manufactured cigarettes?				*PER DAY*
a1.	**[IF B06a=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 B06b=888]** On average, how many rolled tobacco in paper or leaf do you currently smoke each week?				*PER WEEK*
c.	Bidis?				*PER DAY*
c1.	**[IF B06c=888]** On average, how many bidis do you currently smoke each week?				*PER WEEK*
e.	Cigars, cheroots, or cigarillos?				*PER DAY*
e1.	**[IF B06e=888]** On average, how many cigars, cheroots, or cigarillos do you currently smoke each week?				*PER WEEK*
f.	Number of hukkah sessions per day?				*PER DAY*

f1.	**[IF B06f=888]** On average, how many hukkah sessions do you currently participate in each week?				*PER WEEK*
g.	Any others? (→ g1. Please specify the other type you currently smoke each day:_____)				*PER DAY*
g2.	**[IF B06g=888]** On average, how many [FILL PRODUCT] do you currently smoke each week?				*PER WEEK*

B07. 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

[SKIP TO NEXT SECTION (WP)]

[**CURRENT LESS THAN DAILY SMOKERS]**

B08. How old were you when you first started smoking tobacco daily?

[IF DON'T KNOW OR REFUSED, ENTER 99]

[IF B08 = 99, ASK B09. OTHERWISE SKIP TO B10.]

B09. How many years ago did you first start smoking tobacco daily?

[IF REFUSED, ENTER 99]

B10. How many of the following do you currently smoke during a usual week?

[IF RESPONDENT REPORTS DOING THE ACTIVITY WITHIN THE PAST 30 DAYS, BUT LESS THAN ONCE PER WEEK, RECORD 888

IF RESPONDENT REPORTS IN PACKS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER]

a. Manufactured cigarettes?				*PER WEEK*
b. Rolled tobacco in paper or leaf?				*PER WEEK*
c. Bidis?				*PER WEEK*
e. Cigars, cheroots, or cigarillos?				*PER WEEK*
f. Number of hukkah sessions per week?				*PER WEEK*
g. Any others?				*PER WEEK*

→ g1. Please specify the other type you currently smoke during a usual week:

_____

[SKIP TO NEXT SECTION (WP)]

[FORMER SMOKERS]

B11. How old were you when you first started smoking tobacco daily?

[IF DON'T KNOW OR REFUSED, ENTER 99]

[IF B11 = 99, ASK B12. OTHERWISE SKIP TO B13a.]

B12. How many years ago did you first start smoking tobacco daily?

[IF REFUSED, ENTER 99]

B13a. How long has it been since you stopped smoking?

[ONLY INTERESTED IN WHEN RESPONDENT STOPPED SMOKING REGULARLY – DO NOT INCLUDE RARE INSTANCES OF SMOKING

ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

YEARS ..... ☐1

MONTHS..... ☐2

WEEKS ..... ☐3

DAYS..... ☐4

LESS THAN 1 DAY..... ☐5→ **SKIP TO B14**

DON'T KNOW ..... ☐7→ **SKIP TO NEXT SECTION (WP)**

REFUSED ..... ☐9→ **SKIP TO NEXT SECTION (WP)**

B13b. [ENTER NUMBER OF (YEARS/MONTHS/WEEKS/DAYS)]

[IF B13a/b < 1 YEAR (< 12 MONTHS), THEN CONTINUE WITH B14. OTHERWISE SKIP TO NEXT SECTION (WP).]

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 ..... ☐1

3 TO 5 ..... ☐2

6 OR MORE ..... ☐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?

	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? ..... ☐1 ☐2 ☐9

d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani? ..... ☐1 ☐2 ☐9

d1. m-Cessation? ..... ☐1 ☐2 ☐9

e. A quit line or a smoking telephone support line? ..... ☐1 ☐2 ☐9

f. Switching to smokeless tobacco? ..... ☐1 ☐2 ☐9

h. Try to quit without assistance?..... ☐1 ☐2 ☐9

g. Anything else?..... ☐1 ☐2 ☐9

→ g1. Please specify what you used to try to stop smoking:

_____

SECTION WP. WATERPIPE TOBACCO SMOKING

ROUTING: B06f/B10f ask for the number of water pipe smoking sessions per day/week
– IF B01=1 AND B06f>0 AND <888 (CURRENT DAILY WATER PIPE SMOKERS), GO TO WP5
– IF B01=1 AND B06f=888 (CURRENT LESS THAN DAILY WATER PIPE SMOKERS), GO TO WP5
– IF B01=1 AND B06f=0 (CURRENT DAILY SMOKER, BUT NO WP), GO TO NEXT SECTION (EC)

– IF B01=2 AND B10f>0 AND <888 (CURRENT LESS THAN DAILY WATER PIPE SMOKERS), GO TO WP0
– IF B01=2 AND B10f=888 (CURRENT LESS THAN WEEKLY WATER PIPE SMOKERS), GO TO WP5
– IF B01=2 AND B10f=0 (CURRENT LESS THAN DAILY SMOKER, BUT NO WP), GO TO NEXT SECTION (EC)

– IF B01=3 AND B03=3 (NEVER SMOKERS), GO TO WP0
– IF B01=3 AND B03=1 OR 2 (FORMER SMOKERS), GO TO WP0

– ELSE, GO TO WP0

WP0. I would now like to ask you some questions about smoking hukkah, that is, using a waterpipe to smoke tobacco.

Do you currently smoke hukkah (using a waterpipe to smoke tobacco) on a daily basis, less than daily, or not at all?

DAILY ..... ☐1
LESS THAN DAILY ..... ☐2
NOT AT ALL ..... ☐3 → SKIP TO NEXT SECTION (EC)
REFUSED ..... ☐9 → SKIP TO NEXT SECTION (EC)

WP5. (I would now like to ask you some questions about smoking hukkah, that is, using a waterpipe to smoke tobacco.)

The last time you smoked hukkah, how long did you participate in the hukkah smoking session?

[ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

HOURS ..... ☐1
MINUTES ..... ☐2
DON'T KNOW ..... ☐7 → SKIP TO WP6
REFUSED ..... ☐9 → SKIP TO WP6

WP5a. [ENTER NUMBER OF (HOURS/MINUTES)]

WP6. The last time you smoked hukkah, how many other people did you share the same pipe with during the session?

[IF DON'T KNOW OR REFUSED, ENTER 99]

WP8. The last time you smoked hukkah, where did you smoke it?

HOME..... ☐1

COFFEE SHOP ..... ☐2

BAR/CLUB ..... ☐3

RESTAURANT..... ☐4

OTHER..... ☐5→ WP8a. Specify other place:_____

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

WP9. The last time you smoked hukkah, did you smoke it with flavored tobacco, unflavored tobacco, or both?

FLAVORED..... ☐1

UNFLAVORED..... ☐2

BOTH ..... ☐3

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

Section EC. Electronic Cigarettes

EC1. Electronic cigarettes include any product that uses batteries or other methods to produce a vapor which contains nicotine. They have various other names such as e-cigarette, vape-pen, e-shisha, e-pipes. Before today, have you ever heard of or seen an electronic cigarette?

YES ..... ☐1

NO ..... ☐2→ **SKIP TO NEXT SECTION (C)**

REFUSED ..... ☐9→ **SKIP TO NEXT SECTION (C)**

EC2. Do you <u>currently</u> use electronic cigarettes on a daily basis, less than daily, or not at all?

DAILY ..... ☐1→ **SKIP TO EC4**

LESS THAN DAILY..... ☐2→ **SKIP TO EC4**

NOT AT ALL..... ☐3

REFUSED ..... ☐9

EC3. Have you ever <u>even once</u>, used an electronic cigarette?

YES ..... ☐1

NO ..... ☐2

REFUSED ..... ☐9

→ **SKIP TO NEXT SECTION (C)**

EC4. What is the main reason why you use electronic cigarettes?

HEALTHIER OPTION THAN TOBACCO PRODUCTS .... ☐1

FOR QUITTING TOBACCO USE ..... ☐2

BECAUSE IT CAN BE USED IN PUBLIC PLACES ..... ☐3

OTHER ..... ☐3→ EC4a. [SPECIFY]:_____

REFUSED ..... ☐9

SECTION C. SMOKELESS TOBACCO

C00. 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, mawa, gul, gudaku, mishri. Smokeless tobacco is tobacco that is not smoked, but is sniffed through the nose, held in the mouth, or chewed. Please do not answer about chewing of products without tobacco at this time.

C01. Do you currently use smokeless tobacco on a daily basis, less than daily, or not at all?

[IF RESPONDENT DOES NOT KNOW WHAT SMOKELESS TOBACCO IS, EITHER PRESENT A SHOWCARD OR READ DEFINITION FROM QXQ SCREEN]

DAILY ..... ☐1 → SKIP TO C04

LESS THAN DAILY ..... ☐2

NOT AT ALL ..... ☐3 → SKIP TO C03

DON'T KNOW ..... ☐7 → SKIP TO NEXT SECTION (CC)

REFUSED ..... ☐9 → SKIP TO NEXT SECTION (CC)

C02. Have you used smokeless tobacco daily in the past?

YES ..... ☐1 → SKIP TO C08

NO ..... ☐2 → SKIP TO C10

DON'T KNOW ..... ☐7 → SKIP TO C10

REFUSED ..... ☐9 → SKIP TO C10

C03. In the past, have you used smokeless tobacco on a daily basis, less than daily, or not at all?

[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 (CC)

DON'T KNOW ..... ☐7→ SKIP TO NEXT SECTION (CC)

REFUSED ..... ☐9→ SKIP TO NEXT SECTION (CC)

[**CURRENT DAILY SMOKELESS TOBACCO USERS**]

C04. How old were you when you first started using smokeless tobacco daily?

[IF DON'T KNOW OR REFUSED, ENTER 99]

[IF C04 = 99, ASK C05. OTHERWISE SKIP TO C06.]

C05. How many years ago did you first start using smokeless tobacco daily?

[IF REFUSED, ENTER 99]

C06. 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 USING THE PRODUCT BUT NOT EVERY DAY, ENTER 888]

a.	Betel quid with tobacco?				*PER DAY*
a1.	**[IF C06a=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 C06b=888]** On average, how many times do you use khaini or tobacco lime mixture each week??				*PER WEEK*
c.	Gutka, areca nut—tobacco lime mixture, or mawa?				*PER DAY*
c1.	**[IF C06c=888]** On average, how many times do you use gutka, areca nut—tobacco lime mixture, or mawa each week?				*PER WEEK*
d.	Oral tobacco use (as mishri, qul, gudakhu)?				*PER DAY*
d1.	**[IF C06d=888]** On average, how many times do you use oral tobacco use (as mishri, qul, gudakhu) each week??				*PER WEEK*
e.	Pan masala together with tobacco?				*PER DAY*

e1.	**[IF C06e=888]** On average, how many times do you use pan masala together with tobacco each week?				*PER WEEK*
f.	Nasal use of snuff?				*PER DAY*
f1.	**[IF C06f=888]** On average, how many times do you use nasal use of snuff each week?				*PER WEEK*
g.	Any others? (→ g1. Please specify the other type you currently use each day:_____)				*PER DAY*
g2.	**[IF C06g=888]** On average, how many times a week do you currently use [FILL PRODUCT]?				*PER WEEK*

C07. How soon after you wake up do you usually use smokeless tobacco for the first time? 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

[SKIP TO NEXT SECTION (CC)]

[CURRENT LESS THAN DAILY SMOKELESS TOBACCO USERS]

C08. How old were you when you first started using smokeless tobacco daily?

[IF DON'T KNOW OR REFUSED, ENTER 99]

[IF C08 = 99, ASK C09. OTHERWISE SKIP TO C10.]

C09. How many years ago did you first start using smokeless tobacco daily?

[IF REFUSED, ENTER 99]

C10. How many times a week do you usually use the following?

[IF RESPONDENT REPORTS DOING THE ACTIVITY WITHIN THE PAST 30 DAYS, BUT LESS THAN ONCE PER WEEK, RECORD 888]

a. Betel quid with tobacco?.....				*TIMES PER WEEK*
b. Khaini or tobacco lime mixture?.....				*TIMES PER WEEK*
c. Gutka, areca nut—tobacco lime mixture, or mawa?				*TIMES PER WEEK*
d. Oral tobacco use (as mishri, gul, gudakhu)?...				*TIMES PER WEEK*
e. Pan masala together with tobacco?.....				*TIMES PER WEEK*
f. Nasal use of snuff?				*TIMES PER WEEK*
g. Any other form of smokeless tobacco?				*TIMES PER WEEK*

→ g1. Please specify the other type you currently use during a usual week:

_____

[SKIP TO NEXT SECTION (CC)]

[FORMER SMOKELESS TOBACCO USERS]

C11. How old were you when you first started using smokeless tobacco daily?

[IF DON'T KNOW OR REFUSED, ENTER 99]

☐☐

[IF C11 = 99, ASK C12. OTHERWISE SKIP TO C13a.]

C12. How many years ago did you first start using smokeless tobacco daily?

[IF REFUSED, ENTER 99]

☐☐

C13a. How long has it been since you stopped using smokeless tobacco?

[ONLY INTERESTED IN WHEN RESPONDENT STOPPED USING SMOKELESS TOBACCO REGULARLY — DO NOT INCLUDE RARE INSTANCES OF USING SMOKELESS TOBACCO

ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

YEARS ..... ☐1

MONTHS..... ☐2

WEEKS ..... ☐3

DAYS..... ☐4

LESS THAN 1 DAY..... ☐5→ **SKIP TO C14**

DON'T KNOW ..... ☐7→ **SKIP TO NEXT SECTION (CC)**

REFUSED ..... ☐9→ **SKIP TO NEXT SECTION (CC)**

C13b. [ENTER NUMBER OF (YEARS/MONTHS/WEEKS/DAYS)]

[IF C13a/b < 1 YEAR (< 12 MONTHS), THEN CONTINUE. OTHERWISE SKIP TO NEXT SECTION (CC).]

IF B14 HAS NOT BEEN ASKED → CONTINUE WITH C14
IF B14 = YES → SKIP TO C16
IF B14 = NO OR REFUSED → 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?

	YES ▼	NO ▼	REFUSED ▼
a. Counseling, including at a cessation clinic?	☐1	☐2	☐9
b. Nicotine replacement therapy, such as the patch or gum?	☐1	☐2	☐9
c. Other prescription medications?	☐1	☐2	☐9
d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani?	☐1	☐2	☐9
d1. m-Cessation?	☐1	☐2	☐9
h. Try to quit without assistance?	☐1	☐2	☐9
g. Anything else?	☐1	☐2	☐9

→ g1. Please specify what you used to try to stop using smokeless tobacco:

_____

SECTION CC. USE OF OTHER PRODUCTS

CCINTRO. The next questions ask about your use of some other products that do not contain tobacco.

CC1. Do you consume pan masala without tobacco?

YES……1

NO……2 SKIP TO CC3

REFUSED……..9

CC2. How frequently do you consume pan masala without tobacco, would you say daily, not daily but at least once in a week, or only occasionally?

DAILY……..1

NOT DAILY, BUT WEEKLY……....2

OCCASIONALLY……..3

REFUSED……..9

CC3. Do you consume betel quid without tobacco?

YES……1

NO……2 SKIP TO CC5

REFUSED……..9

CC4. How frequently do you consume betel quid without tobacco, would you say daily, not daily but at least once in a week, or only occasionally?

DAILY……..1

NOT DAILY, BUT WEEKLY……....2

OCCASIONALLY……..3

REFUSED……..9

CC5. Do you consume areca nut of any type, plain, powdered or flavored?

YES……1

NO……2 SKIP TO NEXT SECTION (D1)

REFUSED……..9

CC6. How frequently do you consume areca nut, would you say daily, not daily but at least once in a week, or only occasionally?

DAILY……..1

NOT DAILY, BUT WEEKLY……....2

OCCASIONALLY……..3

REFUSED……..9

SECTION D1. CESSATION – TOBACCO SMOKING

IF B01 = 1 OR 2 (RESPONDENT CURRENTLY SMOKES TOBACCO), CONTINUE WITH THIS SECTION.
IF B01 = 3, 7, OR 9 (RESPONDENT DOES NOT CURRENTLY SMOKE TOBACCO), SKIP TO NEXT SECTION (D2).

D01. 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.

During the past 12 months, have you tried to stop smoking?

YES ..... ☐1

NO ..... ☐2→ SKIP TO INSTRUCTION BEFORE D04

REFUSED . ☐9→ SKIP TO INSTRUCTION BEFORE D04

D02a. Thinking about the last time you tried to quit, how long did you stop smoking?

[ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

MONTHS..... ☐1

WEEKS ..... ☐2

DAYS..... ☐3

LESS THAN 1 DAY (24 HOURS) .... ☐4→ **SKIP TO D03**

DON'T KNOW ..... ☐7→ **SKIP TO D03**

REFUSED ..... ☐9→ **SKIP TO D03**

D02b. [ENTER NUMBER OF (MONTHS/WEEKS/DAYS)]

D03. During the past 12 months, did you use any of the following to try to stop smoking tobacco?

	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?	☐ 1	☐ 2	☐ 9
d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani?	☐ 1	☐ 2	☐ 9
d1. m-Cessation?	☐ 1	☐ 2	☐ 9
e. A quit line or a smoking telephone support line?	☐ 1	☐ 2	☐ 9
f. Switching to smokeless tobacco?	☐ 1	☐ 2	☐ 9
h. Try to quit without assistance?	☐ 1	☐ 2	☐ 9
g. Anything else?	☐ 1	☐ 2	☐ 9

→ g1. Please specify what you used to try to stop smoking:

_____

IF C14 HAS NOT BEEN ASKED → CONTINUE WITH D04
IF C14 = YES → SKIP TO D06
IF C14 = NO OR REFUSED → SKIP TO D08

D04. 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 D08
REFUSED . ☐9→ SKIP TO D08

D05. 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

D06. 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 D08
REFUSED . ☐9→ SKIP TO D08

D07. 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

D08. 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

IF C01 = 1 OR 2 (RESPONDENT CURRENTLY USES SMOKELESS TOBACCO), CONTINUE WITH THIS SECTION.
IF C01 = 3, 7, OR 9 (RESPONDENT DOES NOT CURRENTLY USE SMOKELESS TOBACCO), SKIP TO NEXT SECTION (E).

D09. 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.

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

D10a. Thinking about the last time you tried to quit, how long did you stop using smokeless tobacco?

[ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

MONTHS..... ☐1
WEEKS ..... ☐2
DAYS..... ☐3
LESS THAN 1 DAY (24 HOURS) .... ☐4→ **SKIP TO D11**
DON'T KNOW ..... ☐7→ **SKIP TO D11**
REFUSED ..... ☐9→ **SKIP TO D11**

D10b. [ENTER NUMBER OF (MONTHS/WEEKS/DAYS)]

D11. During the past 12 months, did you use any of the following to try and stop using smokeless tobacco?

	YES	NO	REFUSED
	▼	▼	▼

a. Counseling, including at a cessation clinic? ..... ☐1 ..... ☐2 ..... ☐9

b. Nicotine replacement therapy, such as the patch or gum? ..... ☐1 ..... ☐2 ..... ☐9

c. Other prescription medications? ..... ☐1 ..... ☐2 ..... ☐9

d. Traditional medicines, for example Ayurvedic, Homeopathic, Unani? ..... ☐1 ..... ☐2 ..... ☐9

d1. m-Cessation? ..... ☐1 ..... ☐2 ..... ☐9

h. Try to quit without assistance? ..... ☐1 ..... ☐2 ..... ☐9

g. Anything else? Specify: _____ ..... ☐1 ..... ☐2 ..... ☐9

→ g1. Please specify what you used to try to stop using smokeless tobacco:

_____

IF BOTH B14 AND D04 HAVE NOT BEEN ASKED	**→ CONTINUE WITH D12**
IF B14 OR D04 = YES	**→ SKIP TO D14**
IF B14 OR D04 = NO OR REFUSED	**→ 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. SECONDHAND SMOKE

E01. I would now like to ask you a few questions about smoking in various places.

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 E04

NO RULES ..... ☐4→ SKIP TO E03

DON'T KNOW ..... ☐7→ SKIP TO E03

REFUSED ..... ☐9→ SKIP TO E03

E02. Inside your home, is smoking allowed in every room?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

E03. How often does <u>anyone</u> 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

E04. Do you currently work outside of your home?

YES ..... ☐1

NO/DON'T WORK..... ☐2→ SKIP TO E09

REFUSED ..... ☐9→ SKIP TO E09

E05. Do you usually work indoors or outdoors?

INDOORS..... ☐1→ SKIP TO E07

OUTDOORS .... ☐2

BOTH ..... ☐3→ SKIP TO E07

REFUSED ..... ☐9

E06. Are there any indoor areas at your work place?

YES ..... ☐1

NO ..... ☐2→ SKIP TO E09

DON'T KNOW ..... ☐7→ SKIP TO E09

REFUSED ..... ☐9→ SKIP TO E09

E07. 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

E08. During the past 30 days, did you notice anyone smoking in indoor areas where you work?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

E09. During the past 30 days, did you visit any government buildings or government offices?

YES ..... ☐1

NO ..... ☐2→ SKIP TO E23

DON'T KNOW ..... ☐7→ SKIP TO E23

REFUSED ..... ☐9→ SKIP TO E23

E10. Did you notice anyone smoking inside of any government buildings or government offices that you visited in the past 30 days?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

E23. During the past 30 days, did you visit any private offices/workplaces other than your own?

YES ..... ☐1

NO ..... ☐2→ SKIP TO E11

DON'T KNOW ..... ☐7→ SKIP TO E11

REFUSED ..... ☐9→ SKIP TO E11

E24. Did you notice anyone smoking inside of any of these private offices/workplaces you visited in the past 30 days?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐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 KNOW ..... ☐7→ SKIP TO E13

REFUSED ..... ☐9→ SKIP TO E13

E12. Did you notice anyone smoking inside of any health care facilities that you visited in the past 30 days?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

E13. During the past 30 days, did you visit any enclosed restaurants or public eating place?

YES ..... ☐1

NO ..... ☐2→ SKIP TO E15

DON'T KNOW ..... ☐7→ SKIP TO E15

REFUSED ..... ☐9→ SKIP TO E15

E14. Did you notice anyone smoking inside of any enclosed restaurants or public eating place that you visited in the past 30 days?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

EE14. In any restaurant that you visited in the past 30 days, did you see any no-smoking boards/signs?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

E15. During the past 30 days, did you use any public transportation?

YES ..... ☐1

NO ..... ☐2→ SKIP TO E25

DON'T KNOW ..... ☐7→ SKIP TO E25

REFUSED ..... ☐9→ SKIP TO E25

E16. Did you notice anyone smoking inside of any public transportation that you used in the past 30 days?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

E25. During the past 30 days, did you visit any bars or night clubs?

YES ..... ☐1
NO ..... ☐2→ SKIP TO EE25
DON'T KNOW ..... ☐7→ SKIP TO EE25
REFUSED ..... ☐9→ SKIP TO EE25

E26. Did you notice anyone smoking inside of any bars or night clubs that you visited in the past 30 days?

YES ..... ☐1
NO ..... ☐2
DON'T KNOW ..... ☐7
REFUSED ..... ☐9

EE25. During the past 30 days, did you visit any cinema hall or theatre?

YES ..... ☐1
NO ..... ☐2→ SKIP TO E17
DON'T KNOW ..... ☐7→ SKIP TO E17
REFUSED ..... ☐9→ SKIP TO E17

EE26. Did you notice anyone smoking inside of cinema hall or theatre that you visited in the past 30 days?

YES ..... ☐1
NO ..... ☐2
DON'T KNOW ..... ☐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

EE17. Based on what you know or believe, does breathing other people's smoke cause serious illness in children?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

SECTION F. ECONOMICS – MANUFACTURED CIGARETTES

IF [B01 = 1 OR 2 (RESPONDENT CURRENTLY SMOKES DAILY OR LESS THAN DAILY)]
AND
[(B06a OR B10a) > 0 AND <= 888 (RESPONDENT SMOKES MANUFACTURED CIGARETTES)],
THEN CONTINUE WITH THIS SECTION.

OTHERWISE, SKIP TO NEXT SECTION (FA).

F01a. The next few questions are about the last time you purchased cigarettes for yourself to smoke.

The last time you bought cigarettes for yourself, did you buy loose cigarettes, packets, or something else?

LOOSE CIGARETTES..... ☐1

PACKETS..... ☐2

OTHER (SPECIFY)..... ☐4→ F01c. [SPECIFY THE UNIT]:_____

NEVER BOUGHT CIGARETTES .... ☐5→ **SKIP TO NEXT SECTION (FA)**

REFUSED ..... ☐9→ **SKIP TO F04**

F01b. How many (loose cigarettes/cigarette packets/{F01c}) did you buy?

[IF F01a=CIGARETTES, GO TO F02]

[IF F01a=PACKS, GO TO F01dPack]

[IF F01a=OTHER, GO TO F01dOther]

F01dPack. Did each pack contain 10 cigarettes, 20 cigarettes, or another amount?

10..... ☐1

20..... ☐2

OTHER AMOUNT... ☐7→ F01dPackA. How many cigarettes were in each pack?

REFUSED..... ☐9

[GO TO F02]

F01dOther. How many cigarettes were in each {F01c}?

[IF REFUSED, ENTER 999]

F02. In total, how much money did you pay for this purchase?

[IF DON'T KNOW OR REFUSED, ENTER 9999]

☐ RANGE: 1 – 9998, 9999

F04. The last time you purchased cigarettes for yourself, where did you buy them?

STORE ..... ☐ 2
STREET VENDOR ..... ☐ 3
MILITARY STORE ..... ☐ 4
DUTY-FREE SHOP ..... ☐ 5
OUTSIDE THE COUNTRY ..... ☐ 6
KIOSKS/ PAN SHOP ..... ☐ 7
INTERNET ..... ☐ 8
FROM ANOTHER PERSON ..... ☐ 9
OTHER ..... ☐ 10 → F04a. [SPECIFY LOCATION]:_____
DON'T REMEMBER ..... ☐ 77
REFUSED ..... ☐ 99

SECTION FA. ECONOMICS – BIDIS

IF [B01 = 1 OR 2 (RESPONDENT CURRENTLY SMOKES DAILY OR LESS THAN DAILY)]
AND
[(B06c OR B10c) > 0 AND <= 888 (RESPONDENT SMOKES BIDIS)],
THEN CONTINUE WITH THIS SECTION.

OTHERWISE, SKIP TO NEXT SECTION (FB).

FA01a. The next few questions are about the last time you purchased bidis for yourself to smoke.

The last time you bought bidis for yourself, did you buy loose bidis, packets, or something else?

LOOSE BIDIS ..... ☐1

PACKETS..... ☐2

OTHER (SPECIFY)..... ☐4→ FA01c. [SPECIFY THE UNIT]:_____

NEVER BOUGHT BIDIS ..... ☐5→ **SKIP TO NEXT SECTION (FB)**

REFUSED ..... ☐9→ **SKIP TO FA04**

FA01b. How many (loose bidis/bidi packets/{FA01c}) did you buy?

[IF FA01a=BIDIS, GO TO FA02]

[IF FA01a=PACKS, GO TO FA01dPack]

[IF FA01a=OTHER, GO TO FA01dOther]

FA01dPack. Did each pack contain 10 bidis, 20 bidis, or another amount?

10..... ☐1

20..... ☐2

OTHER AMOUNT... ☐7→ FA01dPackA. How many bidis were in each pack?

REFUSED..... ☐9

[GO TO FA02]

FA01dOther. How many bidis were in each {FA01c}?

[IF REFUSED, ENTER 999]

FA02. In total, how much money did you pay for this purchase?

[IF DON'T KNOW OR REFUSED, ENTER 999]

☐ RANGE: 1 – 500, 999

FA04. 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/ PAN SHOP ..... ☐ 7
INTERNET ..... ☐ 8
FROM ANOTHER PERSON ..... ☐ 9
OTHER ..... ☐ 10 → FA04a. [SPECIFY LOCATION]:_____
DON'T REMEMBER ..... ☐ 77
REFUSED ..... ☐ 99

SECTION FB. ECONOMICS – SMOKELESS TOBACCO

IF C01 = 1 OR 2 (RESPONDENT CURRENTLY USES SMOKELESS TOBACCO DAILY OR LESS THAN DAILY), THEN CONTINUE WITH THIS SECTION.

OTHERWISE, SKIP TO NEXT SECTION (G).

FB01a. The next few questions are about the last time you purchased smokeless tobacco products for yourself to use.

The last time when you bought smokeless tobacco for yourself, did you buy it in a single use pouch, in a large pouch or can, or as a loose product?

SINGLE USE POUCH..... ☐1

LARGE POUCH OR CAN ..... ☐2

LOOSE PRODUCT ..... ☐3→ **SKIP TO FB02**

NEVER BOUGHT SMOKELESS TOBACCO ..... ☐4→ **SKIP TO NEXT SECTION (G)**

REFUSED ..... ☐9→ **SKIP TO FB04**

FB01b. How many {single use pouches/large pouches or cans} did you buy?

FB01c. How much money did you pay for each {single use pouch/large pouch or can}?

[IF DON'T KNOW OR REFUSED, ENTER 999]

RUPEES

→ **SKIP TO FB04**

FB02.In total, how much money did you pay for this purchase?

[IF DON'T KNOW OR REFUSED, ENTER 999]

☐ RANGE: 1 – 500, 999

FB04. 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/ PAN SHOP ..... ☐ 7

INTERNET ..... ☐ 8

FROM ANOTHER PERSON ..... ☐ 9

OTHER ..... ☐ 10 → FB04a. [SPECIFY LOCATION]:_____

DON'T REMEMBER ..... ☐ 77

REFUSED ..... ☐ 99

SECTION G. MEDIA – STRUCTURE #1

G01intro. The next questions ask about your exposure to the media and advertisements in the last 30 days. First, I am going to ask you about noticing information about the dangers of smoking tobacco.

G01. In the last 30 days, have you noticed information about the dangers of smoking tobacco or that encourages quitting in any of the following places?

	YES ▼	NO ▼	NOT APPLICABLE ▼	REFUSED ▼
a. In newspapers or in magazines?	☐ 1	☐ 2	☐ 7	☐ 9
b. On television?	☐ 1	☐ 2	☐ 7	☐ 9
c. On the radio?	☐ 1	☐ 2	☐ 7	☐ 9
d. On billboards/hoardings?	☐ 1	☐ 2	☐ 7	☐ 9
f. In cinemas?	☐ 1	☐ 2	☐ 7	☐ 9
g. On the internet?	☐ 1	☐ 2	☐ 7	☐ 9
h. On public transportation vehicles or stations?	☐ 1	☐ 2	☐ 7	☐ 9
i. On public walls?	☐ 1	☐ 2	☐ 7	☐ 9
e. Somewhere else?	☐ 1	☐ 2		☐ 9

[DO NOT INCLUDE HEALTH WARNINGS ON CIGARETTE PACKAGES]

→ e1. Please specify where: _____

GG1. [ADMINISTER IF B01=1 OR 2 AND AT LEAST 1 FOR ANY BETWEEN G01a TO G01e]

Did any of the information you just reported noticing about the dangers of smoking tobacco in the last 30 days lead you to think about quitting smoking?

YES ..... ☐ 1

NO ..... ☐ 2

DON'T KNOW ..... ☐ 7

REFUSED ..... ☐ 9

G201intro. Now I am going to ask you about noticing information about the dangers of using smokeless tobacco.

G201. In the last 30 days, have you noticed information about the dangers of using smokeless tobacco or that encourages quitting in any of the following places?

	YES ▼	NO ▼	NOT APPLICABLE ▼	REFUSED ▼
a. In newspapers or in magazines?	☐ 1	☐ 2	☐ 7	☐ 9
b. On television?	☐ 1	☐ 2	☐ 7	☐ 9
c. On the radio?	☐ 1	☐ 2	☐ 7	☐ 9
d. On billboards/hoardings?	☐ 1	☐ 2	☐ 7	☐ 9
f. In cinemas?	☐ 1	☐ 2	☐ 7	☐ 9
g. On the internet?	☐ 1	☐ 2	☐ 7	☐ 9
h. On public transportation vehicles or stations?	☐ 1	☐ 2	☐ 7	☐ 9
i. On public walls?	☐ 1	☐ 2	☐ 7	☐ 9
e. Somewhere else?	☐ 1	☐ 2		☐ 9

[DO NOT INCLUDE HEALTH WARNINGS ON SMOKELESS TOBACCO PACKAGES]

→ e1. Please specify where: _____

GG2. [ADMINISTER IF C01=1 OR 2 AND AT LEAST 1 FOR ANY BETWEEN G201a TO G201e]

Did any of the information you just reported noticing about the dangers of using smokeless tobacco in the last 30 days lead you to think about quitting the use of smokeless tobacco?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

G02intro. The next questions ask about noticing health warnings on tobacco products.

G02. In the last 30 days, did you notice any health warnings on cigarette packages?

YES ..... ☐1

NO ..... ☐2→ **SKIP TO G02b**

DID NOT SEE ANY CIGARETTE PACKAGES ... ☐3→ **SKIP TO G02b**

REFUSED ..... ☐9→ **SKIP TO G02b**

G03. [ADMINISTER IF B01 = 1 OR 2. ELSE GO TO G02b]

In the last 30 days, have warning labels on cigarette packages led you to think about quitting?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ☐7

REFUSED ☐9

G02b. In the last 30 days, did you notice any health warnings on bidi packages?

YES ..... ☐1

NO ..... ☐2→ **SKIP TO G02a**

DID NOT SEE ANY BIDI PACKAGES ..... ☐3→ **SKIP TO G02a**

REFUSED ..... ☐9→ **SKIP TO G02a**

G03b. [ADMINISTER IF (B01 = 1 OR 2) AND [(B06c OR B10c) > 0 AND <= 888]. ELSE GO TO G02a]

In the last 30 days, have warning labels on bidi packages led you to think about quitting smoking bidis?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ☐7
REFUSED ☐9

G02a. In the last 30 days, did you notice any health warnings on smokeless tobacco products?

YES ..... ☐1

NO ..... ☐2→ **SKIP TO GG3**

DID NOT SEE ANY SMOKELESS PRODUCTS . ☐3→ **SKIP TO GG3**

REFUSED ..... ☐9→ **SKIP TO GG3**

G03a. [ADMINISTER IF C01 = 1 OR 2. ELSE GO TO GG3]

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

GG3. In the last 30 days, have you noticed any information in the media about the dangers of secondhand tobacco smoke?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

GG4. In the last 30 days, have you seen a notice of no sale to minors in stores where any tobacco products are sold?

YES ..... ☐1

NO ..... ☐2

NOT APPLICABLE..... ☐7

REFUSED ..... ☐9

G04intro. The next questions ask about your exposure to advertising that is designed to promote the use of tobacco products. First, I will ask about noticing advertisements of smoking tobacco products.

G04. In the last 30 days, have you noticed any advertisements or signs promoting <u>smoking tobacco products</u> in the following places?

	YES ▼	NO ▼	NOT APPLICABLE ▼	REFUSED ▼
a. In stores where cigarettes are sold?	☐ 1	☐ 2	☐ 7	☐ 9
b. On television?	☐ 1	☐ 2	☐ 7	☐ 9
c. On the radio?	☐ 1	☐ 2	☐ 7	☐ 9
d. On billboards/hoardings?	☐ 1	☐ 2	☐ 7	☐ 9
e. On posters?	☐ 1	☐ 2	☐ 7	☐ 9
f. In newspapers or magazines?	☐ 1	☐ 2	☐ 7	☐ 9
g. In cinemas?	☐ 1	☐ 2	☐ 7	☐ 9
h. On the internet?	☐ 1	☐ 2	☐ 7	☐ 9
i. On public transportation vehicles or stations?	☐ 1	☐ 2	☐ 7	☐ 9
j. On public walls?	☐ 1	☐ 2	☐ 7	☐ 9
k. Anywhere else?	☐ 1	☐ 2		☐ 9

→ k1. Please specify where: _____

G204intro. Now I will ask about noticing advertisements of smokeless tobacco products.

G204. In the last 30 days, have you noticed any advertisements or signs promoting <u>smokeless tobacco products</u> in the following places?

	YES ▼	NO ▼	NOT APPLICABLE ▼	REFUSED ▼
a. In stores where smokeless tobacco is sold?	☐ 1	☐ 2	☐ 7	☐ 9
b. On television?	☐ 1	☐ 2	☐ 7	☐ 9
c. On the radio?	☐ 1	☐ 2	☐ 7	☐ 9

d. On billboards/hoardings? ..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

e. On posters?..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

f. In newspapers or magazines? ..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

g. In cinemas?..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

h. On the internet? ..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

i. On public transportation vehicles or stations? ..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

j. On public walls? ..... ☐ 1 ..... ☐ 2 ..... ☐ 7..... ☐ 9

k. Anywhere else?..... ☐ 1 ..... ☐ 2 ..... ☐ 9

→ k1. Please specify where: _____

G06intro. The next questions ask about your exposure to various promotions of cigarettes, bidis, and smokeless tobacco. First I will ask about cigarettes.

G06. In the last 30 days, have you noticed any of the following types of cigarette promotions?

	YES ▼	NO ▼	DON'T KNOW ▼	REFUSED ▼
a. Free samples of cigarettes?	☐ 1	☐ 2	☐ 7	☐ 9
b. Cigarettes sold at sale prices?	☐ 1	☐ 2	☐ 7	☐ 9
c. Coupons for cigarettes?	☐ 1	☐ 2	☐ 7	☐ 9
d. Free gifts or special discount offers on other products when buying cigarettes?	☐ 1	☐ 2	☐ 7	☐ 9
e. Clothing or other items with a cigarette brand name or logo?	☐ 1	☐ 2	☐ 7	☐ 9
f. Cigarette promotions in the mail?	☐ 1	☐ 2	☐ 7	☐ 9
g. Surrogate advertisements promoting other products with the same brand name as cigarettes?	☐ 1	☐ 2	☐ 7	☐ 9

G206intro. Now I will ask about promotions of bidis.

G206. In the last 30 days, have you noticed any of the following types of bidi promotions?

	YES ▼	NO ▼	DON'T KNOW ▼	REFUSED ▼
a. Free samples of bidis?	☐ 1	☐ 2	☐ 7	☐ 9
b. Bidis sold at sale prices?	☐ 1	☐ 2	☐ 7	☐ 9
c. Coupons for bidis?	☐ 1	☐ 2	☐ 7	☐ 9
d. Free gifts or special discount offers on other products when buying bidis?	☐ 1	☐ 2	☐ 7	☐ 9
e. Clothing or other items with a bidi brand name or logo?	☐ 1	☐ 2	☐ 7	☐ 9
f. Bidi promotions in the mail?	☐ 1	☐ 2	☐ 7	☐ 9
g. Surrogate advertisements promoting other products with the same brand name as bidis?	☐ 1	☐ 2	☐ 7	☐ 9

G306intro. Now I will ask about promotions of smokeless tobacco.

G306. In the last 30 days, have you noticed any of the following types of smokeless tobacco promotions?

	YES ▼	NO ▼	DON'T KNOW ▼	REFUSED ▼
a. Free samples of smokeless tobacco?	☐ 1	☐ 2	☐ 7	☐ 9
b. Smokeless tobacco sold at sale prices?	☐ 1	☐ 2	☐ 7	☐ 9
c. Coupons for smokeless tobacco?	☐ 1	☐ 2	☐ 7	☐ 9
d. Free gifts or special discount offers on other products when buying smokeless tobacco?	☐ 1	☐ 2	☐ 7	☐ 9
e. Clothing or other items with a smokeless tobacco brand name or logo?	☐ 1	☐ 2	☐ 7	☐ 9
f. Smokeless tobacco promotions in the mail?	☐ 1	☐ 2	☐ 7	☐ 9
g. Surrogate advertisements promoting other products with the same brand name as smokeless tobacco?	☐ 1	☐ 2	☐ 7	☐ 9

SECTION H. KNOWLEDGE, ATTITUDES & PERCEPTIONS

H01. The next question is asking about <u>smoking</u> tobacco.

Based on what you know or believe, does smoking tobacco cause serious illness?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

H02. Based on what you know or believe, does smoking tobacco cause the following…

	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
d. Chronic cough/Tuberculosis (TB)?	☐1	☐2	☐7	☐9

H03. Based on what you know or believe, does using <u>smokeless tobacco</u> cause serious illness?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

HH01. Based on what you know or believe, does use of smokeless tobacco cause the following…

	YES ▼	NO ▼	DON'T KNOW ▼	REFUSED ▼
a. Oral cancer?	☐1	☐2	☐7	☐9
b. Dental diseases?	☐1	☐2	☐7	☐9

HH02. Based on what you know or believe, does using smokeless tobacco during pregnancy cause harm to a fetus?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

HH03. Do you think the use of tobacco in any form leads to addiction?

YES ..... ☐1

NO ..... ☐2

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

HH07. [IF B01 = 1 OR 2 (CURRENTLY SMOKES DAILY OR LESS THAN DAILY)]

Based on what you know or believe, has smoking already done any harm to your body? Would you say definitely no, probably no, probably yes, or definitely yes?

DEFINITELY NO ..... ☐1

PROBABLY NO ..... ☐2

PROBABLY YES..... ☐3

DEFINITELY YES ..... ☐4

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

HH08. [IF C01 = 1 OR 2 (CURRENTLY USES SMOKELESS TOBACCO DAILY OR LESS THAN DAILY)]

Based on what you know or believe, has using smokeless tobacco already done any harm to your body? Would you say definitely no, probably no, probably yes, or definitely yes?

DEFINITELY NO ..... ☐1

PROBABLY NO ..... ☐2

PROBABLY YES..... ☐3

DEFINITELY YES ..... ☐4

DON'T KNOW ..... ☐7

REFUSED ..... ☐9

AA12. [ONLY FOR FEMALES AGED LESS THAN 50]

Are you currently pregnant?

YES ..... ☐1

NO ..... ☐2

DON’T KNOW ..... ☐7

REFUSED ..... ☐9

END INDIVIDUAL QUESTIONNAIRE

I00. Those are all of the questions I have. Thank you very much for partcipating in this important survey.

I02. [RECORD ANY NOTES ABOUT INTERVIEW:]

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Appendix G – MPOWER Summary Indicators

Appendix G-1: MPOWER Summary indicators, GATS India 2016-17					
INDICATOR		**Gender**		**Residence**	
	Overall	**Male**	**Female**	**Urban**	**Rural**
M: Monitor tobacco use and prevention policies					
Current tobacco users[1]	28.6	42.4	14.2	21.2	32.5
Current tobacco smokers[1]	10.7	19.0	2.0	8.3	11.9
Current cigarette smokers[1,2]	4.0	7.3	0.6	8.4	6.8
Current *bidi* smokers[1]	7.7	14.0	1.2	8.8	16.8
Current smokeless tobacco users[1]	21.4	29.6	12.8	15.2	24.6
Current 'betel quid with tobacco' users	5.8	7.1	4.5	4.3	6.6
Current khaini users	11.2	17.9	4.2	6.8	13.5
Current gutka users	6.8	10.8	2.7	6.3	7.1
Current 'pan masala with tobacco' users	2.8	4.5	1.1	2.3	3.1
Current 'oral tobacco application' users	3.8	3.3	4.3	2.8	4.4
Average number of cigarettes smoked per day	6.8	7.0	5.2	6.3	7.2
Average number of *bidis* smoked per day	15.1	15.6	7.8	14.3	15.3
Average age at initiation of daily smoking (among daily smokers aged 20-34)	18.9	18.8	21.2	19.0	18.8
Average age at initiation of daily smokeless tobacco use (among daily smokeless tobacco users aged 20-34)	18.8	18.7	19.2	18.9	18.8
Former tobacco smokers among ever daily smokers	16.8	16.8	17.6	18.2	16.3
Former smokeless tobacco users among ever daily smokeless tobacco users	5.8	5.2	7.0	7.1	5.3
P: Protect people from tobacco smoke					
Percentage of adults exposed to second hand smoke at work	30.2	32.7	17.9	25.3	34.3
Percentage of adults exposed to second hand smoke in public places:					
Government buildings	5.3	8.1	2.4	5.9	5.0
Health-care facilities	5.6	6.8	4.4	5.7	5.5

Restaurants	7.4	13.0	1.6	8.4	7.0
Public transportation	13.3	16.6	9.9	13.0	13.5
Private offices	3.6	5.8	1.4	5.0	2.9
Bar/Night Club	2.1	4.1	0.1	2.5	2.0
Cinema Hall/theatre	2.2	3.9	0.4	3.5	1.6
Any of these seven public places	25.7	35.7	15.2	27.4	24.8
O: Offer help to quit tobacco use					
Percentage of smokers[3] who made quit attempt in the past 12 months	38.5	38.8	35.5	41.5	37.4
Percentage of smokers[3] who were advised to quit smoking by a health care provider	48.8	50.3	36.6	53.1	47.4
Percentage of smokers[3] who attempted to quit smoking using a specific cessation method					
Pharmacotherapy	4.1	4.2	3.0	6.6	3.0
Counseling/Advice or Quit Lines	8.6	8.6	8.7	8.2	8.8
Switching to smokeless tobacco	4.1	4.0	5.1	2.7	4.7
Other methods for smoking cessation[4]	4.8	4.6	6.7	5.6	4.4
Percentage of smokeless tobacco users[3] who made a quit attempt in the past 12 months	33.2	35.2	28.4	36.7	32.1
Percentage of smokeless tobacco users[3] who were advised to quit smokeless tobacco use by a health care provider	31.7	33.3	28.6	35.2	30.6
Percentage of smokeless tobacco users[3] who attempted to quit smokeless tobacco use using a specific cessation method					
Counseling/advice	7.3	7.0	8.4	8.7	6.8
Other methods	5.2	5.5	4.3	6.1	4.9
Percentage of current smokers interested in quitting smoking[5]:	55.4	56.3	46.5	61.2	53.2
Percentage of current smokeless tobacco users interested in quitting smokeless tobacco use:	49.6	52.7	42.2	54.7	48.0
W: Warn about the dangers of tobacco					
Percentage adults who believe tobacco smoking causes serious illness	92.4	92.8	92.0	93.1	92.1
Percentage adults who believe tobacco smoking causes specific disease:					
Stroke	65.8	69.5	61.9	68.8	64.2

Heart attack	76.7	79.4	73.8	81.8	74.0
Lung cancer	93.5	95.3	91.6	95.7	92.4
Tuberculosis	92.3	94.3	90.3	93.6	91.6
Percentage adults who believe smokeless tobacco smoking causes serious illness	95.6	96.4	94.8	96.8	95.0
Percentage adults who believe use of smokeless tobacco causes specific disease:					
Oral cancer	94.4	96.1	92.7	96.4	93.4
Dental diseases	90.7	93.1	88.2	92.1	90.0
Percentage adults who believe use of smokeless tobacco during pregnancy harms foetus	87.9	86.4	89.5	89.7	86.9
Percentage of adults who believe breathing other people's smoke causes serious illness in non-smokers	92.4	94.0	90.8	94.5	91.3
Percentage of adults who believe breathing other people's smoke causes serious illness in children	93.3	94.8	91.8	95.2	92.3
E: Enforce bans on tobacco advertising or promotion					
Percentage of adults who noticed any advertisement of smoking tobacco	19.2	23.0	15.2	22.1	17.7
Percentage of adults who noticed any advertisement of smoking tobacco or promotion of cigarette or bidi	22.3	26.6	17.7	25.0	20.9
Percentage of adults who noticed any advertisement of smokeless tobacco	18.3	22.4	14.1	21.4	16.7
Percentage of adults who noticed any smokeless tobacco advertisement or promotion*	20.5	25.2	15.6	23.7	18.9
Percentage of adults who noticed anti-smoking information at any location *	76.0	84.3	67.3	88.5	69.4
Percentage of adults who noticed anti-smokeless tobacco information at any location *	67.3	75.5	58.6	78.4	61.4
R: Raise taxes on tobacco					
Average cigarette expenditure per month among current manufactured cigarette smokers (Rs)	1192.5	1195.5	731.7	1329.3	1039.6
Average *bidi* expenditure per month among current *bidi* smokers (Rs)	284.1	294.7	138.3	275.6	286.4
Last cigarette purchase was from store	50.8	50.9	39.2	49.5	51.9
Last cigarette purchase was from a street vendor	9.2	9.2	9.3	8.6	9.7

Last *bidi* purchase was from store	60.4	59.6	71.4	53.6	62.3
Last *bidi* purchase was from a street vendor	7.0	7.3	3.2	7.9	6.8
Last smokeless tobacco purchase was from store	55.6	53.5	60.8	49.9	57.5
Last smokeless tobacco purchase was from a street vendor	6.8	5.7	9.6	7.1	6.8

Appendix G-2: MPOWER Summary indicators according to States/UT, GATS India 2016-17

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	Current users of smokeless tobacco who made a quit attempt in the past 12 months	Current users of smokeless tobacco who were advised to quit smokeless tobacco use by HCP	Adults who believe tobacco smoking causes serious illness	Adults who believe smokeless tobacco causes serious illness	Adults who noticed any advertisement of smoking tobacco or promotion of cigarette or bidi	Adults who noticed any advertisement or promotion of smokeless tobacco	Average cigarette expenditure per month	Average *bidi* expenditure per month
India	28.6	10.7	21.4	30.2	36.2	38.5	48.8	33.2	31.7	92.4	95.6	22.3	20.5	1192.5	284.1
Jammu & Kashmir	23.7	20.8	4.3	57.5	51.4	24.8	50.1	27.0	38.8	91.5	94.8	29.2	20.4	2622.5	197.0
Himachal Pradesh	16.1	14.2	3.1	20.5	17.7	41.3	53.3	38.3	27.9	95.6	98.1	19.8	15.0	610.8	245.9
Punjab	13.4	7.3	8.0	23.3	24.8	24.6	33.9	23.0	23.9	94.6	98.3	19.1	17.1	2616.0	131.9
Chandigarh	13.7	9.4	6.1	20.0	20.4	45.0	37.3	33.7	54.4	94.1	99.2	12.8	11.2	1290.3	139.4
Uttarakhand	26.5	18.1	12.4	24.5	47.6	35.7	37.6	36.8	19.1	98.3	99.2	28.7	32.3	515.5	193.9
Haryana	23.6	19.7	6.3	52.9	51.6	37.4	55.0	45.2	46.6	92.6	97.8	30.6	24.5	1349.4	184.2

Delhi	17.8	11.3	8.8	20.4	39.5	45.7	25.6	48.0	12.3	92.9	97.9	42.8	33.8	1528.6	560.0
Rajasthan	24.7	13.2	14.1	25.3	43.4	44.3	53.0	46.8	37.5	94.6	95.7	18.7	18.9	835.0	423.4
Uttar Pradesh	35.5	13.5	29.4	35.7	50.2	45.7	36.5	44.9	25.5	95.4	97.9	39.5	36.7	727.9	159.6
Chhattisgarh	39.1	5.5	36.0	21.3	36.4	30.0	48.1	21.4	31.3	96.4	98.2	18.2	17.2	473.2	217.8
Madhya Pradesh	34.2	10.2	28.1	38.0	46.2	42.2	43.0	36.4	28.9	88.6	96.5	7.1	12.2	467.8	117.5
West Bengal	33.5	16.7	20.1	57.5	32.6	35.2	64.4	26.0	35.3	96.3	95.7	39.8	36.6	970.4	390.5
Jharkhand	38.9	11.1	35.4	34.0	43.3	18.4	25.8	18.7	19.5	77.4	91.2	16.8	16.4	659.5	135.1
Odisha	45.6	7.0	42.9	16.7	19.6	39.6	19.7	33.9	19.7	89.2	92.4	37.4	39.8	625.9	200.3
Bihar	25.9	5.1	23.5	16.8	37.7	32.2	45.1	27.1	37.0	96.8	98.0	6.0	6.4	691.0	106.5
Sikkim	17.9	10.9	9.7	21.9	42.5	22.8	35.2	28.3	29.5	77.6	93.1	17.6	13.6	1349.0	508.3
Arunachal Pradesh	45.5	22.7	39.3	19.7	39.6	26.9	42.2	25.1	30.9	90.5	92.2	38.3	32.8	1240.7	330.6
Nagaland	43.3	13.2	39.0	26.5	41.9	29.3	49.0	16.9	42.2	88.9	96.0	25.9	22.8	1473.9	265.5
Manipur	55.1	20.9	47.7	43.3	42.7	30.0	50.2	19.9	20.8	94.9	99.0	9.7	3.9	351.2	135.8
Mizoram	58.7	34.4	33.5	44.4	35.2	27.4	51.8	31.3	37.5	96.7	96.7	21.4	11.8	712.6	256.1
Tripura	64.5	27.7	48.5	25.0	16.6	33.9	64.3	27.0	38.8	96.1	97.6	30.4	22.8	803.3	316.6
Meghalaya	47.0	31.6	20.3	45.7	38.0	20.7	41.6	32.4	53.8	91.0	94.2	11.9	7.7	1192.0	181.4
Assam	48.2	13.3	41.7	30.8	26.2	39.8	26.1	30.1	30.2	90.2	91.1	25.8	24.2	799.4	786.6

Gujarat	25.1	7.7	19.2	20.9	37.1	24.0	48.0	25.6	33.4	82.7	91.6	31.5	32.9	755.6	447.7
Maharashtra	26.6	3.8	24.4	20.1	31.6	20.9	45.2	22.9	30.2	92.2	96.4	13.7	10.1	1028.3	255.3
Goa	9.7	4.2	6.5	17.9	21.7	20.6	49.1	33.5	44.4	89.3	98.2	35.5	28.2	530.9	186.6
Andhra Pradesh	20.0	14.2	7.1	43.3	30.7	43.1	80.1	41.3	47.1	96.5	96.6	2.4	1.3	1217.3	158.2
Telangana	17.8	8.3	10.1	30.9	30.9	53.2	88.3	35.7	49.4	94.1	96.9	10.9	9.5	1005.2	212.9
Karnataka	22.8	8.8	16.3	24.8	38.5	51.5	51.7	44.6	63.9	86.4	89.1	27.3	23.3	1802.2	352.9
Kerala	12.7	9.3	5.4	20.8	18.9	48.1	60.5	51.7	36.4	93.9	93.2	10.3	2.7	1166.0	351.0
Tamil Nadu	20.0	10.5	10.6	20.2	21.0	31.7	73.8	24.0	59.1	91.1	95.1	6.1	4.2	1343.8	522.7
Puducherry	11.2	7.2	4.7	25.3	30.6	51.9	52.1	55.6	47.9	96.4	97.6	11.0	10.2	1358.6	1071.2