

# GATS | Kenya



## GLOBAL ADULT TOBACCO SURVEY - 2014 COUNTRY REPORT





**Ministry of Health**



# **Global Adult Tobacco Survey (GATS)**

## **Kenya Report, 2014**

**DECEMBER 2014**

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## ACRONYMS AND ABBREVIATIONS

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<b>AFRO</b>	Regional Office for Africa
<b>CDC</b>	US Centers for Disease Control and Prevention
<b>CPHA</b>	Canadian Public Health Association
<b>EAC</b>	East African Community
<b>EAs</b>	Enumeration Areas
<b>EPSEM</b>	Equal Probability Selection Method
<b>FCTC</b>	Framework Convention on Tobacco Control
<b>GATS</b>	Global Adult Tobacco Survey
<b>GDP</b>	Gross Domestic Product
<b>GHPSS</b>	Global Health Professional Students Survey
<b>GSPS</b>	Global School Professionals Survey
<b>GSS</b>	General Survey System
<b>GTSS</b>	Global Tobacco Surveillance System
<b>GYTS</b>	Global Youth Tobacco Survey
<b>ICD</b>	International Classification of Diseases
<b>IPAQ</b>	Used interchangeably for PDA
<b>ITP</b>	Protocol to eliminate Illicit Trade in Tobacco Products
<b>JHSPH</b>	Johns Hopkins School of Public Health
<b>KDHS</b>	Kenya Demographic Health Survey
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>KSh</b>	Kenya Shillings
<b>MOA</b>	Ministry of Agriculture
<b>MOH</b>	Ministry of Health
<b>MOS</b>	Measure of Size
<b>MPOWER</b>	Evidence-based tobacco control measures that are proven to reduce tobacco use including: <b>M</b> onitoring tobacco use, <b>P</b> rotecting people from exposure to secondhand tobacco smoke, <b>W</b> arning people about effects of tobacco, <b>E</b> nforcing ban on tobacco advertising , promotion and sponsorship, <b>R</b> aising tobacco taxes
<b>NASSEP</b>	National Sample Survey and Evaluation Programme
<b>NCDs</b>	Noncommunicable Diseases
<b>PDA</b>	Personal Digital Assistant
<b>PHW</b>	Pictorial Health Warnings
<b>PPS</b>	Probability Proportional to Size
<b>PSU</b>	Primary Sampling Unit
<b>SD card</b>	Secure Digital Card
<b>SHS</b>	Secondhand Tobacco smoke
<b>SPSS</b>	Statistical Package for Social Scientists
<b>TAPS</b>	Tobacco Advertising, Promotion and Sponsorship
<b>TCA</b>	Tobacco Control Act
<b>TCB</b>	Tobacco Control Board
<b>TCU</b>	Tobacco Control Unit
<b>WHO</b>	World Health Organization

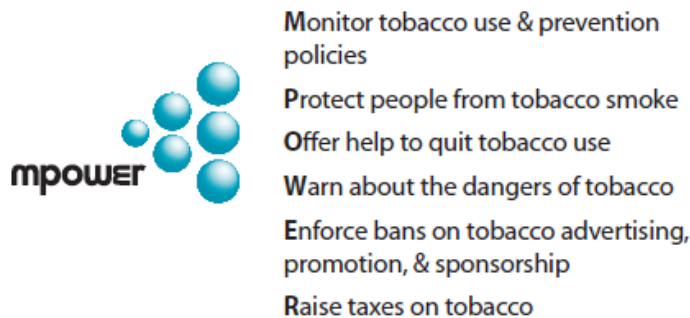
## EXECUTIVE SUMMARY

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The Global Adult Tobacco Survey (GATS) is the global standard for systematically monitoring adult tobacco use (smoking and smokeless) and tracking key tobacco control indicators. GATS Kenya is a nationally representative household survey of non-institutionalized men and women aged 15 years and older. The survey was designed to produce internationally comparable data for the country as a whole, and by gender and place of residence (urban/rural).

GATS Kenya was conducted by the Kenya National Bureau of Statistics (KNBS) under the coordination of the Ministry of Health. Technical assistance was provided by the World Health Organization (WHO) and the U.S. Centers for Disease Control and Prevention (CDC). Financial support is provided by the Bloomberg Initiative to Reduce Tobacco Use through the CDC Foundation with a grant from the Bill & Melinda Gates Foundation and program support was provided by the CDC Foundation.

GATS enhances a country's capacity to design, implement and monitor effective tobacco control programs and policies. It also fulfills Kenya's obligations under the WHO Framework Convention on Tobacco Control (WHO FCTC), ratified in June 2004, to generate tobacco use data that are comparable within and across countries. WHO has identified a set of six evidence-based tobacco control strategies, summarized by the acronym MPOWER, that are most effective in reducing tobacco use. These include:



### METHODOLOGY

GATS uses a standard survey protocol across countries. In Kenya, GATS was conducted in 2014 as a household survey of persons 15 years of age and older, and was the first stand-alone survey on tobacco use. A multi-stage stratified cluster design was used to obtain nationally representative data. Survey information was collected using electronic handheld devices. A total of 5,376 households were sampled, and one individual was randomly selected from each participating household to complete the survey. There were a total of 4,408 individuals completed interviews. The overall response rate, a combined household and person-level response rate, was 87.1%. The response rate in urban areas was 85.6% and in rural areas was 88.8%.

The survey collected information on background characteristics, tobacco use (smoking and smokeless), cessation, secondhand smoke exposure, economic indicators, exposure to tobacco advertising and promotion, as well as knowledge, attitudes and perceptions towards tobacco use.

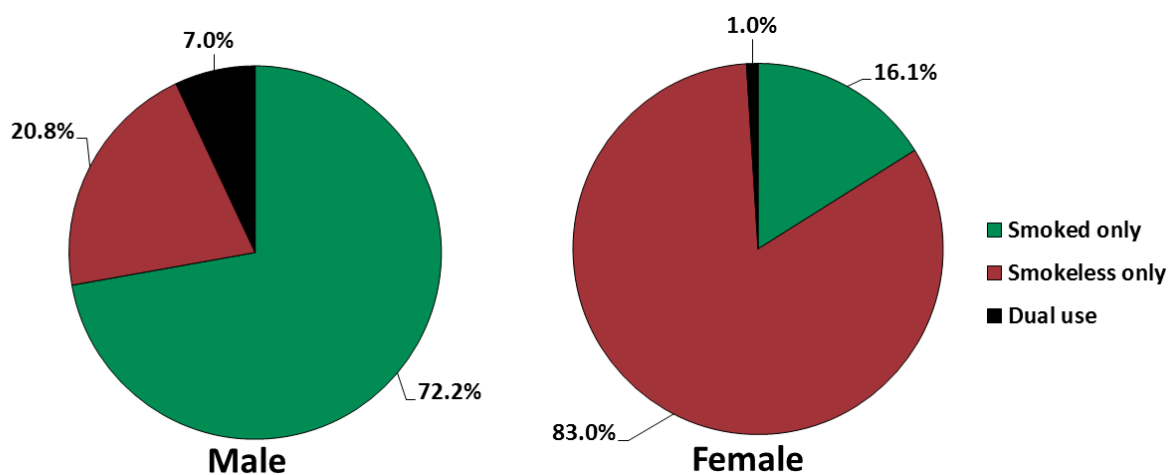
### TOBACCO USE

Tobacco use is one of the most common risk factors for non-communicable diseases (NCDs). According to the Kenya Ministry of Health, NCDs contribute to nearly 50% of all admissions in public hospitals countrywide. In Kenya, 69 per 100,000 deaths for individuals aged 30 and above result from tobacco use. Five percent of all non-communicable deaths in Kenya result from tobacco use, and 55% of all deaths from cancers of the trachea, bronchitis, and lung are attributable to tobacco.

The survey found that:

- 19.1% of men, 4.5% of women, and 11.6% overall (2.5 million adults) currently used tobacco (smoking and/or smokeless tobacco).
- 15.1% of men, 0.8% of women, and 7.8% of all adults (1.7 million adults) currently smoked tobacco.
- 5.3% of men, 3.8% of women, and 4.5% of all adults(1.0 million adults) currently used smokeless tobacco.
- 72.0% of daily tobacco users use tobacco (smoking and/or smokeless tobacco) within 30 minutes of waking up.
- Overall, 6.0% of the adults were daily tobacco smokers, 1.8% were occasional tobacco users, and 92.2% were non-smokers. An estimated 6.7% and 4.5% of the rural and urban residents, respectively, were daily tobacco smokers.
- Overall, 41.3% of current smokers initiated smoking between 20-24 years of age, while 32.3% initiated between 17-19 years, 13.5% between 15-16 years, and 7.5% when they were less than 15 years of age.
- Among current tobacco users, 61.0% used smoked tobacco only (72.2% of men and 16.1% of women), 33.2% used smokeless tobacco only (20.8% of men and 83.0% of women) and 5.8% used both smoked and smokeless tobacco (7.0% of men and 1.0% of women). The majority of male tobacco users smoked tobacco, while most female tobacco users used smokeless tobacco (Figure 1).

**Figure 1: Type of Tobacco Use by Gender, GATS Kenya, 2014**



## CESSATION

Tobacco cessation refers to the process of stopping the use of any tobacco products, with or without assistance. Tobacco is highly addictive, and therefore it is essential to strengthen health care systems to promote tobacco cessation. Health care providers play a key role in early identification of tobacco use and have a responsibility to intervene by advising users to quit.

The survey found that:

- Over half (52.4%) of tobacco smokers attempted to quit smoking in the past 12 months.
- Of those who attempted to quit, 7 in 10 tobacco smokers tried to quit without any assistance.
- Of tobacco smokers who visited a healthcare provider in the past 12 months, 3 in 10 were advised to quit smoking.
- 77.4% of current tobacco smokers planned to or were thinking about quitting.

## SECONDHAND SMOKE

Exposure to secondhand smoke (SHS) causes tobacco-related disease and death. SHS is composed of two forms of smoke from burning tobacco: side stream smoke that comes from the lit end of a tobacco product such as a cigarette, pipe, or cigar; and mainstream smoke exhaled by a smoker. According to the 2007 Tobacco Control Act (TCA), smoking is prohibited in public places and workplaces, except in specially designated smoking areas. The Act also declares that there is no safe level of exposure to SHS. The survey examined information on SHS exposure at work, at home, or when visiting various public places in the past 30 days among those who visited those places. It also inquired if respondents support laws prohibiting smoking in various public places.

The survey found that:

- 17.6% of adults who worked indoors (0.7 million adults) were exposed to SHS a
- in the workplace.
- 14.3% of adults (3.1 million adults) were exposed to SHS at home.
- 21.2% of adults (2.1 million adults) were exposed to SHS when visiting restaurants.
- 86.1% of adults (3.1 million adults) were exposed to SHS when visiting bars or nightclubs.
- 30.2% of adults (0.5 million adults) were exposed to SHS when visiting universities.

## ECONOMICS

The survey examined economic aspects of tobacco use by current smokers of manufactured cigarettes, based on information from the most recent purchase that included source of last cigarette purchase; expenditure on cigarettes; unit and type of exchange of last cigarette purchase; and perception of cigarette prices.

The survey found that:

- The most common source of purchase of manufactured cigarettes was shops (65.2%), followed by kiosks (30.7%), bars or nightclubs (1.8%) and street vendors (1.4%).
- Shops (65.0%) and Kiosks (30.9%) were the main source of cigarette purchase for Kenya males.
- Most of the cigarette smokers in rural areas (68.5%) purchased their last cigarettes from shops, compared to 59.2% of those in urban areas.
- Current cigarette smokers spent an average of Ksh<sup>1</sup> 1,072.00 per month on manufactured cigarettes, representing 14.7% of the monthly per capita gross domestic product (GDP) [2013]<sup>2</sup>.
- The mean amount spent on 20 manufactured cigarettes was Ksh 102.7 and the mean cost of 100 packs (or 2000 sticks) of manufactured cigarettes as a percentage of GDP [2013] was 11.7%.

## MEDIA

Mass media plays an important role in the campaigns for and against tobacco products. It is therefore an effective means of disseminating information on the ill effects of tobacco products and discouraging their use. Similarly, it is used in the advertisement, sponsorship, and promotion of tobacco products. Tobacco Advertising, Promotion, and Sponsorship (TAPS) is prohibited in Kenya through the 2007 Tobacco Control Act. The Act prohibits false, misleading, or deceptive

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<sup>1</sup> Kenyan shilling.

<sup>2</sup> Based on the 2013 annual per capita GDP figures (Shilling 87,542.715) from the International Monetary Fund.

promotion; advertising/promotion through testimonials or endorsements; promotion by advertisements; and promotion by sponsorship. GATS Kenya collected information about noticing both anti-smoking information and TAPS in the past 30 days.

The survey found that:

- 53.4% of adults noticed anti-cigarette smoking information on television or radio.
- 55.9% of current smokers thought about quitting because of health warning labels on cigarette packages.
- 5.2% of adults noticed cigarette advertisements in stores where cigarettes are sold.
- 25.2% of adults noticed any cigarette advertisements, sponsorship, or promotion.

## **KNOWLEDGE, ATTITUDES AND PERCEPTION**

The survey provides information on respondents' knowledge, attitudes, and perceptions of the dangers of smoking and SHS exposure. Specifically, it asked if respondents believe that tobacco use causes serious illness and disease such as stroke, heart attack, lung cancer, high blood pressure, bladder cancer, throat cancer, stomach cancer, miscarriage, infertility, impotence, bone loss (osteoporosis), premature birth, and low birth weight. Lastly, the survey collected information on awareness of the 2007 Tobacco Control Act and support for increasing taxes on tobacco products.

The survey found that:

- 92.8% of adults believed smoking causes serious illness.
- With respect to specific diseases, 90.2% believed that smoking causes lung cancer, 70.4% believed it causes heart attack, 60.9% believed it causes stomach cancer, 48.8% believed it causes stroke, 54.4% believed it causes premature births, 51.6% believed it causes bladder cancer, and 44.1% believed it causes bone loss.
- About nine out of ten adults (88.0%) believed that exposure to SHS causes serious illness (88.6% of women and 87.5% of men).
- 97.3% of adults (97.2% of current smokers) reported support for the law prohibiting smoking inside restaurants.
- 80.1% of adults favored increasing taxes on tobacco products

## **RECOMMENDATIONS**

GATS is the first comprehensive survey on tobacco use conducted in Kenya. It provides essential information on key tobacco control indicators by gender and place of residence. GATS results describe the background environment for tobacco control in Kenya. Sustained tobacco control efforts are necessary to minimize tobacco use and to prevent potential increases. The findings can inform public health policy by providing data relevant to existing and future tobacco use interventions. In accordance with the six categories in the MPOWER strategy package, the following opportunities arise from the survey findings:

1. Enhancing both human and financial resources for effective tobacco control interventions has shown to be an effective way to prioritize tobacco control as stipulated in the Tobacco Control Act of 2007.
2. Tobacco cessation programs support tobacco users that planning to quit. This can be achieved by increasing access to Nicotine Replacement Therapy as part of cessation programs.
3. Health promotion and communication strategies can help increase knowledge and raise health awareness of tobacco and second hand smoke at the county and community levels.
4. Positive effects on the decrease of consumption of tobacco products has been shown by raising awareness on the social, environmental, economic, and health effects of tobacco use and exposure to tobacco smoke at institutions of higher learning. Evidence shows that by educating people about the dangers of smoke and smokeless tobacco, especially in rural settings, consumption can be decreased.

5. Pictorial health warnings have shown to significantly decrease smoking rates as well as preventing initiation from young people, and therefore are recommended for smoke and smokeless tobacco products. Additionally, enforcing laws such as smoke-free work environments and prohibiting cigarette sale by the stick, can reduce tobacco use.
6. Increasing taxes and tobacco prices is one of the most cost-effective interventions to reduce tobacco consumption. Having regular tax increases on all tobacco products, can not only discourage young people from initiating smoking, but can also increase government revenues.
7. The development of anti-tobacco messages for the media as well as tobacco control education programs can increase knowledge about the harms of tobacco and therefore prevent people from start smoking.
8. Establishing and improving health services can effectively address tobacco-related diseases.

## FOREWORD

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The 2014 Kenya Global Adult Tobacco Survey (GATS) is a component of Global Tobacco Surveillance System (GTSS), which is a global standard for systematically monitoring adult tobacco use and tracking key tobacco control indicators. The survey was a nationally representative household survey of adults 15 years and above using a standard core questionnaire, sample design, and data collection and management procedures that were reviewed and approved by international experts. GATS is intended to enhance the capacity of countries to design, implement, and evaluate tobacco control interventions.

The survey was designed to produce national and sub-national estimates among adults for comparison across countries. The target population included all non-institutionalized men and women who consider the country to be their usual place of residence. Members of the target population were sampled from the households that were their usual places of residence. GATS used a geographically clustered multistage sampling methodology that identified the specific households that Field Interviewers contacted.

The results indicate that despite the high prevalence (92.8%) of those who believed that smoking causes serious illness, overall, 11.6% or 2.5 million adults in Kenya, comprising 19.1% of men and 4.5% of women used tobacco (smoking and/or smokeless tobacco). About 7.8% or 1.7 million adults (15.1% of men and 0.8% of women) smoked tobacco while 4.5% or 1.0 million adults, comprising 5.3% of men and 3.8% of women, currently used smokeless tobacco. A high proportion of 71.9% of daily tobacco users use tobacco (smoking and/or smokeless tobacco) within 30 minutes of waking up.

The results indicate that 5 in 10 past-year smokers attempted to quit smoking in the past 12 months, and of those who attempted to quit, 7 in 10 past-year smokers tried to do so without any assistance. Similarly, of those past-year smokers who visited a healthcare provider in the past 12 months, only 3 in 10 were advised to quit smoking. In addition, 8 in 10 current smokers planned to or were thinking about quitting.

About 17.6% or 0.7 million adults who worked indoors were exposed to tobacco smoke at the workplace while 14.3% or 3.1 million adults were exposed to tobacco smoke at home. Further, 21.2% or 2.1 million adults were exposed to tobacco smoke when visiting restaurants; 86.1% or 3.1 million adults were exposed to tobacco smoke when visiting bars or nightclubs; and 30.2% or 0.5 million adults were exposed to tobacco smoke when visiting universities.

The survey results indicate that 53.4% of adults noticed anti-cigarette smoking information on television or radio while 55.9% of current smokers thought about quitting because of health warning labels on cigarette packages. Similarly, 5.2% of adults noticed cigarette marketing in stores where cigarettes are sold; and 25.2% of adults noticed any cigarette advertisements, sponsorship, or promotion.

The Kenya National Bureau of Statistics wishes to acknowledge the contribution of the various institutions that contributed to the conducting of GATS and the writing of this report. The 2012 Kenya GATS was conducted by the Kenya Bureau of National Statistics (KNBS) as a lead survey implementer in collaboration with Ministry of Health (MOH), Kenya; U.S. Centers for Disease Control and Prevention – Atlanta; CDC Foundation; John Hopkins Bloomberg School of Public Health; RTI International; University of North Carolina Gillings School of Public Health; WHO Kenya Country Office; and World Health Organisation Regional Office for Africa.

Both KNBS and MOH anticipate that the findings of this survey will assist policy makers and programme managers to design, implement, monitor, and evaluate programmes and projects targeted towards the reduced use of tobacco products in Kenya.

**ZACHARY MWANGI  
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## ACKNOWLEDGEMENTS

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Kenya implemented the first Global Adults Tobacco Survey (GATS) in 2014 using the standard global protocol. The GATS strengthens tobacco surveillance in Kenya in order to evaluate current tobacco control measures and policies. The survey provides data on adult tobacco use prevalence, as well as other tobacco control indicators, which reflect the implementation of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC).

The successful implementation of the GATS is due to the great support and dedication of our partners. The Government of Kenya would like to thank the following collaborating organizations:

- U.S. Centers for Disease Control and Prevention - Atlanta
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- Johns Hopkins Bloomberg School of Public Health
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- University of North Carolina Gillings School of Public Health
- World Health Organization
- Ministry of Health -Kenya
- Kenya National Bureau of Statistics

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**JAMES MACHARIA**  
**CABINET SECRETARY**  
**MINISTRY OF HEALTH**

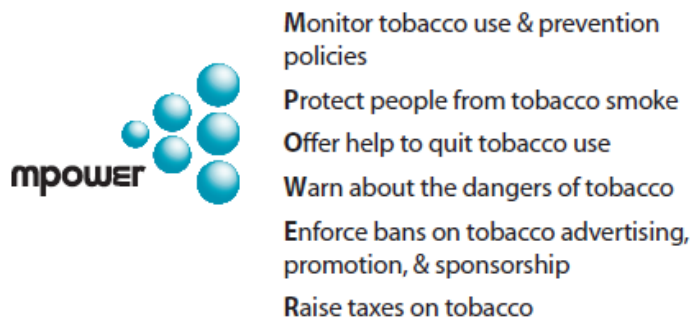


# 1. INTRODUCTION

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Tobacco use is a major public health problem worldwide, and it is the single most preventable cause of morbidity and mortality in humans (David & Smith, 1991). Tobacco continues to kill nearly 6 million people each year, including more than 600,000 non-smokers who die from exposure to secondhand smoke (SHS). Nearly 80% of these deaths occur in low and middle-income countries. Up to half of the world's 1 billion smokers will eventually die of a tobacco-related disease. If current trends continue, by 2030, tobacco will kill more than 8 million people worldwide each year, with the highest increase of these premature deaths occurring among people living in low- and middle-income countries (WHO, 2011). The prevalence of tobacco use in the World Health Organisation (WHO) African region is estimated at 14% (Eriksen et al., 2012). Due to improved economic growth in the region, this figure will likely increase in the future as a result of increased income that will enable the purchase of tobacco products (Bletcher et al., 2013).

The WHO Framework Convention on Tobacco Control (FCTC) was developed as a response to the globalization of the tobacco epidemic. The objective of the WHO FCTC is to protect present and future generations from the devastating health, social, environmental, and economic consequences of tobacco consumption and exposure to tobacco smoke (WHO, 2003). To support countries in fulfilling their WHO FCTC obligations, in 2008, WHO introduced a package of six evidence-based tobacco control measures that are proven to reduce tobacco use. These measures, known as the MPOWER package, reflect one or more provisions of the WHO FCTC. The MPOWER refers to:



Collection of data through surveys is an important component of surveillance systems. It is in this regard that in 1998, the U.S. Centers for Disease Control and Prevention (CDC), the Canadian Public Health Association (CPHA), and WHO began development of the Global Tobacco Surveillance System (GTSS). The purpose of the GTSS is to enhance the capacity of countries to design, implement, and evaluate their national comprehensive tobacco action plan and to monitor the key articles of the WHO Framework Convention on Tobacco Control (WHO FCTC).

The GTSS includes the collection of tobacco-specific data for both youths (13-15 years) and adults (15 years and older) through four surveys:

- Global Youth Tobacco Survey (GYTS) focuses on students age 13-15 and collects information in schools
- Global School Professionals Survey (GSPS) surveys teachers and administrators from the same schools that participate in the GYTS
- Global Health Professions Students Survey (GHPSS) focuses on third-year students pursuing degrees in dentistry, medicine, nursing, and pharmacology
- Global Adult Tobacco Survey (GATS), which is a household survey, monitors tobacco use among adults age 15 years and older

The Global Adult Tobacco Survey (GATS) is a nationally representative household survey that was launched in February 2007 as a new component of the on-going Global Tobacco Surveillance System (GTSS). The GATS enables countries to collect data on adult tobacco use and key tobacco control measures. Results from the GATS assist countries in the formulation, tracking, and implementation of effective tobacco control interventions. Countries are also able to compare results of their survey with results from other countries.

## Profile of Kenya

Kenya is situated in East Africa where it is bordered by Ethiopia (north), Somalia (northeast), Tanzania (south), Uganda and Lake Victoria (west), and Southern Sudan (northwest). The country is comprised of 47 counties and has a total area of 582,646 square kilometers. The majority (80%) of the land is either arid or semi-arid, and only 20% of it is arable.

The estimated population of the country is 44 million according to the population census of 2009, and the annual growth rate is estimated at 4.7%. The fertility rate has been declining over the years and now stands at 4.6 (births per women), with the rural rate being higher (5.2) than the urban rate (2.9). According to the World Bank, the life expectancy of the country increased from 58 years in 2010 to 61 years in 2012.

Kenya's economy is market-based, in which decisions regarding investment, production, and distribution are based on supply and demand with a few state-owned infrastructure enterprises. The country maintains a liberalized external trade system. According to the Economic Survey (2014), Kenya's Gross Domestic Product (GDP) grew by 4.7% in 2013, up from 4.6% growth in 2012. The growth in 2013 is largely attributed to expansions in tourism, telecommunications, transport, construction, and a recovery in agriculture. Agriculture and forestry, which constitutes one of the main economic sectors driving the economy, recorded a growth of 2.9% in 2013 and contributed 25.3% to the economy that year.

## **The Burden of Tobacco in Kenya**

### **Tobacco Use among Adults**

The Kenya Demographic and Health Survey (KDHS) 2008/9 revealed that 19% of males and less than 2% of females aged 15-49 years were consuming tobacco products (KNBS, 2008). The proportion of males who smoked cigarettes was 18% while less than one percent of females smoked cigarettes. This is a reduction from a previous similar survey conducted in 2003 that revealed an overall tobacco consumption prevalence of 23% (KNBS, 2003).

### **Tobacco Use among Youths**

According to the GYTS conducted in 2007 among students aged 13-15 years, 15.1% were using tobacco products (MOH, 2007), including 15.9% of boys and 15.4% of girls. Overall, 8.2% of students smoked cigarettes, while 10.1% used smokeless tobacco. The same survey revealed that 24.7% of students were exposed to SHS) at home and 48.5% in public places.

### **Tobacco Production**

Tobacco growing was introduced in Kenya in 1907 and has increased tremendously over the years. The country is also a regional hub for manufacturing tobacco products. A study done in 2007 by Ochola et al. in the tobacco growing area of Nyanza region revealed that tobacco has the lowest returns per acre in the study area compared to other commercial crops. Tobacco growing is currently occurring mainly in four counties: Migori, Bungoma, Meru, and Embu, as well some pockets of Kitui and Machakos, by an estimated 22,207 farmers covering an acreage of 9,050 (MOA, 2013).

### **Health Impact of Tobacco Use**

Tobacco use is one of the most common risk factors for non-communicable diseases (NCDs). According to the WHO Global Report on Mortality Attributable to Tobacco Use, 3% of all deaths in Africa are attributable to tobacco use. The World Health Organization estimates that more than 28% of all deaths in Kenya are attributable to non-communicable diseases (WHO, 2011). According to the Ministry of Health, NCDs contribute to nearly 50% of all admissions in public hospitals countrywide. In Kenya, 69 per 100,000 deaths for individuals aged 30 and above are as a result of tobacco use. Five percent of all non-communicable deaths are as a result of tobacco use, and 55% of all deaths from cancers of the trachea, bronchitis, and lung are attributable to tobacco. Tobacco use also increases the risk of contracting communicable diseases such as tuberculosis (3%) and lower respiratory infections (4%) (WHO, 2012).

### **Current Tobacco Control Policies in Kenya**

Kenya signed and ratified the WHO Framework Convention on Tobacco Control (FCTC) on 24 June 2004. This was a landmark of Kenya's commitment to tobacco control. By signing the WHO FCTC, Kenya is legally obligated to implement tobacco control measures using the WHO FCTC as the benchmark. In addition, Kenya signed the WHO Protocol to Eliminate Illicit Trade in Tobacco Products on 30 May 2013 and is in the process of ratifying the same protocol.

Kenya further domesticated the WHO FCTC by passing and implementing the 2007 Tobacco Control Act. The 2007 Tobacco Control Act is an Act of Parliament and provides the legal framework for fulfilling the following objectives:

- a. Protect the health of the people of Kenya from the devastating effects of tobacco use and exposure to tobacco smoke;
- b. Protect purchasers or consumers from deceptive and false information by tobacco industry;
- c. Protect the health and rights of minors from tobacco use and exposure to tobacco smoke, as well as from the tobacco industry;
- d. Inform, educate, and communicate to the public about the health consequences of tobacco use and secondhand tobacco smoke by disseminating tobacco control information through the health systems and integrating tobacco control matters into the education syllabus;
- e. Protect and promote rights of non-smokers;
- f. Protect tobacco growers from exploitation and exposure to harmful practices;
- g. Adopt and implement effective measures to eliminate illicit trade in tobacco products;
- h. Promote and provide rehabilitative and cessation programs for tobacco consumers; and
- i. Promote research and dissemination of tobacco-related information.

The 2007 Tobacco Control Act establishes the Tobacco Control Board (TCB), which is a multisectoral body with membership drawn from government sectors, research institutions, academia, and civil society organizations. The function of the board is to advise the Minister of Health on tobacco control policies.

In addition, the Act empowers the Minister responsible for Health to:

- a. Prescribe the permissible levels of the constituents of tobacco including tar;
- b. Prohibit the addition of harmful constituents and ingredients in tobacco products;
- c. Prescribe test methods to be used in testing tobacco product emissions;
- d. Control the labeling, packaging, sale, distribution, promotion, and advertising of tobacco products;
- e. Guide implementation of tax and price measures; as well as
- f. Guide implementation of policies for alternative livelihoods for those dependent on tobacco.

The Ministry of Health (MOH) is the state department charged with the responsibility of coordinating all matters of tobacco control in the country. The Tobacco Control Unit (TCU) in the MOH undertakes this responsibility. The Ministry has coordinated a multisectoral approach to tobacco control with regard to policy development, capacity building, and enforcement of provisions of both the WHO FCTC and the local legislation for tobacco control.

#### **Status of Implementation of the Tobacco Control Act of 2007:**

- a. The national tobacco control research and surveillance has so far incorporated Tobacco Questions for Surveys (TQS) into the Kenya Demographic Health Survey, undertaken three Global Youth Tobacco Surveys in 2001, 2007 and 2014, and the first Global Adults Tobacco Survey in 2014.
- b. Tobacco smoking in public places is prohibited in Kenya.
- c. The Ministry of Health is required to integrate tobacco control interventions as part of health care service provisions including cessation.
- d. The Ministry has developed cessation guidelines and has trained 30 health workers on tobacco cessation.
- e. Kenya has implemented fourteen text health warnings for tobacco packaging. The warnings are rotational; in two national languages - English and Kiswahili; and cover 30% and 50% of the front and back main display panels of tobacco products packages.
- f. Tobacco advertising, promotion, and sponsorship is banned, including direct and indirect forms.
- g. The Law requires the Ministry responsible for finance to implement tax and price measures. Currently, tobacco taxation is 49% of retail sale price (WHO tax recommendation is at 70%).

Other provisions being implemented include:

- a. Ban of sale of tobacco products to and by minors;
- b. Marking of tobacco products to determine origin and destination; all tobacco products manufactured for local consumption are marked 'for sale only in Kenya;'
- c. Products manufactured locally for domestic consumption are required to have tax stamps at point of manufacture;
- d. Ban on sale of cigarettes by single sticks; cigarettes can only be sold in a minimum package of ten sticks;
- e. Ban on sale by vending machine; and
- f. Prohibition of self-service display (a retail purchaser is required to pay before handling tobacco product).

### **The Progress in the Implementation of the WHO Protocol to Eliminate Illicit Trade in Tobacco Products (ITP)**

Kenya has made progress in the implementation of the provisions of the protocol including:

- a. Establishment of a real time tracking and tracing system;
- b. Application of tax stamps on all products manufactured for local consumption;
- c. Tobacco manufacturers are required to have licences; and
- d. Declaration of tobacco manufacturing equipment is required.

### **Ongoing and Planned Tobacco Control Activities and Initiatives**

- a. Development of Pictorial Health Warnings (PHW);
- b. Planning for mass media campaigns which will implement anti-tobacco messages through the media including television and radio advertisements;
- c. Rolling out cessation guidelines and training of health workers on tobacco cessation;
- d. Incorporation of tobacco cessation in the training of health care providers;
- e. Development of regulations for implementation of the Tobacco Control Act;
- f. Development of the Tobacco Control Policy;
- g. Establishment of a national coordination mechanism for tobacco control implementation that will bring together all tobacco control actors in the country to facilitate joint planning and harmonization of interventions;
- h. National review of tobacco taxation; and
- i. Regional Harmonization of tobacco taxation by the East African Community (EAC) comprising of Burundi, Kenya, Rwanda, Tanzania, and Uganda.

## **Survey Objectives**

The GATS is used to systematically monitor adult tobacco use (smoked and smokeless tobacco) and to track key tobacco control indicators in a nationally representative sample. The main objective of implementing GATS was to determine national prevalence of tobacco use among the adult population in Kenya.

The specific objectives of the survey were:

1. To determine the prevalence of tobacco use among the adult population;
2. To determine the cessation behaviors of tobacco users in terms of plans to quit, health professionals' advice, and tobacco cessation therapies;
3. To determine the magnitude of secondhand smoke exposure;
4. To evaluate the influence of media in tobacco consumption;
5. To assess the economical aspects of tobacco use and control; and
6. To assess the risk perceptions, knowledge, and attitudes on tobacco use.

## 2. METHODOLOGY

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This chapter presents the methodology of the 2014 Kenya Global Adult Tobacco Survey (GATS). It covers the survey design, the descriptions of the questionnaires used, and the processes undertaken for data collection, data processing, and analysis of the resulting data.

### Study Population

The 2014 GATS was a national household-based sample survey of adults aged 15 years and older who were usual members of a selected household. By definition, a household was defined as a person or group of persons who normally reside together in the same compound under one or several roofs, are answerable to the same head, and share a common cooking arrangement. The usual members of the households included those who spent at least half of the duration in a year in the household, including students in boarding institutions who were available at the time of the survey. Persons residing in non-conventional households such as the army barracks, hotels, prisons, and hospitals among others were excluded from the sample.

### Sample Design

The Kenya GATS 2014 was a multistage probability household sample survey covering all 47 counties to provide national estimates for tobacco indicators for rural and urban areas. In addition, the sample was constructed to allow separate national estimates for male and females. A three-stage cluster sample design was adopted for the survey with the first stage involving selection of sample points ('clusters') while second and third stages involved selection of households and eligible individuals, respectively. A representative sample of 5,376 households was drawn with a target of interviewing one eligible adult, aged at least 15 years, within the sampled households.

The survey used the fifth National Sample Surveys and Evaluation Programme (NASSEP V) master sample frame that was developed and maintained by KNBS. The frame was developed using the enumeration areas generated from the 2009 Kenya Population and Housing Census and has 5,360 clusters split into four equal sub-samples. In the first stage, 192 clusters (102 urban and 90 rural) were selected from the NASSEP V frame. A random sample of 28 households from the listed households in each cluster was selected in the second stage of sampling. The last stage of sampling was performed using PDAs at the time of survey, where one individual was randomly selected from all eligible listed household members. The full details of the sample design are provided in Appendix B.

### Questionnaire

The 2014 Kenya GATS survey was conducted using two questionnaires: household and individual. The questionnaires were in the English language but were also translated into the Kiswahili language. The questionnaires were adopted from the standard GATS questionnaires and adapted to the Kenyan context. The household questionnaire targeted the head of household and contained few questions for screening household members to allow sampling of eligible adults for individual interviews. The individual questionnaire was the main questionnaire for the survey and had eight sections. Both questionnaires had provisions for consent before interviews.

A general description of each section is described below. Full questionnaires are provided in Appendix A.

- **Background Characteristics:** Gender, age, education, work status, possession of household items.
- **Tobacco Smoking:** Patterns of current use (daily consumption, less than daily consumption, not at all), former use, age of initiation of daily smoking, consumption of different tobacco products (cigarettes, pipes, cigars and other smoked tobacco), nicotine dependence, frequency of quit attempts.
- **Smokeless Tobacco:** Patterns of current use (daily consumption, less than daily consumption, not at all), former use, age of initiation of daily use of smokeless tobacco, consumption of different smokeless tobacco products (snuff, chewing tobacco, betel quid, etc.), nicotine dependence, frequency of quit attempts.
- **Cessation:** Advice to quit smoking by health care provider, method used to try to stop smoking; similar information is asked for cessation on smokeless tobacco as well.

- **Secondhand Smoke:** Smoking allowed in the home, exposure to SHS at home, indoor smoking policy at work place, exposure in last 30 days in: work place, government buildings/offices, health care facilities, restaurants, public transportation. There are some additional items on exposure that include schools, universities, private workplaces, bars, night clubs, etc., as well as knowledge on serious illness in non-smokers due to secondhand smoke.
- **Economics:** Type of tobacco product and quantity bought, cost of tobacco product(s), brand, and source of tobacco products.
- **Media:** Exposure to advertisement: television, radio, billboards, posters, newspapers/magazines, cinema, internet, public transportation, public walls, others; exposure to sporting events connected with tobacco; exposure to music, theatre, art, or fashion events connected with tobacco; exposure to tobacco promotion activities; reaction to health warning labels on cigarette packages; exposure to anti-tobacco advertising and information. Similar questions are included for smokeless tobacco as well. The reference period for the questions in this section is 30 days.
- **Knowledge, Attitudes, and Perceptions:** Knowledge about health effects of both smoking and smokeless tobacco.

## Survey Implementation

The survey implementation includes the organization of the operations of the survey, pre-test, training, and fieldwork.

### 2.4.1 Survey Organization

The implementation of the 2014 Kenya GATS was a collaborative effort of several institutions. The Ministry of Health (MOH) identified the Kenya National Bureau of Statistics (KNBS) as the implementing agency. The Bureau had a primary role in the planning for the survey and took responsibility for operational matters including planning and conducting fieldwork and processing collected data. Staff from the Bureau and MoH were responsible for overseeing the day-to-day technical operations including recruitment and training of field staff and the supervision of the office and field operations. The funds for the survey were provided by CDC, CDC Foundation, Johns Hopkins Bloomberg School of Public Health (JHSPH), and the World Health Organization (WHO). Technical assistance on PDAs and use of handheld devices was provided by CDC through RTI International.

### 2.4.2 Data Collection

#### (i) Pre-test

A pre-test was conducted two weeks before the training for main fieldwork. The pre-test survey commenced with a training of trainers on 24 November 2013. The training of trainers also had sessions for data managers. The training for six interviewers was conducted for 3 days, from 25-27 November 2013 in a non-residential venue in Nyayo House provided by KNBS. The pre-test fieldwork was completed during two days from 28-29 November 2013. A one-day debriefing meeting was held on 30 November 2013 to share the experience of fieldwork.

#### (ii) Training

The training for the main survey was conducted for a period of five days, from 16-20 December 2013, in a centralized location in Nakuru. The trainees included 13 supervisors and 52 interviewers. The standard approach to training was used that included class presentations, use of IPAQ and mock paired interviews. In addition, all the trainees participated in a half-day practice fieldwork in a few selected areas surrounding the training venue. The various approaches to training were aimed at helping participants understand the survey concepts and how to complete the questionnaires using IPAQ. Participants were also given tips on interviewing techniques and field procedures. All the supervisors were taken through a special session on logistics, quality control, data management, and transmission.

#### (iii) Fieldwork

Fieldwork started on 4 January 2014, two weeks after completion of training to give time for Christmas and New Year holidays. Data was collected over a period of 30 days up to around 3rd February 2014. The fieldwork progressed successfully and only three clusters (each in Marsabit, Turkana, and West Pokot counties) could not be accessed because of the security concerns. Fieldwork was conducted by the 13 trained teams each composed of one supervisor and four

interviewers. Each team was assigned one vehicle for use during fieldwork. In addition, a team of six coordinators provided support to the teams to ensure that quality data were collected and to solve any problems arising in the field.

#### **(iv) Electronic Data Collection**

The field data collection was fully undertaken electronically using the IPAQ/PDAs. Each interviewer was supplied with an IPAQ together with its accessories and an extra battery. The data was backed up everyday into a provided Secure Digital Card (SD card) where the supervisors could retrieve the information. The supervisors had laptops to retrieve the data from SD cards and emailed that data to a secure data host every two days. The electronic data collection was successful and there was no data loss. However, two IPAQs malfunctioned during data collection, and one of these completely failed.

#### **Statistical Analysis**

The sample design was not self-weighted, and thus the resulting data required a weighting procedure for accuracy in analysis. The weighting process followed three stages as per the guidelines detailed in the GATS manual. The first stage was the computation of base weight, which adjusts the data as per the various phases of sample selection. The second stage was the non-response adjustments to correct for non-responses at cluster, household, and individual levels. The final stage was the calibration, which is the post-stratification adjustment to align the data to current population estimates. All the data in this report are weighted with the exception of response rates.

Data from General Survey System (GSS) was converted into Statistical Package for Social Scientists (SPSS) version 20 for generation of tables, computation of standard errors, and variance calculations. The Taylor series approximation method within the Complex Samples Module in the software was used for variance calculation including standard errors. Full details on calculation of standard errors and variances are contained in **Appendix C**.



### 3. SAMPLE AND POPULATION CHARACTERISTICS

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This chapter presents the levels of sample responses and characteristics derived from those interviewed. The responses rates are presented for both household and individual interviews. The population characteristics are shown by sex, age, residence, and education levels.

#### **Response Rates**

Table 3.1 presents the number and percent of households and persons interviewed and response rates by residence. Out of the allocated sample of 5,376 households, 4,602 households had a complete household questionnaire used for analysis, yielding an overall household response rate of 90.8%. The response was higher in rural areas (92.4%) as compared to urban areas (89.4%). The sample in urban areas had a higher proportion of households that had either the occupants not at home for the entire survey duration (6.2%) or the selected household found to be unoccupied (6.4%) than rural areas, at 3.0% and 3.4%, respectively.

The survey results indicate that 4,408 completed person interviews were achieved in the survey representing an overall person-level response rate of 95.9%. Person-level response rates were high for both urban and rural areas at 95.8% and 96.1%, respectively. Most of the non-responses in person-level category came from the selected individuals not being at home during the survey period, representing 3.5% in both urban and rural areas.

The total response rate, which is a combined household and person-level response rate, was 87.1%, while that of urban areas was 85.6% compared to 88.8% in rural areas.

**Table 3.1:** Number and Percent of households and persons interviewed and response rates, by residence (unweighted) – GATS Kenya, 2014.

	Residence					
	Urban		Rural		Total	
	n	%	n	%	n	%
<i>Selected household</i>						
Completed, person selected for interview (HC)	2365	82.8	2237	88.8	4602	85.6
Completed, none eligible for interview (HCNE)	3	0.1	1	0.0	4	0.1
Incomplete (HINC)	5	0.2	8	0.3	13	0.2
No screening respondent (HNS)	26	0.9	24	1.0	50	0.9
Nobody home (HNH)	177	6.2	76	3.0	253	4.7
Refused (HR)	23	0.8	4	0.2	27	0.5
Unoccupied (HUO)	182	6.4	86	3.4	268	5.0
Address not a dwelling (HAND)	24	0.8	13	0.5	37	0.7
Other (HO) <sup>1,*</sup>	51	1.8	71	2.8	122	2.3
<b>Total Households Selected</b>	<b>2856</b>	<b>100</b>	<b>2520</b>	<b>100</b>	<b>5376</b>	<b>100</b>
<b>Household Response Rate<sup>2</sup></b>	<b>89.4%</b>		<b>92.4%</b>		<b>90.8%</b>	
<i>Selected person</i>						
Completed (PC)	2263	95.7	2145	95.9	4408	95.8
Incomplete (PINC)	2	0.1	1	0.0	3	0.1
Not eligible (PNE)	2	0.1	4	0.2	6	0.1
Not at home (PNAH)	82	3.5	78	3.5	160	3.5
Refused (PR)	4	0.2	2	0.1	6	0.1
Incapacitated (PI)	12	0.5	7	0.3	19	0.4
Other <sup>1</sup>	0	0.0	0	0.0	0	0.0
<b>Total Eligible Persons</b>	<b>2365</b>	<b>100</b>	<b>2237</b>	<b>100</b>	<b>4602</b>	<b>100</b>
<b>Person-level Response Rate<sup>3</sup></b>	<b>95.8%</b>		<b>96.1%</b>		<b>95.9%</b>	
<b>Total Response Rate<sup>4</sup></b>	<b>85.6%</b>		<b>88.8%</b>		<b>87.1%</b>	

<sup>1</sup> Other includes any other result code not listed.

\* Includes 84 selected households that remained unworked due to security concerns.

<sup>2</sup> Calculate Household Response Rate (HRR) by:

$((HC + HCNE)/(HC + HCNE + HINC + HNS + NHH + HR + HO)) * 100$

<sup>3</sup> Calculate Person-level Response Rate (PRR) by:

$(PC/(PC + PINC + PNAH + PR + PI + PO)) * 100$

<sup>4</sup> Calculate Total Response Rate (TRR) by:  $(HRR \times PRR) / 100$

## Population Characteristics

The completed sample of 4,408 person interviews were analyzed for selected demographic variables and presented in Table 3.2. The data was weighted to conform to the latest available population figures, from the 2009 Population and Housing census. The 4,408 unweighted cases correspond to approximately 21.8 million adults aged at least 15 years in the country. The weighted data shows that the proportions of male and female were 48.8% and 51.2%, respectively. The weighted proportion of individuals who resided in urban areas was 35.0% compared to 65.0% for those in rural areas. The age distribution shows that most (41.7%) of the respondents were within the 25-44 age group followed by 15-24 age group (36.1%), and those aged at least 65 years (6.1%).

The education levels were not adjusted to conform to census figures since they were not part of variables for post-stratification adjustments. The weighted data showed that most (32.9%) of the respondents had completed primary school level of education with the least having no formal education (13.7%).

**Table 3.2:** Distribution of adults ≥ 15 years old by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Weighted		Unweighted Number of Adults
	Percentage (95% CI <sup>1</sup> )	Number of Adults (in thousands)	
<b>Overall</b>	100	21,886.1	4,408
<i>Gender</i>			
Male	48.8 (45.9, 51.7)	10,676.2	2,077
Female	51.2 (48.3, 54.1)	11,209.8	2,331
<i>Age (years)</i>			
15-24	36.1 (33.2, 39.2)	7,908.4	1,011
25-44	41.7 (38.6, 44.9)	9,129.2	2,195
45-64	16.1 (14.8, 17.5)	3,519.1	824
65+	6.1 (5.3, 7.0)	1,329.4	378
<i>Residence</i>			
Urban	35.0 (30.7, 39.5)	7,650.9	2,263
Rural	65.0 (60.5, 69.3)	14,235.1	2,145
<i>Education Level<sup>2</sup></i>			
No formal education	13.7 (10.3, 18.0)	3,000.0	950
Less than primary school completed	24.6 (22.3, 27.0)	5,388.0	965
Primary school completed	32.9 (30.4, 35.5)	7,200.7	1,295
Secondary school completed or above	28.8 (25.4, 32.4)	6,297.0	1,197

Note: The following observations were missing: 1 for education

<sup>1</sup> 95 % Confidence Interval

<sup>2</sup> Primary school completed includes: "Primary school completed" and "Less than secondary school completed"; Secondary school completed or above includes: "Secondary school completed", "Tertiary college completed", "University completed", and "Post graduate degree completed".

## 4. TOBACCO USE

This chapter covers tobacco use status of the adult population in Kenya. Tobacco products are products made entirely or partly of the tobacco leaf as raw materials and in this chapter, cover both smoked tobacco and smokeless tobacco products. Additionally the frequency and quantity of consumption of tobacco products are highlighted. Information on various demographic characteristics of tobacco users and age of daily smoking initiated is presented in this chapter.

### Status of Tobacco Smoking

The GATS 2014 collected data on tobacco-smoking status for both current and former smokers. Current tobacco smoking was defined as having smoked tobacco within the past 30 days either daily or occasionally. The smoked tobacco products assessed in the survey included manufactured cigarettes, hand rolled cigarettes, kiko, cigars, and shisha. Table 4.1 highlights the prevalence of tobacco smoking status by sex for adults aged 15 years and above.

The overall proportion of current tobacco smokers was 7.8%, representing 15.1% of males and 0.8% of females. Current non-smokers were estimated at 92.2% of adults, including 84.9% of males and 99.2% of females. Daily smokers comprised 6.0% of adults (11.6% of males and 0.6% of females). Occasional smokers comprised 1.8% of adults (3.5% of males and 0.2% of females). Approximately 2.7% and 1.9% of adults reported that they were former daily smokers and former occasional smokers, respectively. Approximately 87.7% of adults had never smoked, including 98.2% of females and 76.6% of males.

There were approximately 1.7 million current adult smokers found in this survey (Table 4.1a).

**Table 4.1:** Percentage of adults  $\geq 15$  years old, by detailed smoking status and gender – GATS Kenya, 2014.

Smoking Status	Overall	Male	Female
		<i>Percentage (95% CI)</i>	
<b>Current tobacco smoker</b>	7.8 (6.5, 9.2)	15.1 (12.7, 17.8)	0.8 (0.4, 1.5)
Daily smoker	6.0 (4.9, 7.3)	11.6 (9.5, 14.1)	0.6 (0.3, 1.3)
Occasional smoker	1.8 (1.3, 2.4)	3.5 (2.6, 4.7)	0.2 (0.1, 0.5)
Occasional smoker, formerly daily	0.8 (0.5, 1.3)	1.6 (1.0, 2.6)	0.0
Occasional smoker, never daily	1.0 (0.7, 1.4)	1.9 (1.3, 2.7)	0.2 (0.1, 0.5)
<b>Non-smoker</b>	92.2 (90.8, 93.5)	84.9 (82.2, 87.3)	99.2 (98.5, 99.6)
Former daily smoker	2.7 (2.1, 3.4)	4.9 (3.7, 6.5)	0.5 (0.2, 1.5)
Never daily smoker	89.6 (88.0, 90.9)	80.0 (77.3, 82.4)	98.7 (97.7, 99.3)
Former occasional smoker	1.9 (1.3, 2.6)	3.4 (2.4, 4.9)	0.5 (0.2, 1.0)
Never smoker	87.7 (85.9, 89.2)	76.6 (73.5, 79.4)	98.2 (97.0, 99.0)

Note: Current use includes both daily and occasional (less than daily) use.

**Table 4.1a:** Number of adults  $\geq 15$  years old, by detailed smoking status and gender – GATS Kenya, 2014.

Smoking Status	Overall	Male	Female
<i>Number in thousands</i>			
<b>Current tobacco smoker</b>	1,696.7	1,610.8	85.9
Daily smoker	1,305.4	1,238.2	67.2
Occasional smoker	391.3	372.6	18.7
Occasional smoker, formerly daily	173.2	173.2	
Occasional smoker, never daily	218.1	199.4	18.7
<b>Non-smoker</b>	20,189.4	9,065.5	11,123.9
Former daily smoker	588.8	527.5	61.3
Never daily smoker	19,600.6	8,538.0	11,062.6
Former occasional smoker	413.5	362.7	50.8
Never smoker	19,187.1	8,175.3	11,011.8

Note: Current use includes both daily and occasional (less than daily) use.

### Status of Smokeless Tobacco

Smokeless tobacco is tobacco that is not burned during consumption. Nicotine in the tobacco is absorbed through the lining of the mouth or nose. Common smokeless tobacco products found in Kenya include chewing tobacco, snuff, kuber, and betel quid. These tobacco products are either found un-packaged (wrapped in various materials such as banana leaves) or in branded packets. Current smokeless tobacco use was defined as using any smokeless tobacco product within the past 30 days either daily or occasionally. Table 4.2 presents the status of detailed smokeless tobacco use by sex among adults aged 15 years and above.

Overall, 4.5% of adults currently used smokeless tobacco, which includes 5.3% of males and 3.8% of females. Current non-users of smokeless tobacco products accounted for 95.5% of adults (94.7% of males and 96.2% of females). Daily use of smokeless tobacco was reported by 3.3% of the adults, constituting 3.5% of males and 3.2% of females. About 1.2% of respondents reported that they were occasional smokeless tobacco users. Less than 1% of females and 1.8% of males were occasional smokeless tobacco users. Former daily use of smokeless tobacco products was reported by 1.3% of adults aged 15 years and above. Approximately nine in ten (95.5%) of the adults had never used smokeless tobacco products. The number of adults who were currently using smokeless tobacco products was approximately 1 million (Table 4.2a).

**Table 4.2:** Percentage of adults  $\geq 15$  years old, by detailed smokeless tobacco use status and gender – GATS Kenya, 2014

Smokeless Tobacco Use Status	Overall	Male	Female
	<i>Percentage (95% CI)</i>		
<b>Current smokeless tobacco user</b>	4.5 (3.5, 5.8)	5.3 (3.9, 7.2)	3.8 (2.9, 4.9)
Daily user	3.3 (2.5, 4.4)	3.5 (2.4, 5.1)	3.2 (2.4, 4.2)
Occasional user	1.2 (0.8, 1.8)	1.8 (1.1, 2.9)	0.6 (0.3, 1.2)
Occasional user, formerly daily	0.5 (0.3, 0.9)	0.8 (0.4, 1.8)	0.2 (0.1, 0.3)
Occasional user, never daily	0.7 (0.4, 1.2)	1.0 (0.5, 1.8)	0.4 (0.2, 1.1)
<b>Non-user of smokeless tobacco</b>	95.5 (94.2, 96.5)	94.7 (92.8, 96.1)	96.2 (95.1, 97.1)
Former daily user	1.3 (0.8, 2.0)	1.3 (0.7, 2.6)	1.2 (0.7, 2.0)
Never daily user	94.2 (92.6, 95.4)	93.3 (90.9, 95.2)	95.0 (93.7, 96.0)
Former occasional user	0.9 (0.5, 1.4)	1.6 (0.9, 2.7)	0.2 (0.1, 0.5)
Never user	93.3 (91.7, 94.7)	91.8 (89.2, 93.8)	94.8 (93.5, 95.9)

Note: Current use includes both daily and occasional (less than daily) use.

**Table 4.2a:** Number of adults  $\geq 15$  years old, by detailed smokeless tobacco use status and gender – GATS Kenya, 2014

Smokeless Tobacco Use Status	Overall	Male	Female
	<i>Number in thousands</i>		
<b>Current smokeless tobacco user</b>	988.8	565.7	423.2
Daily user	732.1	374.5	357.5
Occasional user	256.8	191.1	65.6
Occasional user, formerly daily	107.3	88.5	18.7
Occasional user, never daily	149.5	102.6	46.9
<b>Non-user of smokeless tobacco</b>	20,873.5	10,093.9	10,779.6
Former daily user	280.6	143.3	137.3
Never daily user	20,592.9	9,950.6	10,642.3
Former occasional user	189.3	168.4	20.9
Never user	20,403.6	9,782.2	10,621.4

Note: Current use includes both daily and occasional (less than daily) use.

### Distribution of Current Tobacco Smokers by Sex and Selected Demographic Characteristics

The distribution of the various smoked tobacco products by sex and selected demographic characteristics is detailed in Table 4.3. The smoked tobacco products are categorized as manufactured cigarettes, hand rolled, and other smoked products.

Overall, 7.8% of adults aged 15 years and above use any smoked tobacco product. Manufactured cigarettes are the most consumed smoked products at 6.9% of adults, followed by hand-rolled cigarettes at 2.1%. The prevalence of current use of smoked tobacco products is highest for those aged between 45-64 years (15.0%) and lowest for those aged between 15-17 (0.1%). Tobacco products were smoked by 8.1% and 7.1% of the rural and urban adults, respectively. Adults residing in rural areas were more likely (3.0%) to be current smokers of hand rolled cigarettes than were those residing in urban areas (0.4%). Adults with less than primary school education completed had the highest proportion of current smokers at 11.1% followed by those who had completed primary school at 7.5%. The proportion of those who had no formal education and those who had completed secondary school that were current smokers were 6.0% each.

Among males, 15.1% consumed any smoked tobacco products while the proportion among females was 0.8% as shown in Table 4.3 cont. Approximately 13.5% and 4.3% of males smoked manufactured and hand rolled tobacco products, respectively while female tobacco smokers comprised less than one percent of all females. The proportion of males aged between 45-64 who were current tobacco smokers was 27.4%, followed by those aged between 25 and 44 years at 19.7%.

Approximately 16% of males who reside in the rural areas are tobacco smokers, 13.8% use manufactured cigarettes, and 6.3% use hand rolled cigarettes. Among the male adults residing in urban areas, 13.2% smoked tobacco products, 13.1% consumed manufactured cigarettes, and less than one percent consumed hand rolled cigarettes.. The proportion of females age 45-64 who are current smokers was 2.6%. More urban (1.0%) than rural females (0.7%) smoked tobacco products. Females with no formal education had the highest proportion of tobacco smokers at 1.9%.

Overall the number of adults aged 15 years and above who are current smokers of any tobacco products is 1,696,700 as shown in table 4.3a and 4.3a (cont).

**Table 4.3:** Percentage of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014

Demographic Characteristics	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette		Other smoked tobacco <sup>2</sup>
			Manufactured	Hand-rolled	
<i>Percentage (95% CI)</i>					
<b>Overall</b>	7.8 (6.5, 9.2)	7.7 (6.5, 9.2)	6.9 (5.9, 8.2)	2.1 (1.5, 2.9)	0.3 (0.1, 0.7)
<i>Age (years)</i>					
15-17	0.1 (0.0, 0.6)	0.1 (0.0, 0.6)	0.1 (0.0, 0.6)	0.0	0.0
18-24	3.1 (1.8, 5.2)	3.1 (1.8, 5.2)	3.0 (1.8, 5.2)	0.5 (0.1, 2.3)	0.0
25-44	9.8 (7.8, 12.1)	9.8 (7.8, 12.1)	9.0 (7.3, 11.1)	2.4 (1.3, 4.1)	0.4 (0.1, 1.6)
45-64	15.0 (11.4, 19.5)	15.0 (11.3, 19.5)	12.9 (9.8, 17.0)	4.8 (3.6, 6.4)	0.3 (0.1, 0.8)
65+	7.8 (4.4, 13.6)	7.5 (4.1, 13.2)	5.4 (2.5, 11.5)	4.0 (1.9, 8.2)	0.7 (0.2, 2.7)
<i>Residence</i>					
Urban	7.1 (5.8, 8.6)	7.1 (5.8, 8.6)	7.0 (5.7, 8.5)	0.4 (0.3, 0.8)	0.1 (0.0, 0.3)
Rural	8.1 (6.4, 10.2)	8.1 (6.3, 10.2)	6.9 (5.5, 8.8)	3.0 (2.1, 4.3)	0.4 (0.1, 1.1)
<i>Education Level</i>					
No formal education	6.0 (3.6, 9.8)	5.9 (3.5, 9.6)	3.3 (1.6, 6.7)	3.1 (1.6, 5.8)	0.2 (0.0, 1.0)
Less than primary school completed	11.1 (8.4, 14.6)	11.1 (8.4, 14.5)	9.4 (7.4, 12.0)	4.5 (2.8, 7.3)	0.3 (0.1, 0.9)
Primary school completed	7.5 (5.6, 9.9)	7.5 (5.6, 9.9)	7.4 (5.5, 9.8)	1.7 (0.8, 3.3)	0.5 (0.1, 2.2)
Secondary school completed or above	6.0 (4.5, 7.9)	6.0 (4.5, 7.9)	6.0 (4.5, 7.9)	0.2 (0.1, 0.4)	0.1 (0.0, 0.3)

Note: Current use includes both daily and occasional (less than daily) use.

<sup>1</sup> Includes manufactured and hand rolled cigarettes.

<sup>2</sup> Includes pipes, cigars/cheroots/ciagarillos, and any other reported smoking tobacco products.

**Table 4.3(cont.):** Percentage of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette		Other smoked tobacco <sup>2</sup>
			Manufactured	Hand-rolled	
<i>Percentage (95% CI)</i>					
<b>Male</b>	15.1 (12.7, 17.8)	15.1 (12.7, 17.8)	13.5 (11.5, 15.9)	4.3 (3.1, 5.9)	0.5 (0.2, 1.4)
<i>Age (years)</i>					
15-17	0.2 (0.0, 1.1)	0.2 (0.0, 1.1)	0.2 (0.0, 1.1)	0.0	0.0
18-24	6.3 (3.6, 10.7)	6.3 (3.6, 10.7)	6.1 (3.5, 10.5)	1.2 (0.2, 5.2)	0.0
25-44	19.7 (16.0, 23.9)	19.7 (16.0, 23.9)	18.1 (14.9, 21.9)	4.8 (2.7, 8.2)	0.9 (0.2, 3.3)
45-64	27.4 (19.9, 36.5)	27.3 (19.8, 36.4)	23.6 (17.1, 31.7)	9.2 (6.5, 12.9)	0.5 (0.2, 1.5)
65+	15.9 (8.6, 27.3)	15.8 (8.6, 27.3)	11.5 (5.2, 23.5)	8.8 (4.2, 17.5)	0.9 (0.1, 5.2)
<i>Residence</i>					
Urban	13.2 (10.8, 16.2)	13.2 (10.7, 16.1)	13.1 (10.7, 16.0)	0.7 (0.4, 1.2)	0.2 (0.1, 0.5)
Rural	16.1 (12.8, 20.1)	16.1 (12.8, 20.1)	13.8 (10.9, 17.3)	6.3 (4.4, 8.9)	0.7 (0.2, 2.3)
<i>Education Level</i>					
No formal education	14.8 (7.9, 26.1)	14.8 (7.9, 26.1)	7.5 (3.3, 16.2)	8.9 (4.1, 18.3)	0.0
Less than primary school completed	23.0 (17.5, 29.6)	22.9 (17.4, 29.5)	19.6 (15.5, 24.4)	9.4 (5.7, 15.0)	0.6 (0.2, 1.8)
Primary school completed	14.3 (10.6, 19.1)	14.3 (10.6, 19.1)	14.1 (10.4, 18.8)	3.3 (1.6, 6.5)	1.0 (0.2, 4.3)
Secondary school completed or above	10.3 (8.0, 13.1)	10.3 (8.0, 13.1)	10.3 (8.0, 13.1)	0.3 (0.1, 0.8)	0.1 (0.0, 0.5)
<b>Female</b>	0.8 (0.4, 1.5)	0.7 (0.4, 1.4)	0.6 (0.3, 1.4)	0.1 (0.0, 0.3)	0.1 (0.0, 0.2)
<i>Age (years)</i>					
15-17	0.0	0.0	0.0	0.0	0.0
18-24	0.6 (0.1, 2.1)	0.6 (0.1, 2.1)	0.6 (0.1, 2.1)	0.0	0.0
25-44	0.3 (0.1, 0.9)	0.3 (0.1, 0.9)	0.2 (0.1, 0.9)	0.1 (0.0, 0.4)	0.0
45-64	2.6 (0.9, 7.3)	2.6 (0.9, 7.3)	2.3 (0.7, 7.2)	0.4 (0.1, 1.5)	0.1 (0.0, 0.5)
65+	1.2 (0.3, 4.2)	0.6 (0.1, 3.0)	0.5 (0.1, 3.4)	0.2 (0.0, 1.1)	0.6 (0.1, 4.2)
<i>Residence</i>					
Urban	1.0 (0.4, 2.3)	1.0 (0.4, 2.3)	0.8 (0.3, 2.2)	0.2 (0.1, 0.7)	0.0 (0.0, 0.1)
Rural	0.7 (0.3, 1.7)	0.6 (0.2, 1.6)	0.6 (0.2, 1.6)	0.0 (0.0, 0.2)	0.1 (0.0, 0.4)
<i>Education Level</i>					
No formal education	1.9 (0.6, 5.7)	1.6 (0.5, 5.6)	1.4 (0.3, 5.8)	0.3 (0.1, 1.3)	0.2 (0.0, 1.4)
Less than primary school completed	0.7 (0.2, 2.0)	0.7 (0.2, 2.0)	0.5 (0.1, 2.0)	0.2 (0.1, 0.6)	0.0 (0.0, 0.4)
Primary school completed	0.4 (0.1, 1.5)	0.4 (0.1, 1.5)	0.4 (0.1, 1.5)	0.0	0.0
Secondary school completed or above	0.6 (0.1, 2.7)	0.6 (0.1, 2.7)	0.6 (0.1, 2.7)	0.0	0.0

<sup>1</sup> Includes manufactured and hand rolled cigarettes.

<sup>2</sup> Includes pipes, cigars/cheroots/ciagarillos, and any other reported smoking tobacco products.



**Table 4.3a:** Number of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette		Other smoked tobacco <sup>2</sup>
			Manufactured	Hand-rolled	
<i>Number in thousands</i>					
<b>Overall</b>	1,696.7	1,690.4	1,517.4	465.8	59.8
<i>Age (years)</i>					
15-17	2.9	2.9	2.9	0.0	0.0
18-24	169.1	169.1	165.5	28.0	0.0
25-44	892.8	892.8	821.2	215.4	39.4
45-64	527.8	526.2	455.5	168.6	10.9
65+	104.1	99.4	72.3	53.8	9.5
<i>Residence</i>					
Urban	544.0	541.9	531.9	33.8	8.0
Rural	1,152.7	1,148.4	985.5	432.0	51.8
<i>Education Level</i>					
No formal education	180.2	175.9	99.9	91.6	5.0
Less than primary school completed	600.4	598.3	509.1	242.7	15.8
Primary school completed	540.2	540.2	532.5	120.6	35.3
Secondary school completed or above	376.0	376.0	376.0	10.9	3.7

Note: Current use includes both daily and occasional (less than daily) use.

<sup>1</sup> Includes manufactured and hand rolled cigarettes.

<sup>2</sup> Includes pipes, cigars/cheroots/ciagarillos, and any other reported smoking tobacco products.

**Table 4.3a (cont.):** Number of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette		Other smoked tobacco <sup>2</sup>
			Manufactured	Hand-rolled	
<i>Number in thousands</i>					
<b>Male</b>	1,610.8	1,608.7	1,445.3	454.8	53.4
<i>Age (years)</i>					
15-17	2.9	2.9	2.9	0.0	0.0
18-24	152.2	152.2	148.7	28.0	0.0
25-44	879.4	879.4	810.4	212.7	39.4
45-64	481.0	479.5	414.5	161.4	8.8
65+	95.2	94.8	68.9	52.7	5.2
<i>Residence</i>					
Urban	507.5	505.4	502.2	25.5	7.3
Rural	1,103.3	1,103.3	943.1	429.3	46.1
<i>Education Level</i>					
No formal education	142.5	142.5	71.8	85.7	0.0
Less than primary school completed	581.3	579.3	494.2	237.6	14.3
Primary school completed	527.1	527.1	519.4	120.6	35.3
Secondary school completed or above	359.9	359.9	359.9	10.9	3.7
<b>Female</b>	85.9	81.6	72.0	11.0	6.4
<i>Age (years)</i>					
15-17	0.0	0.0	0.0	0.0	0.0
18-24	16.9	16.9	16.9	0.0	0.0
25-44	13.4	13.4	10.8	2.7	0.0
45-64	46.7	46.7	41.0	7.1	2.2
65+	8.9	4.6	3.4	1.1	4.3
<i>Residence</i>					
Urban	36.5	36.5	29.7	8.2	0.7
Rural	49.4	45.1	42.4	2.7	5.7
<i>Education Level</i>					
No formal education	37.7	33.4	28.1	5.8	5.0
Less than primary school completed	19.1	19.1	14.8	5.1	1.4
Primary school completed	13.1	13.1	13.1	0.0	0.0
Secondary school completed or above	16.0	16.0	16.0	0.0	0.0

<sup>1</sup> Includes manufactured and hand rolled cigarettes.

<sup>2</sup> Includes pipes, cigars/cheroots/ciagarillos, and any other reported smoking tobacco products.

## Distribution of Current Users of Smokeless Tobacco Product by Gender and Selected Demographic Characteristics

Tables 4.4 and 4.4 (cont.) presents results of the percentage of adults aged 15 years and above who are current users of various smokeless tobacco products, by gender and selected demographic characteristics. The table highlights three smokeless tobacco products: chewing tobacco, snuff, and kuber.

Overall, approximately 4.5% of adults currently use any smokeless tobacco products. The proportion of adults who were current users of chewing tobacco and snuff by mouth was 2.1% and 2.8%, respectively, as detailed in Table 4.4. Kuber was used by only 0.2% of the respondents. More than twice as many adults living in rural areas were using smokeless tobacco than were adults living in urban areas. Among the urban respondents, chewing tobacco (1.8%) was more prevalent than the use of snuff by mouth (1.0%). This is in contrast to rural respondents who used snuff by nose (3.7%) more than chewing tobacco (2.3%). Respondents aged 65 years and older were the highest users of smokeless tobacco at 18.2%, while those aged 15-17 years were the used the least at 0.1%. Among the education classes, the use of smokeless tobacco was more prevalent among those with no formal education (17.6%), followed by those with less than primary education completed (3.9%).

Table 4.4 (cont.) stratifies the current use of various smokeless tobacco products by sex. Approximately 5.3% of males and 3.8% of females are current users of smokeless tobacco. Among males, 3.9% use snuff by nose, 1.9% use chewing tobacco, and 0.3% use chewing kuber. In contrast, among females, chewing tobacco (2.3%) was used more than snuff by nose (1.7%). Current use of smokeless tobacco increases with age. A negligible proportion of males aged 15-17 used smokeless tobacco products. Among males, by age, the highest proportion of smokeless tobacco users are among those aged 65 years and above (14.6%), followed by those aged 45-64 years (9.5%). The highest frequency of smokeless tobacco products by age group among females were those aged 65 years and above (21.1%). Rural males used smokeless tobacco products more (6.7%) than their urban counterparts (2.8%). Approximately 4.6% and 2.1% of rural and urban females, respectively, used smokeless tobacco products. As the level of education increases, the use of smokeless tobacco decreases. Males with no formal education were the most common users of smokeless tobacco products at 17.4%, while those with secondary school completed or above were the least frequent at 1.3%. Among the female users, 17.8% of respondents with no formal education currently used smokeless tobacco products.

**Table 4.4:** Percentage of adults  $\geq 15$  years old who are current users of various smokeless tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smokeless tobacco product	Chewing tobacco	Snuff, by nose	Chewing kuber
	<i>Percentage (95% CI)</i>			
<b>Overall</b>	4.5 (3.5, 5.8)	2.1 (1.7, 2.7)	2.8 (2.0, 3.9)	0.2 (0.1, 0.5)
<i>Age (years)</i>				
15-17	0.1 (0.1, 0.3)	0.1 (0.0, 0.4)	0.1 (0.0, 0.4)	0.1 (0.1, 0.1)
18-24	1.7 (1.0, 3.0)	0.7 (0.3, 1.4)	1.3 (0.6, 2.5)	0.0
25-44	3.7 (2.7, 5.1)	1.6 (1.1, 2.4)	2.4 (1.5, 3.8)	0.4 (0.2, 1.1)
45-64	8.9 (5.9, 13.1)	4.4 (3.0, 6.3)	5.4 (3.1, 9.3)	0.1 (0.1, 0.1)
65+	18.2 (12.6, 25.6)	9.4 (5.8, 14.7)	10.1 (6.5, 15.4)	0.3 (0.2, 0.6)
<i>Residence</i>				
Urban	2.5 (1.7, 3.6)	1.8 (1.1, 3.1)	1.0 (0.5, 1.8)	0.3 (0.1, 0.9)
Rural	5.6 (4.2, 7.5)	2.3 (1.7, 3.0)	3.7 (2.6, 5.4)	0.2 (0.1, 0.5)
<i>Education Level</i>				
No formal education	17.6 (11.9, 25.4)	10.6 (7.1, 15.5)	8.3 (5.3, 13.0)	0.5 (0.3, 0.7)
Less than primary school completed	3.9 (2.2, 6.8)	1.0 (0.5, 1.9)	3.4 (2.0, 5.9)	0.2 (0.0, 1.0)
Primary school completed	2.8 (1.9, 4.2)	1.3 (0.6, 2.5)	1.8 (1.1, 2.8)	0.4 (0.1, 1.3)
Secondary school completed or above	0.8 (0.1, 3.9)	0.1 (0.0, 0.3)	0.7 (0.1, 4.0)	0.0

Note: Current use includes both daily and occasional (less than daily) users.

**Table 4.4 (cont.):** Percentage of adults  $\geq 15$  years old who are current users of various smokeless tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smokeless tobacco product	Chewing tobacco	Snuff, by nose	Chewing kuber
<i>Percentage (95% CI)</i>				
<b>Male</b>	5.3 (3.9, 7.2)	1.9 (1.4, 2.8)	3.9 (2.6, 5.9)	0.3 (0.1, 0.9)
<i>Age (years)</i>				
15-17	0.0	0.0	0.0	0.0
18-24	3.6 (2.0, 6.4)	1.4 (0.7, 3.0)	2.6 (1.2, 5.5)	0.0
25-44	5.1 (3.3, 7.8)	1.9 (1.1, 3.3)	3.8 (2.1, 6.6)	0.7 (0.2, 2.0)
45-64	9.5 (5.5, 15.8)	4.1 (2.1, 7.7)	6.2 (2.8, 13.1)	0.1 (0.0, 0.4)
65+	14.6 (8.1, 25.0)	3.0 (1.7, 5.2)	12.6 (6.4, 23.3)	0.7 (0.4, 1.3)
<i>Residence</i>				
Urban	2.8 (1.6, 4.8)	2.1 (1.0, 4.1)	1.5 (0.7, 3.2)	0.4 (0.1, 1.3)
Rural	6.7 (4.7, 9.5)	1.9 (1.3, 2.7)	5.3 (3.3, 8.2)	0.3 (0.1, 1.2)
<i>Education Level</i>				
No formal education	17.4 (9.7, 29.2)	8.5 (4.9, 14.2)	9.8 (4.9, 18.8)	0.7 (0.3, 1.6)
Less than primary school completed	6.4 (3.6, 11.1)	1.4 (0.6, 3.2)	6.2 (3.4, 10.9)	0.4 (0.1, 2.2)
Primary school completed	5.2 (3.5, 7.7)	2.3 (1.1, 4.7)	3.3 (2.1, 5.2)	0.5 (0.1, 2.3)
Secondary school completed or above	1.3 (0.3, 6.7)	0.1 (0.0, 0.6)	1.3 (0.2, 6.9)	0.0
<b>Female</b>	3.8 (2.9, 4.9)	2.3 (1.7, 3.1)	1.7 (1.2, 2.5)	0.1 (0.0, 0.4)
<i>Age (years)</i>				
15-17	0.4 (0.2, 0.7)	0.1 (0.0, 0.9)	0.1 (0.0, 0.9)	0.2 (0.2, 0.3)
18-24	0.2 (0.1, 0.4)	0.1 (0.0, 0.3)	0.1 (0.1, 0.3)	0.0
25-44	2.4 (1.8, 3.3)	1.4 (0.9, 2.2)	1.0 (0.7, 1.4)	0.2 (0.0, 1.1)
45-64	8.3 (5.3, 12.7)	4.6 (3.1, 7.0)	4.5 (2.2, 9.1)	0.1 (0.1, 0.2)
65+	21.1 (13.8, 31.0)	14.5 (8.8, 23.0)	8.1 (4.6, 13.9)	0.1 (0.0, 0.5)
<i>Residence</i>				
Urban	2.1 (1.4, 3.3)	1.6 (0.8, 3.4)	0.5 (0.3, 0.7)	0.2 (0.0, 1.5)
Rural	4.6 (3.4, 6.3)	2.6 (1.9, 3.7)	2.4 (1.5, 3.6)	0.1 (0.1, 0.1)
<i>Education Level</i>				
No formal education	17.8 (12.5, 24.8)	11.6 (7.9, 16.7)	7.6 (4.9, 11.6)	0.4 (0.3, 0.5)
Less than primary school completed	1.6 (0.6, 4.1)	0.6 (0.1, 2.6)	1.1 (0.3, 3.5)	0.0
Primary school completed	0.4 (0.1, 1.4)	0.1 (0.0, 0.4)	0.2 (0.1, 0.4)	0.2 (0.0, 1.7)
Secondary school completed or above	0.0	0.0	0.0	0.0

Note: Current use includes both daily and occasional (less than daily) users.

**Table 4.4a:** Number of adults  $\geq 15$  years old who are current users of various smokeless tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smokeless tobacco product	Snuff, by mouth	Snuff, by nose	Chewing kuber
<i>Number in thousands</i>				
<b>Overall</b>	988.8	463.5	607.9	50.8
<i>Age (years)</i>				
15-17	3.7	1.3	1.3	2.4
18-24	93.6	37.3	68.5	0.0
25-44	340.6	148.9	215.7	40.2
45-64	311.6	153.1	189.6	3.5
65+	239.3	123.0	132.8	4.6
<i>Residence</i>				
Urban	188.1	140.5	74.4	24.4
Rural	800.8	323.1	533.5	26.3
<i>Education Level</i>				
No formal education	529.5	316.8	250.0	14.0
Less than primary school completed	207.1	51.6	185.2	8.9
Primary school completed	205.0	90.4	126.9	27.9
Secondary school completed or above	47.3	4.6	45.7	0.0

Note: Current use includes both daily and occasional (less than daily) users.

**Table 4.4a (cont.):** Number of adults  $\geq 15$  years old who are current users of various smokeless tobacco products, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Any smokeless tobacco product			
	Snuff, by mouth	Snuff, by nose	Chewing kuber	
	<i>Number in thousands</i>			
<b>Male</b>	565.7	206.7	416.3	35.0
<i>Age (years)</i>				
15-17	0.0	0.0	0.0	0.0
18-24	87.2	34.2	64.0	0.0
25-44	227.2	84.2	169.3	30.0
45-64	165.8	71.1	109.4	0.9
65+	85.5	17.3	73.5	4.1
<i>Residence</i>				
Urban	106.2	78.9	56.8	15.2
Rural	459.5	127.8	359.5	19.8
<i>Education Level</i>				
No formal education	167.0	81.4	94.5	6.5
Less than primary school completed	160.6	35.3	155.1	8.9
Primary school completed	190.8	85.4	121.0	19.5
Secondary school completed or above	47.3	4.6	45.7	0.0
<b>Female</b>	423.2	256.8	191.6	15.8
<i>Age (years)</i>				
15-17	3.7	1.3	1.3	2.4
18-24	6.4	3.2	4.4	0.0
25-44	113.5	64.7	46.4	10.2
45-64	145.7	82.0	80.2	2.6
65+	153.9	105.7	59.3	0.5
<i>Residence</i>				
Urban	81.9	61.5	17.5	9.2
Rural	341.3	195.3	174.0	6.6
<i>Education Level</i>				
No formal education	362.4	235.5	155.5	7.4
Less than primary school completed	46.5	16.4	30.1	0.0
Primary school completed	14.2	5.0	5.9	8.3
Secondary school completed or above	0.0	0.0	0.0	0.0

Note: Current use includes both daily and occasional (less than daily) users.

## Distribution of Respondents by Smoking Frequency

Frequency of smoking is an important predictor of nicotine dependence and adverse health outcomes. Current smokers were categorized into daily or occasional smokers. Daily means smoking at least one tobacco product every day or nearly every day over a period of a month. Tables 4.5 and 4.5(cont) present the percentage distribution of adults aged 15 years and above, by frequency, gender, and selected demographic characteristics.

Overall, 6.0% of the adults were daily tobacco smokers, 1.8% were occasional tobacco users, and 92.2% were non-smokers. The age group 15-24 years had small proportions of 1.3% and 0.9% daily and occasional smokers, respectively. The results further indicate that 12.7% of those aged 45-64 years were daily smokers. An estimated 6.7% and 4.5% of rural and urban residents, respectively, were daily tobacco smokers. Adults residing in urban areas were more likely (2.6%) to be occasional smokers than their rural counterparts (1.4%). Among adults who had less than primary school education, 8.5% were daily smokers while 2.6% were occasional smokers.

**Table 4.5:** Percentage distribution of adults  $\geq 15$  years old, by smoking tobacco frequency, gender, and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Smoking Frequency			Total
	Daily	Occasional <sup>1</sup>	Non-smoker	
	<i>Percentage (95% CI)</i>			
<b>Overall</b>	6.0 (4.9, 7.3)	1.8 (1.3, 2.4)	92.2 (90.8, 93.5)	100
<i>Age (years)</i>				
15-24	1.3 (0.6, 2.7)	0.9 (0.4, 1.9)	97.8 (96.3, 98.7)	100
25-44	7.3 (5.6, 9.4)	2.5 (1.7, 3.6)	90.2 (87.9, 92.2)	100
45-64	12.7 (9.4, 16.9)	2.3 (1.4, 3.8)	85.0 (80.5, 88.6)	100
65+	6.9 (3.8, 12.3)	0.9 (0.3, 3.1)	92.2 (86.4, 95.6)	100
<i>Residence</i>				
Urban	4.5 (3.5, 5.7)	2.6 (1.8, 3.7)	92.9 (91.4, 94.2)	100
Rural	6.7 (5.2, 8.7)	1.4 (0.9, 2.1)	91.9 (89.8, 93.6)	100
<i>Education Level</i>				
No formal education	5.5 (3.2, 9.0)	0.5 (0.2, 1.3)	94.0 (90.2, 96.4)	100
Less than primary school completed	8.5 (6.1, 11.8)	2.6 (1.6, 4.3)	88.9 (85.4, 91.6)	100
Primary school completed	6.0 (4.4, 8.1)	1.5 (0.9, 2.6)	92.5 (90.1, 94.4)	100
Secondary school completed or above	4.0 (2.7, 6.0)	1.9 (1.0, 3.6)	94.0 (92.1, 95.5)	100

<sup>1</sup> Occasional refers to less than daily use.

The results shown in Table 4.5 (cont), indicate that approximately 11.6% of males were daily tobacco smokers while 3.5% were occasional smokers. The data further shows that 23.2% of male aged 45-64 years were daily smokers compared to 2.3% of the females in the same age group. Among females, 0.6% and 0.2% were daily and occasional tobacco smokers, respectively.

**Table 4.5 (cont.):** Percentage distribution of adults  $\geq 15$  years old, by smoking tobacco frequency, gender, and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Smoking Frequency			Total
	Daily	Occasional <sup>1</sup>	Non-smoker	
	<i>Percentage (95% CI)</i>			
<b>Male</b>	11.6 (9.5, 14.1)	3.5 (2.6, 4.7)	84.9 (82.2, 87.3)	100
<i>Age (years)</i>				
15-24	2.5 (1.2, 5.2)	1.5 (0.7, 3.5)	96.0 (93.1, 97.7)	100
25-44	14.6 (11.4, 18.5)	5.1 (3.5, 7.3)	80.3 (76.1, 84.0)	100
45-64	23.2 (16.6, 31.3)	4.3 (2.4, 7.6)	72.6 (63.5, 80.1)	100
65+	13.9 (7.4, 24.6)	2.0 (0.6, 6.8)	84.1 (72.7, 91.4)	100
<i>Residence</i>				
Urban	8.5 (6.6, 10.9)	4.7 (3.4, 6.5)	86.8 (83.8, 89.2)	100
Rural	13.3 (10.3, 17.1)	2.8 (1.8, 4.4)	83.9 (79.9, 87.2)	100
<i>Education Level</i>				
No formal education	13.6 (7.2, 24.2)	1.2 (0.3, 4.4)	85.2 (73.9, 92.1)	100
Less than primary school completed	18.0 (13.0, 24.3)	5.0 (2.9, 8.6)	77.0 (70.4, 82.5)	100
Primary school completed	11.3 (8.2, 15.4)	3.0 (1.8, 5.1)	85.7 (80.9, 89.4)	100
Secondary school completed or above	6.8 (4.5, 10.0)	3.5 (1.9, 6.2)	89.7 (86.9, 92.0)	100
<b>Female</b>	0.6 (0.3, 1.3)	0.2 (0.1, 0.5)	99.2 (98.5, 99.6)	100
<i>Age (years)</i>				
15-24	0.2 (0.0, 0.9)	0.2 (0.0, 1.7)	99.6 (98.5, 99.9)	100
25-44	0.2 (0.1, 0.9)	0.1 (0.0, 0.4)	99.7 (99.1, 99.9)	100
45-64	2.3 (0.7, 7.2)	0.4 (0.1, 1.5)	97.4 (92.7, 99.1)	100
65+	1.2 (0.3, 4.2)	0.0	98.8 (95.8, 99.7)	100
<i>Residence</i>				
Urban	0.5 (0.1, 1.8)	0.4 (0.1, 1.5)	99.0 (97.7, 99.6)	100
Rural	0.6 (0.2, 1.7)	0.0 (0.0, 0.2)	99.3 (98.3, 99.7)	100
<i>Education Level</i>				
No formal education	1.6 (0.4, 5.7)	0.2 (0.0, 1.3)	98.1 (94.3, 99.4)	100
Less than primary school completed	0.2 (0.1, 0.6)	0.5 (0.1, 2.0)	99.3 (98.0, 99.8)	100
Primary school completed	0.4 (0.1, 1.5)	0.0	99.6 (98.5, 99.9)	100
Secondary school completed or above	0.6 (0.1, 2.7)	0.0	99.4 (97.3, 99.9)	100

<sup>1</sup> Occasional refers to less than daily use.

### Number of Cigarettes Smoked per Day

The average number and percentage distribution of cigarettes smoked per day among adult daily cigarette smokers by sex and selected demographic characteristics is presented in Table 4.6.

The average number of cigarettes smoked per day among daily smokers is 9.4 sticks. Twenty eight percent of daily smokers used less than 5 sticks, 29.9% used 5 to 9 sticks, 22.7% used 10-14 sticks, 16.2% used 15-24 sticks, and 2.9% used 25 or more sticks. The average number of sticks consumed per day by male daily smokers was 9.7. Among daily smokers aged 25-44 years, the average number of cigarettes smoked per day was 9.3 while among daily smokers aged 45-64 years, the average number of cigarettes smoked per day was 9.7 and 4.6% smoked 25 or more sticks per day. The average number of cigarettes smoked per day among urban daily smokers was 8.3, while among rural daily smokers, it was 9.9. Daily smokers who had completed primary school smoked 10.2 sticks per day while those with no formal education and less than primary school smoked 9.2 and 9.3 sticks, respectively. Daily smokers who had completed secondary school and above smoked approximately 8.7 sticks per day.



**Table 4.6:** Average number and percentage distribution of cigarettes smoked per day among daily cigarette smokers  $\geq 15$  years old, by gender and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Average number of cigarettes smoked per day <sup>1</sup>	Distribution of number of cigarettes smoked on average per day <sup>1</sup>					Total
		<5	5-9	10-14	15-24	$\geq 25$	
	<i>Mean (95% CI)</i>	<i>Percentage (95% CI)</i>					
<b>Overall</b>	9.4 (8.3, 10.6)	28.2 (21.2, 36.5)	29.9 (24.6, 35.8)	22.7 (18.0, 28.2)	16.2 (10.5, 24.2)	2.9 (1.4, 5.8)	100
<i>Gender</i>							
Male	9.7 (8.5, 10.9)	27.0 (19.6, 35.9)	29.2 (23.8, 35.3)	23.7 (18.9, 29.3)	17.0 (11.0, 25.4)	3.0 (1.5, 6.1)	100
Female	*	*	*	*	*	*	100
<i>Age (years)</i>							
15-24	*	*	*	*	*	*	100
25-44	9.3 (7.5, 11.0)	33.9 (21.9, 48.3)	22.3 (14.6, 32.4)	23.5 (17.0, 31.5)	17.8 (9.2, 31.7)	2.5 (0.9, 6.9)	100
45-64	9.7 (8.4, 11.0)	24.5 (16.9, 34.1)	36.9 (26.1, 49.3)	23.4 (16.4, 32.3)	10.6 (5.6, 19.0)	4.6 (2.0, 10.2)	100
65+	*	*	*	*	*	*	100
<i>Residence</i>							
Urban	8.3 (7.4, 9.2)	31.0 (19.7, 45.2)	34.7 (22.2, 49.9)	19.5 (11.9, 30.1)	12.2 (7.5, 19.1)	2.6 (0.9, 6.9)	100
Rural	9.9 (8.4, 11.3)	27.2 (18.9, 37.5)	28.2 (23.0, 34.1)	23.9 (18.3, 30.5)	17.7 (10.4, 28.4)	3.0 (1.2, 7.0)	100
<i>Education Level</i>							
No formal education	9.2 (7.2, 11.1)	30.0 (14.9, 51.2)	19.5 (5.9, 48.5)	29.8 (15.3, 49.9)	20.7 (10.1, 37.7)	0.0	100
Less than primary school completed	9.3 (7.4, 11.3)	28.4 (12.8, 51.7)	32.3 (21.2, 45.8)	21.4 (11.7, 35.7)	13.5 (6.1, 27.0)	4.5 (1.8, 10.6)	100
Primary school completed	10.2 (8.2, 12.2)	28.5 (16.0, 45.6)	27.2 (15.7, 42.9)	21.1 (13.9, 30.6)	19.5 (9.0, 37.2)	3.6 (1.2, 10.2)	100
Secondary school completed or above	8.7 (6.6, 10.7)	26.3 (14.1, 43.7)	36.9 (19.2, 59.0)	23.5 (12.4, 39.8)	12.9 (3.9, 35.3)	0.5 (0.1, 3.4)	100

<sup>1</sup> Among daily cigarette smokers. Cigarettes include manufactured and hand-rolled.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## Age of Daily Smoking Initiation

Early exposure and addiction to nicotine can negatively impact brain development and have implications for future tobacco use and smoking-related harms. Table 4.7 explores the age at daily initiation for adults who have ever been daily smokers. The ages 20-34 are used in this table to reduce recall bias.

Overall, the most ever daily smokers (41.3%) initiated between the ages of 20-24 years, 32.3% between 17-19 years, 13.5% between 15-16 years, and 7.5% when they were less than 15 years. A small proportion (5.4%) initiated when they were over the age of 25 years. When stratified by sex, the male proportions follow the same trend as the overall figures. Among urban adults who were ever daily smokers, one in ten (10.2%) initiated into daily smoking when they were younger than 15 years, while in the rural areas only 6.1% of ever daily smokers initiated when they were younger than 15 years. Almost half (46.2%) of the urban ever daily smokers initiated daily smoking between 20-24 years compared to about four out of ten (38.8%) of the ever daily rural smokers of the same age.

**Table 4.7:** Percentage distribution of ever daily smokers 20-34 years old by age at daily smoking initiation, gender, and residence – GATS Kenya, 2014.

Demographic Characteristics	Age at Daily Smoking Initiation (years) <sup>1</sup>					Total
	<15	15-16	17-19	20-24	25+	
	<i>Percentage (95% CI)</i>					
<b>Overall</b>	7.5 (3.8, 14.1)	13.5 (7.1, 24.2)	32.3 (19.8, 48.1)	41.3 (25.5, 59.1)	5.4 (2.8, 10.3)	100
<i>Gender</i>						
Male	7.8 (3.9, 14.7)	12.2 (6.0, 23.3)	32.5 (19.7, 48.5)	42.5 (26.4, 60.4)	5.1 (2.6, 9.8)	100
Female	*	*	*	*	*	100
<i>Residence</i>						
Urban	10.2 (4.4, 21.7)	9.8 (4.3, 20.9)	27.4 (13.4, 48.0)	46.2 (27.1, 66.5)	6.4 (2.9, 13.8)	100
Rural	6.1 (2.2, 16.0)	15.4 (6.8, 31.2)	34.8 (18.1, 56.3)	38.8 (18.7, 63.7)	4.9 (1.9, 12.2)	100

<sup>1</sup> Among respondents 20-34 years of age who are ever daily smokers.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## Former Daily Smokers

Table 4.8 details percentage of all adults and ever daily smokers who are former daily smokers by selected demographic characteristics.

Among all the adults surveyed, 2.7% were former smokers. This proportion represents 28.5% of all ever daily smokers, also known as the quit ratio for daily smokers. Less than one percent of females and 4.9% of males were former smokers. However, among females, former smokers represented 47.7% of ever daily female smokers. The age group 65 years and older had the highest proportion of former smokers at 11.3%, followed by age group 45-65 (5.4%), age group 25-44 (2.7%), and lastly the age group below 15 years (0.1%). Approximately 2.9% and 2.6% of the urban and rural respondents, respectively, were former smokers. The quit ratio was slightly higher among the urban population (35.9%) than among the rural population (25.3%). Former smokers comprised 1.3% of adults with no education, 4.1% of those with less than primary school completed, 2.9% of those with primary school completed, and 1.9% of those with secondary school and above completed.

**Table 4.8:** Percentage of all adults and ever daily smokers  $\geq 15$  years old who are former daily smokers, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Former Daily Smokers <sup>1</sup>	Former Daily Smokers <sup>1</sup>
	(Among All Adults)	(Among Ever Daily Smokers) <sup>2</sup>
<i>Percentage (95% CI)</i>		
<b>Overall</b>	2.7 (2.1, 3.4)	28.5 (22.4, 35.4)
<i>Gender</i>		
Male	4.9 (3.7, 6.5)	27.2 (20.6, 35.0)
Female	0.5 (0.2, 1.5)	47.7 (19.6, 77.4)
<i>Age (years)</i>		
15-24	0.1 (0.0, 0.2)	2.9 (0.7, 11.1)
25-44	2.7 (1.8, 3.9)	24.6 (16.9, 34.4)
45-64	5.4 (3.6, 8.0)	28.1 (19.7, 38.3)
65+	11.3 (6.3, 19.5)	59.0 (37.2, 77.8)
<i>Residence</i>		
Urban	2.9 (1.9, 4.5)	35.9 (24.2, 49.6)
Rural	2.6 (1.9, 3.4)	25.3 (18.9, 32.9)
<i>Education Level</i>		
No formal education	1.3 (0.6, 2.6)	18.9 (10.4, 31.8)
Less than primary school completed	4.1 (2.7, 6.1)	29.4 (19.5, 41.7)
Primary school completed	2.9 (1.9, 4.4)	30.5 (20.4, 42.8)
Secondary school completed or above	1.9 (1.1, 3.1)	28.3 (17.1, 43.0)

<sup>1</sup> Current non-smokers.

<sup>2</sup> Also known as the quit ratio for daily smoking.

### Duration of Quitting Smoking

Time since quitting among former daily smokers aged 15 years old, by selected demographic characteristics is presented in Table 4.9. Reporting on time since quitting can provide information on the impact of recent programs and policies. This can be achieved by comparing the proportion of recent quitters with longer-term quitters in countries after implementation of quit programs. Smokers who have quit for a longer period are more likely to remain former smokers.

The majority of the former smokers (69.7%) have quit for more than ten years. Thirteen percent of former smokers had quit for one to five years, 10.6% for five to ten years and 6.6% for less than one year. Similar trends were observed among male former smokers where the majority (69.4%) had quit for more than 10 years and the least (7.4%) had quit for less than one year. Among former smokers aged 65 years and above, 81.3% had quit for more than ten years. With respect to education levels, among former smokers with completed primary school education, 83.9% had quit for more than ten years. Approximately 57.0% and 70.5% of former smokers with less than primary school and secondary school or above had quit for more than ten years, respectively.

**Table 4.9:** Percentage distribution of former daily smokers  $\geq 15$  years old, by time since quitting smoking and selected demographic characteristics – GATS Kenya, 2014.

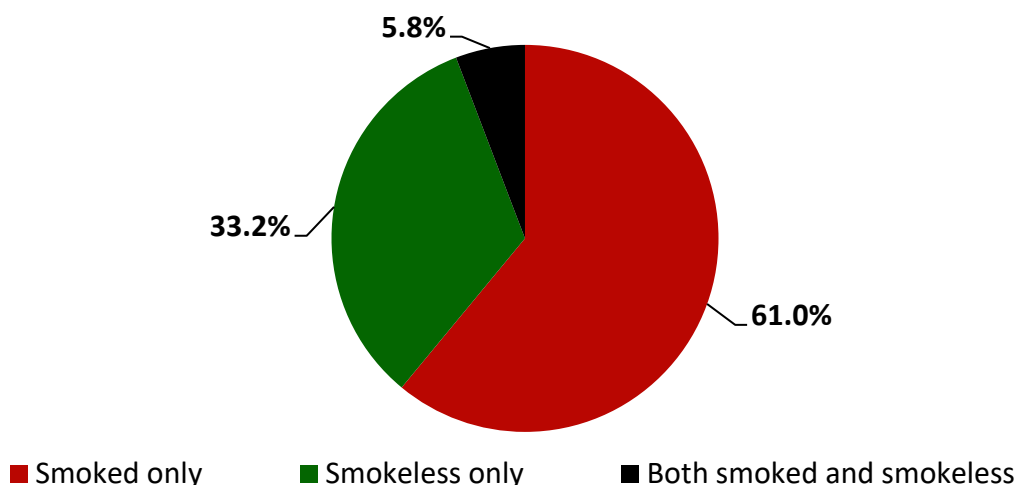
**Exclusive use of smokeless tobacco was approximately four-fold higher in females (X%) than males (Y%)**

### Patterns of Tobacco Use

The distribution of current adult tobacco users by tobacco use pattern and selected demographic characteristics is detailed in Table 4.10 and Figure 4.1. The prevalence of current tobacco use reflects the percentage of respondents who currently smoke tobacco and use smokeless tobacco products on either a daily or less than daily basis.

Overall, 11.6% of the adults currently use tobacco. The current users are comprised of 61.0% who smoked tobacco only, 33.2% who used smokeless tobacco only, and 5.8% who were dual users. Nearly a fifth (19.1%) of males were current tobacco users while only 4.5% of females were current users. Exclusive use of smokeless tobacco was approximately four-fold higher in females (83.0%) than males (20.8%). Seven percent and one percent of males and female tobacco users were dual users of both smoked and smokeless products, respectively. A quarter (24.9 %) of current tobacco users between 15-24 years used both smoked and smokeless tobacco products.

**Figure 4.1:** Current tobacco users of both smoked and smokeless tobacco - GATS Kenya, 2014.



**Table 4.10:** Current tobacco users  $\geq 15$  years old, by tobacco use pattern and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Current Tobacco Users <sup>1</sup>	Type of Current Tobacco Use			Total
		Smoked only	Smokeless only	Both smoked and smokeless	
<i>Percentage (95% CI)</i>					
<b>Overall</b>	11.6 (9.9, 13.6)	61.0 (54.8, 66.9)	33.2 (27.6, 39.2)	5.8 (3.7, 9.0)	100
<i>Gender</i>					
Male	19.1 (16.4, 22.1)	72.2 (64.8, 78.5)	20.8 (15.3, 27.7)	7.0 (4.5, 10.8)	100
Female	4.5 (3.6, 5.7)	16.1 (8.3, 28.8)	83.0 (70.4, 90.9)	1.0 (0.2, 5.3)	100
<i>Age (years)</i>					
15-24	2.7 (1.8, 4.2)	54.9 (34.5, 73.8)	20.3 (11.5, 33.2)	24.9 (9.5, 50.9)	100
25-44	12.7 (10.5, 15.2)	70.5 (62.1, 77.8)	22.8 (16.9, 30.0)	6.7 (3.6, 11.9)	100
45-64	23.5 (18.1, 30.0)	62.4 (52.0, 71.7)	36.2 (26.7, 47.0)	1.4 (0.4, 4.9)	100
65+	25.8 (19.7, 33.1)	29.3 (16.2, 47.1)	69.3 (51.5, 82.7)	1.4 (0.2, 8.3)	100
<i>Residence</i>					
Urban	9.1 (7.5, 11.0)	73.0 (65.9, 79.2)	22.0 (15.8, 29.8)	5.0 (2.2, 11.0)	100
Rural	12.9 (10.5, 15.9)	56.5 (48.7, 64.0)	37.4 (30.3, 45.1)	6.1 (3.6, 10.2)	100
<i>Education Level</i>					
No formal education	23.2 (15.8, 32.8)	24.1 (16.7, 33.4)	74.2 (64.4, 82.0)	1.8 (0.4, 7.1)	100
Less than primary school completed	13.6 (10.3, 17.7)	71.6 (58.4, 81.9)	17.7 (10.6, 28.2)	10.7 (5.2, 20.7)	100
Primary school completed	9.6 (7.6, 12.0)	70.2 (58.9, 79.5)	21.5 (13.2, 33.0)	8.3 (3.8, 17.2)	100
Secondary school completed or above	6.7 (4.6, 9.8)	88.8 (63.2, 97.4)	11.2 (2.6, 36.8)	0.0	100

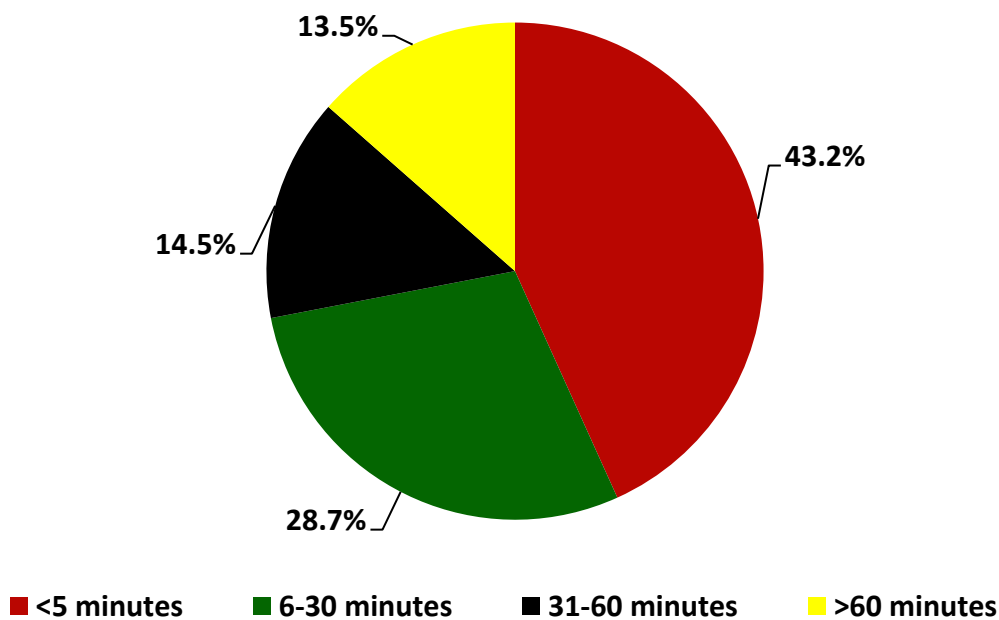
<sup>1</sup> Includes daily and occasional (less than daily) smokers or smokeless users.

### Time to First Tobacco Use upon Waking Up

Table 4.11 and Figure 4.2 present data on time to first tobacco use upon waking up and selected demographic characteristics. The time to first nicotine administration is used to provide information on the level of addiction of tobacco users.

Overall, slightly less than half (43.2%) of daily tobacco users use tobacco in less than 5 minutes upon waking up, and 28.7% use within 6 to 30 minutes upon waking up. This reveals that 71.9% of tobacco users use tobacco within half an hour of waking up. More female tobacco users take a shorter time to use their first tobacco after waking up compared to male tobacco users, as 90.7% would use tobacco within one hour of waking up compared to 85.4% of males. Among the age group 65 years and above, 23.2% use their first tobacco more than 60 minutes after waking up. Forty two percent and 43.6% of the urban and rural tobacco users, respectively, use tobacco less than five minutes upon waking up. About half (52.2%) of daily tobacco users with no formal education use their first tobacco less than five minutes upon waking up.

Figure 4.2: Overall time to first tobacco use upon waking up among daily tobacco users aged 15 years and older - GATS Kenya, 2014.



**Table 4.11:** Percentage distribution of daily tobacco users  $\geq 15$  years old, by time to first tobacco use upon waking up and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Time to first tobacco use				Total
	$\leq 5$ minutes	6-30 minutes	31-60 minutes	$> 60$ minutes	
	<i>Percentage (95% CI)</i>				
<b>Overall</b>	43.2 (37.1, 49.6)	28.7 (22.6, 35.8)	14.5 (11.5, 18.3)	13.5 (9.3, 19.2)	100
<i>Gender</i>					
Male	42.4 (35.7, 49.4)	30.4 (23.7, 38.0)	12.6 (9.9, 15.9)	14.6 (9.8, 21.1)	100
Female	46.2 (35.2, 57.7)	22.6 (15.3, 32.0)	21.9 (13.7, 33.1)	9.3 (3.9, 20.6)	100
<i>Age (years)</i>					
15-24	38.7 (16.1, 67.5)	35.4 (14.4, 64.1)	17.6 (9.8, 29.3)	8.3 (1.8, 30.9)	100
25-44	46.8 (35.9, 58.0)	29.2 (20.4, 39.7)	12.0 (7.7, 18.1)	12.1 (7.1, 20.0)	100
45-64	38.4 (30.2, 47.3)	35.2 (27.5, 43.7)	14.4 (8.1, 24.2)	12.0 (7.5, 18.8)	100
65+	46.4 (33.4, 59.8)	9.5 (4.3, 19.6)	21.0 (13.3, 31.6)	23.2 (12.3, 39.4)	100
<i>Residence</i>					
Urban	42.0 (33.1, 51.4)	35.6 (26.4, 46.0)	10.3 (6.4, 16.1)	12.1 (5.8, 23.6)	100
Rural	43.6 (36.1, 51.4)	26.7 (19.3, 35.7)	15.8 (12.1, 20.4)	13.9 (9.0, 20.8)	100
<i>Education Level</i>					
No formal education	52.1 (42.2, 61.9)	20.9 (15.3, 28.0)	16.7 (12.2, 22.4)	10.2 (5.5, 18.3)	100
Less than primary school completed	31.2 (19.4, 46.1)	34.7 (23.3, 48.3)	17.5 (9.9, 29.0)	16.6 (9.6, 27.2)	100
Primary school completed	47.1 (33.8, 60.9)	29.5 (18.1, 44.2)	9.7 (5.1, 17.7)	13.6 (7.3, 24.1)	100
Secondary school completed or above	41.1 (29.7, 53.6)	32.2 (21.3, 45.4)	12.8 (5.1, 28.6)	13.9 (5.1, 32.6)	100

## 5. CESSATION

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Tobacco cessation refers to the process of stopping the use of any tobacco products, with or without assistance. Tobacco products, which typically include nicotine, are highly addictive (ICD 10- WHO 2007) and therefore it is essential to strengthen health care systems to promote tobacco cessation.

Health care providers play a key role in early identification of tobacco use and have a responsibility to intervene by providing brief advice to users to quit. Such brief advice, usually taking a few minutes, should be given to all tobacco users in the course of a routine consultation or interaction with a health care provider.

This chapter provides the survey findings on cessation. It presents the aspects of tobacco use cessation among Kenyan adults who were past-year smokers (current and former smokers who quit in past 12 months) of tobacco products. It covers attempts to quit, receiving cessation advice from a health care provider, cessation methods used to try to quit, reasons for wanting to quit, and current or future interest to quit.

### **Quit Attempts**

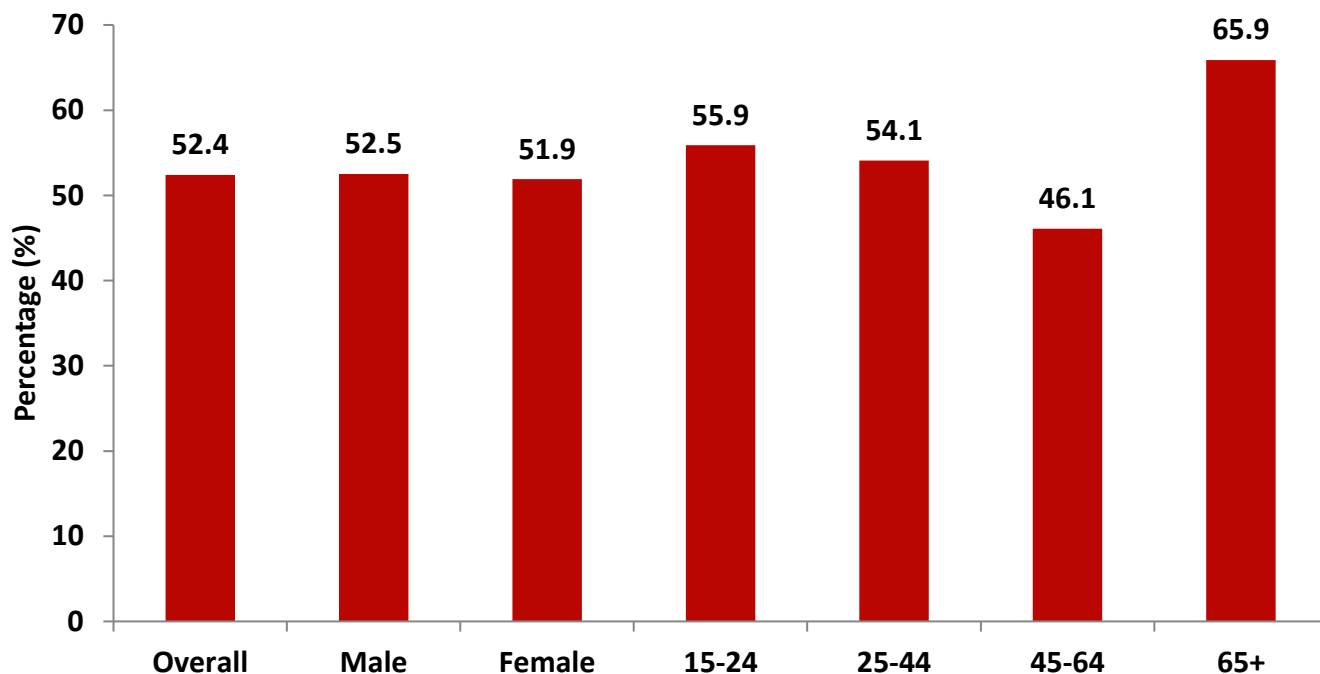
Table 5.1 and Figure 5.1 show the findings for quit attempts and success rates among smokers aged 15 years and above in the past twelve months by selected demographic characteristics. The results represent the data on past-year smokers who made a quit attempt, the success rate (currently quit) for those who made a quit attempt, and current smokers who made a quit attempt.

The data shows that more than half (52.4%) of past-year smokers made a quit attempt in the past 12 months with a very low success rate (6.9%). Half of both male (52.5%) and female smokers (51.9%) made a quit attempt, with 7.2% of males succeeding. More than half (55.9%) of adults in the age group 15-24 years made a quit attempt and achieved the highest success rate of 17.0% as compared to all other age groups whose success rates ranged from 3.0% to 11.6%. Adults aged 65 years and above (65.9%) were most likely to make a quit attempt.

Current smokers who resided in urban areas (57.2%) were more likely to make a quit attempt than those who resided in rural areas (50.2%). Most attempts to quit (62.0%) were made by those with no formal education, while those who had completed secondary school and above were least likely to attempt to quit (46.0%). However, these two categories had similarly low success rates in their quit attempts at 2.6% and 3.0%, respectively.



**Figure 5.1:** Smokers who made a quit attempt among past-year smokers  $\geq 15$  years old in the past 12 months - GATS Kenya, 2014.



**Table 5.1:** Quit attempts and success rates among smokers  $\geq 15$  years old in the past 12 months, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Smokers who made a quit attempt <sup>1</sup>	Success rate among smokers who attempted to quit <sup>2</sup>	Current smokers who made a quit attempt <sup>3</sup>
	<i>Percentage (95% CI)</i>		
<b>Overall</b>	52.4 (46.0, 58.8)	6.9 (3.6, 13.0)	50.7 (44.2, 57.1)
<i>Gender</i>			
Male	52.5 (45.6, 59.2)	7.2 (3.7, 13.5)	50.6 (43.8, 57.4)
Female	51.9 (23.4, 79.3)	*	51.8 (23.2, 79.2)
<i>Age (years)</i>			
15-24	55.9 (31.4, 77.8)	17.0 (4.7, 45.8)	51.3 (26.4, 75.6)
25-44	54.1 (43.3, 64.5)	3.0 (1.0, 8.7)	53.3 (42.7, 63.6)
45-64	46.1 (34.4, 58.3)	11.6 (4.4, 27.4)	43.0 (31.0, 56.0)
65+	65.9 (41.7, 83.8)	*	65.5 (41.2, 83.7)
<i>Residence</i>			
Urban	57.2 (46.4, 67.4)	5.9 (2.2, 15.2)	55.7 (45.0, 66.0)
Rural	50.2 (42.3, 58.0)	7.4 (3.2, 16.4)	48.3 (40.5, 56.1)
<i>Education Level</i>			
No formal education	62.0 (39.6, 80.2)	2.6 (0.3, 17.6)	61.4 (38.7, 80.0)
Less than primary school completed	49.2 (39.3, 59.0)	7.3 (2.5, 19.2)	47.3 (37.1, 57.7)
Primary school completed	57.2 (43.3, 70.1)	10.1 (3.5, 25.9)	54.6 (41.3, 67.2)
Secondary school completed or above	46.0 (30.9, 61.9)	3.0 (0.8, 10.4)	45.3 (30.1, 61.4)

<sup>1</sup> Among current smokers and former smokers who have been abstinent for less than 12 months.

<sup>2</sup> Among the smokers who made a quit attempt in the last 12 months, the percent that quit smoking (currently former smokers).

<sup>3</sup> Among current smokers.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

### Health Care Provider Advice to Quit

Health care providers play an important role in motivating tobacco users to quit. Brief advice to quit during a visit to the health care provider can be effective in initiating a cessation process among tobacco users. Table 5.2 presents the percentage of past-year tobacco smokers aged 15 years and above who received health care provider advice in the past twelve months by selected demographic characteristics.

In general, about a third of tobacco smokers visited a health care provider in the past 12 months. Notably, a higher proportion of female smokers (72.3%) visited a health care provider than their male counterparts (30.6%).

About 39.1% of smokers who visited the health care provider were asked if they smoked and only 34.1% of them received advice from the health care worker to quit smoking. About 35.6% of males who visited the health care provider were asked if they smoked and only 30.0% were advised to quit.

The age group with the highest proportion of smokers asked by a health care provider if they smoked were in 45-64 years (58.6%) and 25-44 years of age (29.9%).

Tobacco smokers who had completed secondary education or above (39.9%) were most likely to visit a health care provider compared to smokers of other levels of education, while smokers with less than primary school education (51.0%) were more likely to be asked about their smoking status and to be advised to quit smoking (45.5%).

**Table 5.2:** Percentage of past-year smokers  $\geq 15$  years old who received health care provider advice in the past 12 months, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Visited a HCP <sup>1,2</sup>	Asked by HCP if a smoker <sup>2,3</sup>	Advised to quit by HCP <sup>2,3</sup>
<b>Overall</b>	32.7 (26.1, 40.0)	39.1 (28.3, 51.1)	34.1 (23.6, 46.4)
<i>Gender</i>			
Male	30.6 (24.1, 38.0)	35.6 (25.5, 47.3)	30.0 (20.4, 41.8)
Female	72.3 (46.7, 88.6)	*	*
<i>Age (years)</i>			
15-24	31.8 (14.5, 56.0)	*	*
25-44	31.0 (22.6, 40.9)	29.9 (15.4, 50.1)	21.6 (10.3, 39.7)
45-64	35.8 (23.9, 49.8)	58.6 (38.1, 76.5)	56.6 (36.6, 74.7)
65+	31.8 (12.8, 59.7)	*	*
<i>Residence</i>			
Urban	35.7 (23.5, 50.0)	32.5 (15.7, 55.5)	25.3 (12.9, 43.6)
Rural	31.3 (23.8, 39.8)	42.6 (30.3, 56.0)	38.8 (25.1, 54.5)
<i>Education Level</i>			
No formal education	32.3 (13.5, 59.4)	*	*
Less than primary school completed	34.7 (25.7, 45.0)	51.0 (34.6, 67.2)	45.5 (27.5, 64.7)
Primary school completed	25.7 (18.0, 35.3)	33.1 (17.0, 54.3)	27.6 (14.2, 46.7)
Secondary school completed or above	39.9 (22.7, 60.0)	20.5 (8.2, 42.8)	15.3 (5.3, 36.6)

<sup>1</sup> Among current smokers and former smokers who have been abstinent for less than 12 months.

<sup>2</sup> HCP = health care provider.

<sup>3</sup> Among current smokers and former smokers who have been abstinent for less than 12 months, and who visited a HCP during the past 12 months.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## Method Used to Quit Smoking

Tobacco dependence/ addiction can be treated by provision of behavioral or medication support or both to help tobacco users stop the use of tobacco products. Table 5.3 presents the percentage of past-year tobacco smokers aged 15 years and above who attempted to quit smoking in the twelve months prior to the survey by cessation methods used and selected demographic characteristics. The methods accessed included use of pharmacotherapy and counseling/advice, as well as attempts to quit without assistance.

Most smokers (70.8%) who made a quit attempt in the past 12 months did it without assistance. Other methods of quitting smoking were hardly utilized by those who made a quit attempt, including pharmacotherapy (4.3%) and counseling/advice (10.6%).

The majority of smokers in most age groups attempted to quit without assistance at 57.2% for the 15-24 age group, 74.8% for the 25-44 age group and 72.1% for the 45-64 age group. Quit attempts without assistance were also most common among both urban (76.2%) and rural (68.0%) dwellers. In addition, the likelihood to attempt to quit without assistance increased with an increase in level of education.

Other methods besides pharmacotherapy and counseling/advice were utilized most by those aged between 15-24 years (14.2%) and those with no formal education (15.2%). Counseling/advice was most likely to be utilized by those aged 45-64 years (21.9%); urban dwellers (12.5%) than rural dwellers (9.6%); and those who had no formal education at 24.0%. Pharmacotherapy was the least utilized method of quitting smoking.

**Table 5.3:** Percentage of past-year smokers  $\geq 15$  years old who attempted to quit smoking in the past 12 months, by cessation methods used and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Use of Cessation Method <sup>1</sup>			
	Pharmacotherapy <sup>2</sup>	Counseling/Advice <sup>3</sup>	Attempt to quit without assistance	Other <sup>4</sup>
	<i>Percentage (95% CI)</i>			
<b>Overall</b>	4.3 (2.1, 8.8)	10.6 (5.9, 18.3)	70.8 (60.9, 79.1)	3.8 (1.9, 7.5)
<i>Gender</i>				
Male	4.4 (2.1, 9.0)	7.9 (4.3, 14.0)	72.3 (62.4, 80.5)	3.8 (1.8, 7.7)
Female	*	*	*	*
<i>Age (years)</i>				
15-24	1.5 (0.2, 10.9)	2.1 (0.4, 10.0)	57.2 (25.5, 83.9)	14.2 (4.1, 38.9)
25-44	3.0 (1.3, 6.5)	6.1 (2.9, 12.3)	74.8 (61.8, 84.5)	1.1 (0.3, 3.6)
45-64	8.1 (2.3, 24.7)	21.9 (9.8, 41.8)	72.1 (53.5, 85.2)	5.7 (2.0, 15.6)
65+	*	*	*	*
<i>Residence</i>				
Urban	8.4 (3.2, 20.4)	12.5 (5.6, 25.4)	76.2 (63.5, 85.4)	3.5 (1.2, 9.5)
Rural	2.2 (1.0, 4.8)	9.6 (4.2, 20.4)	68.0 (54.5, 79.0)	4.0 (1.6, 9.5)
<i>Education Level</i>				
No formal education	6.9 (1.2, 30.5)	24.0 (5.8, 61.6)	57.3 (31.1, 80.0)	15.2 (4.0, 43.2)
Less than primary school completed	7.8 (3.4, 17.2)	14.4 (7.0, 27.5)	67.4 (53.4, 78.9)	3.0 (0.8, 10.5)
Primary school completed	0.9 (0.2, 4.1)	7.0 (2.1, 20.8)	74.7 (57.2, 86.7)	2.2 (0.7, 6.6)
Secondary school completed or above	3.0 (0.8, 11.3)	1.9 (0.6, 5.5)	78.3 (58.9, 90.1)	0.8 (0.2, 4.1)

<sup>1</sup> Among current smokers who made a quit attempt in the past 12 months and former smokers who have been abstinent for less than 12 months.

<sup>2</sup> Pharmacotherapy includes nicotine replacement therapy and prescription medications.

<sup>3</sup> Includes counseling at a cessation clinic and a telephone quit line/helpline.

<sup>4</sup> Other includes traditional medicines, switching to smokeless tobacco, and any other reported methods.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

### Primary Reason for Quitting or Trying to Quit Smoking

Table 5.4 presents the percentage distribution of former tobacco smokers and current smokers aged 15 years and older by primary reason for quitting or trying to quit smoking and selected demographic characteristics. The reason for quitting was sought from former smokers while the reason for trying to quit the last time was assessed among current smokers.

Overall, the most prevalent reason for quitting smoking among former smokers was that tobacco was harmful to health at 64.9%. This reason was popular among all former smokers irrespective of sex, age group, place of residence, and education level. Markedly, the percentage of former male smokers (69.2%) stating that smoking was harmful to health as their primary reason for quitting was much higher than their female counterparts (31.0%). Among former female smokers, other popular primary reasons for quitting were that tobacco products were too expensive (28.4%), compared to only 3.9% among former male smokers who quit for the same reason; pressure from family/friends (17.1%); as well as religious reasons (13.3%).

Similarly, among current tobacco smokers, the most prevalent reason (51.9%) for trying to quit was that tobacco smoking was harmful to health. This reason was the most popular across all age groups, among rural and urban dwellers, as well as across all education levels. Current male smokers also cited the cost of tobacco products (19.4%) as a major reason for trying to quit. This was also particularly prevalent among rural dwellers (20.8%) and adults with less than secondary school education.

**Table 5.4:** Percentage distribution of former and current smokers  $\geq 15$  years old by primary reason for quitting or trying to quit and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Primary reason for quitting smoking (former smokers) or trying to quit the last time (current smokers <sup>1</sup> )						Total
	Too expensive	Harmful to health	Restrictions on smoking	Pressure from family/friends	Religious reasons	Other	
	<i>Percentage (95% CI)</i>						
<b>Former smokers</b>	6.7 (2.4, 16.9)	64.9 (55.2, 73.5)	1.5 (0.4, 5.4)	9.4 (4.7, 17.8)	8.0 (4.4, 14.0)	9.5 (5.6, 15.8)	100
<i>Gender</i>							
Male	3.9 (1.8, 8.2)	69.2 (60.3, 76.9)	1.6 (0.4, 6.2)	8.4 (3.7, 17.8)	7.3 (3.9, 13.3)	9.6 (5.2, 17.1)	100
Female	28.4 (5.6, 72.7)	31.0 (14.0, 55.4)	0.9 (0.1, 6.8)	17.1 (3.2, 56.2)	13.3 (2.4, 49.0)	9.3 (3.0, 25.5)	100
<i>Age (years)</i>							
15-24	*	*	*	*	*	*	100
25-44	4.1 (1.3, 12.5)	61.3 (45.0, 75.5)	2.2 (0.3, 12.8)	10.5 (4.6, 22.4)	9.8 (4.5, 20.1)	12.0 (5.3, 25.0)	100
45-64	13.9 (2.8, 47.6)	69.8 (46.0, 86.2)	1.6 (0.4, 6.6)	6.2 (1.0, 30.4)	4.3 (1.1, 15.7)	4.3 (1.3, 13.3)	100
65+	5.2 (1.7, 14.9)	67.8 (44.5, 84.7)	0.6 (0.1, 4.4)	4.5 (1.1, 16.3)	14.1 (4.2, 37.9)	7.8 (2.0, 26.4)	100
<i>Residence</i>							
Urban	2.8 (0.9, 8.0)	71.5 (58.4, 81.8)	2.9 (0.7, 11.5)	12.7 (4.3, 32.0)	6.3 (2.2, 16.5)	3.8 (1.3, 10.2)	100
Rural	9.6 (3.0, 26.8)	59.8 (46.7, 71.6)	0.5 (0.1, 3.2)	6.8 (3.0, 14.7)	9.3 (4.4, 18.6)	14.0 (7.6, 24.2)	100
<i>Education Level</i>							
No formal education	17.0 (4.7, 46.0)	59.4 (33.9, 80.7)	5.0 (1.1, 19.8)	2.8 (0.4, 18.5)	11.0 (3.2, 32.0)	4.8 (0.8, 22.9)	100
Less than primary school completed	14.7 (4.0, 42.0)	65.1 (44.8, 81.1)	0.0	1.0 (0.1, 7.1)	12.7 (4.9, 29.2)	6.4 (2.4, 16.3)	100
Primary school completed	4.0 (1.2, 12.1)	72.1 (52.6, 85.7)	0.0	10.6 (4.9, 21.2)	2.6 (0.7, 8.9)	10.8 (3.9, 26.6)	100
Secondary school completed or above	1.2 (0.3, 5.3)	56.1 (43.8, 67.7)	4.3 (1.1, 15.7)	16.5 (4.8, 43.8)	10.4 (4.6, 22.0)	11.5 (4.7, 25.9)	100
<b>Current smokers<sup>1</sup></b>	18.5 (12.8, 25.9)	51.9 (41.6, 62.1)	3.7 (1.5, 8.5)	4.2 (2.1, 8.0)	5.3 (2.9, 9.6)	16.4 (9.6, 26.7)	100
<i>Gender</i>							
Male	19.4 (13.5, 27.0)	51.8 (40.9, 62.6)	3.2 (1.2, 8.4)	3.9 (1.9, 8.0)	4.4 (2.1, 9.1)	17.3 (10.1, 28.0)	100
Female	*	*	*	*	*	*	100
<i>Age (years)</i>							
15-24	*	*	*	*	*	*	100
25-44	16.0 (10.3, 23.9)	50.5 (37.7, 63.3)	3.5 (0.8, 14.4)	6.2 (3.2, 11.9)	3.6 (1.4, 9.1)	20.2 (9.3, 38.4)	100
45-64	14.9 (5.2, 35.9)	60.5 (39.6, 78.2)	4.5 (1.4, 13.7)	0.0	2.1 (0.3, 11.8)	17.9 (7.7, 36.4)	100
65+	*	*	*	*	*	*	100
<i>Residence</i>							
Urban	14.0 (8.2, 23.0)	60.9 (47.4, 73.0)	4.6 (0.8, 22.5)	5.5 (2.7, 11.0)	5.3 (1.7, 15.2)	9.5 (3.5, 23.6)	100
Rural	20.8 (13.4, 30.9)	47.1 (34.1, 60.5)	3.2 (1.5, 6.5)	3.4 (1.2, 9.7)	5.3 (2.5, 10.8)	20.2 (10.9, 34.3)	100
<i>Education Level</i>							
No formal education	11.9 (4.0, 30.4)	51.6 (26.9, 75.6)	3.9 (0.5, 24.4)	0.0	10.7 (3.3, 30.0)	22.0 (6.2, 54.6)	100
Less than primary school completed	19.0 (10.9, 31.1)	51.5 (33.6, 69.0)	3.5 (1.0, 11.5)	4.5 (1.3, 14.6)	4.3 (1.0, 16.7)	17.2 (7.6, 34.4)	100
Primary school completed	25.5 (12.9, 44.2)	48.5 (32.2, 65.1)	4.7 (0.8, 23.1)	5.0 (1.7, 13.9)	5.1 (1.6, 15.2)	11.1 (4.5, 24.7)	100
Secondary school completed or above	9.9 (3.3, 25.9)	58.6 (38.2, 76.5)	2.1 (0.3, 12.1)	4.8 (1.7, 12.7)	3.8 (1.0, 12.7)	20.7 (7.9, 44.4)	100

<sup>1</sup> Current smokers who tried to stop smoking in the past 12 months.

### **Primary Reason for Quitting or Trying to Quit Using Smokeless Tobacco**

Table 5.5 shows the percentage distribution of former and current smokeless tobacco users aged 15 years and above by primary reason for quitting or trying to quit by selected demographic characteristics.

The most prevalent reason for former users to quit was that tobacco was harmful to health (45.7%). There was a similar proportion between males (45.9%) and females (45.3%). However, urban dwellers (52.1%) were more likely to quit for this reason than rural dwellers (42.5%). The majority (65.7%) of former smokers aged 25-44 years quit for this same reason.

The majority of females (44.5%) quit for religious reasons compared to males (9.2%). Quitting for religious reasons was also prevalent among Kenyans with no formal education (38.6%), as well as those with less than primary school education (32.0%).

In general, the majority of current users who tried to quit (33.4%) did so for health reasons. The proportion of females (38.3%) who tried to quit for health reasons was higher than that of males (30.7%). This reason was popular among those with no formal education (46.9%), while only 13.7% of those aged 46-64 years tried to quit for the same reason. The popular reasons for those aged 45-64 years old were cited as the cost of smokeless tobacco products (40.1%) followed by pressure from family/friends (28.9%).

A greater proportion of urban dwellers (34.2%) reported making an attempt to quit for health reasons compared to rural dwellers (33.1%). About 18.9% of current smokeless users tried to quit due to the cost of tobacco products, while 15.4% did so due to pressure from family/friends.

**Table 5.5:** Percentage distribution of former and current smokeless tobacco users  $\geq 15$  years old by primary reason for quitting or trying to quit and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Primary reason for quitting smokeless use (former users) or trying to quit the last time (current users <sup>1</sup> )						Total
	Too expensive	Harmful to health	Restrictions on smoking	Pressure from family/friends	Religious reasons	Other	
	<i>Percentage (95% CI)</i>						
<b>Former users</b>	0.0	45.7 (28.9, 63.5)	1.7 (0.4, 7.1)	7.5 (1.9, 25.4)	21.1 (12.0, 34.5)	23.9 (13.3, 39.1)	100
<i>Gender</i>							
Male	0.0	45.9 (25.1, 68.3)	1.8 (0.2, 12.2)	11.3 (2.9, 34.8)	9.2 (3.5, 21.8)	31.9 (16.1, 53.4)	100
Female	0.0	45.3 (26.0, 66.2)	1.7 (0.4, 7.3)	0.2 (0.0, 1.6)	44.5 (24.6, 66.4)	8.3 (2.4, 25.0)	100
<i>Age (years)</i>							
15-24	*	*	*	*	*	*	100
25-44	0.0	65.7 (32.2, 88.5)	3.6 (0.5, 23.3)	0.6 (0.1, 2.7)	8.8 (2.3, 29.0)	21.3 (4.7, 60.0)	100
45-64	*	*	*	*	*	*	100
65+	*	*	*	*	*	*	100
<i>Residence</i>							
Urban	0.0	52.1 (18.7, 83.7)	1.7 (0.4, 7.8)	14.8 (2.7, 51.9)	10.8 (3.0, 31.8)	20.7 (8.4, 42.5)	100
Rural	0.0	42.5 (26.2, 60.7)	1.8 (0.2, 12.1)	3.9 (0.5, 23.6)	26.4 (14.8, 42.5)	25.5 (12.2, 45.7)	100
<i>Education Level</i>							
No formal education	0.0	49.9 (24.7, 75.2)	2.0 (0.4, 8.9)	9.1 (1.2, 44.5)	38.6 (15.3, 68.7)	0.3 (0.0, 2.3)	100
Less than primary school completed	0.0	32.4 (14.8, 56.9)	5.2 (0.7, 29.9)	0.5 (0.1, 3.7)	32.0 (12.7, 60.3)	30.0 (10.3, 61.4)	100
Primary school completed	*	*	*	*	*	*	100
Secondary school completed or above	*	*	*	*	*	*	100
<b>Current users<sup>1</sup></b>	18.9 (7.9, 38.8)	33.4 (19.1, 51.6)	3.3 (1.1, 9.5)	15.4 (6.4, 32.6)	5.3 (2.3, 11.6)	23.7 (11.4, 42.9)	100
<i>Gender</i>							
Male	19.4 (5.2, 51.1)	30.7 (13.9, 54.9)	1.6 (0.2, 10.9)	17.6 (5.9, 41.9)	4.9 (1.5, 15.1)	25.8 (9.5, 53.6)	100
Female	18.0 (9.3, 32.1)	38.3 (20.6, 59.8)	6.3 (1.8, 19.1)	11.5 (3.4, 32.5)	5.9 (2.0, 16.1)	20.0 (8.1, 41.3)	100
<i>Age (years)</i>							
15-24	*	*	*	*	*	*	100
25-44	9.7 (4.5, 19.8)	42.8 (19.3, 70.2)	3.8 (0.6, 21.4)	19.7 (3.0, 66.4)	1.9 (0.4, 8.4)	22.1 (4.4, 63.3)	100
45-64	40.1 (11.0, 78.3)	13.7 (4.5, 35.3)	0.0	28.9 (7.5, 66.9)	11.0 (3.3, 30.5)	6.4 (1.4, 24.8)	100
65+	7.2 (1.9, 23.8)	38.3 (16.3, 66.3)	7.5 (2.0, 24.6)	1.0 (0.1, 7.6)	3.5 (0.7, 15.7)	42.5 (20.1, 68.5)	100
<i>Residence</i>							
Urban	4.3 (1.6, 11.2)	34.2 (13.3, 63.8)	4.7 (0.9, 21.6)	23.6 (3.8, 70.6)	7.4 (2.1, 23.0)	25.7 (7.4, 59.9)	100
Rural	23.7 (10.1, 46.3)	33.1 (16.5, 55.4)	2.8 (0.7, 10.9)	12.7 (5.0, 28.9)	4.6 (1.5, 12.7)	23.1 (9.3, 46.8)	100
<i>Education Level</i>							
No formal education	15.3 (9.1, 24.7)	46.9 (29.7, 64.9)	5.3 (1.5, 16.7)	4.7 (0.9, 22.0)	10.1 (4.5, 21.3)	17.6 (7.7, 35.4)	100
Less than primary school completed	*	*	*	*	*	*	100
Primary school completed	*	*	*	*	*	*	100
Secondary school completed or above	*	*	*	*	*	*	100

<sup>1</sup> Current smokeless tobacco users who tried to stop using in the past 12 months.

## Interest in Quitting Smoking

Table 5.6 and Figures 5.2a and 5.2b present the percentage distribution of current smokers aged 15 years and above by interest in quitting smoking and by selected demographic characteristics.

Overall, the majority of smokers (77.5%) expressed interest in quitting smoking, with slight differences between the proportions for males (77.9%) and for females (69.7%). About 26.0% of adult smokers planned to quit within the next month, including more than half (54.5%) of those aged between 15-24 years. About 3 in 10 (34.2%) smokers aged 15 years and above expressed interest in quitting smoking someday, but not in the next 12 months. The results further indicate that 11.9% of current smokers were not interested in quitting smoking, with a higher proportion among males (12.2%) than among females (6.0%).

Interest in quitting within the next twelve months was two-fold among urban dwellers (27.2%) than among rural dwellers (12.6%), while a higher proportion of rural dwellers (37.3%) were more likely to think of quitting someday but not in the next twelve months as compared to their urban counterparts at 27.4%. The thought of quitting someday but not in the next twelve months increased with the level of education, while among current smokers who had no formal education, 6.0% were not interested in quitting.

**Figure 5.2a:** Rural current smokers  $\geq 15$  years old by interest in quitting smoking - GATS Kenya, 2014.

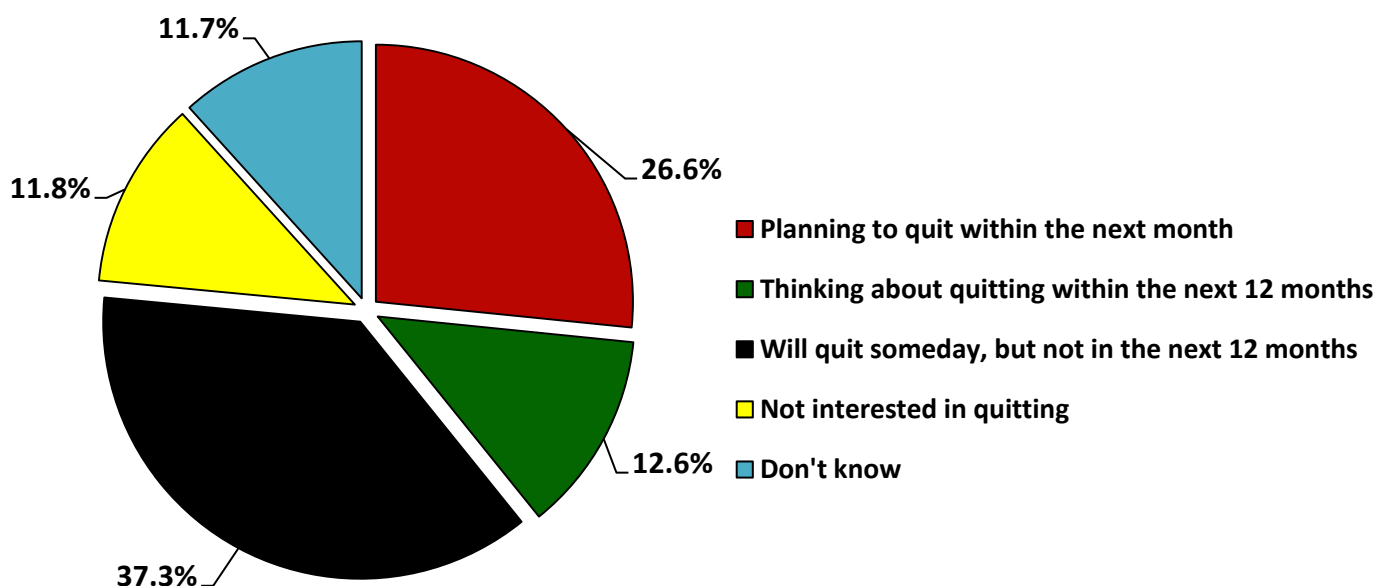
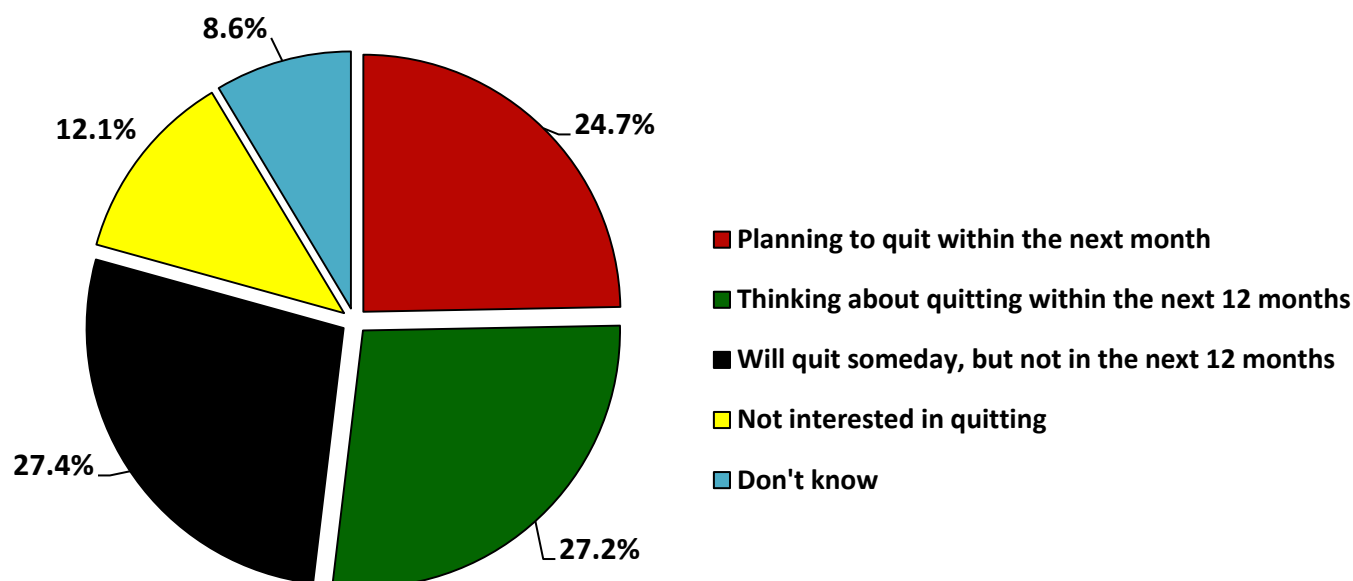




Figure 5.2b: Urban current smokers ≥15 years old by interest in quitting smoking - GATS Kenya, 2014.



**Table 5.6:** Percentage distribution of current smokers ≥15 years old by interest in quitting smoking and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Interest in Quitting Smoking <sup>1</sup>					Total
	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	
	<i>Percentage (95% CI)</i>					
<b>Overall</b>	26.0 (21.3, 31.3)	17.3 (12.2, 24.0)	34.2 (27.9, 41.0)	11.9 (7.9, 17.5)	10.7 (6.7, 16.7)	100
<i>Gender</i>						
Male	26.0 (21.0, 31.6)	16.4 (11.4, 22.9)	35.5 (28.9, 42.6)	12.2 (8.0, 18.1)	10.0 (6.1, 15.8)	100
Female	25.5 (8.5, 55.6)	34.4 (10.5, 70.1)	9.8 (2.1, 36.0)	6.0 (1.1, 27.4)	24.3 (6.4, 60.3)	100
<i>Age (years)</i>						
15-24	54.5 (29.6, 77.4)	1.6 (0.3, 8.4)	25.8 (10.0, 52.2)	8.7 (2.4, 26.9)	9.3 (2.8, 26.7)	100
25-44	24.5 (18.0, 32.5)	19.3 (11.6, 30.5)	34.0 (25.6, 43.4)	15.5 (10.1, 22.9)	6.7 (3.0, 14.0)	100
45-64	23.6 (16.9, 31.8)	20.6 (12.4, 32.0)	32.8 (24.0, 43.1)	5.4 (1.6, 16.7)	17.7 (10.0, 29.5)	100
65+	3.1 (0.4, 20.1)	9.1 (2.6, 27.9)	56.4 (36.3, 74.6)	19.3 (5.6, 49.0)	12.1 (4.5, 28.5)	100
<i>Residence</i>						
Urban	24.7 (19.5, 30.7)	27.2 (17.2, 40.2)	27.4 (18.9, 38.0)	12.1 (7.5, 19.1)	8.6 (3.3, 20.5)	100
Rural	26.6 (20.2, 34.0)	12.6 (7.6, 20.2)	37.3 (29.5, 45.9)	11.8 (6.7, 19.8)	11.7 (6.9, 19.2)	100
<i>Education Level</i>						
No formal education	25.6 (11.9, 46.7)	24.4 (9.8, 48.7)	30.1 (16.7, 48.1)	6.0 (2.2, 15.3)	14.0 (4.1, 38.1)	100
Less than primary school completed	25.1 (16.7, 35.9)	15.6 (8.2, 27.7)	30.6 (21.7, 41.3)	17.3 (10.1, 28.2)	11.3 (6.2, 19.8)	100
Primary school completed	33.9 (24.3, 45.0)	14.2 (8.1, 23.7)	31.4 (19.9, 45.8)	9.7 (4.9, 18.3)	10.8 (4.9, 22.2)	100
Secondary school completed or above	16.2 (9.0, 27.3)	21.0 (9.4, 40.5)	45.7 (29.2, 63.1)	9.2 (3.9, 20.1)	7.9 (2.9, 19.9)	100

<sup>1</sup> Among current daily or less than daily smokers.

## 6. SECONDHAND SMOKE

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This chapter provides information concerning Secondhand Smoke (SHS) exposure at work, at home, or in various public places. It also seeks to find out if people support laws prohibiting smoking in various public places. SHS is a mixture of two forms of smoke that come from burning tobacco, namely sidestream smoke that comes from the lighted end of a tobacco product such as a cigarette, pipe, or cigar, and mainstream smoke that is exhaled by a smoker.

According to 2007 Tobacco Control Act, smoking is prohibited in public places and workplaces except in specially designated smoking areas. The Act also declares that there is no safe level of exposure to SHS.

### **Exposure to Secondhand Smoke at Work**

Table 6.1 and Figure 6.1 present the percentage and number of adults aged 15 years and above who worked indoors or both indoors and outdoors and who were exposed to tobacco smoke at work during the past 30 days.

Overall, 17.6% of the adults were exposed to tobacco smoke at work. The survey results showed that there was a significant difference in the prevalence of SHS exposure by sex: SHS for males (23.0%) was double that of females (11.5%). The SHS exposure by age varied from 14.5% for the 25-44 age group to 21.8% for the 45-64 age group. There was no difference in SHS exposure for adults in urban areas (17.9%) as compared to those in rural areas (17.2%).

The survey showed a high disparity for SHS exposure at work between those without formal education at 50.6% as compared to those with secondary education completed and above at 12.2%.

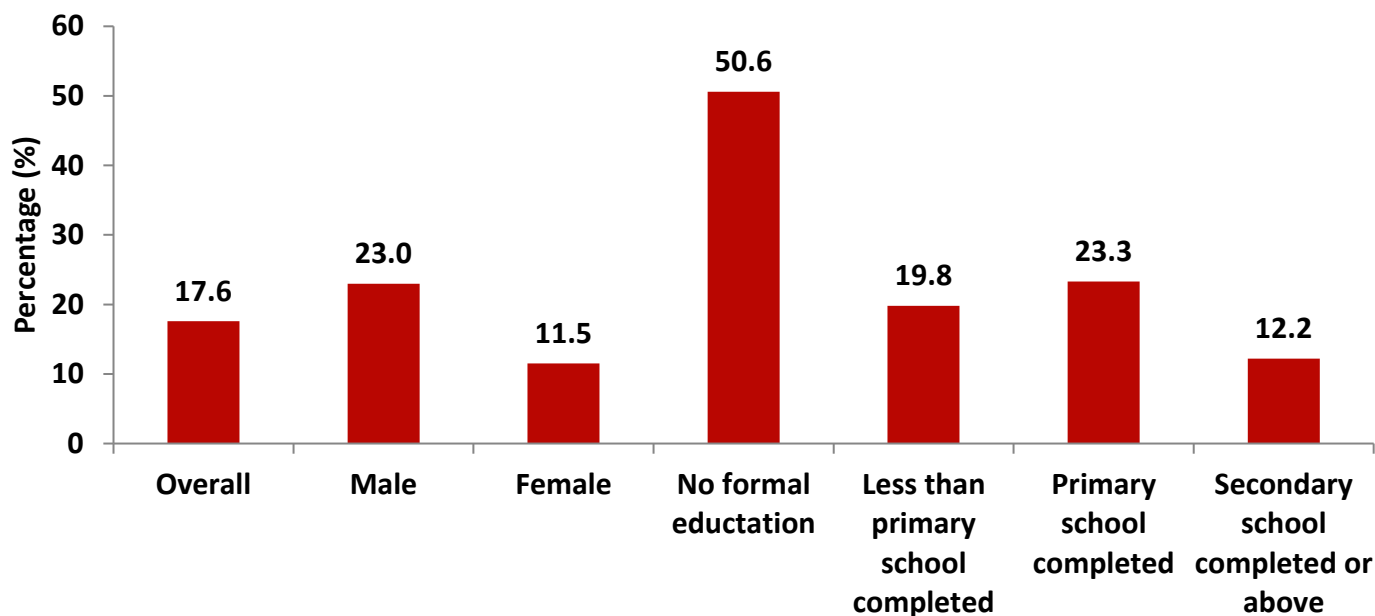
The findings show that 691,800 adult Kenyans are exposed to SHS at work. It is notable that 60,700 with no formal education were exposed to SHS at work compared to approximately 260,800 adults with secondary education or above.

The SHS exposure for non-smokers was not significantly different from that of all adults for all selected demographic characteristics. For example, overall, 17.1% of adult non-smokers were exposed to SHS at work. Male non-smokers (22.8%) were twice as likely to be exposed to SHS as compared to female non-smokers (11.3%).

The survey also revealed that 16.8% of non-smokers in urban areas (16.8%) were exposed to SHS at work as compared to their counterparts in rural areas (17.5%). The results also show that by level of education, the lower the level of education for non-smokers, the higher the level of SHS exposure at work. For instance, 49.8% of non-smokers with no formal education were exposed to SHS at work as compared to 11.9% of non-smokers with secondary education or above.

The results show that in Kenya, the number of adult non-smokers exposed to tobacco smoke at work stands at 637,000. There are 429,100 employed adult male non-smokers who are exposed to SHS at work as compared to 207,900 adult female non-smokers.

**Figure 6.1:** Percentage of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work - GATS Kenya, 2014.



**Table 6.1:** Percentage and number of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work, by smoking status and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults Exposed to Tobacco Smoke at Work <sup>1</sup>			
	Overall		Non-smokers	
	Percentage (95% CI)	Number in thousands	Percentage (95% CI)	Number in thousands
<b>Overall</b>	17.6 (13.5, 22.6)	691.8	17.1 (12.8, 22.4)	637.0
<i>Gender</i>				
Male	23.0 (16.5, 31.1)	477.9	22.8 (16.0, 31.3)	429.1
Female	11.5 (7.9, 16.5)	213.9	11.3 (7.7, 16.3)	207.9
<i>Age (years)</i>				
15-24	21.5 (12.0, 35.5)	203.8	21.8 (12.1, 36.1)	203.5
25-44	14.5 (11.0, 18.8)	318.6	14.0 (10.4, 18.6)	293.0
45-64	21.8 (13.2, 33.9)	157.3	21.2 (12.4, 33.7)	136.5
65+	*	*	*	*
<i>Residence</i>				
Urban	17.9 (12.4, 25.1)	378.7	16.8 (11.1, 24.6)	340.2
Rural	17.2 (11.6, 24.7)	313.1	17.5 (11.7, 25.2)	296.7
<i>Education Level</i>				
No formal education	50.6 (21.7, 79.1)	60.7	49.8 (20.0, 79.7)	56.4
Less than primary school completed	19.8 (11.6, 31.8)	108.3	19.5 (11.3, 31.7)	89.6
Primary school completed	23.3 (15.9, 32.9)	261.6	22.9 (15.1, 33.3)	241.4
Secondary school completed or above	12.2 (8.6, 16.9)	260.8	11.9 (8.4, 16.6)	249.3

<sup>1</sup> In the past 30 days. Among those respondents who work outside of the home who usually work indoors or both indoors and outdoors.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

### Exposure to Secondhand Smoke at Home

Table 6.2 and Figure 6.2 show the percentage and number of adults aged 15 years and above who were exposed to tobacco smoke at home either daily, weekly, or monthly.

Overall, survey findings show that 14.3% of adults were exposed to SHS at home. The results also show some differences when comparing SHS exposure by sex where 16.8% of males were exposed compared to 12.0% of females. The results show that by age groups, exposure to tobacco smoke among adults at home ranged from 13.1% to 17.9% for those aged 25-44 and 45-64 years, respectively.

The results further show that 15.0% of adults living in rural areas (15.0%) were exposed to SHS at home compared to 13.0% of adults living in urban areas. When analyzed by level of education, the exposure to SHS at home varied from 8.9% of adults with secondary education or above to 18.1% of adults with less than primary school education.

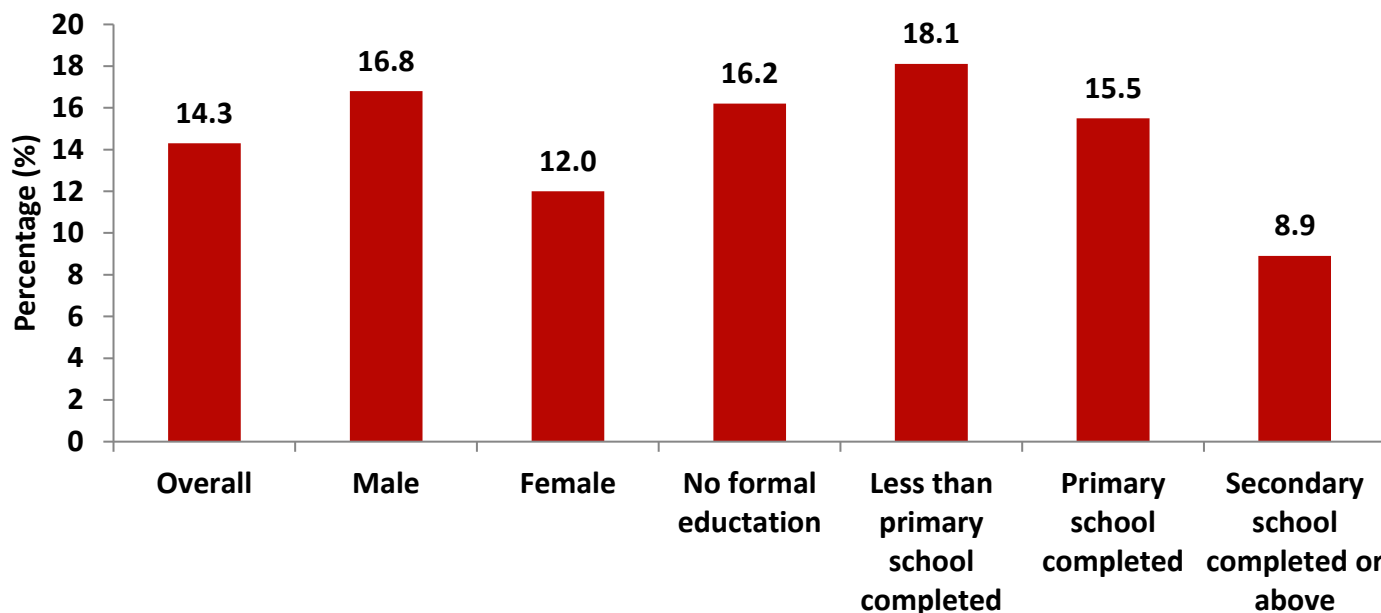
It is notable that approximately 3 million adults in Kenya were exposed to tobacco smoke at home. The results also indicate that more adults in rural areas (2 million) are exposed to SHS as compared to those in urban areas (1 million).

For non-smokers, the exposure to SHS at home stood at 10.9%. Eleven percent of female non-smokers were exposed to tobacco smoke at home as compared to 10.3% of male non-smokers. Exposure to SHS at home by age groups ranged from 9.3% to 12.3% for those aged 25-44 and 15-24, respectively.

The results also showed that 11.4% of adult non-smokers living in rural areas were exposed to SHS at home when compared to their urban counterparts (9.9%). Exposure to tobacco smoke at home by level of education varied from 7.1% to 12.8% for those with secondary and above and those with less than primary completed, respectively.

Approximately 2 million non-smoking Kenyans are exposed to SHS at home.

**Figure 6.2:** Percentage of adults  $\geq 15$  years old who are exposed to SHS at home - GATS Kenya, 2014.



**Table 6.2:** Percentage and number of adults  $\geq 15$  years old who are exposed to tobacco smoke at home, by smoking status and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults Exposed to Tobacco Smoke at Home <sup>1</sup>			
	Overall		Non-smokers	
	Percentage (95% CI)	Number in thousands	Percentage (95% CI)	Number in thousands
<b>Overall</b>	14.3 (12.3, 16.5)	3,052.5	10.9 (9.0, 13.0)	2,139.4
<i>Gender</i>				
Male	16.8 (14.1, 20.0)	1,734.4	10.3 (7.7, 13.8)	901.2
Female	12.0 (9.6, 14.8)	1,318.1	11.3 (9.1, 14.0)	1,238.2
<i>Age (years)</i>				
15-24	13.6 (10.1, 18.0)	1,046.1	12.3 (8.9, 16.7)	924.7
25-44	13.1 (11.0, 15.5)	1,166.7	9.3 (7.4, 11.8)	749.7
45-64	17.9 (14.5, 21.8)	615.2	11.1 (8.3, 14.7)	323.0
65+	17.5 (11.8, 25.1)	224.4	12.1 (7.8, 18.2)	142.0
<i>Residence</i>				
Urban	13.0 (9.1, 18.1)	969.5	9.9 (6.3, 15.4)	690.1
Rural	15.0 (13.0, 17.4)	2,083.0	11.4 (9.6, 13.4)	1,449.4
<i>Education Level</i>				
No formal education	16.2 (10.8, 23.5)	473.8	12.6 (8.1, 19.0)	346.0
Less than primary school completed	18.1 (14.3, 22.7)	947.6	12.8 (9.0, 17.9)	596.2
Primary school completed	15.5 (11.4, 20.8)	1,075.7	12.2 (8.3, 17.7)	782.0
Secondary school completed or above	8.9 (6.3, 12.4)	555.4	7.1 (4.8, 10.3)	415.2

<sup>1</sup> Adults reporting that smoking inside their home occurs daily, weekly, or monthly.

### Exposure to Secondhand Smoke in Various Public Places

Table 6.3 presents the proportions of adults aged 15 years and above among the total population who were exposed to SHS in various public places, in the past 30 days.

Overall, the results show that adults who were exposed to SHS in bars and night clubs at 14.1% followed by restaurants (9.6%), public transportation (8.0%), health care facilities (3.7%), schools or educational facilities (3.6%), government buildings (2.7%), and universities (2.4%).

SHS exposure by sex was noted to be consistently higher for males as compared to females in all the various public places with remarkable differences seen in bars and night clubs where SHS exposure for males (24.5%) was more than 5 times that of females (4.2%). The results show that SHS exposure by age groups at the various public places was highest in bars and night clubs, and varied from 3.3% to 18.7% for those aged 65 years and above and those aged 25-44, respectively.

SHS exposure at the various public places was more prevalent in urban than in rural areas with exposure being highest in bars and night clubs at 19.7% in urban areas compared to 11.1% in rural areas.

The results further show that SHS exposure by level of education was notably different across the various public places. In bars and night clubs, the exposure to tobacco smoke ranged from 2.7% to 23.6% for those with no formal education and those with secondary and above, respectively.

For non-smokers, the exposure to SHS in various public places was noted to vary from 2.5% to 11.4% in universities; and bar and night clubs, respectively. In all the demographic characteristics and for the various public places, a trend similar to what was reported overall, with minimal variation in percentages.

**Table 6.3:** Percentage of adults  $\geq 15$  years old who were exposed to tobacco smoke in various public places in the past 30 days, by smoking status and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults Exposed to Tobacco Smoke <sup>1</sup> in...							
	Government buildings	Health care facilities	Restaurants	Bars, night clubs	Public transportation	Universities	Schools or Educational Facilities	
<b>Overall</b>	2.7 (2.0, 3.7)	3.7 (2.8, 4.8)	9.6 (7.9, 11.8)	14.1 (12.1, 16.3)	8.0 (6.8, 9.5)	2.4 (1.7, 3.5)	3.6 (2.7, 4.6)	
<i>Gender</i>								
Male	4.3 (3.0, 6.1)	3.9 (2.7, 5.8)	13.3 (10.1, 17.4)	24.5 (20.5, 29.0)	9.6 (7.3, 12.5)	3.5 (2.2, 5.4)	3.9 (2.6, 5.8)	
Female	1.3 (0.9, 1.8)	3.5 (2.5, 4.8)	6.1 (4.5, 8.1)	4.2 (2.7, 6.4)	6.6 (5.0, 8.5)	1.4 (0.9, 2.1)	3.2 (2.4, 4.3)	
<i>Age (years)</i>								
15-24	2.2 (1.1, 4.0)	3.8 (2.1, 6.9)	10.2 (7.5, 13.7)	12.5 (9.1, 16.9)	7.3 (5.2, 10.0)	3.1 (1.7, 5.8)	4.4 (3.2, 6.1)	
25-44	2.7 (2.1, 3.5)	3.1 (2.3, 4.0)	9.5 (7.5, 12.0)	18.7 (15.6, 22.2)	8.9 (7.0, 11.3)	2.4 (1.5, 4.0)	3.8 (2.5, 5.8)	
45-64	4.7 (2.4, 8.9)	5.2 (3.1, 8.5)	9.7 (6.3, 14.7)	10.1 (7.3, 13.7)	8.8 (6.2, 12.2)	1.5 (0.5, 4.0)	2.0 (1.1, 3.5)	
65+	1.5 (0.6, 3.3)	3.6 (1.6, 8.1)	7.1 (3.3, 14.4)	3.3 (1.7, 6.2)	4.7 (2.5, 8.9)	0.2 (0.0, 1.4)	0.7 (0.3, 1.9)	
<i>Residence</i>								
Urban	3.4 (2.0, 5.7)	4.1 (2.7, 6.2)	13.4 (9.8, 18.1)	19.7 (16.3, 23.7)	13.3 (11.1, 16.0)	4.0 (2.5, 6.2)	3.5 (2.6, 4.9)	
Rural	2.4 (1.7, 3.3)	3.5 (2.4, 4.9)	7.6 (6.0, 9.5)	11.1 (8.8, 13.8)	5.2 (4.0, 6.7)	1.6 (0.9, 2.8)	3.6 (2.5, 5.2)	
<i>Education Level</i>								
No formal education	1.3 (0.7, 2.2)	2.9 (1.9, 4.4)	2.5 (1.2, 5.2)	2.7 (1.5, 4.9)	3.2 (1.9, 5.3)	0.8 (0.2, 3.8)	1.7 (1.2, 2.6)	
Less than primary school completed	1.2 (0.5, 2.5)	2.2 (1.2, 4.0)	5.8 (3.8, 8.8)	10.0 (7.7, 12.8)	6.7 (4.5, 9.8)	0.0 (0.0, 0.1)	3.3 (2.0, 5.4)	
Primary school completed	3.7 (2.4, 5.6)	5.7 (3.6, 8.8)	9.5 (7.1, 12.6)	13.6 (10.3, 17.8)	8.8 (6.7, 11.6)	1.7 (0.7, 4.0)	4.3 (3.0, 6.2)	
Secondary school completed or above	3.7 (2.3, 6.1)	3.1 (1.9, 5.0)	16.5 (12.3, 21.7)	23.6 (19.8, 27.9)	10.6 (7.5, 14.9)	6.0 (4.1, 8.7)	3.8 (2.5, 5.8)	
<b>Non-smokers</b>	2.8 (2.1, 3.9)	3.8 (2.9, 5.1)	9.6 (7.8, 11.7)	11.4 (9.5, 13.6)	8.0 (6.7, 9.5)	2.5 (1.7, 3.6)	3.8 (2.9, 4.9)	
<i>Gender</i>								
Male	4.7 (3.2, 6.8)	4.3 (2.8, 6.5)	13.8 (10.5, 18.0)	20.4 (16.4, 25.1)	9.7 (7.3, 12.7)	3.8 (2.4, 5.9)	4.4 (2.9, 6.6)	
Female	1.3 (0.9, 1.8)	3.5 (2.5, 4.9)	6.1 (4.6, 8.2)	4.0 (2.5, 6.3)	6.6 (5.1, 8.5)	1.4 (0.9, 2.1)	3.2 (2.4, 4.3)	
<i>Age (years)</i>								
15-24	2.2 (1.2, 4.1)	3.9 (2.1, 7.0)	10.1 (7.3, 13.9)	11.3 (8.0, 15.7)	7.0 (4.9, 9.8)	2.9 (1.5, 5.6)	4.5 (3.3, 6.2)	
25-44	2.9 (2.2, 3.7)	3.0 (2.2, 4.1)	9.0 (7.1, 11.5)	14.5 (11.5, 18.3)	9.0 (7.2, 11.2)	2.6 (1.6, 4.3)	4.1 (2.6, 6.3)	
45-64	4.7 (2.2, 9.7)	5.9 (3.5, 9.7)	10.6 (6.7, 16.3)	6.4 (4.0, 10.1)	8.9 (5.7, 13.5)	1.7 (0.6, 4.7)	2.1 (1.1, 3.8)	
65+	1.6 (0.7, 3.6)	3.9 (1.7, 8.9)	7.3 (3.3, 15.3)	3.0 (1.6, 5.8)	5.1 (2.7, 9.6)	0.2 (0.0, 1.6)	0.8 (0.3, 2.0)	
<i>Residence</i>								
Urban	3.5 (2.0, 6.0)	4.3 (2.7, 6.6)	13.6 (10.3, 17.7)	17.0 (13.6, 20.9)	12.9 (10.8, 15.4)	4.2 (2.6, 6.6)	3.7 (2.6, 5.2)	
Rural	2.5 (1.7, 3.5)	3.6 (2.5, 5.2)	7.4 (5.7, 9.5)	8.3 (6.1, 11.3)	5.3 (4.0, 6.9)	1.5 (0.9, 2.6)	3.8 (2.6, 5.5)	
<i>Education Level</i>								
No formal education	1.4 (0.8, 2.4)	3.0 (1.9, 4.7)	2.6 (1.2, 5.5)	2.3 (1.2, 4.4)	3.3 (1.9, 5.7)	0.8 (0.2, 4.0)	1.8 (1.2, 2.8)	
Less than primary school completed	1.1 (0.5, 2.6)	2.4 (1.3, 4.4)	5.8 (3.6, 9.1)	6.4 (4.2, 9.7)	6.7 (4.5, 10.0)	0.0 (0.0, 0.1)	3.7 (2.2, 6.1)	
Primary school completed	3.9 (2.5, 6.0)	5.8 (3.6, 9.1)	9.5 (7.1, 12.5)	9.8 (6.6, 14.3)	9.3 (6.9, 12.3)	1.8 (0.7, 4.3)	4.5 (3.1, 6.6)	
Secondary school completed or above	3.7 (2.2, 6.3)	3.1 (1.9, 5.1)	16.1 (12.4, 20.7)	21.4 (17.4, 26.0)	9.8 (7.1, 13.5)	5.9 (4.1, 8.5)	3.9 (2.5, 6.1)	

<sup>1</sup> Among all adults in the past 30 days.

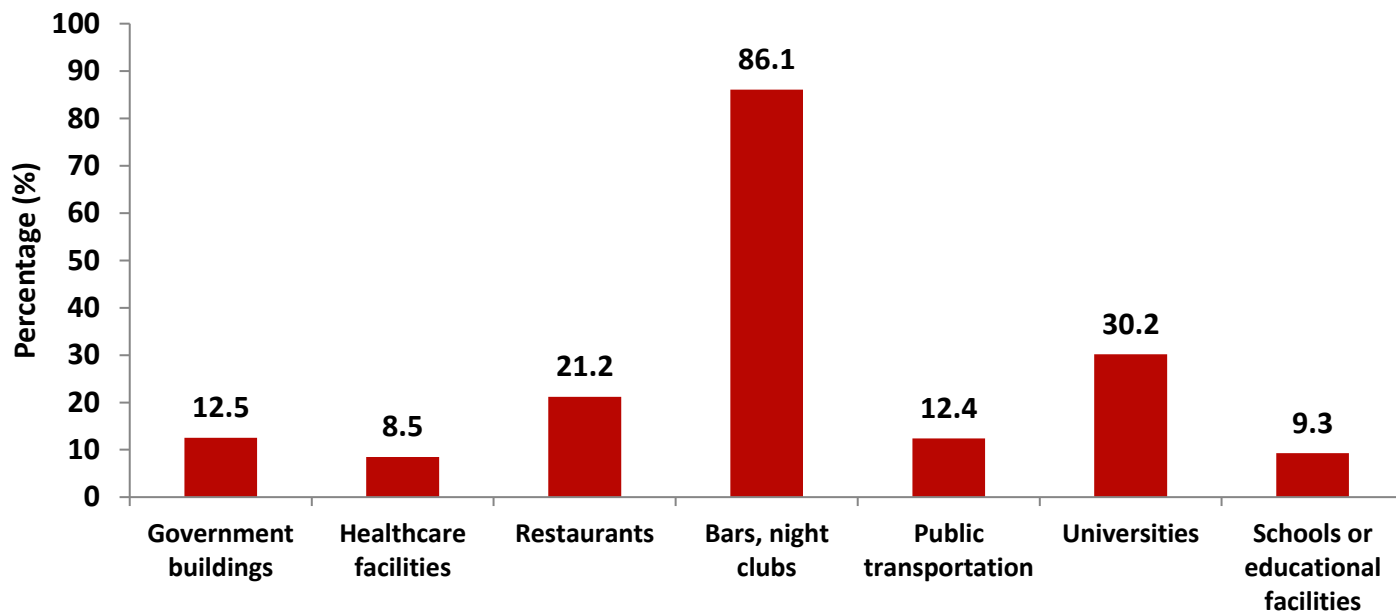
## Exposure to Secondhand Smoke for Adults who Visited Various Public Places

While Table 6.3 presents the population exposure rates, Table 6.4 and Figure 6.3 present the percentage of adults aged 15 years and above who visited various public places and were exposed to SHS, in the last 30 days. The results show very high rates of SHS exposure in all the public places visited for both overall and non-smokers.

Overall, those who visited bars and night clubs had a very high SHS exposure of 86.1%. This was over 10 times more than SHS exposure in health care facilities (8.5%), which had the least exposure. SHS exposure by sex in all the various public places visited was consistently higher for males than females. For example, among those who visited bars and night clubs, 88.2% of males were exposed to tobacco smoke as compared to 76.1% of females.

The findings show that SHS exposure by place of residence was not very different for the rest of the public places visited. However, there was notable difference in SHS exposure for those who visited restaurants, where adults in urban areas (24.9%) reported higher chance of exposure to tobacco smoke as compared to those in rural areas (18.6%). SHS exposure for non-smokers by the selected demographic characteristics was noted to have a similar trend as that of the overall data.

**Figure 6.3:** Percentage of adults  $\geq 15$  years old who visited various public places in the past 30 days and were exposed to tobacco smoke - GATS Kenya, 2014.



**Table 6.4:** Percentage of adults ≥15 years old who visited various public places in the past 30 days and were exposed to tobacco smoke, by smoking status and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults Exposed to Tobacco Smoke <sup>1</sup> in...						
	Government buildings	Health care facilities	Restaurants	Bars, night clubs	Public transportation	Universities	Schools or Educational Facilities
	<i>Percentage (95% CI)</i>						
<b>Overall</b>	12.5 (9.8, 15.7)	8.5 (6.6, 11.0)	21.2 (18.0, 24.7)	86.1 (81.7, 89.7)	12.4 (10.7, 14.2)	30.2 (23.1, 38.5)	9.3 (7.1, 11.9)
<i>Gender</i>							
Male	15.2 (11.7, 19.5)	10.2 (7.1, 14.5)	24.2 (19.2, 30.1)	88.2 (83.3, 91.9)	14.1 (11.0, 18.0)	37.8 (26.9, 50.1)	10.3 (6.8, 15.4)
Female	7.9 (5.5, 11.3)	7.2 (5.1, 10.1)	16.8 (13.3, 21.0)	76.1 (63.2, 85.4)	10.5 (8.3, 13.4)	20.4 (13.7, 29.4)	8.2 (6.2, 10.8)
<i>Age (years)</i>							
15-24	13.1 (7.7, 21.4)	9.3 (5.0, 16.8)	23.5 (18.1, 30.0)	91.0 (83.0, 95.4)	10.9 (7.9, 14.9)	31.2 (17.1, 50.0)	9.8 (7.2, 13.2)
25-44	11.0 (8.9, 13.5)	6.6 (5.0, 8.6)	18.5 (14.8, 22.7)	86.4 (81.5, 90.2)	13.1 (10.5, 16.2)	30.3 (20.9, 41.5)	10.0 (6.6, 14.7)
45-64	16.6 (9.4, 27.7)	13.0 (7.8, 20.9)	24.1 (16.4, 33.9)	75.8 (59.5, 86.9)	15.0 (11.0, 20.2)	27.8 (10.4, 56.0)	6.1 (3.5, 10.4)
65+	7.0 (2.8, 16.7)	8.0 (3.5, 17.4)	23.2 (11.1, 42.4)	*	9.2 (5.0, 16.2)	*	4.7 (1.8, 11.8)
<i>Residence</i>							
Urban	11.5 (7.4, 17.5)	8.8 (5.9, 13.0)	24.9 (19.2, 31.6)	87.2 (82.5, 90.8)	16.6 (13.8, 19.8)	32.4 (23.5, 42.9)	8.6 (6.1, 12.2)
Rural	13.4 (10.3, 17.3)	8.4 (5.9, 11.7)	18.6 (15.5, 22.1)	85.1 (77.2, 90.6)	9.2 (7.4, 11.3)	27.6 (17.4, 40.8)	9.6 (6.7, 13.6)
<i>Education Level</i>							
No formal education	12.9 (7.3, 22.0)	9.2 (6.5, 12.7)	15.1 (7.6, 27.7)	76.3 (44.6, 92.8)	9.0 (5.4, 14.5)	*	9.3 (6.1, 14.0)
Less than primary school completed	9.3 (4.5, 18.1)	5.2 (2.8, 9.5)	15.5 (10.4, 22.3)	86.1 (78.2, 91.4)	12.8 (8.9, 18.0)	*	9.9 (5.7, 16.4)
Primary school completed	17.1 (11.9, 24.1)	12.5 (8.3, 18.4)	18.4 (14.2, 23.6)	87.1 (79.7, 92.1)	12.2 (9.4, 15.7)	39.2 (18.4, 64.8)	10.1 (6.9, 14.6)
Secondary school completed or above	10.3 (6.5, 15.9)	6.6 (4.0, 10.6)	27.9 (21.4, 35.4)	86.1 (78.9, 91.2)	13.0 (9.2, 18.1)	29.6 (22.0, 38.4)	8.0 (5.1, 12.3)
<b>Non-smokers</b>	12.9 (10.1, 16.3)	8.6 (6.5, 11.3)	21.6 (18.5, 25.1)	85.6 (79.9, 89.9)	12.3 (10.6, 14.1)	30.0 (22.9, 38.3)	9.5 (7.3, 12.4)
<i>Gender</i>							
Male	16.1 (12.4, 20.7)	10.4 (7.0, 15.4)	25.5 (20.2, 31.5)	88.5 (82.2, 92.8)	14.0 (10.8, 18.0)	38.2 (27.0, 50.9)	11.0 (7.1, 16.7)
Female	8.0 (5.6, 11.4)	7.3 (5.2, 10.2)	16.9 (13.4, 21.1)	75.2 (61.9, 85.1)	10.6 (8.3, 13.5)	20.4 (13.7, 29.4)	8.3 (6.3, 10.9)
<i>Age (years)</i>							
15-24	13.4 (7.8, 22.1)	9.5 (5.0, 17.1)	23.7 (18.0, 30.6)	89.9 (81.3, 94.8)	10.6 (7.5, 14.7)	29.6 (15.6, 48.9)	9.9 (7.3, 13.4)
25-44	11.5 (9.3, 14.2)	6.2 (4.6, 8.3)	18.1 (14.4, 22.4)	84.9 (78.2, 89.7)	13.1 (10.8, 15.9)	31.0 (21.2, 43.0)	10.3 (6.7, 15.3)
45-64	17.3 (9.2, 30.2)	14.4 (8.6, 23.2)	27.5 (18.7, 38.6)	76.7 (61.4, 87.2)	15.4 (10.3, 22.4)	30.3 (11.0, 60.5)	6.5 (3.5, 11.8)
65+	7.4 (2.8, 18.1)	8.2 (3.6, 17.6)	23.2 (10.7, 43.0)	*	9.4 (5.1, 16.5)	*	5.0 (1.9, 12.6)
<i>Residence</i>							
Urban	11.7 (7.4, 18.1)	8.8 (5.7, 13.5)	25.8 (20.7, 31.8)	86.3 (80.6, 90.6)	16.0 (13.4, 19.0)	33.0 (23.8, 43.7)	8.7 (6.1, 12.4)
Rural	14.0 (10.7, 17.9)	8.5 (5.9, 12.0)	18.6 (15.1, 22.5)	84.8 (73.6, 91.7)	9.4 (7.5, 11.7)	26.4 (16.7, 39.2)	10.0 (7.0, 14.2)
<i>Education Level</i>							
No formal education	14.2 (7.9, 24.4)	9.7 (6.9, 13.3)	15.7 (7.7, 29.3)	74.4 (37.5, 93.4)	9.5 (5.6, 15.6)	*	9.5 (6.1, 14.4)
Less than primary school completed	8.9 (4.2, 18.0)	5.4 (2.9, 10.0)	15.9 (10.3, 23.6)	83.1 (68.9, 91.6)	12.7 (8.8, 18.2)	*	10.6 (6.2, 17.7)
Primary school completed	18.3 (12.6, 25.7)	12.3 (8.0, 18.4)	19.1 (14.9, 24.2)	86.0 (75.4, 92.5)	12.8 (9.8, 16.6)	41.1 (19.6, 66.6)	10.4 (7.0, 15.2)
Secondary school completed or above	10.3 (6.4, 16.2)	6.6 (3.9, 11.0)	27.7 (21.6, 34.7)	86.6 (79.4, 91.6)	12.0 (8.7, 16.4)	28.3 (21.1, 36.7)	8.1 (5.1, 12.6)

<sup>1</sup> Among those that visited the place in the past 30 days.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.



### **Support for Laws Prohibiting Smoking in Various Public Places**

Table 6.5 shows the percentage of adults aged 15 years and above who support the laws prohibiting smoking in various public places.

Overall, the results show overwhelming support for laws prohibiting smoking in all public places. It is notable that the proportion of adults supporting the laws prohibiting smoking in all public places ranged from 81.4% to 98.9% for bars and nightclubs and places of worship, respectively. Generally, there was no difference in support for the laws prohibiting smoking in various places by sex, age, place of residence, level of education, and tobacco smoking status.

**Table 6.5:** Percentage of adults  $\geq 15$  years old who support the laws prohibiting smoking in various places, by selected demographic characteristics and smoking status –GATS Kenya, 2014.

Demographic Characteristics	Adults who support the law prohibiting smoking inside of...							
	Hospitals	Workplaces	Restaurants	Bars or night clubs	Public transportation	Schools	Universities	Places of worship
	<i>Percentage (95% CI)</i>							
<b>Overall</b>	98.5 (98.0, 98.9)	98.0 (97.5, 98.4)	97.3 (96.6, 97.9)	81.4 (79.4, 83.4)	98.2 (97.8, 98.6)	98.8 (98.5, 99.1)	96.6 (95.6, 97.4)	98.9 (98.5, 99.1)
<i>Gender</i>								
Male	98.6 (97.8, 99.0)	98.2 (97.4, 98.7)	97.7 (96.5, 98.5)	79.5 (76.0, 82.5)	98.4 (97.8, 98.8)	98.9 (98.4, 99.3)	96.3 (94.3, 97.6)	99.0 (98.4, 99.3)
Female	98.4 (97.6, 99.0)	97.9 (97.1, 98.4)	97.0 (96.0, 97.7)	83.3 (80.6, 85.8)	98.1 (97.4, 98.6)	98.7 (98.2, 99.1)	96.9 (96.0, 97.7)	98.8 (98.3, 99.1)
<i>Age (years)</i>								
15-24	98.7 (97.3, 99.4)	98.6 (97.6, 99.2)	98.0 (96.4, 98.8)	79.9 (75.2, 83.8)	99.1 (98.3, 99.5)	99.4 (98.8, 99.7)	97.1 (93.9, 98.6)	99.7 (99.5, 99.9)
25-44	98.5 (97.9, 99.0)	97.6 (96.7, 98.2)	97.2 (96.1, 98.1)	81.6 (78.9, 84.1)	97.9 (97.1, 98.5)	98.6 (98.0, 99.1)	96.6 (95.1, 97.7)	98.5 (97.8, 99.0)
45-64	98.7 (97.8, 99.2)	98.4 (97.3, 99.1)	97.5 (96.3, 98.3)	82.9 (78.0, 86.9)	97.9 (96.8, 98.7)	98.5 (97.5, 99.1)	96.5 (94.5, 97.7)	98.8 (98.0, 99.3)
65+	96.4 (92.9, 98.2)	96.3 (92.9, 98.1)	93.5 (89.9, 95.9)	85.6 (80.6, 89.5)	96.1 (92.7, 98.0)	97.1 (93.9, 98.6)	94.4 (90.9, 96.7)	96.4 (92.3, 98.3)
<i>Residence</i>								
Urban	99.2 (98.7, 99.5)	98.2 (97.3, 98.8)	98.2 (97.2, 98.8)	77.9 (73.8, 81.5)	98.9 (98.2, 99.3)	98.9 (98.2, 99.4)	97.4 (95.8, 98.4)	99.2 (98.6, 99.6)
Rural	98.1 (97.3, 98.6)	97.9 (97.1, 98.4)	96.8 (95.8, 97.6)	83.4 (81.0, 85.5)	97.9 (97.2, 98.4)	98.7 (98.3, 99.1)	96.2 (94.8, 97.2)	98.7 (98.2, 99.0)
<i>Education Level</i>								
No formal education	93.4 (89.8, 95.7)	92.8 (88.7, 95.5)	91.7 (87.0, 94.8)	75.3 (71.1, 79.0)	93.3 (89.7, 95.7)	95.0 (92.2, 96.8)	91.1 (87.0, 94.0)	94.7 (91.8, 96.7)
Less than primary school completed	99.0 (97.1, 99.6)	99.1 (98.4, 99.5)	97.4 (95.5, 98.5)	84.8 (81.5, 87.7)	98.5 (97.5, 99.1)	99.4 (98.6, 99.7)	97.4 (95.3, 98.5)	99.4 (98.7, 99.8)
Primary school completed	99.5 (98.9, 99.8)	98.4 (97.3, 99.1)	98.7 (97.7, 99.2)	83.8 (80.2, 86.9)	99.2 (98.5, 99.6)	99.7 (99.0, 99.9)	97.7 (94.0, 99.2)	99.7 (99.0, 99.9)
Secondary school completed or above	99.3 (97.6, 99.8)	99.0 (97.9, 99.6)	98.4 (96.8, 99.2)	78.7 (74.2, 82.7)	99.3 (98.4, 99.6)	99.1 (98.1, 99.6)	97.3 (95.0, 98.6)	99.4 (98.6, 99.7)
<i>Smoking Status</i>								
Current smoker	98.9 (97.1, 99.6)	96.8 (95.1, 97.9)	97.2 (95.2, 98.3)	70.2 (62.8, 76.7)	96.8 (94.5, 98.2)	98.4 (96.6, 99.3)	96.2 (92.2, 98.1)	97.8 (95.5, 98.9)
Non-smoker	98.4 (97.9, 98.9)	98.1 (97.5, 98.6)	97.3 (96.5, 98.0)	82.4 (80.1, 84.4)	98.4 (97.9, 98.7)	98.8 (98.5, 99.1)	96.7 (95.5, 97.5)	99.0 (98.6, 99.2)

## 7. ECONOMICS

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This chapter focuses on the economic aspects of tobacco use by current smokers of manufactured cigarettes, based on information from the most recent purchase, which included source of last cigarette purchase; expenditure on cigarettes; unit and type of exchange of cigarette last purchase and perception of cigarette prices.

### **Source of Last Purchase of Cigarettes**

Table 7.1 presents percentage distribution of current manufactured cigarettes smoked by adults aged 15 years and above by the source of last purchase of cigarettes and selected demographic characteristics. The most common source of the last purchase of manufactured cigarettes was shops (65.2%), followed by kiosks (30.7%), bars or night clubs (1.8%), and street vendors (1.4%). All the other sources recorded negligible percentages.

Kiosks and shops were the most popular sources of cigarettes in Kenya. The data indicates that about 65.0% of males purchased their last cigarettes from shops followed by kiosks at 30.9%. The source of last purchase of cigarettes is dependent on the age group of smokers. About 74.7% of cigarette smokers aged 15-24 purchased their last cigarettes from shops compared to 64.1% of those aged 25 years and above. Conversely, 33.1% of those aged 25 years and above purchased their last cigarettes from kiosks compared to 10.6% of those aged 15-24 years.

Most of the cigarette smokers in rural areas (68.5%) purchased their last cigarettes from shops compared to 59.2% of those in urban areas. Thirty-six percent of smokers residing in urban areas purchased of cigarettes from kiosks were compared to 27.8% of those in rural areas.

**Table 7.1:** Percentage of current manufactured cigarette smokers ≥15 years old, by last brand purchased and selected demographic characteristics – GATS Kenya, 2014.

Source	Overall	Gender		Age (years)		Residence	
		Male	Female	15-24	25+	Urban	Rural
				<i>Percentage (95% CI)</i>			
Vending machine	0.2 (0.0, 1.6)	0.2 (0.0, 1.7)	*	0.0	0.3 (0.0, 1.8)	0.0	0.3 (0.0, 2.5)
Shop	65.2 (57.1, 72.6)	65.0 (56.5, 72.6)	*	74.7 (52.2, 88.9)	64.1 (55.5, 71.9)	59.2 (44.7, 72.3)	68.5 (58.6, 76.9)
Supermarket	0.1 (0.0, 0.6)	0.1 (0.0, 0.6)	*	0.8 (0.1, 5.7)	0.0	0.2 (0.0, 1.7)	0.0
Street vendor	1.4 (0.4, 4.4)	1.4 (0.4, 4.6)	*	0.0	1.6 (0.5, 4.9)	0.9 (0.3, 2.6)	1.7 (0.4, 7.0)
Military store	0.0 (0.0, 0.1)	0.0 (0.0, 0.1)	*	0.0	0.0 (0.0, 0.1)	0.0 (0.0, 0.3)	0.0
Duty-free shop	0.0	0.0	*	0.0	0.0	0.0	0.0
Kiosks	30.7 (23.6, 38.9)	30.9 (23.5, 39.5)	*	10.6 (3.7, 26.8)	33.1 (25.4, 41.9)	36.0 (23.1, 51.3)	27.8 (19.8, 37.6)
School/university canteen	0.0	0.0	*	0.0	0.0	0.0	0.0
Internet	0.0	0.0	*	0.0	0.0	0.0	0.0
Outside the country	0.0	0.0	*	0.0	0.0	0.0	0.0
From another person	0.6 (0.2, 1.9)	0.5 (0.1, 1.9)	*	1.0 (0.1, 7.1)	0.5 (0.1, 2.1)	0.3 (0.0, 2.1)	0.7 (0.2, 2.9)
Bars or night clubs	1.8 (0.7, 4.4)	1.9 (0.7, 4.6)	*	13.0 (3.9, 35.6)	0.4 (0.1, 1.4)	3.3 (1.0, 10.3)	0.9 (0.2, 3.8)
<b>Total</b>	100	100	100	100	100	100	100

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## Expenditures on Cigarettes

Table 7.2 and Figure 7.2 present information on mean and median expenditure per month on manufactured cigarettes by smokers aged 15 years and above by selected demographic characteristics. Overall, the average expenditure by smokers on cigarettes was KSh. 1,072.00 per month while the median was KSh. 594.80. The average and median expenditure on cigarettes by males was KSh.1,113.00 and KSh. 632.40 respectively.

Average monthly expenditures on cigarettes by age shows very big differences between those aged 15 -24 and those aged 25 years and above. On average, the age group 15-24 years spent twice as much money (KSh. 2,008.30) per month on cigarettes than those aged 25-44 (KSh. 983.60) and those aged 45-64 years (KSh. 951.20). There was a big difference in the mean amount spent on cigarettes per month between urban and rural dwellers. Smokers residing in rural areas were likely to spend more money (KSh.1,225.40) on cigarettes per month than their urban counterparts (KSh.786.10).

Smokers with no formal education spent on average KSh.1,321.00 per month, while those with less than primary school complete spent KSh. 1,146.30 and those with only primary school complete spent KSh. 1,059.60. Those with secondary school complete and above spent Ksh. 928.70 on average.

**Table 7.2:** Percentage distribution of manufactured cigarette smokers  $\geq 15$  years old, by the source of last purchase of cigarettes and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Cigarette expenditure per month (Kenyan shilling )	
	Mean (95% CI)	Median (95% CI)
<b>Overall</b>	1,072.0 (805.1, 1338.9)	594.8 (479.8, 748.7)
<i>Gender</i>		
Male	1,113.0 (836.3, 1389.7)	632.4 (532.2, 757.9)
Female	*	*
<i>Age (years)</i>		
15-24	2,008.3 (0, 4090.8)	691.3 (189.9, 1991.0)
25-44	983.6 (773.6, 1193.5)	578.8 (449.9, 756.4)
45-64	951.2 (749.6, 1152.8)	588.6 (447.7, 851.7)
65+	*	*
<i>Residence</i>		
Urban	786.1 (643.1, 929.1)	541.2 (391.0, 741.0)
Rural	1,225.4 (835.3, 1615.4)	604.7 (501.6, 984.5)
<i>Education Level</i>		
No formal education	1,321.0 (302.4, 2339.7)	253.1 (67.7, 2538.1)
Less than primary school completed	1,146.3 (447.7, 1844.9)	453.5 (290.9, 741.7)
Primary school completed	1,059.6 (801.4, 1317.7)	628.8 (528.2, 1065)
Secondary school completed or above	928.7 (647.2, 1210.2)	704.5 (442.5, 1116.9)

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## Unit and Type of Exchange of Last Purchase of Cigarettes

Table 7.3 presents information on the unit and type of exchange of last purchase of manufactured cigarettes by smokers aged 15 years and above by demographic characteristics. The survey results show that the majority (88.0%) of the smokers purchased their last manufactured cigarettes as individual sticks. Similarly, the majority (90.9%) paid before the cigarettes were handed over to them.

There were differences in terms of purchases of individual sticks between adults aged 15-24 years and those aged 25 years and above. The majority (93.1%) of the age group 25-44 years purchased individual cigarettes sticks as compared to those aged 15-24 years (68.4%) and smokers aged 45-64 years (86.2%). Further, the data show that smokers who resided in urban areas (94.4%) were more likely to purchase individual cigarette sticks than their rural counterparts (84.6%).

The proportion of smokers who purchased individual sticks increased with an increase in educational level, from no formal education (56.3%) upto primary school complete level of education (92.7%), and then dropped to 88.6% for those who had completed secondary school and above.

**Table 7.3:** Unit and type of exchange of last purchase of cigarettes among current manufactured cigarette smokers  $\geq 15$  years old, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Last purchase of manufactured cigarettes	
	Purchased as individual sticks	Payment was made before the cigarettes were handed to purchaser
	<i>Percentage (95% CI)</i>	
<b>Overall</b>	88.0 (79.0, 93.5)	90.9 (82.3, 95.5)
<i>Gender</i>		
Male	90.2 (81.0, 95.2)	90.5 (81.5, 95.4)
Female	*	*
<i>Age (years)</i>		
15-24	68.4 (38.0, 88.4)	77.8 (43.2, 94.2)
25-44	93.1 (89.3, 95.7)	93.2 (88.1, 96.2)
45-64	86.2 (70.7, 94.1)	90.9 (81.1, 95.9)
65+	*	*
<i>Residence</i>		
Urban	94.4 (88.5, 97.4)	90.6 (84.4, 94.5)
Rural	84.6 (71.4, 92.3)	91.0 (76.2, 97.0)
<i>Education Level</i>		
No formal education	56.3 (26.0, 82.5)	98.8 (94.6, 99.7)
Less than primary school completed	88.2 (77.5, 94.2)	90.1 (82.5, 94.7)
Primary school completed	92.7 (76.5, 98.0)	89.6 (69.4, 97.1)
Secondary school completed or above	88.6 (72.8, 95.8)	91.7 (81.1, 96.6)

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

### Perception of Cigarette Prices

Table 7.4 shows the perceptions of current cigarette smokers in regard to manufactured cigarette prices among those aged 15 years and above by selected demographic characteristics. Overall, 73.5% of smokers thought cigarettes were expensive, 69.6% thought expensive cigarettes prevent them from buying more, 56.1% thought cheap cigarettes made them smoke more, and 44.5% said they would quit smoking if cigarette prices were doubled. A smaller proportion of smokers (7.5%) thought cigarettes were cheap.

The age group with the largest proportion of the smokers who thought cigarettes were expensive were aged 45-64 years (75.1%) compared to 70.1% of those aged 15-24 years. About 78.3% of smokers residing in rural areas thought that cigarettes were expensive compared to 64.4% of those in urban areas. Similar patterns were observed among smokers residing in rural (73.0%) and urban (61.8%) areas who thought expensive cigarettes prevented them from buying more.

The data further shows that 10.4% of smokers aged 25-44 years thought cigarettes were cheap compared to those aged 15-24 years (5.4%) or those aged 25-44 years (4.1%). The age group with the largest proportion of smokers who said that they would quit smoking if cigarettes prices were doubled were 15-24 years of age (48.4%), followed by those aged 45-64 years (47.8%) and those aged 25-44 years (41.3%). Close to half (46.8%) of smokers residing in rural areas said they would quit smoking due to the doubling of prices, compared to 40.2% of those in urban areas.

Education plays a major role in perception of the expenses incurred on purchase of cigarettes. Those who did not complete primary school had the highest proportion of smokers who thought cigarettes were expensive (78.6%), followed by those with no formal education at 75.5%, those with primary school completed (73.0%), and those with secondary school and above level of education (66.1%). The proportion of those who thought they would quit if cigarette prices were doubled decreases with an increase in the level of education. About 58.5% of smokers with no formal education indicated that they would quit if cigarette prices increased, while only 25.6% of those with secondary and above level of education thought of quitting if prices were doubled.

**Table 7.4:** Perceptions of cigarette prices among current manufactured cigarette smokers  $\geq 15$  years old, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Current manufactured cigarette smokers who...				
	Thought cigarettes are expensive	Thought expensive cigarettes prevents them from buying more <sup>1</sup>	Thought cigarettes are cheap	Thought cheap cigarettes made them smoke more <sup>2</sup>	Would quit smoking if cigarette prices were to double <sup>3</sup>
	<i>Percentage (95% CI)</i>				
<b>Overall</b>	73.5 (66.7, 79.2)	69.6 (59.3, 78.2)	7.5 (3.7, 14.6)	56.1 (25.2, 82.9)	44.5 (37.0, 52.3)
<i>Gender</i>					
Male	73.8 (67.2, 79.6)	69.5 (58.8, 78.4)	7.9 (3.9, 15.3)	56.1 (25.1, 82.9)	43.2 (35.9, 50.8)
Female	*	*	*	*	*
<i>Age (years)</i>					
15-24	70.1 (44.7, 87.2)	*	5.4 (1.0, 24.4)	*	48.4 (23.9, 73.7)
25-44	71.2 (60.2, 80.2)	69.6 (57.9, 79.2)	10.4 (4.3, 23.1)	*	41.3 (32.8, 50.3)
45-64	75.1 (59.8, 85.9)	83.7 (72.3, 91.0)	4.1 (1.8, 9.2)	*	47.8 (34.7, 61.1)
65+	*	*	*	*	*
<i>Residence</i>					
Urban	64.4 (52.8, 74.5)	61.8 (47.7, 74.2)	11.2 (3.3, 31.8)	*	40.2 (26.5, 55.7)
Rural	78.3 (70.3, 84.6)	73.0 (58.6, 83.8)	5.5 (2.8, 10.5)	*	46.8 (38.3, 55.5)
<i>Education Level</i>					
No formal education	75.5 (31.0, 95.5)	65.8 (38.8, 85.4)	0.4 (0.1, 1.8)	*	58.5 (30.9, 81.6)
Less than primary school completed	78.6 (68.4, 86.2)	67.3 (52.8, 79.0)	6.4 (3.0, 13.1)	*	55.0 (42.1, 67.3)
Primary school completed	73.3 (61.5, 82.5)	73.0 (56.4, 85.0)	6.0 (2.3, 14.7)	*	45.4 (33.6, 57.8)
Secondary school completed or above	66.1 (48.1, 80.4)	68.8 (47.8, 84.1)	12.9 (3.1, 41.1)	*	25.6 (13.9, 42.4)

<sup>1</sup> Among current manufactured cigarette smokers who indicated they thought cigarettes are expensive.

<sup>2</sup> Among current manufactured cigarette smokers who indicated they thought cigarettes are cheap.

<sup>3</sup> Analyzed from the following question: "If the price for your cigarettes were to double, would you continue to smoke as before, switch to cheaper products, start smoking less, or quit smoking?"

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## 8. MEDIA

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Mass media plays an important role in the campaigns for and against tobacco products. It is therefore an effective means of disseminating information on the ill effects of tobacco products and hence discouraging their use. Similarly, it is used in the advertisement, sponsorship, and promotion of tobacco products.

Tobacco advertising, promotion, and sponsorship (TAPS) are prohibited in Kenya through the 2007 Tobacco Control Act. The Act prohibits false or misleading, deceptive promotion, advertising/promotion through testimonials or endorsements, promotion by advertisements, and promotion by sponsorship.

This chapter is organized into three sections: adults who noticed anti-cigarette and anti-smokeless tobacco product information disseminated through various mass media channels; awareness of health warnings on cigarette packages and quitting consideration due to health warning labels; and adults who noticed cigarette and smokeless tobacco products marketing.

### **Noticing Anti-Cigarette Information**

This section presents survey results of exposure to anti-cigarette and anti-smokeless tobacco products information in different forms of mass media among adults aged 15 years and above in urban and rural residences in Kenya. All respondents were asked whether they had noticed any anti-cigarette smoking and anti-smokeless tobacco product information in various places during the last 30 days prior to the survey. The questions were asked separately for each form of media (e.g., newspapers or in magazines; television or radio; billboards; posters; cinemas; on windows or inside shops/stalls where cigarettes were bought; the internet; or somewhere else).

#### **8.1.1 Adults who Noticed Anti-Cigarette Smoking Information**

Table 8.1 presents percentage of adults aged 15 years and above who noticed anti-cigarette smoking information during the last 30 days in various places, by smoking status and selected demographic characteristics. Overall, more than a half (61.5%) of Kenyan adults had noticed anti-cigarette information at any location in the last 30 days. The proportion of adults who noticed such information was slightly higher among non-smokers (61.7%) than among current smokers (59.8%). Overall, about half of Kenyan adults (49.3%) noticed anti-cigarette information on the radio, followed by television (25.6%), newspapers or magazines (23.7%), and billboards (16.1%).

The proportion of non-smokers who noticed anti-cigarette smoking information was 62.0% among males and 61.4% among females. Similar results were noticed overall among males (61.9%) and females (61.2%). However, two-fold of male current smokers (61.1%) have noticed anti-cigarette smoking information than their female (34.5%) counterparts.

Overall, 60.6% of those aged 25 years and above noticed cigarette smoking information compared to 63.2% of those aged 15 to 24 years. Similarly, for current smokers, 59.3% of those aged 25 years and above compared to 64.4% of those in age group 15-24 years noticed cigarette smoking information. About 60.7% of non-smokers aged 25 years and above noticed cigarette smoking information compared to 63.2% of those of age group 15-24 years. A similar pattern was observed for rural and urban dwellers.



**Table 8.1:** Percentage of adults  $\geq 15$  years old who noticed anti-cigarette smoking information during the last 30 days in various places, by smoking status and selected demographic characteristics – GATS Kenya, 2014

Places	Overall	Gender		Age (years)		Residence		
		Male	Female	15-24	25+	Urban	Rural	
<i>Percentage (95% CI)</i>								
<b>Overall</b>								
In newspapers or in magazines	23.7 (21.1, 26.4)	26.7 (22.7, 31.2)	20.7 (17.5, 24.3)	23.2 (19.2, 27.6)	23.9 (21.3, 26.8)	30.5 (27.6, 33.5)	20.0 (16.9, 23.6)	
On television or the radio	53.4 (48.8, 58.0)	55.4 (49.7, 61.1)	51.5 (47.1, 56.0)	53.6 (47.2, 59.8)	53.4 (48.5, 58.2)	53.5 (50.3, 56.7)	53.4 (46.6, 60.2)	
On television	25.6 (21.8, 29.8)	27.3 (22.3, 33.0)	23.9 (20.2, 28.1)	28.2 (22.3, 35.0)	24.1 (20.7, 27.9)	33.2 (28.8, 37.9)	21.5 (16.5, 27.5)	
On the radio	49.3 (44.9, 53.8)	52.1 (46.2, 57.9)	46.7 (42.6, 50.8)	48.6 (43.1, 54.1)	49.7 (45.1, 54.4)	45.4 (40.5, 50.4)	51.4 (45.0, 57.7)	
On billboards	16.1 (13.7, 19.0)	17.7 (14.5, 21.4)	14.7 (11.5, 18.5)	15.5 (12.3, 19.3)	16.5 (13.8, 19.7)	22.5 (18.6, 26.8)	12.8 (10.0, 16.2)	
Somewhere else	14.8 (12.6, 17.3)	13.8 (11.0, 17.1)	15.7 (12.6, 19.5)	15.7 (12.8, 19.2)	14.3 (11.8, 17.2)	15.7 (12.4, 19.7)	14.3 (11.5, 17.6)	
Any Location	61.5 (56.4, 66.4)	61.9 (56.0, 67.4)	61.2 (55.9, 66.2)	63.2 (56.8, 69.1)	60.6 (55.3, 65.6)	65.1 (61.8, 68.4)	59.6 (52.1, 66.6)	
<b>Current smokers<sup>1</sup></b>								
In newspapers or in magazines	19.5 (14.0, 26.6)	19.8 (14.0, 27.4)	13.6 (2.6, 48.4)	33.2 (13.1, 62.1)	18.0 (12.9, 24.5)	18.2 (12.5, 25.7)	20.2 (12.8, 30.3)	
On television or the radio	51.8 (44.3, 59.1)	52.7 (45.0, 60.3)	34.3 (13.8, 63.0)	42.6 (20.3, 68.4)	52.8 (45.7, 59.9)	46.9 (35.9, 58.2)	54.1 (44.3, 63.5)	
On television	21.2 (15.5, 28.3)	21.4 (15.5, 28.9)	16.0 (3.7, 49.0)	35.7 (15.2, 63.3)	19.5 (14.2, 26.2)	26.8 (18.4, 37.2)	18.6 (11.8, 27.9)	
On the radio	49.3 (42.1, 56.5)	50.1 (42.6, 57.5)	34.3 (13.8, 63.0)	38.4 (17.0, 65.4)	50.5 (43.5, 57.4)	39.9 (29.9, 50.7)	53.7 (44.0, 63.1)	
On billboards	19.6 (13.4, 27.6)	20.5 (14.0, 29.0)	2.3 (0.4, 12.3)	23.1 (7.3, 53.5)	19.2 (12.8, 27.6)	24.6 (15.4, 37.0)	17.2 (10.0, 27.8)	
Somewhere else	14.8 (8.9, 23.4)	15.5 (9.3, 24.7)	0.6 (0.1, 4.7)	28.5 (9.2, 61.0)	13.2 (7.4, 22.4)	15.0 (6.1, 32.5)	14.6 (7.9, 25.5)	
Any Location	59.8 (52.7, 66.5)	61.1 (53.5, 68.2)	34.5 (13.9, 63.2)	64.4 (42.5, 81.5)	59.3 (51.4, 66.7)	61.7 (50.7, 71.7)	58.9 (49.9, 67.3)	
<b>Non-smokers<sup>2</sup></b>								
In newspapers or in magazines	24.0 (21.3, 26.9)	28.0 (23.4, 33.1)	20.8 (17.6, 24.4)	22.9 (19.0, 27.4)	24.7 (21.7, 27.9)	31.4 (28.2, 34.8)	20.0 (16.7, 23.8)	
On television or the radio	53.6 (48.6, 58.5)	55.9 (49.3, 62.4)	51.7 (47.2, 56.1)	53.8 (47.4, 60.1)	53.4 (48.1, 58.7)	54.0 (51.0, 56.9)	53.4 (45.9, 60.7)	
On television	26.0 (22.0, 30.4)	28.4 (22.8, 34.8)	24.0 (20.3, 28.1)	28.0 (22.0, 35.0)	24.7 (21.1, 28.7)	33.7 (29.2, 38.5)	21.7 (16.4, 28.2)	
On the radio	49.3 (44.6, 54.0)	52.4 (45.7, 59.1)	46.8 (42.7, 51.0)	48.8 (43.3, 54.4)	49.7 (44.6, 54.7)	45.9 (41.0, 50.8)	51.2 (44.3, 58.0)	
On billboards	15.9 (13.3, 18.7)	17.2 (14.0, 21.1)	14.8 (11.5, 18.7)	15.3 (12.1, 19.2)	16.2 (13.5, 19.4)	22.3 (18.2, 27.0)	12.4 (9.6, 15.8)	
Somewhere else	14.8 (12.6, 17.3)	13.5 (10.7, 16.9)	15.9 (12.7, 19.6)	15.5 (12.6, 18.7)	14.4 (11.7, 17.5)	15.8 (12.5, 19.8)	14.2 (11.5, 17.6)	
Any Location	61.7 (56.1, 66.9)	62.0 (55.0, 68.5)	61.4 (56.1, 66.4)	63.2 (56.7, 69.2)	60.7 (54.8, 66.3)	65.4 (61.7, 68.9)	59.6 (51.5, 67.3)	

<sup>1</sup> Includes daily and occasional (less than daily) smokers.

<sup>2</sup> Includes former and never smokers.

### **8.1.2 Adults who Noticed Anti-Smokeless Products Information**

Table 8.1a shows the percentage of adults aged 15 years and above who noticed anti-smokeless tobacco products information during the last 30 days prior to the survey in various places, by smokeless status and selected demographic characteristics. Overall, about one in three (31.3%) Kenyan adults had noticed anti-smokeless tobacco products information in the last 30 days. The results show that the percentage of adults who noticed such information was slightly higher among non-smokeless tobacco users (31.8%) than among current smokeless tobacco users (22.1%).

More males have noticed anti-smokeless tobacco product information during the last 30 days in various places than their female counterparts. The results show that overall, 33.8% of males and 29.0% of females had noticed anti-smokeless tobacco product information. For current smokeless tobacco users, 28.6% males and 13.4% of females had noticed anti-smokeless tobacco product information. The data further indicates that 34.1% of males and 29.7% of females non-smokeless tobacco users had noticed anti-smokeless tobacco product information.

Overall, 30.7% of those aged 25 years and above and 32.5% of those aged 15-24 years noticed anti-smokeless tobacco products information. Similar patterns were observed for non-smokeless users, where 31.3% of those aged 25 years and above compared to 32.6% of those aged 15-24 noticed anti-smokeless tobacco products information.

The data shows that those residing in rural areas were more likely to have noticed anti-smokeless tobacco products than those residing in urban areas. Overall, more adults in rural areas (32.7%) noticed anti-smokeless tobacco product information than did their urban counterparts (28.8%). A similar pattern was observed among the non-smokeless tobacco users, where 33.4% of rural residents compared to 28.8% of urban dwellers noticed anti-smokeless tobacco product information. However, for current smokeless users, more adults in urban areas (29.4%) than those residing in rural areas (20.4%) noticed anti-smokeless product information.

Overall, about one in four Kenyan adults (25.3%) noticed anti-smokeless product information on the radio, followed by television (11.4%), newspapers or magazines (9.5%), and billboards (6.2%).

**Table 8.1a:** Percentage of adults  $\geq 15$  years old who noticed anti-smokeless products information during the last 30 days in various places, by smokeless status and selected demographic characteristics – GATS Kenya, 2014.

Places	Gender		Age (years)		Residence		
	Overall	Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<b>Overall</b>							
In newspapers or in magazines	9.5 (7.9, 11.2)	11.3 (9.0, 14.0)	7.7 (6.4, 9.3)	10.2 (7.4, 13.8)	9.0 (7.6, 10.8)	10.9 (8.3, 14.2)	8.7 (7.0, 10.7)
On television or the radio	27.1 (23.9, 30.6)	30.1 (26.3, 34.2)	24.3 (21.0, 27.9)	28.1 (23.6, 33.1)	26.6 (23.0, 30.5)	24.3 (21.4, 27.4)	28.6 (24.0, 33.8)
On television	11.4 (9.3, 13.7)	12.5 (9.6, 16.3)	10.2 (8.5, 12.3)	11.6 (8.9, 15.0)	11.2 (8.9, 14.0)	12.9 (10.3, 16.1)	10.5 (7.9, 13.9)
On the radio	25.3 (22.3, 28.6)	28.1 (24.5, 31.9)	22.7 (19.5, 26.3)	26.3 (22.0, 31.0)	24.8 (21.4, 28.5)	21.1 (18.5, 23.9)	27.6 (23.1, 32.6)
On billboards	6.2 (5.1, 7.5)	6.8 (5.3, 8.7)	5.6 (4.3, 7.3)	4.4 (3.0, 6.3)	7.2 (5.9, 8.8)	8.6 (6.7, 11.0)	4.9 (3.8, 6.3)
Somewhere else	3.7 (3.1, 4.5)	3.4 (2.5, 4.7)	4.0 (3.2, 5.0)	3.9 (2.7, 5.5)	3.6 (2.9, 4.5)	3.0 (2.2, 3.9)	4.1 (3.2, 5.3)
Any Location	31.3 (27.8, 35.1)	33.8 (29.5, 38.3)	29.0 (25.5, 32.8)	32.5 (28.2, 37.1)	30.7 (26.7, 35.0)	28.8 (25.7, 32.2)	32.7 (27.5, 38.3)
<b>Current smokeless users<sup>1</sup></b>							
In newspapers or in magazines	6.8 (3.2, 13.9)	10.0 (4.1, 22.5)	2.6 (0.8, 7.7)	*	5.2 (2.8, 9.5)	3.5 (1.6, 7.6)	7.6 (3.3, 16.7)
On television or the radio	18.9 (12.1, 28.2)	26.5 (15.5, 41.6)	8.7 (4.0, 17.6)	*	18.4 (11.7, 27.7)	23.1 (10.0, 44.7)	17.9 (10.6, 28.6)
On television	10.3 (4.7, 20.9)	15.0 (6.0, 32.8)	4.0 (1.2, 12.8)	*	9.0 (3.9, 19.4)	14.4 (4.3, 38.4)	9.3 (3.5, 22.3)
On the radio	17.5 (11.1, 26.5)	25.6 (14.8, 40.6)	6.7 (3.3, 13.3)	*	16.9 (10.7, 25.7)	17.8 (8.1, 34.8)	17.4 (10.2, 28.2)
On billboards	4.0 (1.6, 9.3)	3.0 (0.8, 11.6)	5.2 (1.7, 14.6)	*	4.4 (1.8, 10.3)	7.2 (1.7, 26.1)	3.2 (1.0, 9.5)
Somewhere else	1.2 (0.3, 4.8)	0.5 (0.1, 2.4)	2.1 (0.3, 11.5)	*	1.3 (0.3, 5.3)	6.3 (1.6, 21.9)	0.0
Any Location	22.1 (15.5, 30.4)	28.6 (17.9, 42.4)	13.4 (8.6, 20.3)	*	22.0 (15.5, 30.2)	29.4 (17.1, 45.6)	20.4 (13.2, 30.1)
<b>Non-smokeless users<sup>2</sup></b>							
In newspapers or in magazines	9.6 (8.0, 11.4)	11.3 (9.0, 14.2)	7.9 (6.6, 9.6)	10.0 (7.3, 13.6)	9.3 (7.7, 11.2)	11.1 (8.4, 14.6)	8.7 (7.0, 10.9)
On television or the radio	27.5 (24.1, 31.2)	30.3 (26.2, 34.7)	24.9 (21.5, 28.7)	28.1 (23.6, 33.2)	27.1 (23.3, 31.3)	24.3 (21.4, 27.5)	29.3 (24.2, 34.9)
On television	11.4 (9.3, 13.9)	12.4 (9.4, 16.3)	10.5 (8.7, 12.6)	11.5 (8.8, 14.8)	11.4 (9.0, 14.3)	12.9 (10.2, 16.1)	10.6 (7.9, 14.1)
On the radio	25.7 (22.5, 29.2)	28.2 (24.4, 32.4)	23.3 (20.0, 27.1)	26.3 (22.0, 31.1)	25.3 (21.8, 29.3)	21.1 (18.5, 24.0)	28.2 (23.4, 33.6)
On billboards	6.3 (5.2, 7.6)	7.0 (5.4, 9.0)	5.6 (4.3, 7.4)	4.4 (3.1, 6.4)	7.4 (6.1, 9.0)	8.6 (6.7, 11.0)	5.0 (3.8, 6.5)
Somewhere else	3.8 (3.1, 4.7)	3.6 (2.6, 5.0)	4.1 (3.2, 5.1)	3.9 (2.8, 5.6)	3.8 (3.0, 4.7)	2.9 (2.2, 3.8)	4.4 (3.4, 5.6)
Any Location	31.8 (28.1, 35.8)	34.1 (29.5, 39.0)	29.7 (26.0, 33.6)	32.6 (28.2, 37.3)	31.3 (27.1, 35.9)	28.8 (25.6, 32.2)	33.4 (27.9, 39.4)

<sup>1</sup> Includes daily and occasional (less than daily) users.

<sup>2</sup> Includes former and never smokeless users.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## **Health Warnings on Cigarette and Smokeless Packages and Thinking about Quitting**

This section discusses levels of awareness of health warnings on cigarette and smokeless tobacco product packages and their effectiveness in prompting smokers to think about quitting. The WHO MPOWER policy package recommends display of warnings on packages of tobacco products to discourage tobacco users from consuming tobacco and motivate them to quit smoking. This is because strong and effective pictorial health warnings are an essential component of any anti-tobacco strategy and have resulted in motivating tobacco users to quit smoking in many countries. At the time of the GATS survey, Kenya only had text warnings on packaging.

### **8.2.1 Health Warnings on Cigarette Packages and Thinking about Quitting**

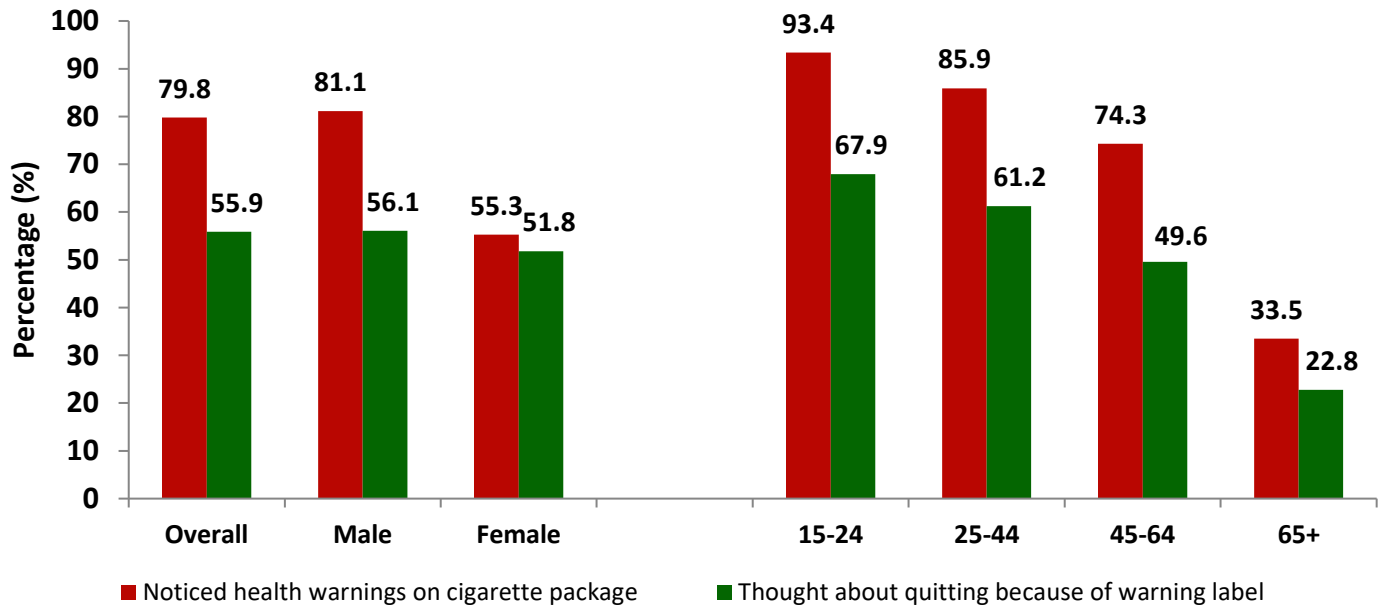
The percentages of current smokers age 15 years and above who noticed health warnings on cigarette packages and considered quitting because of the warning labels during the last 30 days by selected demographic characteristics are presented in Table 8.2 and Figure 8.1. Overall, about 4 in 5 (79.8%) adult current cigarette smokers had noticed health warnings on cigarette packages, while about 3 in 5 (55.9%) of them had thought about quitting because of the warning labels.

The results further show that among adult current smokers, males (81.1%) were more likely to have noticed health warnings on cigarette packages than females (55.3%) but only 56.1% and 51.8% of males and females, respectively, thought of quitting smoking due to the warning labels on the packages. Among all current smokers, the proportion who noticed the warnings on cigarette packages declined with increases in age: 93.4% for the 15–24 age group; 85.9% for the 25–44 age group; 74.3% for the 45–64 age group; and 33.5% for those aged 65 years and above. A similar trend was observed among adults who noticed the warnings on the packages and thought of quitting because of warning labels: 67.9% for those aged 15–24 years; 61.2% for those aged 25–44 years; 49.6% for those aged 45–64 years; and 22.8% for ages 65 years and above.

The data shows that among current smokers, those residing in urban areas (88.4%) were more likely to notice health warning than those in rural areas (75.8%). Similarly, those residing in urban areas (65.2%) were more likely to think of quitting cigarette smoking because of warning labels than their rural counterparts (51.5%).

Education levels play a role among adult current smokers who noticed health warnings on cigarette packages and thought of quitting smoking due to the warning labels on the packages. The more educated one is, the higher the chances of noticing health warnings. Only 35.4% of those with no formal education noticed health warnings on cigarette packages compared to 73.7% of those with less than primary education; 95.2% of those with primary school complete level of education; and 88.9% of those with secondary school complete level of education or above. For those with no formal education, only 27.0% thought of quitting compared with 51.4% of those with less than primary complete and 72.1% of those with primary school complete level of education.

**Figure 8.1:** Percentage of current smokers  $\geq 15$  years old who noticed health warnings on cigarette packages and considered quitting because of the warning labels - GATS Kenya, 2014.



**Table 8.2:** Percentage of current smokers  $\geq 15$  years old who noticed health warnings on cigarette packages and considered quitting because of the warning labels during the last 30 days, by selected demographic characteristics – GATS Kenya, 2014

Demographic Characteristics	Current smokers <sup>1</sup> who...	
	Noticed health warnings on cigarette package <sup>2</sup>	Thought about quitting because of warning label <sup>2</sup>
	<i>Percentage (95% CI)</i>	
<b>Overall</b>	79.8 (73.6, 84.9)	55.9 (48.0, 63.5)
<i>Gender</i>		
Male	81.1 (74.4, 86.5)	56.1 (47.8, 64.1)
Female	55.3 (25.0, 82.1)	51.8 (22.9, 79.5)
<i>Age (years)</i>		
15-24	93.4 (78.7, 98.2)	67.9 (41.6, 86.2)
25-44	85.9 (77.5, 91.5)	61.2 (50.3, 71.1)
45-64	74.3 (63.2, 83.0)	49.6 (35.4, 63.8)
65+	33.5 (17.2, 54.8)	22.8 (10.4, 43.0)
<i>Residence</i>		
Urban	88.4 (82.2, 92.6)	65.2 (54.1, 74.8)
Rural	75.8 (67.4, 82.7)	51.5 (41.7, 61.3)
<i>Education Level</i>		
No formal education	35.4 (21.0, 53.0)	27.0 (14.4, 45.1)
Less than primary school completed	73.7 (61.2, 83.2)	51.4 (41.7, 61.0)
Primary school completed	95.2 (89.4, 97.9)	72.1 (58.0, 82.9)
Secondary school completed or above	88.9 (76.8, 95.1)	53.6 (36.2, 70.2)

<sup>1</sup> Includes daily and occasional (less than daily) smokers.

<sup>2</sup> During the last 30 days.

## 8.2.2 Health Warnings on Smokeless Packages and Thinking about Quitting

Table 8.2a shows the percentage of current smokeless tobacco users age 15 years and above who noticed health warnings on smokeless tobacco packages and considered quitting because of the warning labels during the last 30 days prior to the survey by selected demographic characteristics. Overall, only 8.8% of current adult smokeless users had noticed health warnings on smokeless packages and only 5.3% had thought about quitting because of the warning labels.

The results also show that among adult current smokeless tobacco users, Two times more males (11.3%) than females (5.3%) have noticed health warnings on smokeless tobacco packages. Only 8.4% of males and 1.1% of females thought of quitting because of the warning labels on the packages. About 3.6% of those in the age group 25–44 and 21.2% of those aged 45–64 years among current smokeless tobacco users noticed the warnings on packages. Similar patterns were observed among adults who noticed the warnings on the packages and thought of quitting because of warning labels. About 2.0% of those aged 25–44 years and 14.5% for those aged 45–64 years noticed the warnings on packages and thought about quitting because of them.

The data further indicates that among current smokeless tobacco users, the urban dwellers (18.4%) were almost three times more to notice health warning than those in rural areas (6.5%). Similarly, those residing in urban areas (15.9%) were five times more likely to think of quitting because of warning labels than their rural counterparts (2.8%).

The analysis shows that more current smokeless tobacco users who noticed health warnings on the packages had completed primary level of education (24.1%), followed by those with no formal education (6.4%). Similar patterns were observed among those who thought of quitting because of warning labels. Those with primary school complete level of education led at 18.0%, followed by those with no formal education at 2.4%.

**Table 8.2a:** Percentage of current smokeless tobacco users  $\geq 15$  years old who noticed health warnings on smokeless packages and considered quitting because of the warning labels during the last 30 days, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Current smokeless users <sup>1</sup> who...	
	Noticed health warnings on package <sup>2</sup>	Thought about quitting because of warning label <sup>2</sup>
	<i>Percentage (95% CI)</i>	
<b>Overall</b>	8.8 (4.3, 17.2)	5.3 (2.0, 13.4)
<i>Gender</i>		
Male	11.3 (4.8, 24.3)	8.4 (2.8, 22.6)
Female	5.3 (1.2, 21.1)	1.1 (0.2, 5.0)
<i>Age (years)</i>		
15-24	*	*
25-44	3.6 (1.4, 9.0)	2.0 (0.5, 7.3)
45-64	21.2 (8.8, 42.9)	14.5 (4.7, 37.0)
65+	0.0	0.0
<i>Residence</i>		
Urban	18.4 (5.3, 47.8)	15.9 (3.7, 48.1)
Rural	6.5 (2.8, 14.2)	2.8 (0.9, 8.1)
<i>Education Level</i>		
No formal education	6.4 (2.1, 17.7)	2.4 (0.5, 9.9)
Less than primary school completed	1.6 (0.3, 8.6)	1.4 (0.2, 9.0)
Primary school completed	24.1 (9.3, 49.7)	18.0 (5.2, 46.7)
Secondary school completed or above	*	*

<sup>1</sup> Includes daily and occasional (less than daily) users.

<sup>2</sup> During the last 30 days.

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.

## Noticing Cigarette Marketing

This section discusses how often adults noticed cigarette advertisements or promotions in different places in the last 30 days.

### 8.3.1 Adults Who Noticed Cigarette Marketing

Table 8.3a shows the percentages of adults aged 15 years and above who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics. Overall, about one in four (25.2%) adults in Kenya had noticed any advertisements, sponsorship, or promotion of cigarettes in the last 30 days. Twenty-nine percent of males and 21.4% of females noticed any advertisements, sponsorship, or promotion. Among males, the most common places for noticing advertisements of cigarettes were stores (7.1%), radio (5.0%), posters (2.9%), and television (2.8%). For females, stores (3.3%), radio (3.2%), posters (2.2%), newspapers or magazines (2.0%), and cinema (2.0%) were the most common places for noticing advertisements of cigarettes.

When ranked in order of highest to lowest places or media where advertisements were most likely to be noticed, stores (5.2%) were the most common, followed by radio (4.1%), posters (2.5%), television (2.2%), newspapers or magazines (2.0%), cinemas (2.0%), public walls (1.8%), billboards (1.7%), internet (1.6%), somewhere else (1.4%), and public transport (1.3%). The top three places where cigarette promotions were noticed across all demographic subgroups were clothing/items with a cigarette brand name or logo; sale prices; and free samples or free gifts/discounts on other products.

**Table 8.3a:** Percentage of adults  $\geq 15$  years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Kenya, 2014

Places	Gender		Age (years)		Residence		
	Overall	Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<i>Noticed advertisements</i>							
In stores	5.2 (4.2, 6.3)	7.1 (5.8, 8.7)	3.3 (2.6, 4.3)	5.4 (3.8, 7.5)	5.1 (4.1, 6.3)	5.5 (3.9, 7.8)	5.0 (3.9, 6.3)
On television	2.2 (1.6, 3.0)	2.8 (2.0, 3.9)	1.6 (1.0, 2.6)	1.6 (0.9, 2.6)	2.6 (1.7, 3.7)	3.2 (2.1, 4.9)	1.7 (1.1, 2.6)
On the radio	4.1 (3.2, 5.3)	5.0 (3.5, 7.0)	3.2 (2.3, 4.5)	3.0 (1.8, 5.1)	4.7 (3.5, 6.3)	3.3 (2.3, 4.8)	4.5 (3.2, 6.2)
On billboards	1.7 (1.1, 2.6)	2.1 (1.3, 3.3)	1.4 (0.7, 2.7)	1.8 (0.9, 3.6)	1.7 (1.1, 2.5)	2.8 (1.4, 5.3)	1.2 (0.7, 1.8)
On posters	2.5 (1.7, 3.7)	2.9 (2.0, 4.1)	2.2 (1.2, 4.1)	2.8 (1.6, 5.0)	2.4 (1.6, 3.5)	3.7 (2.0, 6.8)	1.9 (1.3, 2.8)
In newspapers or magazines	2.0 (1.2, 3.1)	1.9 (1.2, 3.0)	2.0 (1.0, 4.0)	2.2 (1.0, 4.8)	1.8 (1.1, 2.9)	3.0 (1.5, 6.2)	1.4 (0.8, 2.3)
In cinemas	2.0 (1.2, 3.2)	2.0 (1.2, 3.3)	2.0 (0.9, 4.3)	2.9 (1.4, 6.0)	1.4 (0.9, 2.4)	4.4 (2.5, 7.6)	0.7 (0.3, 1.4)
On the internet	1.6 (0.8, 3.0)	1.7 (1.0, 3.0)	1.4 (0.6, 3.3)	2.2 (1.0, 4.8)	1.2 (0.6, 2.2)	3.6 (1.7, 7.4)	0.4 (0.2, 1.1)
On public transportation	1.3 (0.9, 2.0)	1.5 (0.9, 2.6)	1.1 (0.7, 2.0)	1.0 (0.5, 2.1)	1.5 (1.0, 2.3)	1.6 (0.8, 3.1)	1.2 (0.8, 1.9)
On public walls	1.8 (1.3, 2.5)	2.2 (1.4, 3.4)	1.4 (0.9, 2.2)	1.5 (0.8, 3.0)	1.9 (1.3, 2.8)	1.9 (1.1, 3.1)	1.7 (1.2, 2.6)
Somewhere else	1.4 (0.8, 2.4)	1.5 (0.9, 2.8)	1.3 (0.5, 3.3)	1.9 (0.9, 4.2)	1.1 (0.7, 1.9)	0.8 (0.3, 1.7)	1.8 (0.9, 3.3)
Noticed sports sponsorship	2.0 (1.2, 3.2)	2.8 (1.5, 5.3)	1.2 (0.7, 2.0)	2.2 (1.1, 4.4)	1.9 (1.2, 2.9)	1.8 (0.8, 4.2)	2.1 (1.2, 3.6)
<i>Noticed cigarette promotions</i>							
Free samples	2.1 (1.2, 3.5)	3.1 (2.0, 5.0)	1.1 (0.5, 2.6)	2.1 (0.9, 4.9)	2.0 (1.3, 3.3)	3.1 (1.3, 7.5)	1.5 (0.9, 2.5)
Sale prices	7.5 (6.1, 9.2)	8.5 (6.5, 11.1)	6.5 (5.1, 8.2)	7.2 (5.1, 10.2)	7.6 (5.9, 9.9)	8.3 (6.4, 10.7)	7.1 (5.3, 9.4)
Coupons	0.9 (0.5, 1.4)	1.3 (0.7, 2.3)	0.5 (0.3, 1.0)	0.9 (0.4, 2.2)	0.9 (0.6, 1.3)	0.8 (0.3, 1.8)	0.9 (0.5, 1.6)
Free gifts/discounts on other products	2.1 (1.4, 3.1)	2.5 (1.4, 4.4)	1.7 (0.9, 2.9)	2.1 (1.0, 4.5)	2.0 (1.2, 3.3)	2.0 (0.9, 4.1)	2.1 (1.3, 3.4)
Clothing/item with brand name or logo	10.1 (8.4, 12.1)	11.8 (9.4, 14.6)	8.6 (6.8, 10.8)	9.5 (6.9, 12.9)	10.5 (8.6, 12.8)	12.1 (9.0, 16.0)	9.1 (7.2, 11.4)
Mail promoting cigarettes	0.2 (0.1, 0.5)	0.4 (0.1, 1.0)	0.1 (0.0, 0.4)	0.2 (0.0, 1.1)	0.3 (0.1, 0.6)	0.4 (0.1, 1.1)	0.2 (0.1, 0.5)
<b>Noticed any advertisement, sponsorship, or promotion</b>	<b>25.2 (22.2, 28.4)</b>	<b>29.1 (25.5, 32.9)</b>	<b>21.4 (18.1, 25.3)</b>	<b>25.5 (21.7, 29.8)</b>	<b>25.0 (21.8, 28.5)</b>	<b>28.7 (22.8, 35.3)</b>	<b>23.3 (20.1, 26.8)</b>



### **8.3.2 Current Smokers Who Noticed Cigarette Marketing**

Table 8.3b presents the percentages of current smokers aged 15 years and above who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics. Overall, 35.2% of adult current smokers in Kenya had noticed any advertisements, sponsorship, or promotion of cigarettes in the last 30 days. Similar proportions of current smokers who resided in urban areas (36.0%) and those who resided in rural areas (34.8%) noticed any cigarette marketing.

Among male current smokers, the most common places for noticing advertisements of cigarettes were stores (8.1%), radio (5.3%), public walls (4.3%), sports sponsorship (2.6%), and television (2.0%). For female current smokers, cigarette advertisements were more noticed on radio (5.0%), posters (3.5%), public walls (3.5%), and television (1.9%).

When ranked in order of highest to lowest places or media where advertisements were most likely to be noticed, stores (7.7%) were the most common, followed by radio (5.3%), public walls (4.3%), television (2.0%), somewhere else (1.9%), and posters (1.4%).

The top three places where cigarette promotions were noticed across all demographic subgroups were clothing/items with a cigarette brand name or logo; sale prices; and free gifts/discounts on other products or free samples.

**Table 8.3b:** Percentage of current smokers  $\geq 15$  years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Kenya, 2014.

Places	Overall	Gender		Age (years)		Residence	
		Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<i>Noticed advertisements</i>							
In stores	7.7 (4.9, 11.8)	8.1 (5.2, 12.4)	0.0	7.6 (1.4, 31.9)	7.7 (4.9, 12.0)	9.0 (4.0, 19.0)	7.1 (4.2, 11.7)
On television	2.0 (0.8, 4.8)	2.0 (0.8, 4.9)	1.9 (0.2, 13.3)	2.3 (0.5, 9.4)	2.0 (0.8, 5.1)	4.9 (1.7, 13.3)	0.7 (0.2, 2.9)
On the radio	5.3 (2.5, 10.9)	5.3 (2.4, 11.3)	5.0 (1.0, 20.8)	0.9 (0.1, 6.8)	5.8 (2.7, 11.9)	2.2 (0.9, 5.1)	6.7 (2.8, 15.0)
On billboards	0.9 (0.3, 2.6)	1.0 (0.4, 2.7)	0.0	0.0	1.1 (0.4, 2.9)	0.1 (0.0, 0.4)	1.4 (0.5, 3.8)
On posters	1.4 (0.6, 3.2)	1.3 (0.5, 3.2)	3.5 (0.7, 16.1)	0.9 (0.1, 6.8)	1.5 (0.6, 3.4)	1.8 (0.6, 5.2)	1.3 (0.4, 3.8)
In newspapers or magazines	0.9 (0.2, 4.4)	1.0 (0.2, 4.7)	0.0	0.0	1.0 (0.2, 5.0)	0.0 (0.0, 0.3)	1.4 (0.3, 6.7)
In cinemas	1.2 (0.6, 2.5)	1.3 (0.6, 2.6)	0.0	0.3 (0.0, 2.6)	1.3 (0.6, 2.8)	2.7 (1.2, 6.0)	0.5 (0.1, 2.4)
On the internet	0.4 (0.1, 1.8)	0.5 (0.1, 1.9)	0.0	1.0 (0.1, 7.1)	0.4 (0.1, 2.2)	1.2 (0.3, 5.7)	0.0 (0.0, 0.3)
On public transportation	1.1 (0.3, 4.2)	1.2 (0.3, 4.4)	0.0	0.0	1.3 (0.3, 4.6)	0.8 (0.2, 3.4)	1.3 (0.3, 6.5)
On public walls	4.3 (1.5, 11.7)	4.3 (1.4, 12.2)	3.5 (0.7, 16.1)	1.1 (0.2, 6.2)	4.6 (1.6, 12.9)	7.6 (1.4, 32.4)	2.7 (1.0, 7.3)
Somewhere else	1.9 (0.7, 4.8)	2.0 (0.8, 5.0)	0.0	0.0	2.1 (0.8, 5.4)	0.3 (0.0, 2.3)	2.7 (1.0, 6.9)
Noticed sports sponsorship	2.5 (0.9, 6.2)	2.6 (1.0, 6.5)	0.0	0.0	2.7 (1.1, 6.9)	1.1 (0.3, 4.4)	3.1 (1.0, 8.8)
<i>Noticed cigarette promotions</i>							
Free samples	1.7 (0.8, 3.8)	1.7 (0.7, 3.9)	1.9 (0.2, 13.3)	0.9 (0.1, 6.8)	1.8 (0.8, 4.1)	1.4 (0.7, 3.2)	1.8 (0.6, 5.2)
Sale prices	10.0 (6.2, 15.8)	9.8 (5.9, 15.8)	14.4 (4.2, 39.2)	11.5 (1.8, 47.7)	9.9 (6.2, 15.3)	6.2 (3.4, 11.2)	11.8 (6.7, 20.2)
Coupons	1.3 (0.5, 3.4)	1.4 (0.5, 3.6)	0.0	0.0	1.4 (0.5, 3.7)	0.6 (0.1, 3.7)	1.6 (0.5, 4.8)
Free gifts/discounts on other products	1.9 (0.8, 4.7)	2.0 (0.8, 4.9)	0.0	0.2 (0.0, 1.2)	2.1 (0.8, 5.2)	2.3 (0.3, 14.7)	1.7 (0.7, 3.9)
Clothing/item with brand name or logo	11.5 (8.2, 16.0)	11.8 (8.2, 16.6)	7.1 (2.9, 16.3)	7.8 (2.1, 25.3)	12.0 (8.4, 16.8)	11.3 (5.9, 20.7)	11.7 (7.8, 17.1)
Mail promoting cigarettes	1.0 (0.2, 4.4)	1.0 (0.2, 4.7)	0.0	0.0	1.1 (0.2, 4.9)	0.1 (0.0, 0.5)	1.4 (0.3, 6.7)
<b>Noticed any advertisement, sponsorship, or promotion</b>	<b>35.2 (27.8, 43.4)</b>	<b>36.0 (28.3, 44.6)</b>	<b>19.7 (7.2, 43.8)</b>	<b>27.2 (10.6, 54.2)</b>	<b>36.1 (28.6, 44.4)</b>	<b>36.0 (23.5, 50.9)</b>	<b>34.8 (26.1, 44.7)</b>

Note: Current smokers includes daily and occasional (less than daily) smokers.

### **8.3.3. Current Non-Smokers who Noticed Cigarette Marketing**

The percentages of current non-smokers age 15 years and above who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics is presented in Table 8.3c.

Overall, about 24.3% of adult current non-smokers had noticed any advertisements, sponsorship, or promotion of cigarettes in the last 30 days. About 25.5% of current non-smokers aged 15-24 years compared to 23.6% of those aged 25 years and above noticed any advertisements, sponsorship, or promotion of cigarettes.

Among male current non-smokers, the most common places for noticing advertisements of cigarettes were stores (6.9%), radio (4.9%), posters (3.1%), television (2.9%), sports sponsorship (2.9%), and billboards (2.3%). For female current non-smokers, cigarette advertisements were more noticed in stores (3.4%), on radio (3.2%), posters (2.2%), newspapers or magazines (2.0%), and cinema (2.0%).

When ranked in order of highest to lowest places/media where advertisements were most likely to be noticed by the current non-smokers, stores are first at 5.0%, followed by radio (4.0%), posters (2.6%), television (2.2%), cinema (2.1%), and newspapers or magazines (2.0%).

The top three places where cigarette promotions were noticed across all demographic subgroups were clothing/items with a cigarette brand name or logo; sale prices; and free gifts/discounts on other products or free samples.

**Table 8.3c:** Percentage of current non-smokers  $\geq 15$  years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS Kenya, 2014.

Places	Gender		Age (years)		Residence		
	Overall	Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<i>Noticed advertisements</i>							
In stores	5.0 (4.1, 6.1)	6.9 (5.5, 8.7)	3.4 (2.6, 4.4)	5.3 (3.8, 7.4)	4.7 (3.8, 6.0)	5.2 (3.7, 7.5)	4.8 (3.8, 6.1)
On television	2.2 (1.6, 3.1)	2.9 (2.0, 4.3)	1.6 (1.0, 2.6)	1.6 (0.9, 2.7)	2.6 (1.7, 3.9)	3.1 (1.9, 4.8)	1.8 (1.1, 2.8)
On the radio	4.0 (3.0, 5.2)	4.9 (3.2, 7.5)	3.2 (2.3, 4.5)	3.1 (1.8, 5.2)	4.5 (3.2, 6.4)	3.4 (2.3, 5.0)	4.3 (3.0, 6.1)
On billboards	1.8 (1.1, 2.8)	2.3 (1.4, 3.7)	1.4 (0.7, 2.7)	1.8 (0.9, 3.7)	1.8 (1.2, 2.8)	3.0 (1.6, 5.6)	1.2 (0.7, 1.9)
On posters	2.6 (1.8, 3.9)	3.1 (2.1, 4.6)	2.2 (1.2, 4.1)	2.9 (1.6, 5.1)	2.5 (1.7, 3.7)	3.8 (2.0, 7.2)	2.0 (1.3, 2.9)
In newspapers or magazines	2.0 (1.3, 3.3)	2.1 (1.3, 3.3)	2.0 (1.0, 4.0)	2.3 (1.0, 4.9)	1.9 (1.2, 3.2)	3.3 (1.6, 6.7)	1.4 (0.8, 2.4)
In cinemas	2.1 (1.2, 3.4)	2.2 (1.2, 3.7)	2.0 (0.9, 4.4)	3.0 (1.4, 6.2)	1.5 (0.8, 2.5)	4.6 (2.5, 8.1)	0.7 (0.3, 1.4)
On the internet	1.6 (0.8, 3.2)	1.9 (1.1, 3.5)	1.4 (0.6, 3.3)	2.3 (1.0, 4.9)	1.3 (0.6, 2.5)	3.8 (1.8, 7.9)	0.5 (0.2, 1.2)
On public transportation	1.4 (0.9, 2.1)	1.6 (0.9, 3.0)	1.1 (0.7, 2.0)	1.0 (0.5, 2.1)	1.6 (1.0, 2.4)	1.7 (0.8, 3.3)	1.2 (0.7, 2.0)
On public walls	1.6 (1.1, 2.2)	1.8 (1.1, 3.1)	1.4 (0.9, 2.2)	1.6 (0.8, 3.1)	1.6 (1.0, 2.4)	1.4 (0.9, 2.4)	1.7 (1.1, 2.6)
Somewhere else	1.4 (0.8, 2.5)	1.5 (0.8, 2.8)	1.3 (0.5, 3.4)	2.0 (0.9, 4.3)	1.0 (0.5, 1.9)	0.8 (0.3, 1.8)	1.7 (0.9, 3.4)
Noticed sports sponsorship	2.0 (1.2, 3.2)	2.9 (1.4, 5.8)	1.2 (0.7, 2.0)	2.3 (1.1, 4.5)	1.7 (1.0, 2.9)	1.9 (0.8, 4.5)	2.0 (1.1, 3.7)
<i>Noticed cigarette promotions</i>							
Free samples	2.1 (1.2, 3.7)	3.4 (2.0, 5.6)	1.1 (0.5, 2.6)	2.2 (0.9, 5.0)	2.1 (1.2, 3.5)	3.2 (1.3, 8.0)	1.5 (0.9, 2.6)
Sale prices	7.3 (5.9, 8.9)	8.3 (6.2, 11.0)	6.5 (5.1, 8.2)	7.1 (5.0, 10.1)	7.4 (5.6, 9.7)	8.4 (6.5, 10.9)	6.7 (4.9, 8.9)
Coupons	0.8 (0.5, 1.4)	1.3 (0.6, 2.5)	0.5 (0.3, 1.0)	0.9 (0.4, 2.2)	0.8 (0.5, 1.3)	0.8 (0.3, 1.9)	0.9 (0.5, 1.6)
Free gifts/discounts on other products	2.1 (1.4, 3.1)	2.6 (1.4, 4.6)	1.7 (0.9, 2.9)	2.2 (1.0, 4.6)	2.0 (1.2, 3.3)	1.9 (1.0, 3.8)	2.2 (1.3, 3.6)
Clothing/item with brand name or logo	10.0 (8.3, 12.1)	11.8 (9.2, 14.9)	8.6 (6.8, 10.8)	9.5 (6.9, 13.0)	10.3 (8.3, 12.8)	12.1 (8.9, 16.3)	8.9 (6.9, 11.3)
Mail promoting cigarettes	0.2 (0.1, 0.5)	0.2 (0.1, 0.9)	0.1 (0.0, 0.4)	0.2 (0.0, 1.2)	0.2 (0.1, 0.4)	0.4 (0.1, 1.2)	0.1 (0.0, 0.3)
<b>Noticed any advertisement, sponsorship, or promotion</b>	<b>24.3 (21.3, 27.7)</b>	<b>27.9 (23.8, 32.3)</b>	<b>21.5 (18.0, 25.3)</b>	<b>25.5 (21.5, 29.8)</b>	<b>23.6 (20.4, 27.2)</b>	<b>28.1 (22.3, 34.7)</b>	<b>22.3 (19.0, 26.0)</b>

Note: Current non-smokers includes former and never smokers.

## **Noticing Smokeless Tobacco Marketing**

This section discusses how often adults noticed smokeless tobacco advertisements or promotions in different places in the last 30 days.

### **8.4.1 Adults Who Noticed Smokeless Tobacco Marketing**

Table 8.4a shows the percentage of adults aged 15 years and older who noticed smokeless tobacco marketing during the last 30 days in various places, by selected demographic characteristics. Overall, about 13.2% of adults in Kenya had noticed any advertisements, sponsorship, or promotion of smokeless tobacco in the last 30 days. About 15.0% of males compared to 11.5% of females noticed any advertisements, sponsorship, or promotion of smokeless tobacco products.

The survey further shows that 14.3% adults aged 15-24 years compared to 12.6% of those aged 25 years and above noticed advertisements of smokeless tobacco products. Among males, the most common places for noticing advertisements of smokeless tobacco products were stores (4.0%), radio (1.9%), and posters (1.2%). For females, radio (1.7%) and stores (1.6%) were the most common places for noticing advertisements of smokeless tobacco products.

When ranked in order of highest to lowest places or media where advertisements of smokeless tobacco products were most likely to be noticed, stores (2.8%) were first, followed by radio (1.8%), posters (1.0%), newspapers or magazines (0.5%), billboards (0.5%), and somewhere else (0.3%).

The top three places where smokeless tobacco products promotions were noticed across all demographic subgroups were sale prices; free samples; and free gifts/discounts on other products and clothing/items with smokeless tobacco brand name or logo.

**Table 8.4a:** Percentage of adults  $\geq 15$  years old who noticed smokeless tobacco marketing during the last 30 days in various places, by selected demographic characteristics – GATS Kenya, 2014.

Places	Gender		Age (years)		Residence		
	Overall	Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<i>Noticed advertisements</i>							
In stores	2.8 (1.6, 4.8)	4.0 (1.8, 8.3)	1.6 (1.2, 2.2)	2.7 (1.1, 6.5)	2.8 (1.7, 4.5)	2.3 (1.5, 3.5)	3.0 (1.4, 6.4)
On television	0.8 (0.5, 1.1)	0.8 (0.5, 1.3)	0.8 (0.5, 1.3)	0.5 (0.3, 1.1)	0.9 (0.6, 1.5)	1.1 (0.6, 2.0)	0.6 (0.4, 1.0)
On the radio	1.8 (1.1, 2.8)	1.9 (0.9, 3.9)	1.7 (1.0, 2.8)	1.5 (0.6, 3.5)	1.9 (1.2, 3.2)	1.3 (0.7, 2.5)	2.0 (1.1, 3.7)
On billboards	0.5 (0.3, 0.8)	0.6 (0.3, 1.2)	0.4 (0.2, 0.8)	0.4 (0.1, 1.2)	0.5 (0.3, 0.9)	0.6 (0.3, 1.4)	0.4 (0.2, 0.8)
On posters	1.0 (0.6, 1.5)	1.2 (0.7, 2.1)	0.8 (0.5, 1.2)	0.5 (0.2, 1.3)	1.3 (0.7, 2.1)	0.8 (0.4, 1.6)	1.1 (0.6, 1.9)
In newspapers or magazines	0.5 (0.3, 0.8)	0.7 (0.3, 1.4)	0.3 (0.1, 0.7)	0.4 (0.2, 1.2)	0.5 (0.3, 1.0)	0.7 (0.4, 1.2)	0.4 (0.2, 0.8)
In cinemas	0.6 (0.3, 1.1)	0.9 (0.5, 1.6)	0.4 (0.2, 0.9)	0.7 (0.2, 1.8)	0.6 (0.3, 1.1)	1.2 (0.5, 2.6)	0.3 (0.1, 0.8)
On the internet	0.8 (0.4, 1.7)	0.8 (0.4, 1.4)	0.8 (0.2, 2.9)	1.5 (0.5, 4.0)	0.4 (0.2, 0.9)	2.0 (0.9, 4.4)	0.1 (0.1, 0.3)
On public transportation	0.6 (0.4, 1.0)	0.5 (0.2, 1.1)	0.7 (0.3, 1.4)	0.1 (0.0, 0.4)	0.9 (0.5, 1.5)	0.5 (0.3, 0.9)	0.7 (0.3, 1.3)
On public walls	0.6 (0.4, 1.0)	0.5 (0.3, 0.8)	0.8 (0.4, 1.4)	0.3 (0.1, 0.6)	0.8 (0.5, 1.3)	0.6 (0.3, 1.0)	0.6 (0.3, 1.2)
Somewhere else	0.3 (0.2, 0.7)	0.3 (0.1, 0.9)	0.4 (0.1, 0.8)	0.2 (0.1, 0.9)	0.4 (0.2, 0.9)	0.5 (0.2, 1.4)	0.2 (0.1, 0.6)
Noticed sports sponsorship	0.7 (0.3, 1.5)	0.9 (0.3, 2.2)	0.5 (0.2, 1.3)	1.1 (0.4, 3.2)	0.5 (0.2, 0.8)	0.2 (0.1, 0.5)	0.9 (0.4, 2.2)
<i>Noticed cigarette promotions</i>							
Free samples	2.3 (1.4, 3.8)	3.4 (1.8, 6.2)	1.3 (0.8, 2.1)	2.3 (1.0, 5.0)	2.3 (1.2, 4.6)	1.2 (0.7, 2.2)	2.9 (1.6, 5.2)
Sale prices	5.8 (4.5, 7.4)	6.6 (5.0, 8.7)	5.0 (3.7, 6.9)	6.5 (4.3, 9.6)	5.4 (3.9, 7.4)	5.8 (3.7, 8.9)	5.8 (4.3, 7.8)
Coupons	0.8 (0.5, 1.2)	0.9 (0.4, 2.1)	0.7 (0.3, 1.4)	0.9 (0.5, 1.6)	0.7 (0.4, 1.3)	0.4 (0.2, 0.9)	1.0 (0.6, 1.7)
Free gifts/discounts on other products	1.7 (0.7, 3.9)	2.6 (0.9, 7.4)	0.8 (0.4, 1.4)	2.2 (0.8, 6.0)	1.4 (0.6, 3.0)	0.5 (0.2, 1.3)	2.3 (0.9, 5.8)
Clothing/item with brand name or logo	2.3 (1.7, 3.3)	2.8 (1.8, 4.4)	1.9 (1.3, 2.7)	2.3 (1.3, 4.3)	2.3 (1.5, 3.6)	1.9 (1.3, 2.6)	2.6 (1.6, 4.0)
Mail promoting cigarettes	0.2 (0.1, 0.4)	0.2 (0.0, 0.8)	0.2 (0.1, 0.5)	0.2 (0.0, 1.2)	0.2 (0.1, 0.4)	0.2 (0.1, 1.1)	0.2 (0.1, 0.3)
<b>Noticed any advertisement, sponsorship, or promotion</b>	<b>13.2 (11.0, 15.8)</b>	<b>15.0 (11.8, 18.9)</b>	<b>11.5 (9.5, 14.0)</b>	<b>14.3 (10.5, 19.2)</b>	<b>12.6 (10.6, 15.0)</b>	<b>13.2 (10.2, 17.1)</b>	<b>13.2 (10.3, 16.8)</b>

### **8.4.2 Current Smokeless Users Who Noticed Smokeless Tobacco Marketing**

The percentages of current smokeless users aged 15 years and above who noticed smokeless tobacco marketing during the last 30 days in various places, by selected demographic characteristics is shown in Table 8.4b.

Overall, 12.9% of adult current smokeless tobacco users in Kenya had noticed any advertisements, sponsorship, or promotion of smokeless tobacco in the last 30 days. There was no difference between adult current smokeless tobacco users who resided in urban areas (14.4%) and those who resided in rural areas (12.6%) in noticing any advertisements, sponsorship, or promotion of smokeless tobacco products.

Among male current smokeless tobacco users, the most common places for noticing advertisements of smokeless tobacco products were stores (2.9%), posters (2.0%), sports sponsorship (1.6%), and radio (1.5%). For female current smokeless users, smokeless tobacco product advertisements were more noticed in cinema (2.0%) and somewhere else (1.9%).

When ranked in order of highest to lowest places or media where advertisements were most likely to be noticed, stores (1.6%) take the lead, followed by radio (1.1%), posters (1.1%), sports sponsorship (0.9%), cinema (0.8%), and somewhere else (0.8%).

The top three places where cigarette promotions were noticed across all demographic subgroups were sale prices; free samples; and clothing/items with a cigarette brand name or logo.

**Table 8.4b:** Percentage of current smokeless users  $\geq 15$  years old who noticed smokeless tobacco marketing during the last 30 days in various places, by selected demographic characteristics – GATS Kenya, 2014.

Places	Overall	Gender		Age (years)		Residence	
		Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<i>Noticed advertisements</i>							
In stores	1.6 (0.4, 6.1)	2.9 (0.7, 10.4)	0.0	*	1.8 (0.5, 6.8)	0.9 (0.2, 3.7)	1.8 (0.4, 7.7)
On television	0.0	0.0	0.0	*	0.0	0.0	0.0
On the radio	1.1 (0.2, 5.6)	1.5 (0.2, 10.6)	0.6 (0.1, 4.0)	*	1.2 (0.2, 6.2)	0.0	1.4 (0.3, 6.8)
On billboards	0.2 (0.0, 1.7)	0.0	0.6 (0.1, 4.0)	*	0.3 (0.0, 1.9)	0.0	0.3 (0.0, 2.1)
On posters	1.1 (0.1, 8.1)	2.0 (0.2, 14.0)	0.0	*	1.3 (0.2, 9.0)	0.0	1.4 (0.2, 10.0)
In newspapers or magazines	0.0	0.0	0.0	*	0.0	0.0	0.0
In cinemas	0.8 (0.1, 6.1)	0.0	2.0 (0.2, 13.9)	*	0.9 (0.1, 6.8)	4.4 (0.5, 30.0)	0.0
On the internet	0.0	0.0	0.0	*	0.0	0.0	0.0
On public transportation	0.0	0.0	0.0	*	0.0	0.0	0.0
On public walls	0.0	0.0	0.0	*	0.0	0.0	0.0
Somewhere else	0.8 (0.1, 5.7)	0.0	1.9 (0.3, 12.5)	*	0.9 (0.1, 6.3)	4.2 (0.6, 24.6)	0.0
Noticed sports sponsorship	0.9 (0.1, 6.0)	1.6 (0.2, 10.3)	0.0	*	1.0 (0.2, 6.7)	0.2 (0.0, 1.5)	1.1 (0.1, 7.6)
<i>Noticed cigarette promotions</i>							
Free samples	3.0 (1.8, 5.1)	1.5 (0.3, 7.7)	5.0 (4.0, 6.3)	*	3.3 (1.9, 5.7)	0.9 (0.2, 3.7)	3.5 (2.0, 6.1)
Sale prices	5.7 (2.7, 11.8)	9.2 (4.1, 19.6)	1.1 (0.5, 2.3)	*	5.1 (2.0, 12.5)	2.8 (1.3, 5.8)	6.4 (2.8, 14.1)
Coupons	0.7 (0.1, 5.0)	1.2 (0.2, 8.7)	0.0	*	0.8 (0.1, 5.6)	0.0	0.9 (0.1, 6.2)
Free gifts/discounts on other products	0.3 (0.1, 1.1)	0.5 (0.1, 2.0)	0.2 (0.0, 1.3)	*	0.4 (0.1, 1.3)	1.8 (0.5, 6.1)	0.0
Clothing/item with brand name or logo	0.6 (0.2, 1.5)	1.1 (0.4, 2.6)	0.0	*	0.7 (0.3, 1.6)	3.2 (1.3, 7.8)	0.0
Mail promoting cigarettes	0.0	0.0	0.0	*	0.0	0.0	0.0
<b>Noticed any advertisement, sponsorship, or promotion</b>	<b>12.9 (8.9, 18.4)</b>	<b>14.8 (8.5, 24.4)</b>	<b>10.5 (8.1, 13.4)</b>	<b>*</b>	<b>13.1 (8.7, 19.2)</b>	<b>14.4 (9.1, 22.1)</b>	<b>12.6 (8.0, 19.3)</b>

Note: Current smokeless users includes daily and occasional (less than daily) users.



### **8.4.3 Current Non-Users of Smokeless Tobacco Who Noticed Smokeless Tobacco Marketing**

Table 8.4c presents the percentages of current non-users of smokeless tobacco aged 15 years and older who noticed smokeless tobacco marketing during the last 30 days in various places, by selected demographic characteristics.

Overall, about 13.3% of adult current non-users of smokeless tobacco had noticed any advertisements, sponsorship, or promotion of smokeless tobacco products in the last 30 days. There was no difference between current non-users of smokeless tobacco who resided in urban areas (13.2%) and those who resided in rural areas (13.3%) in noticing any advertisements, sponsorship, or promotion of smokeless tobacco products.

The survey shows that among male current non-users of smokeless tobacco products, the most common places for noticing advertisements of smokeless tobacco were stores (4.0%), radio (1.9%), and posters (1.1%). For female current non-users of smokeless tobacco, smokeless tobacco advertisements were more noticed on radio (1.8%) and in stores (1.7%).

When ranked in order of highest to lowest places or media where advertisements were most likely to be noticed by the current non-users of smokeless tobacco, stores led at 2.8%, followed by radio (1.8%), posters (1.0%), television (0.8%), and internet (0.8%).

The top three places where smokeless tobacco products promotions were noticed across all demographic subgroups were sale prices; free samples; and clothing/items with a smokeless brand name or logo.

**Table 8.4c:** Percentage of current non-users of smokeless tobacco ≥15 years old who noticed smokeless tobacco marketing during the last 30 days in various places, by selected demographic characteristics – GATS Kenya, 2014.

Places	Gender		Age (years)		Residence		
	Overall	Male	Female	15-24	25+	Urban	Rural
<i>Percentage (95% CI)</i>							
<i>Noticed advertisements</i>							
In stores	2.8 (1.6, 5.0)	4.0 (1.8, 8.8)	1.7 (1.2, 2.3)	2.7 (1.1, 6.6)	2.8 (1.7, 4.7)	2.3 (1.5, 3.5)	3.1 (1.4, 6.8)
On television	0.8 (0.6, 1.2)	0.8 (0.5, 1.4)	0.8 (0.5, 1.4)	0.5 (0.3, 1.1)	1.0 (0.6, 1.6)	1.2 (0.7, 2.0)	0.6 (0.4, 1.1)
On the radio	1.8 (1.1, 2.9)	1.9 (0.9, 4.0)	1.8 (1.1, 2.9)	1.5 (0.6, 3.6)	2.0 (1.2, 3.3)	1.3 (0.7, 2.5)	2.1 (1.1, 3.8)
On billboards	0.5 (0.3, 0.8)	0.7 (0.3, 1.2)	0.4 (0.1, 0.8)	0.4 (0.1, 1.2)	0.6 (0.3, 1.0)	0.6 (0.3, 1.4)	0.4 (0.2, 0.9)
On posters	1.0 (0.6, 1.5)	1.1 (0.6, 2.1)	0.8 (0.5, 1.3)	0.5 (0.2, 1.3)	1.3 (0.7, 2.2)	0.8 (0.4, 1.6)	1.1 (0.6, 1.9)
In newspapers or magazines	0.5 (0.3, 0.8)	0.7 (0.3, 1.5)	0.3 (0.1, 0.7)	0.4 (0.2, 1.2)	0.5 (0.3, 1.0)	0.7 (0.4, 1.3)	0.4 (0.2, 0.9)
In cinemas	0.6 (0.3, 1.1)	0.9 (0.5, 1.7)	0.3 (0.1, 0.9)	0.7 (0.3, 1.8)	0.6 (0.3, 1.0)	1.1 (0.5, 2.4)	0.4 (0.1, 0.8)
On the internet	0.8 (0.4, 1.8)	0.8 (0.4, 1.4)	0.8 (0.2, 3.0)	1.5 (0.5, 4.0)	0.4 (0.2, 1.0)	2.1 (0.9, 4.5)	0.1 (0.1, 0.3)
On public transportation	0.6 (0.4, 1.0)	0.5 (0.2, 1.2)	0.7 (0.4, 1.4)	0.1 (0.0, 0.5)	0.9 (0.6, 1.6)	0.5 (0.3, 1.0)	0.7 (0.4, 1.3)
On public walls	0.6 (0.4, 1.0)	0.5 (0.3, 0.9)	0.8 (0.4, 1.4)	0.3 (0.1, 0.6)	0.9 (0.5, 1.4)	0.6 (0.3, 1.1)	0.7 (0.4, 1.3)
Somewhere else	0.3 (0.1, 0.6)	0.3 (0.1, 1.0)	0.3 (0.1, 0.8)	0.2 (0.1, 0.9)	0.4 (0.2, 0.9)	0.4 (0.1, 1.3)	0.3 (0.1, 0.6)
Noticed sports sponsorship	0.7 (0.3, 1.5)	0.8 (0.3, 2.3)	0.5 (0.2, 1.3)	1.1 (0.4, 3.2)	0.4 (0.2, 0.8)	0.2 (0.1, 0.6)	0.9 (0.4, 2.2)
<i>Noticed cigarette promotions</i>							
Free samples	2.3 (1.3, 3.9)	3.5 (1.8, 6.6)	1.2 (0.7, 2.0)	2.3 (1.0, 5.1)	2.3 (1.1, 4.8)	1.2 (0.7, 2.2)	2.9 (1.5, 5.4)
Sale prices	5.8 (4.5, 7.4)	6.4 (4.8, 8.6)	5.2 (3.8, 7.1)	6.4 (4.3, 9.5)	5.4 (4.0, 7.3)	5.9 (3.7, 9.0)	5.8 (4.3, 7.8)
Coupons	0.8 (0.5, 1.2)	0.9 (0.4, 2.0)	0.7 (0.3, 1.5)	0.9 (0.5, 1.6)	0.7 (0.4, 1.2)	0.4 (0.2, 1.0)	1.0 (0.6, 1.6)
Free gifts/discounts on other products	1.7 (0.7, 4.1)	2.7 (0.9, 7.9)	0.8 (0.5, 1.5)	2.2 (0.8, 6.1)	1.5 (0.7, 3.2)	0.5 (0.2, 1.2)	2.4 (0.9, 6.2)
Clothing/item with brand name or logo	2.4 (1.7, 3.4)	2.9 (1.9, 4.6)	1.9 (1.3, 2.8)	2.4 (1.3, 4.3)	2.4 (1.6, 3.8)	1.8 (1.3, 2.6)	2.7 (1.7, 4.3)
Mail promoting cigarettes	0.2 (0.1, 0.4)	0.2 (0.0, 0.9)	0.2 (0.1, 0.5)	0.2 (0.0, 1.2)	0.2 (0.1, 0.4)	0.3 (0.1, 1.2)	0.2 (0.1, 0.3)
<b>Noticed any advertisement, sponsorship, or promotion</b>	<b>13.3 (10.9, 16.1)</b>	<b>15.0 (11.6, 19.3)</b>	<b>11.6 (9.4, 14.1)</b>	<b>14.3 (10.5, 19.3)</b>	<b>12.6 (10.4, 15.1)</b>	<b>13.2 (10.0, 17.2)</b>	<b>13.3 (10.1, 17.2)</b>

Note: Current non-smokeless users includes former and never users.

## 9. KNOWLEDGE, ATTITUDES AND PERCEPTIONS

This chapter provides information on knowledge, attitudes, and perceptions of the dangers of tobacco smoking and secondhand smoke exposure. It seeks to provide information on what people know and believe concerning tobacco smoking and use and tobacco exposure. Specifically, it seeks knowledge, attitudes, and perceptions on whether it causes serious illness and diseases such as stroke, heart attack, lung cancer, high blood pressure, bladder cancer, throat cancer, stomach cancer, miscarriage, infertility, impotence, bone loss (osteoporosis), premature birth, and low birth weight. Lastly, it gives information concerning awareness of the 2007 Tobacco Control Act and support for increasing taxes on tobacco products.

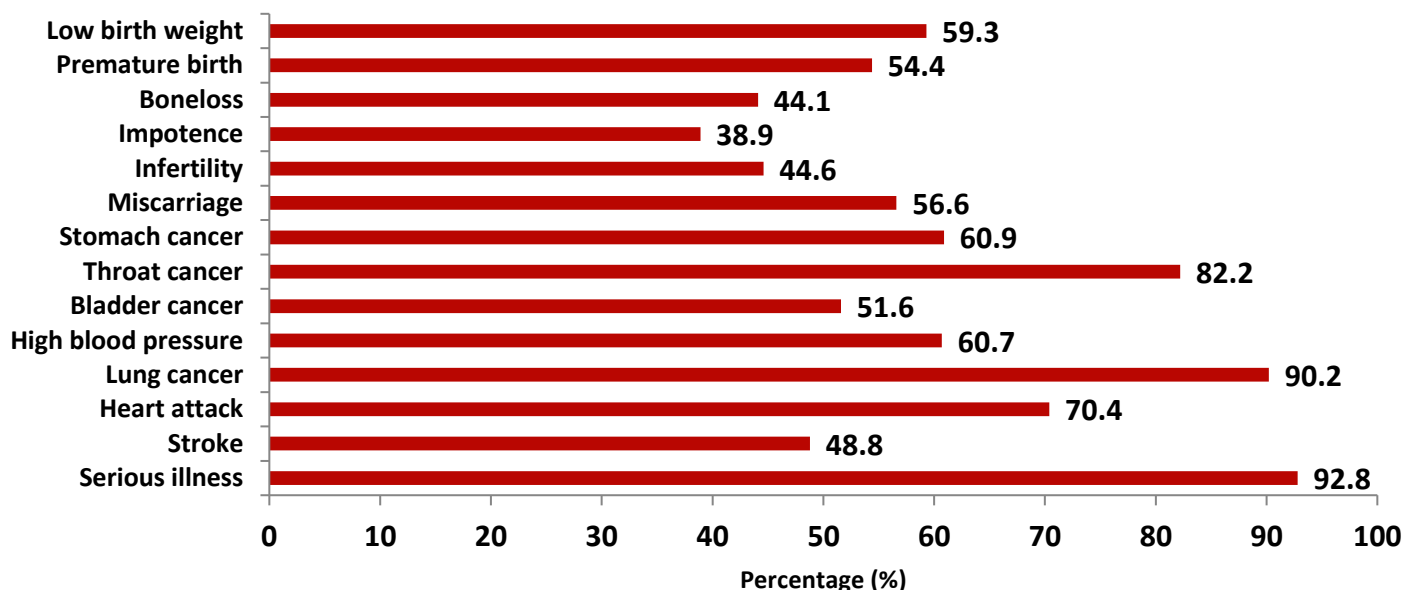
### Beliefs that Smoking Causes Serious Illness

Table 9.1 shows the percentages of adults aged 15 years and above who believe that smoking causes serious illness and various diseases by smoking status and selected demographic characteristics, while Figure 9.1 shows the percentages of adults  $\geq 15$  years old who believe that smoking causes serious illness and various diseases.

Overall, 92.8% believed that smoking causes serious illness. There was not much variation in the belief that smoking causes serious illness between males (92.9%) and females (92.7%). Among age groups, the proportion of adults who believed smoking causes serious illness ranged from 88.6% to 94.4% for 45-64 and 15-24 years, respectively. By education, the results show considerable differences in the belief that smoking causes serious illness, with 76.2% of those with no formal education believing this compared to other education levels with more than 90.0% each.

Among the other diseases, there was high belief that smoking causes lung cancer (90.2%), followed by throat cancer (82.2%), heart attack (70.4%), stomach cancer (60.9%), high blood pressure (60.7%), low birth weight (59.3%), miscarriage (56.6%), premature birth (54.4%), bladder cancer (51.6%), stroke (48.8%), infertility (44.6%), bone loss (44.1%), and impotence (38.9%). The results show that those with no formal education had a consistent low belief across all the other diseases compared to those with some level of education.

**Figure 9.1:** Percentage of adults  $\geq 15$  years old who believe that smoking causes serious illness and various diseases - GATS Kenya, 2014.



**Table 9.1:** Percentage of adults  $\geq 15$  years old who believe that smoking causes serious illness and various diseases, by smoking status and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults who believe that smoking causes...						
	Serious illness	Stroke	Heart attack	Lung cancer	High blood pressure	Bladder cancer	Throat cancer
	<i>Percentage (95% CI)</i>						
<b>Overall</b>	92.8 (90.3, 94.6)	48.8 (45.0, 52.6)	70.4 (68.5, 72.2)	90.2 (88.0, 92.0)	60.7 (56.9, 64.4)	51.6 (48.0, 55.1)	82.2 (79.4, 84.6)
<i>Gender</i>							
Male	92.9 (89.1, 95.5)	51.1 (45.9, 56.2)	69.8 (66.6, 72.7)	91.2 (88.5, 93.2)	60.6 (55.7, 65.3)	51.3 (46.2, 56.4)	80.4 (75.0, 84.9)
Female	92.7 (90.8, 94.2)	46.7 (41.8, 51.7)	71.0 (68.4, 73.4)	89.2 (86.5, 91.4)	60.8 (56.8, 64.7)	51.8 (47.9, 55.7)	83.8 (81.8, 85.7)
<i>Age (years)</i>							
15-24	94.4 (91.8, 96.1)	48.1 (42.5, 53.7)	69.2 (63.9, 74.0)	90.3 (84.7, 94.0)	60.3 (54.5, 65.8)	53.0 (45.9, 60.0)	83.2 (78.3, 87.2)
25-44	93.3 (90.7, 95.2)	48.4 (43.7, 53.0)	72.3 (68.4, 75.8)	91.5 (89.3, 93.3)	59.6 (54.3, 64.7)	50.2 (45.5, 54.9)	83.5 (81.2, 85.6)
45-64	88.6 (82.8, 92.6)	51.4 (44.9, 57.9)	69.4 (65.0, 73.5)	89.7 (86.4, 92.3)	63.9 (56.9, 70.2)	53.4 (48.1, 58.6)	79.6 (74.6, 83.8)
65+	90.7 (86.6, 93.6)	49.7 (42.2, 57.1)	67.4 (61.0, 73.1)	81.2 (75.7, 85.7)	62.2 (56.1, 67.9)	47.2 (40.2, 54.3)	73.3 (68.1, 77.9)
<i>Residence</i>							
Urban	95.1 (93.4, 96.4)	48.9 (45.5, 52.2)	70.3 (67.4, 73.0)	94.3 (92.5, 95.6)	63.8 (60.4, 67.0)	53.6 (49.7, 57.5)	87.6 (84.8, 89.9)
Rural	91.5 (87.9, 94.2)	48.8 (43.2, 54.4)	70.5 (68.0, 72.8)	88.0 (84.8, 90.5)	59.1 (53.7, 64.2)	50.5 (45.4, 55.5)	79.2 (75.5, 82.6)
<i>Education Level</i>							
No formal education	76.2 (71.9, 80.1)	30.8 (22.7, 40.4)	58.3 (48.8, 67.2)	72.8 (66.5, 78.3)	40.1 (32.0, 48.7)	35.9 (32.4, 39.6)	61.6 (56.8, 66.1)
Less than primary school completed	93.5 (91.0, 95.4)	51.0 (45.9, 56.0)	67.5 (61.5, 73.0)	88.0 (84.0, 91.2)	59.4 (54.4, 64.3)	46.8 (41.2, 52.6)	79.9 (75.8, 83.4)
Primary school completed	96.2 (93.4, 97.8)	51.1 (46.8, 55.4)	74.1 (69.6, 78.2)	93.4 (90.7, 95.4)	65.8 (61.2, 70.2)	58.0 (52.7, 63.2)	84.1 (79.4, 87.8)
Secondary school completed or above	96.1 (93.8, 97.6)	53.0 (48.7, 57.2)	74.3 (68.5, 79.4)	96.5 (93.6, 98.2)	65.7 (61.5, 69.8)	55.6 (51.4, 59.8)	91.8 (89.1, 93.8)
<i>Smoking Status</i>							
Current smoker <sup>3</sup>	88.1 (83.0, 91.9)	45.8 (38.5, 53.3)	60.2 (53.8, 66.3)	86.7 (82.1, 90.3)	52.8 (45.5, 60.0)	48.7 (42.0, 55.5)	74.2 (67.7, 79.8)
Non-smoker <sup>4</sup>	93.2 (90.5, 95.1)	49.1 (44.9, 53.2)	71.2 (69.1, 73.3)	90.4 (88.1, 92.4)	61.4 (57.2, 65.4)	51.8 (47.8, 55.8)	82.8 (79.9, 85.5)

<sup>1</sup> Includes daily and occasional (less than daily) smokers.

<sup>2</sup> Includes former and never smokers.

<sup>3</sup> Includes daily and occasional (less than daily) smokers.

<sup>4</sup> Includes former and never smokers.

**Table 9.1 (cont.):** Percentage of adults  $\geq 15$  years old who believe that smoking causes serious illness and various diseases, by smoking status and selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults who believe that smoking causes...						
	Stomach cancer	Miscarriage	Inferility	Impotence	Bone loss	Premature birth	Low birth weight
<b>Overall</b>	60.9 (57.6, 64.1)	56.6 (52.2, 60.9)	44.6 (41.5, 47.6)	38.9 (35.9, 41.9)	44.1 (40.1, 48.0)	54.4 (49.1, 59.6)	59.3 (54.5, 63.9)
<i>Gender</i>							
Male	59.6 (55.7, 63.4)	55.6 (50.0, 61.0)	45.0 (40.3, 49.8)	40.7 (36.5, 45.1)	44.7 (39.9, 49.6)	52.2 (45.7, 58.5)	56.9 (51.0, 62.7)
Female	62.1 (57.9, 66.1)	57.5 (52.7, 62.2)	44.2 (40.3, 48.1)	37.1 (33.8, 40.6)	43.4 (38.7, 48.2)	56.5 (51.1, 61.8)	61.6 (56.9, 66.1)
<i>Age (years)</i>							
15-24	59.6 (52.4, 66.4)	60.7 (53.7, 67.2)	46.3 (40.8, 51.8)	38.8 (33.0, 44.8)	44.9 (39.4, 50.5)	58.2 (50.3, 65.7)	62.4 (55.3, 69.0)
25-44	61.6 (58.1, 65.0)	56.0 (51.9, 60.0)	44.1 (41.2, 47.0)	39.6 (36.2, 43.2)	43.6 (38.4, 48.9)	54.1 (49.0, 59.2)	60.0 (55.1, 64.7)
45-64	62.7 (57.6, 67.5)	53.6 (47.3, 59.7)	43.5 (37.6, 49.5)	38.4 (32.7, 44.5)	43.6 (37.0, 50.4)	50.9 (43.6, 58.1)	55.6 (49.0, 61.9)
65+	58.6 (52.0, 64.9)	44.3 (36.3, 52.6)	40.5 (32.6, 48.9)	35.1 (26.8, 44.3)	43.6 (35.4, 52.2)	43.2 (35.0, 51.7)	46.5 (38.5, 54.6)
<i>Residence</i>							
Urban	64.3 (60.5, 67.9)	62.6 (58.2, 66.9)	46.3 (42.9, 49.8)	40.5 (35.9, 45.3)	48.8 (44.2, 53.4)	62.9 (57.7, 67.8)	66.4 (62.5, 70.1)
Rural	59.0 (54.5, 63.4)	53.3 (47.3, 59.3)	43.6 (39.4, 47.9)	38.0 (34.3, 41.8)	41.5 (36.2, 47.0)	49.8 (42.6, 57.1)	55.5 (48.8, 62.1)
<i>Education Level</i>							
No formal education	41.6 (37.2, 46.1)	33.8 (27.4, 40.8)	29.0 (25.4, 32.9)	24.3 (21.1, 27.8)	21.2 (14.8, 29.3)	27.8 (19.6, 37.9)	30.9 (22.0, 41.4)
Less than primary school completed	59.6 (53.7, 65.3)	47.1 (40.7, 53.6)	40.7 (34.5, 47.2)	34.1 (27.9, 40.9)	38.1 (32.1, 44.5)	46.1 (37.8, 54.6)	50.6 (43.6, 57.6)
Primary school completed	65.5 (60.3, 70.3)	60.3 (54.5, 65.8)	48.7 (42.7, 54.7)	42.5 (37.7, 47.3)	48.7 (44.5, 53.0)	57.0 (52.1, 61.8)	64.7 (59.5, 69.6)
Secondary school completed or above	65.9 (61.6, 69.9)	71.3 (66.7, 75.6)	50.6 (45.1, 56.0)	45.7 (40.2, 51.4)	54.7 (49.5, 59.7)	71.1 (66.8, 75.1)	74.1 (70.5, 77.5)
<i>Smoking Status</i>							
Current smoker <sup>3</sup>	56.4 (49.4, 63.1)	55.2 (47.4, 62.6)	47.1 (39.5, 54.8)	40.5 (34.8, 46.5)	36.0 (28.9, 43.7)	44.9 (37.4, 52.7)	50.0 (41.6, 58.3)
Non-smoker <sup>4</sup>	61.3 (57.6, 64.8)	56.7 (52.1, 61.2)	44.3 (41.2, 47.6)	38.7 (35.5, 42.0)	44.7 (40.5, 49.0)	55.2 (49.5, 60.7)	60.1 (54.9, 65.1)

<sup>1</sup> Includes daily and occasional (less than daily) smokers.

<sup>2</sup> Includes former and never smokers.

<sup>3</sup> Includes daily and occasional (less than daily) smokers.

<sup>4</sup> Includes former and never smokers.

## Attitude and Perceptions on Effect of Secondhand Smoke

Table 9.2 presents the percentages of adults aged 15 years and above who believe that breathing other people's smoke causes serious illness in non-smokers by smoking status and selected demographic characteristics.

Overall, Kenyans strongly believe (88.0%) that breathing other people's smoke causes serious illness to non-smokers. There is no significant difference between males (87.5%) and females (88.6%) in believing that SHS exposure causes harm. Analysis by age groups show that variation in believing that SHS exposure causes harm ranged from 84.5% to 89.8% for adults aged 65 years and above and 25-44 years, respectively. By place of residence, 92.3% of adults in urban areas believed that SHS exposure causes harm as compared to 85.7% of their rural counterparts.

The results show that those with no formal education (69.9%) were less likely to believe that SHS exposure causes serious illness in non-smokers compared to over 93.0% of those who have completed primary school and above.

**Table 9.2:** Percentage of adults  $\geq 15$  years old who believe that breathing other people's smoke causes serious illness in non-smokers, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Belief that breathing other people's smoke causes serious illness in non-smokers
	<i>Percentage (95% CI)</i>
<b>Overall</b>	88.0 (85.8, 90.0)
<i>Gender</i>	
Male	87.5 (83.8, 90.4)
Female	88.6 (86.4, 90.4)
<i>Age (years)</i>	
15-24	86.1 (81.8, 89.5)
25-44	89.8 (87.5, 91.7)
45-64	89.3 (85.6, 92.1)
65+	84.5 (78.4, 89.0)
<i>Residence</i>	
Urban	92.3 (90.0, 94.2)
Rural	85.7 (82.7, 88.3)
<i>Education Level</i>	
No formal education	69.9 (65.6, 74.0)
Less than primary school completed	84.8 (79.7, 88.8)
Primary school completed	93.4 (90.4, 95.5)
Secondary school completed or above	93.3 (90.1, 95.5)
<i>Smoking Status</i>	
Current smoker <sup>1</sup>	85.2 (80.3, 89.0)
Non-smoker <sup>2</sup>	88.3 (85.9, 90.3)

<sup>1</sup> Includes daily and occasional (less than daily) smokers.

<sup>2</sup> Includes former and never smokers.

## Knowledge, Attitude, and Perceptions on the Use of Smokeless Tobacco

The percentage of adults aged 15 years and above who believe that using smokeless products causes serious illness by smoking status and selected demographic characteristics are presented in Table 9.3.

Overall, 83.4% of adults believed that using smokeless tobacco products causes serious illness. The results further showed that 76.3% of adults aged 65 years and above believed that using smokeless products causes serious illness compared to 86.3% of those aged 15-24.

The findings also showed that 81.9% of adults in rural areas believed that using smokeless products can cause serious illness as compared to 86.0% of the urban population. The results show that education played a big role on how adults perceived the effects of use of smokeless products. Just over 70% of adults without formal education believed that smokeless tobacco causes serious illness compared to 88.3% of those with secondary education and above.

Of the current smokeless users, only 66.0% of them believed that smokeless products caused serious illness compared to 84.2% of non-users of smokeless products.

**Table 9.3:** Percentage of adults  $\geq 15$  years old who believe that using smokeless tobacco causes serious illness, by selected demographic characteristics – GATS Kenya, 2014.

Demographic Characteristics	Adults who believe that using smokeless products causes serious illness
	Percentage (95% CI)
<b>Overall</b>	83.4 (81.4, 85.2)
<i>Gender</i>	
Male	85.0 (82.3, 87.4)
Female	81.8 (79.1, 84.2)
<i>Age (years)</i>	
15-24	86.3 (82.7, 89.2)
25-44	82.7 (79.9, 85.2)
45-64	81.2 (77.1, 84.6)
65+	76.3 (71.0, 80.8)
<i>Residence</i>	
Urban	86.0 (82.9, 88.6)
Rural	81.9 (79.3, 84.3)
<i>Education Level</i>	
No formal education	70.5 (66.9, 73.9)
Less than primary school completed	83.0 (78.3, 86.9)
Primary school completed	84.7 (81.4, 87.5)
Secondary school completed or above	88.3 (84.8, 91.0)
<i>Smokeless Tobacco Use Status</i>	
Current smokeless users <sup>1</sup>	66.0 (58.7, 72.7)
Non-users of smokeless <sup>2</sup>	84.2 (82.0, 86.1)

<sup>1</sup> Includes daily and occasional (less than daily) smokeless users.

<sup>2</sup> Includes former and never smokeless users.

## Awareness of Tobacco Control Act and Support for Increasing Tobacco Taxes

Table 9.4 presents the percentage of adults aged 15 years and above who are aware that the 2007 Tobacco Control Act protects people from SHS exposure and whether they support increasing taxes on tobacco products, by smoking status and selected demographic characteristics.

Overall, slightly more than half of adults (54.7%) are aware that the 2007 Tobacco Control Act protects people from SHS exposure. Awareness that the Tobacco Control Act of 2007 protects people from SHS varied from 51.3% for females to 58.3% for males. The results also showed that awareness that the Tobacco Control Act protects people from tobacco smoke ranged from 52.9% to 56.2% for adults aged 65 years and above and those in 45-64 age group, respectively.

It was notable that the urban adults (55.7%) were more aware of the Tobacco Control Act of 2007 than those in rural areas (54.2%). The results showed that the level of awareness of the Tobacco Control Act increased with an increase in education. For instance, 34.3% of adults with no formal education were aware compared to 62.5% of those with secondary education and above. Current smokers (66.3%) were more likely to be aware that the Tobacco Control Act protects people from tobacco smoke than non-smokers (53.7%).

The results show that the majority of Kenyans (80.1%) were in favor of increasing taxes on tobacco products. The results were similar between males (78.7%) and females (81.4%) in favoring an increase in taxes on tobacco products.

It was also notable that the urban adults (84.3%) were more in favor of increasing taxes on tobacco products than those in rural areas (77.8%). The results further showed that support for increasing taxes on tobacco products increased with an increase in education. It ranged from 70.8% of adults with no formal education to 87.3% of those with secondary education and above. Current smokers (65.8%) were less likely to favor increasing taxes on tobacco products than non-smokers (81.3%).



**Table 9.4:** Awareness of the 2007 Tobacco Control Act and support for increasing taxes on tobacco products among adults  $\geq 15$  years old, by selected demographic characteristics and smoking status – GATS Kenya, 2014.

Demographic Characteristics	Awareness that the Tobacco Control Act of 2007 protects people from secondhand smoke <sup>1</sup>	
	Those who favor increasing taxes on tobacco products	Percentage (95% CI)
<b>Overall</b>	54.7 (52.1, 57.3)	80.1 (77.5, 82.5)
<i>Gender</i>		
Male	58.3 (55.0, 61.6)	78.7 (75.3, 81.8)
Female	51.3 (47.2, 55.3)	81.4 (78.0, 84.4)
<i>Age (years)</i>		
15-24	54.3 (49.5, 59.0)	77.9 (72.3, 82.6)
25-44	54.8 (50.4, 59.1)	83.6 (80.8, 86.0)
45-64	56.2 (51.1, 61.2)	78.9 (73.8, 83.2)
65+	52.9 (45.3, 60.3)	72.8 (66.4, 78.4)
<i>Residence</i>		
Urban	55.7 (51.5, 59.9)	84.3 (80.8, 87.3)
Rural	54.2 (50.8, 57.5)	77.8 (74.4, 80.9)
<i>Education Level</i>		
No formal education	34.3 (28.9, 40.3)	70.8 (65.6, 75.5)
Less than primary school completed	55.0 (50.4, 59.5)	76.7 (70.9, 81.6)
Primary school completed	56.2 (51.9, 60.3)	80.3 (75.3, 84.4)
Secondary school completed or above	62.5 (56.7, 67.9)	87.3 (83.9, 90.0)
<i>Smoking Status</i>		
Current smoker <sup>2</sup>	66.3 (59.4, 72.6)	65.8 (59.5, 71.6)
Non-smoker <sup>3</sup>	53.7 (51.0, 56.5)	81.3 (78.8, 83.6)

<sup>1</sup> Those who indicated they were aware that the Tobacco Control Act of 2007 protects people from exposure to secondhand smoke and that they can report anyone who smokes in their presence to the authorities.

<sup>2</sup> Includes daily and occasional (less than daily) smokers.

<sup>3</sup> Includes former and never smokers.

## CONCLUSIONS AND RECOMMENDATIONS<sup>1</sup>

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### Prevalence of Tobacco Use

The GATS provided country specific information on the magnitude of tobacco use in the country. The prevalence of current tobacco smoking was found to be 7.8% among the adult population aged 15 years and older, with male prevalence at 15.1% and female prevalence at 0.8%. The 2008/2009 KDHS reported a prevalence of tobacco smoking of 18% among adult men aged 15-49 years. This reduction in prevalence is a good indication that the various tobacco control legislation, policies, and interventions are bearing fruit. The variation in smoking rates within the sexes remains similar to what has been observed in previous surveys where it has been demonstrated that males have a higher smoking rate than females. Rural adults had greater prevalence of tobacco smoking than the urban population. It is therefore prudent to develop target specific interventions that have a higher impact on this population.

### Age of Daily Initiation

Nearly half (46.7%) of the current daily smokers (aged 20 to 34) in this survey initiated daily smoking after the age of 20 years. This is a higher age than what has been found in developed countries (Giovino et al., 2012) and may be attributed to the age of financial independence, which usually starts at a higher age in developing countries. In addition, adults at this age are typically at tertiary institutions, working, or unemployed. There are less restrictions and rules during this phase as compared to during secondary schooling. This provides a potential opportunity to take up vices such as smoking.

### Nicotine Dependence

Approximately 71.9% of daily users reported that they use their first tobacco within 30 minutes of waking up, which illustrates a high level of dependence. Access to cessation services could provide valuable and effective assistance to smokers who may not be able to quit by themselves due to a serious addiction.

### Smokeless Tobacco Use

The country previously lacked data on smokeless tobacco use among the adult population, and the GATS provides a useful starting point to understand the smokeless tobacco use situation in the country. Overall, 4.5% of adults use smokeless tobacco. Both snuff by nose and chewing tobacco are the most popular smokeless tobacco products. The majority of these products are consumed by the older population, those with no formal education and those living in rural areas. This signifies that the smokeless tobacco is what is widely available and accessible in the country and plays a cultural role, and the adults who consume them may not be aware of the harmful health effects. Regulations could be effective in reducing the sale and marketing of the processed smokeless tobacco products in the country.

### Cessation

Offering help to quit is among the MPOWER strategies. Approximately half of the smokers (52.4%) attempted to quit in the past 12 months, indicating that there is a desire to stop smoking. Sadly, less than 10% of those who attempted to quit were successful in quitting. This may be linked to their method of cessation, as 70.8% attempted to quit without assistance. Studies have shown that the success rate of quitting without assistance continues to remain low (Powell et al., 2010). When asked about future prospects of quitting, only 12% reported that they were not interested in quitting ever. Two main conclusions can be made from these findings. Firstly, there is a high demand for cessation services, and secondly, there is a

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<sup>1</sup> The findings and conclusions in this report are those of the authors and do not necessarily represent the official positions of the U.S. Centers for Disease Control and Prevention (CDC).

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gap in the supply of cessation services. Cessation services largely remain in the private sector domain in the country. Making services available at least in the all sub-country hospitals could be beneficial. Training of health workers on cessation is also an important opportunity .

The importance of integration of cessation services in the health facilities is also supported by these findings. Among the smokers who visited health facilities in the past 12 months, only 39.1% were asked if they smoke, and of those, only 34.1% were advised to quit smoking. This illustrates a potentially missed opportunity for offering counseling on tobacco cessation. The basic training of health practitioners could include inquiry about their detailed smoking status of a patient during their visits to health care facilities.

## **Secondhand Smoke**

The 2007 Tobacco Control Act prohibits smoking in all public places. However, exposure to tobacco smoke at the work place was reported by 17.6% of adults. The work place is an area where individuals spend a considerable amount of time, and this finding shows there is still a need to do more sensitization in work places. Adults with primary school of education and below are the most vulnerable to exposure at work, implying that the informal employment sector is not very strong in enforcing the smoke-free policies. Exposure at government buildings and health facilities was low at 12.5% and 8.5%, respectively. This demonstrates the success of the smoke-free policies in these two places. However, increased enforcement could be beneficial. Of concern is the high exposure at restaurants (21.2%) and bars and nightclubs (86.1%). The TCA provides for designated smoking areas and signage on prohibited smoking areas in restaurants and bars. This may explain the high levels of exposure at these two areas as structural/infrastructure standards are not stipulated, leading to misuse by owners of such premises. In order to make all public places 100% smoke-free by removal of designated smoking places, current laws would have to be amended.

Tertiary institutions are supposed to be smoke-free, but a third of adults who had visited universities reported to have been exposed to tobacco smoke. The university administration and students could be sensitized on the importance of enforcing the smoke-free policies in their institute. Worthy to note is that there was an overwhelming support for laws prohibiting smoking in various public places, as 80.1% of adults favour increasing taxes on tobacco products, and it is therefore envisioned that the public will support enforcement of existing laws and amendments of the law.

## **Economy**

The adult Kenyan smoker is reported to be spending an average of Ksh.1,072 per month. Kenya is a low middle-income country, and therefore this amount is high and might result in diversion of household income away from the basic household needs in some families. Notably the youngest age group of 15-24 is the biggest spenders when it comes to cigarettes (Ksh 2,008). We therefore conclude that the current prices of cigarettes are not high enough to prohibit people from smoking. The high level of nicotine dependence is also depicted here. Despite the mention that cigarettes are expensive, smokers still manage to spend a considerably high amount of money to purchase cigarettes. Furthermore, slightly more than half of smokers reported that the cheap cost of cigarettes makes them smoke more. Raising tobacco products is the single most effective way to reduce consumption, particularly among the low-income population. Increasing the prices of tobacco through taxation can not only discourage people from smoking, but can also increase government revenues (WHO, 2014). These findings suggest that opportunities exist to increase cigarette prices by raising taxes.

Sale of cigarettes in sticks is prohibited by the 2007 TCA. It is discouraging to note therefore that overall, 88% of current smokers purchased their last cigarettes in sticks. The majority (95.9%) of the cigarettes purchases occur at kiosks and shops; hence enforcement of this law might prove effective in these outlets and retailers be encouraged to continue adhering to this law requirement.

## **Media**

The coverage of anti-smoking information in the country is low. The highest coverage of anti-smoking information was via the radio (49.3%). Radio coverage in the country is considerably wide geographically and not very expensive. Anti-smoking

information could be scaled up by the government, non-governmental organizations, and civil society organizations. Close to 15% of adults reported that they had heard about anti-smoking information from other sources, and it would be worthwhile to explore these other sources by use of research.

The warning labels on cigarettes were noticed by 79.8% of the smokers, and out of this, 55.9% thought about quitting because of them. Cigarette packets contain health warning in both national languages on both sides of the packet. The fact that half of the smokers have thought about quitting is a positive gain for tobacco control in Kenya, but this percentage can be increased by introduction of graphic health warnings (GHW). Graphic health warnings are considered more effective in getting smokers to quit and deterring new ones from starting (Hammond, 2009, Fong et al, 2009). The Ministry of Health is in the final processes of implementing GHW, and this will significantly lower the prevalence of cigarette smoking. Health warnings on smokeless tobacco packages were only noticed by 8.8% of the current smokeless tobacco users and out of this, only 5.3% thought of quitting because of them. This could be a result of purchasing of smokeless tobacco products in forms that are not packaged.

Although a quarter of adults had noticed any form of tobacco advertising, promotion, and sponsorship, it is encouraging to note that both cigarettes and smokeless tobacco advertising remains low in the country (less than 6% at any location). The TCA mandates a comprehensive ban on tobacco advertisement, promotion, and sponsorship. Implementing authorities in the country could consider enforcing the law to eliminate all types of advertisement with special attention to advertisements at points of sale.

## **Recommendations**

1. Enhancing both human and financial resources for effective tobacco control interventions has shown to be an effective way to prioritize tobacco control as stipulated in the Tobacco Control Act of 2007.
2. Tobacco cessation programs support tobacco users that planning to quit. This can be achieved by increasing access to Nicotine Replacement Therapy as part of cessation programs.
3. Health promotion and communication strategies can help increase knowledge and raise health awareness of tobacco and second hand smoke at the county and community levels.
4. Positive effects on the decrease of consumption of tobacco products has been shown by raising awareness on the social, environmental, economic, and health effects of tobacco use and exposure to tobacco smoke at institutions of higher learning. Evidence shows that by educating people about the dangers of smoke and smokeless tobacco, especially in rural settings, consumption can be decreased.
5. Pictorial health warnings have shown to significantly decrease smoking rates as well as preventing initiation from young people, and therefore are recommended for smoke and smokeless tobacco products. Additionally, enforcing laws such as smoke-free work environments and prohibiting cigarette sale by the stick, can reduce tobacco use.
6. Increasing taxes and tobacco prices is one of the most cost-effective interventions to reduce tobacco consumption. Having regular tax increases on all tobacco products, can not only discourage young people from initiating smoking, but can also increase government revenues.
7. The development of anti-tobacco messages for the media as well as tobacco control education programs can increase knowledge about the harms of tobacco and therefore prevent people from start smoking.
8. Establishing and improving health services can effectively address tobacco-related diseases.

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## Appendix A: Questionnaire

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### Household Questionnaire

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**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.** An important survey of adult tobacco use behavior is being conducted by the Kenya National Bureau of Statistics and Ministry of Health and Sanitation throughout Kenya and your household has been selected to participate. All houses selected were chosen from a scientific sample and it is very important to the success of this project that each participates in the survey. All information gathered will be kept strictly confidential.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important. At this time, do you want to ask me anything about the survey? May I begin the interview now?

Signature of interviewer:

Date:

Household  
Number:

**HH1.** I have a few questions to find out who in your household is eligible to participate.  
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.]

**HH4both.** I now would like to collect information about only these persons that live in this household who are 15 years of age or older. Let's start listing them from oldest to youngest.

**HH4a.** What is the {oldest/next oldest} person's first name? \_\_\_\_\_

**HH4b.** 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]

**HH4d.** Is this person male or female?

MALE .....  1

FEMALE .....  2

**HH4e.** Does this person currently smoke tobacco, including cigarettes, cigars, pipes, shisha/ hookar?

YES .....  1

NO .....  2

DON'T KNOW  7

REFUSED .....  9

**HH4f.** What is his/her relationship to the head of the household?

- |                           |                          |                           |                          |
|---------------------------|--------------------------|---------------------------|--------------------------|
| 1. HEAD                   | <input type="checkbox"/> | 9. BROTHER/SISTER         | <input type="checkbox"/> |
| 2. WIFE                   | <input type="checkbox"/> | 10. NIECE/NEPHEW BY BLOOD | <input type="checkbox"/> |
| 3. SON/DAUGHTER           | <input type="checkbox"/> | 11. NIECE/NEPHEW BY MARRI | <input type="checkbox"/> |
| 4. SON/DAUGHTER IN-LAW    | <input type="checkbox"/> | 12. OTHER RELATIVE        | <input type="checkbox"/> |
| 5. GRAND CHILD            | <input type="checkbox"/> | 13. NOT RELATED           | <input type="checkbox"/> |
| 6. PARENT                 | <input type="checkbox"/> | 77. DON'T KNOW            | <input type="checkbox"/> |
| 7. PARENT IN-LAW          | <input type="checkbox"/> | 99. REFUSED               | <input type="checkbox"/> |
| 8. ADOPTED/FOSTER/STEPCHI | <input type="checkbox"/> |                           |                          |

**[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 THE SELECTED RESPONDENT IS AVAILABLE AND IF SO, PROCEED TO THE INDIVIDUAL QUESTIONNAIRE.

IF THE SELECTED RESPONDENT IS NOT AVAILABLE, MAKE AN APPOINTMENT AND RECORD IT AS A COMMENT ON RECORD OF CALLS.]



## 1. Individual Questionnaire

---

**CONSENT1.** [SELECT THE APPROPRIATE AGE CATEGORY BELOW. IF NEEDED, CHECK THE AGE OF SELECTED RESPONDENT FROM THE “CASE INFO” SCREEN IN THE TOOLS MENU.]

- 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 Kenya National Bureau of Statistics. This institution is collecting information about tobacco use in Kenya. This information will be used for public health purposes by the Ministry of Health.

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 Kenya National Bureau of Statistics. This institution is collecting information about tobacco use in Kenya. This information will be used for public health purposes by the Ministry of Health.

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]

ENGLISH .....  1  
KISWAHILI ....  2

## 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

**A12.** Can you read and write?

YES .....  1

NO.....  2

REFUSED.....  9

**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  
TERTIARY COLLEGE COMPLETED.....  6  
UNIVERSITY COMPLETED.....  7  
POST GRADUATE DEGREE COMPLETED .....  8  
DON'T KNOW.....  77  
REFUSED.....  99

**A05.** Which of the following best describes your \*main\* work status over the past 12 months? Government employee, non-government employee, self-employed, student, homemaker, retired, unemployed-able to work, or unemployed-unable to work?

[INCLUDE SUBSISTENCE FARMING AS SELF-EMPLOYED]

- GOVERNMENT EMPLOYEE .....  1
- NON-GOVERNMENT EMPLOYEE ....  2
- SELF-EMPLOYED .....  3
- STUDENT .....  4
- HOMEMAKER .....  5
- RETIRED.....  6
- UNEMPLOYED, ABLE TO WORK .....  7
- UNEMPLOYED, UNABLE TO WORK  8
- DON'T KNOW .....  77
- REFUSED.....  99

**A06.** Please tell me whether this household or any person who lives in the household has the following items:

	YES ▼	NO ▼	DON'T KNOW ▼	REFUSE D ▼
a. Electricity? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
b. Flush toilet?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
c. Fixed telephone? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
d. Cell telephone?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
e. Television?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
f. Radio? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
g. Refrigerator? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
h. Car? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
i. Scooter/motorcycle? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
j. Washing machine? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
k. Clock/watch .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
m. Bicycle? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9
n. Computer? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 7.....	<input type="checkbox"/> 9

**A10.** What is your religion?

- HINDU .....  1
- MUSLIM .....  2
- CHRISTIAN .....  3
- BUDDHISM .....  4
- OTHER .....  5 → A10a. [SPECIFY]: \_\_\_\_\_
- NONE .....  6
- 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 cigarettes, cigars, pipes, shisha/hookar. Please do not answer about 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**  
REFUSED.....  9 → **SKIP TO NEXT SECTION**

**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**  
DON'T KNOW.....  7 → **SKIP TO NEXT SECTION**  
REFUSED.....  9 → **SKIP TO NEXT SECTION**

**[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 OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER]

a. Manufactured cigarettes?				<i>PER DAY</i>
a1. <b>[IF B06a=888]</b> On average, how many manufactured cigarettes do you currently smoke each week?				<i>PER WEEK</i>
b. Hand-rolled cigarettes?				<i>PER DAY</i>
b1. <b>[IF B06b=888]</b> On average, how many hand-rolled cigarettes do you currently smoke each week?				<i>PER WEEK</i>
d. Pipes full of tobacco (kiko)?				<i>PER DAY</i>
d1. <b>[IF B06d=888]</b> On average, how many pipes full of tobacco (kiko) do you currently smoke each week?				<i>PER WEEK</i>
e. Cigars, cheroots, or cigarillos?				<i>PER DAY</i>
e1. <b>[IF B06e=888]</b> On average, how many cigars, cheroots, or cigarillos do you currently smoke each week?				<i>PER WEEK</i>
f. Number of shisha/hookar sessions per day?				<i>PER DAY</i>
f1. <b>[IF B06f=888]</b> On average, how many shisha/hookar sessions do you currently participate in each week?				<i>PER WEEK</i>
g. Any others? (→ g1. Please specify the other type you currently smoke:_____)				<i>PER DAY</i>
g2. <b>[IF B06g=888]</b> On average, how many [FILL PRODUCT] do you currently smoke each week?				<i>PER WEEK</i>

**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 THE NEXT SECTION]**

**[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]



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**[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, ENTER 888  
 IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER]

a. Manufactured cigarettes? .....				<i>PER WEEK</i>
b. Hand-rolled cigarettes? .....				<i>PER WEEK</i>
d. Pipes full of tobacco (kiko)? .....				<i>PER WEEK</i>
e. Cigars, cheroots, or cigarillos? .....				<i>PER WEEK</i>
f. Number of shisha/hookar sessions per week? .....				<i>PER WEEK</i>
g. Any others? .....				<i>PER WEEK</i>

→ g1. Please specify the other type you currently smoke:

**[SKIP TO THE NEXT SECTION]**

**[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 BB1**
- DON'T KNOW.....  7 → **SKIP TO NEXT SECTION**
- REFUSED.....  9 → **SKIP TO NEXT SECTION**

**B13b.** [ENTER NUMBER OF (YEARS/MONTHS/WEEKS/DAYS)]

--	--	--

**BB1.** What was your primary reason for quitting smoking?

- BECAME TOO EXPENSIVE .....  1
- REALIZED SMOKING IS HARMFUL TO HEALTH  2
- RESTRICTIONS ON SMOKING .....  3
- PRESSURE FROM CLOSE RELATIVES/FRIENDS  4
- FOR RELIGIOUS PURPOSES .....  5
- OTHER REASON .....  6 → **BB1a.** [SPECIFY] \_\_\_\_\_
- DON'T KNOW .....  7
- REFUSED.....  9

**[IF B13a/b < 1 YEAR (< 12 MONTHS), THEN CONTINUE WITH B14. OTHERWISE SKIP TO NEXT SECTION.]**

**B14.** Have you visited a doctor or other health care provider in the past 12 months?

- 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, or 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	REFUSE D
a. Counseling, including at a smoking cessation clinic?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
b. Nicotine replacement therapy, such as the patch or gum? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
c. Other prescription medications? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
d. Traditional medicines?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
e. A quit line or a smoking telephone support line? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
f. Switching to smokeless tobacco?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
f1. Quit without assistance?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
g. Anything else?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9

→ g1. Please specify what you used to try to stop smoking:

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## Section C. Smokeless Tobacco

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**C00.** The next questions are about using smokeless tobacco, such as snuff, chewing tobacco, pan, kuber. **Smokeless tobacco is tobacco that is not smoked, but is sniffed through the nose, held in the mouth, or chewed.**

**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**

REFUSED.....  9 → **SKIP TO NEXT SECTION**

**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”]

DAILY .....  1 → **SKIP TO C11**

LESS THAN DAILY....  2 → **SKIP TO C13**

NOT AT ALL .....  3 → **SKIP TO NEXT SECTION**

DON'T KNOW.....  7 → **SKIP TO NEXT SECTION**

REFUSED.....  9 → **SKIP TO NEXT SECTION**

### [CURRENT DAILY SMOKELESS TOBACCO USERS]

**C04.** How old were you when you first started using smokeless tobacco \*daily\*?

[IF DON'T KNOW OR REFUSED, ENTER 99]

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**[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]

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**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. Snuff, by mouth?				<i>PER DAY</i>
a1. [IF C06a=888] On average, how many times a week do you currently use snuff, by mouth?				<i>PER WEEK</i>
b. Snuff, by nose?				<i>PER DAY</i>
b1. [IF C06b=888] On average, how many times a week do you currently use snuff, by nose?				<i>PER WEEK</i>
c. Chewing kuber?				<i>PER DAY</i>
c1. [IF C06c=888] On average, how many times a week do you currently chew kuber?				<i>PER WEEK</i>
d. Betel quid with tobacco (pan)?				<i>PER DAY</i>
d1. [IF C06d=888] On average, how many times a week do you currently use betel quid with tobacco?				<i>PER WEEK</i>
e. Any others? (→ e1. Please specify the other type you currently use:_____)				<i>PER DAY</i>
e2. [IF C06e=888] On average, how many times a week do you currently use [FILL PRODUCT]?				<i>PER WEEK</i>

**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]**

**[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, ENTER 888]

a. Snuff, mouth? .....	by				<i>TIMES PER WEEK</i>
b. Snuff, nose? .....	by				<i>TIMES PER WEEK</i>
c. Chewing kuber? .....					<i>TIMES PER WEEK</i>
d. Betel quid with tobacco (pan)? .....					<i>TIMES PER WEEK</i>
e. others? .....	Any				<i>TIMES PER WEEK</i>

→ e1. Please specify the other type you currently use:

---

**C19. [ADMINISTER IF B01=2 AND C01=2. ELSE GO TO NEXT SECTION.]**

You mentioned that you smoke tobacco, but not every day and that you also use smokeless tobacco, but not every day. Thinking about both smoking tobacco and using smokeless tobacco, would you say you use tobacco on a daily basis or less than daily?

- DAILY .....  1
- LESS THAN DAILY....  2
- REFUSED.....  9

**[SKIP TO NEXT SECTION]**

**[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]

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**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 CC1**
- DON'T KNOW.....  7 → **SKIP TO NEXT SECTION**
- REFUSED.....  9 → **SKIP TO NEXT SECTION**

**C13b.** [ENTER NUMBER OF (YEARS/MONTHS/WEEKS/DAYS)]

--	--	--

- CC1.** What was your primary reason for quitting use of smokeless tobacco?
- BECAME TOO EXPENSIVE.....  1
  - REALIZED IT IS HARMFUL TO HEALTH.....  2
  - RESTRICTIONS ON USE.....  3
  - PRESSURE FROM CLOSE RELATIVES/FRIENDS  4
  - FOR RELIGIOUS PURPOSES.....  5
  - OTHER REASON.....  6 → **CC1a.** [SPECIFY] \_\_\_\_\_
  - DON'T KNOW.....  7
  - REFUSED.....  9

**[IF C13a/b < 1 YEAR (< 12 MONTHS), THEN CONTINUE. OTHERWISE SKIP TO NEXT SECTION.]**

**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?
- 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.....  1
  - 3 TO 5.....  2
  - 6 OR MORE ....  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 ▼	REFUSE D ▼
a. Counseling, including at a cessation clinic? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
b. Nicotine replacement therapy, such as the patch or gum? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
c. Other prescription medications? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
d. Traditional medicines?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
e. A quit line or a telephone support line? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
f1. Quit without assistance?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
g. Anything else?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9

→ g1. Please specify what you used to try to stop using smokeless tobacco:

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## 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.**

**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 DD1**

DON'T KNOW.....  7 → **SKIP TO DD1**

REFUSED.....  9 → **SKIP TO DD1**

**D02b.** [ENTER NUMBER OF (MONTHS/WEEKS/DAYS)]

--	--	--

**DD1.** What was your primary reason for trying to give up smoking the last time you tried to quit?

BECAME TOO EXPENSIVE.....  1

REALIZED SMOKING IS HARMFUL TO HEALTH  2

RESTRICTIONS ON SMOKING.....  3

PRESSURE FROM CLOSE RELATIVES/FRIENDS  4

FOR RELIGIOUS PURPOSES.....  5

OTHER REASON.....  6 → **DD1a.** [SPECIFY] \_\_\_\_\_

DON'T KNOW.....  7

REFUSED.....  9

**D03.** During the past 12 months, did you use any of the following to try to stop smoking tobacco?

	YES ▼	NO ▼	REFUSE D ▼
a. Counseling, including at a smoking cessation clinic?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
b. Nicotine replacement therapy, such as the patch or gum?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
c. Other prescription medications?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
d. Traditional medicines?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
e. A quit line or a smoking telephone support line?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
f. Switching to smokeless tobacco?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
f1. Quit without assistance?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
g. Anything else?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 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?  
 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.**

**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 INSTRUCTION BEFORE D12**

REFUSED.....  9 → **SKIP TO 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 DD2**

DON'T KNOW.....  7 → **SKIP TO DD2**

REFUSED.....  9 → **SKIP TO DD2**

**D10b.** [ENTER NUMBER OF (MONTHS/WEEKS/DAYS)]

--	--	--

**DD2.** What was your primary reason for trying to give up using smokeless tobacco the last time you tried to quit?

BECAME TOO EXPENSIVE.....  1

REALIZED IT IS HARMFUL TO HEALTH.....  2

RESTRICTIONS ON USE.....  3

PRESSURE FROM CLOSE RELATIVES/FRIENDS  4

FOR RELIGIOUS PURPOSES.....  5

OTHER REASON.....  6 → **DD2a.** [SPECIFY] \_\_\_\_\_

DON'T KNOW.....  7

REFUSED.....  9

**D11.** During the past 12 months, have you used any of the following to try and stop using smokeless tobacco?

	YES	NO	REFUSE D
	▼	▼	▼
a. Counseling, including at a cessation clinic? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
b. Nicotine replacement therapy, such as the patch or gum? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
c. Other prescription medications? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
d. Traditional medicines?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
e. A quit line or a telephone support line? .....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
f1. Quit without assistance?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 9
g. Anything else?.....	<input type="checkbox"/> 1.....	<input type="checkbox"/> 2.....	<input type="checkbox"/> 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?

- 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

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- E01.** I would now like to ask you a few questions about smoking in various places.  
Which of the following best describes the rules 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 \*anyone\* smoke inside your home? Would you say daily, weekly, monthly, less than monthly, or never?
- DAILY .....  1  
WEEKLY.....  2  
MONTHLY.....  3  
LESS THAN MONTHLY ..  4  
NEVER .....  5  
DON'T KNOW.....  7  
REFUSED.....  9
- 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 DESIGNATEDINDOOR 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 anyone smoke 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 E11**
- DON'T KNOW .....  7 → **SKIP TO E11**
- REFUSED .....  9 → **SKIP TO E11**

**E10.** Did anyone smoke inside of any government buildings or government offices that you visited in the past 30 days?

- YES .....  1
- NO .....  2
- DON'T 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 anyone smoke 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 restaurants?

- YES .....  1
- NO .....  2 → **SKIP TO E25**
- DON'T KNOW .....  7 → **SKIP TO E25**
- REFUSED .....  9 → **SKIP TO E25**

**E14.** Did anyone smoke inside of any restaurants that you visited 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 E15**
- DON'T KNOW .....  7 → **SKIP TO E15**
- REFUSED .....  9 → **SKIP TO E15**

**E26.** Did anyone smoke 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

**E15.** During the past 30 days, did you use any public transportation?

YES.....  1  
NO.....  2 → **SKIP TO E21**  
DON'T KNOW.....  7 → **SKIP TO E21**  
REFUSED.....  9 → **SKIP TO E21**

**E16.** Did anyone smoke inside of any public transportation that you used in the past 30 days?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**E21.** During the past 30 days, did you visit any universities?

YES.....  1  
NO.....  2 → **SKIP TO E19**  
DON'T KNOW.....  7 → **SKIP TO E19**  
REFUSED.....  9 → **SKIP TO E19**  
REFUSED.....  9

**E22.** Did anyone smoke inside of any universities that you visited in the past 30 days?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**E19.** During the past 30 days, did you visit any other schools or educational facilities?

YES.....  1  
NO.....  2 → **SKIP TO E17**  
DON'T KNOW.....  7 → **SKIP TO E17**  
REFUSED.....  9 → **SKIP TO E17**

**E20.** Did anyone smoke inside of any schools or educational facilities 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

**E18.** Based on what you know or believe, does breathing other people's smoke cause any of the following?

YES	NO	DON'T KNOW	REFUSED
▼	▼	▼	▼

a. Heart disease in adults?.....  1.....  2.....  7.....  9



- b. Lung illnesses in children?..... 1..... 2..... 7..... 9  
 c. Lung cancer in adults? ..... 1..... 2..... 7..... 9

**E29a.** Do you support the law that prohibits smoking inside of hospitals?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29b.** Do you support the law that prohibits smoking inside of workplaces?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29c.** Do you support the law that prohibits smoking inside of restaurants?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29d.** Do you support the law that prohibits smoking inside of bars or night-clubs?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29e.** Do you support the law that prohibits smoking inside of public transportation vehicles?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29f.** Do you support the law that prohibits smoking inside schools?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29g.** Do you support the law that prohibits smoking inside universities?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**E29h.** Do you support the law that prohibits smoking inside places of worship?

- YES..... 1  
 NO..... 2  
 DON'T KNOW.. 7  
 REFUSED..... 9

**EE1.** Are you aware that the Tobacco Control Act of 2007 protects you from exposure to second hand smoke and that you can report anyone who smokes in your presence to the authorities?

YES.....  1

NO.....  2

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.**

**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, how many cigarettes did you buy?

[ENTER UNIT ON THIS SCREEN AND NUMBER ON NEXT SCREEN]

- CIGARETTES STICKS .....  1  
PACKS.....  2  
CARTONS.....  3  
OTHER (SPECIFY).....  4 →F01c. [SPECIFY THE UNIT]: \_\_\_\_\_  
NEVER BOUGHT CIGARETTES.  5 → **SKIP TO NEXT SECTION**  
REFUSED.....  9 → **SKIP TO F03**

**F01b.** [ENTER NUMBER OF (CIGARETTES STICKS/PACKS/CARTONS/OTHER)]

--	--	--

**[IF F01a=CIGARETTES, GO TO F02]**

**[IF F01a=PACKS, GO TO F01dPack]**

**[IF F01a=CARTONS, GO TO F01dCart]**

**[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]**

**F01dCart.** Did each carton contain 100 cigarettes, 200 cigarettes, or another amount?

- 100.....  1  
200.....  2  
OTHER AMOUNT  7 → **F01dCartA.** How many cigarettes were in each carton?  
REFUSED .....  9

**[GO TO F02]**

**F01dOther.** How many cigarettes were in each {FILL F01c}?

--	--	--

**F02.** In total, how much money did you pay for this purchase?

[IF DON'T KNOW OR REFUSED, ENTER 99999]

--

**[RANGE: 1 – 10000]**

**F03.** What brand did you buy the last time you purchased cigarettes for yourself?

- SPORSTMAN.....  1  
EMBASSY KINGS .....  2  
EMBASSY LIGHTS .....  3

- SM.....  4
- ROASTER .....  5
- DUNHILL LIGHTS.....  6
- DUNHILL RED .....  7
- OTHER .....  8 → F03a. [SPECIFY BRAND]: \_\_\_\_\_
- REFUSED.....  99

**F04.** The last time you purchased cigarettes for yourself, where did you buy them?

- VENDING MACHINE.....  1
- SHOP .....  2
- SUPERMARKET .....  3
- STREET VENDOR.....  4
- MILITARY STORE .....  5
- DUTY-FREE SHOP .....  6
- KIOSKS .....  7
- SCHOOL/UNIVERSITY CANTEEN  8
- INTERNET.....  9
- OUTSIDE THE COUNTRY .....  10
- FROM ANOTHER PERSON.....  11
- OTHER .....  12 → F04a. [SPECIFY LOCATION]: \_\_\_\_\_
- DON'T REMEMBER.....  77
- REFUSED.....  99

**F05.** Were these cigarettes filtered or non-filtered?

- FILTERED.....  1
- NON-FILTERED.....  2
- DON'T KNOW.....  7
- REFUSED.....  9

**F06.** Were these cigarettes labeled as light, mild, or low tar?

- LIGHT .....  1
- MILD .....  2
- LOW TAR .....  3
- NONE OF THE ABOVE  4
- DON'T KNOW.....  7
- REFUSED.....  9

**FF1.** The last time you purchased cigarettes, did you pay for them before they were handed to you or were they handed to you before paying for them?

- PAID FOR THEM THEN HANDED TO ME  1
- PICKED THEM AND THEN PAID FOR THEM  2
- DON'T KNOW.....  7
- REFUSED.....  9

**FF2.** Do you think cigarettes are expensive, reasonably priced, or cheap?

- EXPENSIVE.....  1 → **GO TO FF2a**
- REASONABLY PRICED .....  3 → **GO TO FF3**
- CHEAP .....  5 → **GO TO FF2b**
- DON'T KNOW.....  7 → **GO TO FF3**
- REFUSED.....  9 → **GO TO FF3**

**FF2a.** Do you think the expensive cost of cigarettes prevents you from buying as many as you would like?

- YES.....  1
- NO.....  2
- DON'T KNOW.....  7
- REFUSED.....  9

**[GO TO FF3]**

**FF2b.** Do you think the cheap cost of cigarettes results in you smoking more?

- YES.....  1
- NO.....  2
- DON'T KNOW.....  7
- REFUSED.....  9

**FF3.** If the price for your cigarettes were to double, would you continue to smoke as before, switch to cheaper products, start smoking less, or quit smoking?

- SMOKE AS BEFORE .....  1
- SWITCH TO CHEAPER PRODUCTS..  2
- SMOKE LESS .....  3
- QUIT SMOKING .....  4
- DO NOT KNOW/ HARD TO SAY .....  7
- REFUSED.....  9

## Section G. Media

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### Structure #2 — Asking about two or more products (e.g., cigarettes, smokeless tobacco)

**G201intro.** The next few questions ask about your exposure to the media and advertisements in the last 30 days. For each item, I am going to ask about cigarettes and smokeless tobacco.

**G201a.** In the last 30 days, have you noticed any information in \*newspapers or in magazines\* about the dangers of use or that encourages quitting of the following tobacco products?

1. Cigarettes?

- YES.....  1  
NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G201b**  
REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1  
NO.....  2  
REFUSED.....  9

**G201b.** In the last 30 days, have you seen any information on \*television\* about the dangers of use or that encourages quitting of the following tobacco products?

1. Cigarettes?

- YES.....  1  
NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G201c**  
REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1  
NO.....  2  
REFUSED.....  9

**G201c.** In the last 30 days, have you heard any information on the \*radio\* about the dangers of use or that encourages quitting of the following tobacco products?

1. Cigarettes?

- YES.....  1  
NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G201d**  
REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1  
NO.....  2

REFUSED.....  9

**G201d.** In the last 30 days, have you noticed any information on \*billboards\* about the dangers of use or that encourages quitting of the following tobacco products?

1. Cigarettes?

YES.....  1  
NO.....  2  
NOT APPLICABLE.....  7 → **SKIP TO G201e**  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
REFUSED.....  9

**G201e.** In the last 30 days, have you noticed any information \*somewhere else\* about the dangers of use or that encourages quitting of the following tobacco products?

1. Cigarettes?

[DO NOT INCLUDE HEALTH WARNINGS ON CIGARETTE PACKAGES]

YES.....  1 → a. Please specify where: \_\_\_\_\_  
NO.....  2  
REFUSED.....  9

2. Smokeless tobacco?

[DO NOT INCLUDE HEALTH WARNINGS ON SMOKELESS PACKAGES]

YES.....  1 → a. Please specify where: \_\_\_\_\_  
NO.....  2  
REFUSED.....  9

**G202.** In the last 30 days, did you notice any health warnings on cigarette packages?

YES.....  1  
NO.....  2 → **SKIP TO G202a**  
DID NOT SEE ANY CIGARETTE PACKAGES  3 → **SKIP TO G202a**  
REFUSED.....  9 → **SKIP TO G202a**

**G203.** [ADMINISTER IF B01 = 1 OR 2. ELSE GO TO G202a]

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

**G202a.** In the last 30 days, did you notice any health warnings on smokeless tobacco products?

- YES.....  1
- NO.....  2 → **SKIP TO G204a**
- DID NOT SEE ANY SMOKELESS PRODUCTS  3 → **SKIP TO G204a**
- REFUSED.....  9 → **SKIP TO G204a**

**G203a.** **[ADMINISTER IF C01 = 1 OR 2. ELSE GO TO G204a]**

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

**G204a.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products in \*stores where the products are sold\*?

1. Cigarettes?

- YES.....  1
- NO.....  2
- NOT APPLICABLE.....  7 → **SKIP TO G204b**
- REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1
- NO.....  2
- REFUSED.....  9

**G204b.** In the last 30 days, have you seen any advertisements or signs promoting the following tobacco products on \*television\*?

1. Cigarettes?

- YES.....  1
- NO.....  2
- NOT APPLICABLE.....  7 → **SKIP TO G204c**
- REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1
- NO.....  2
- REFUSED.....  9

**G204c.** In the last 30 days, have you heard any advertisements promoting the following tobacco products on the \*radio\*?

1. Cigarettes?

- YES.....  1



NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G204d**  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
REFUSED.....  9

**G204d.** In the last 30 days, have you noticed any advertisements promoting the following tobacco products on \*billboards\*?

1. Cigarettes?

YES.....  1  
NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G204e**  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
REFUSED.....  9

**G204e.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on \*posters\*?

1. Cigarettes?

YES.....  1  
NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G204f**  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
REFUSED.....  9

**G204f.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products in \*newspapers or magazines\*?

1. Cigarettes?

YES.....  1  
NO.....  2  
NOT APPLICABLE .....  7 → **SKIP TO G204g**  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
REFUSED.....  9

**G204g.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products in \*cinemas\*?

1. Cigarettes?

- YES .....  1
- NO .....  2
- NOT APPLICABLE .....  7 → **SKIP TO G204h**
- REFUSED .....  9

2. Smokeless tobacco?

- YES .....  1
- NO .....  2
- REFUSED .....  9

**G204h.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on the \*internet\*?

1. Cigarettes?

- YES .....  1
- NO .....  2
- NOT APPLICABLE .....  7 → **SKIP TO G204i**
- REFUSED .....  9

2. Smokeless tobacco?

- YES .....  1
- NO .....  2
- REFUSED .....  9

**G204i.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on \*public transportation vehicles or stations\*?

1. Cigarettes?

- YES .....  1
- NO .....  2
- NOT APPLICABLE .....  7 → **SKIP TO G204j**
- REFUSED .....  9

2. Smokeless tobacco?

- YES .....  1
- NO .....  2
- REFUSED .....  9

**G204j.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products on \*public walls\*?

1. Cigarettes?

- YES.....  1
- NO.....  2
- NOT APPLICABLE .....  7 → **SKIP TO G204k**
- REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1
- NO.....  2
- REFUSED.....  9

**G204k.** In the last 30 days, have you noticed any advertisements or signs promoting the following tobacco products  
\*anywhere else\*?

1. Cigarettes?

- YES.....  1 → a. Please specify where: \_\_\_\_\_
- NO.....  2
- REFUSED.....  9

2. Smokeless tobacco?

- YES.....  1 → a. Please specify where: \_\_\_\_\_
- NO.....  2
- REFUSED.....  9

**G205.** In the last 30 days, have you noticed any sport or sporting event that is associated with cigarette brands or cigarette companies?

- YES.....  1
- NO.....  2
- DON'T KNOW.....  7
- REFUSED.....  9

**G205a.** In the last 30 days, have you noticed any sport or sporting event that is associated with smokeless tobacco brands or smokeless tobacco companies?

- YES.....  1
- NO.....  2
- DON'T KNOW.....  7
- REFUSED.....  9

**G206a.** In the last 30 days, have you noticed any free samples of the following tobacco products?

1. Cigarettes?

- YES.....  1
- NO.....  2
- DON'T KNOW.....  7

REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**G206b.** In the last 30 days, have you noticed any of the following tobacco products sold at sale (promotion/discounted) prices?

1. Cigarettes?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**G206c.** In the last 30 days, have you noticed any coupons for the following tobacco products?

1. Cigarettes?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**G206d.** In the last 30 days, have you noticed any free gifts or special discount offers on other products when buying any of the following tobacco products?

1. Cigarettes?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1

NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**G206e.** In the last 30 days, have you noticed any clothing or other items with a brand name or logo of the following tobacco products?

1. Cigarettes?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

**G206f.** In the last 30 days, have you noticed any promotions in the mail for the following tobacco products?

1. Cigarettes?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

2. Smokeless tobacco?

YES.....  1  
NO.....  2  
DON'T KNOW.....  7  
REFUSED.....  9

## Section H. Knowledge, Attitudes & Perceptions

**H01.** The next question is asking about \*smoking\* tobacco.

Based on what you know or believe, does smoking tobacco cause serious illness?

- YES.....  1  
 NO.....  2  
 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)?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
b. Heart attack? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
c. Lung cancer? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
d. High blood pressure? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
e. Bladder cancer?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
f. Throat cancer?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
g. Stomach cancer? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
h. Miscarriage?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
i. Infertility? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
j. Impotence?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
k. Bone loss (osteoporosis)?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
l. Premature birth?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9
m. Low birth weight?.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 9

**H02\_2.** Do you think that some types of cigarettes \*could\* be less harmful than other types, or are all cigarettes equally harmful?

- COULD BE LESS HARMFUL.  1  
 ALL EQUALLY HARMFUL ...  2  
 DON'T KNOW.....  7  
 REFUSED.....  9

**H02\_3.** Do you believe cigarettes are addictive?

- YES.....  1  
 NO.....  2  
 DON'T KNOW.....  7  
 REFUSED.....  9

**H03.** Based on what you know or believe, does using \*smokeless tobacco\* cause serious illness?

- YES.....  1  
 NO.....  2  
 DON'T KNOW.....  7  
 REFUSED.....  9

**H02\_3b.** Do you believe smokeless tobacco products are addictive?

- YES.....  1  
 NO.....  2

DON'T KNOW.....  7  
REFUSED.....  9

- H05.** Would you favor or oppose increasing taxes on tobacco products?  
FAVOR.....  1 → **H05a.** Would you strongly favor or somewhat favor increasing taxes?  
OPPOSE.....  2 → **H05b.** Would you strongly oppose or somewhat oppose increasing taxes?
- DON'T KNOW  7  
REFUSED.....  9

## End Individual Questionnaire

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**I00.** Those are all of the questions I have. Thank you very much for participating in this important survey.

**I02.** [RECORD ANY NOTES ABOUT INTERVIEW:]

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## APPENDIX B: SAMPLE DESIGN

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### I. INTRODUCTION

The GATS, a component of Global Tobacco Surveillance System (GTSS), is a global standard for systematically monitoring adult tobacco use and tracking key tobacco control indicators. GATS is a nationally representative household survey of adults, 15 years of age or older, using a standard core questionnaire, sample design, and data collection and management procedures that have been reviewed and approved by international experts. GATS is intended to enhance the capacity of countries to design, implement and evaluate tobacco control interventions.

### II. UNIVERSE AND DOMAINS OF STUDY

The recommendation for GATS was to have estimates for both urbanicity (urban and rural) and gender (male and female). The 2014 Kenya GATS was recommended to have gender and urbanicity domains separately for its study. Therefore, the domains of the study were:

- 1) KENYA as a whole
- 2) Rural Areas
- 3) Urban Areas
- 4) Males
- 5) Females

The population to be covered by the 2014 Kenya GATS was defined as the universe of non-institutionalized population of men and women aged at least 15 years. A sample of households were selected and all women and men identified within the age groups of interest in the households were eligible for interview.

### III. SAMPLE FRAME

Administratively, Kenya is divided into 47 Counties. In turn, each county is subdivided into Sub-Counties. By the time of the 2009 census, the sub-counties were equivalent to districts. Each district was divided into divisions, each division into locations and each location into sub-locations. In addition to these administrative units, prior to the 2009 population census, each sub-location was subdivided into census enumeration areas (EAs) i.e. small geographic units with clearly defined boundaries. Approximately 96,000 EAs were developed. The list of EAs is grouped by administrative units and includes information on the number of households and population. This information was used in 2010 to design a master sample frame known as the fifth National Sample Survey and Evaluation Programme (NASSEP V) with 5,360 selected EAs.

The NASSEP V master frame follows a two-stage stratified cluster sample format. The first stage involved selection of Primary Sampling Units (PSUs) which were the EAs using probability proportional to size (PPS) method, with the measure of size being the households from 2009 census. The second stage involves the selection of households for various surveys. The frame was designed in a multi-tiered structure with four sub-samples (C1, C2, C3 and C4), each consisting of 1,340 EAs that can serve as independent frames. At the time of conducting 2014 GATS, approximately 4,500 clusters had been developed.

The NASSEP V frame used the counties as the first level stratification and further sub divided into rural and urban sub domains. The sampling was done independently within rural - urban sub domains. Each sampled EA that has been developed into a cluster had undergone listing and mapping process and clusters are within one measure of size (MOS) of minimum of 50 households and maximum of 149 households (average of 100 households). Few exceptional cases exist where a cluster has less than 50 households.

### IV. SAMPLE SIZE AND ALLOCATION

Kenya is implementing GATS for the first time and, therefore, a standard stand-alone design and overall sample size of 4,000, was sufficient to produce estimates for gender and urbanicity subgroups. This allocation of the sample was accomplished by explicitly stratifying the sample by urbanicity and then later random assignment of households for male and female interviews.



To achieve a target of 4,000 completed interviews the sample had been adjusted upwards to cater for expected non-responses and ineligibilities, at both household and individual levels. Some of these estimates are derived from 2008-09 Kenya Demographic and Health Survey (KDHS). Table 2 below presents computations of the sample per domain.

The sample size for 2014 Kenya GATS was 5,376 households selected from a total of 192 clusters, 102 in urban and 90 in rural, with a uniform sample of 28 households per cluster. Distribution of the sample by county and urbanicity is shown in Table 2.

**Table 1 :** Sample Allocation for 2014 Kenya GATS

S N	Domain	Sub- Domain	Number of desired Responde nts in the Stratum	House old Eligibili ty Rate	Househ old Respons e Rate	Per cent of House holds with at Least One Surve y- Eligibl e Indivi dual	Individual Eligibility Rate	Individu al Respons e Rate	Total number of selected people within household s that are successful ly screened	Total number of household s to select from within this stratum	Total number of househo lds to select from within this stratum (ROUN DED)	Clust ers
1	Rural	Males	1,000	0.93	0.98	0.96	0.98	0.90	1,134	2,498	2,520	90
2	Rural	Females	1,000				0.98	0.97	1,052			
3	Urban	Males	1,000	0.90	0.96	0.92	0.98	0.85	1,200	2,847	2,856	102
4	Urban	Females	1,000				0.98	0.96	1,063			
<b>TOTAL</b>			<b>4,000</b>						<b>4,449</b>	<b>5,346</b>	<b>5,376</b>	<b>192</b>

*NOTE: Response rates based on 2008-9 Kenya Demographic & Health Survey*

## V. SAMPLE SELECTION

The 2014 Kenya GATS sample was selected in three stages. Stage one involved selection of PSUs (i.e. clusters), stage two selected households and stage three include sampling of individuals.

### (a) Selection of PSUs

In the 2014 Kenya GATS the selection of clusters was done using the Equal Probability Selection Method (EPSEM). The clusters were selected systematically from NASSEP V frame with equal probability independently within the urban-rural domains. The process involved ordering the cluster by urbanicity, then by county and finally by unique geocode. The resulting sample retained properties of PPS as used in creation of the frame.

### (b) Household selection

Using the total number of households from each sampled cluster available from the NASSEP V, a uniform sample of 28 households per cluster was selected using equal probability systematic sampling method. This procedure of selecting the sample households with a random start was done by the following criteria:

Let  $L$  be the total number of households listed in the cluster;

Let  $R$  be a random number between (0, 1);

Let  $n$  be the number of households selected in the cluster;

Let  $I = L/n$  be the sampling interval.

(1) The first selected sample household is  $k$  ( $k$  is the serial number of the household in the listing) if and only if:

$$(k-1)/L < \text{Random} \leq k/L$$

(2) The subsequent selected households are those having serial numbers:

$$k + (j-1)*I, \text{ (rounded to integers)}$$

for  $j = 2, 3, \dots n$ ;

Random numbers were different and independent from cluster to cluster.

**(c) Individual selection**

All the selected clusters and corresponding households were loaded into Personal Digital Assistants (PDAs). During interviews, all the eligible household members were listed down and PDA used to randomly select one for interviews.

**Table 2:** Distribution of the sample by county and urbanicity

County		Sample Size					
		Clusters			Households		
Code	Name	Rural	Urban	Total	Rural	Urban	Total
101	Nairobi		4	4		112	112
201	Nyandarua	2	2	4	56	56	112
202	Nyeri	2	2	4	56	56	112
203	Kirinyaga	2	2	4	56	56	112
204	Murang'a	2	2	4	56	56	112
205	Kiambu	2	3	5	56	84	140
301	Mombasa		3	3		84	84
302	Kwale	2	2	4	56	56	112
303	Kilifi	2	2	4	56	56	112
304	Tana River	2	2	4	56	56	112
305	Lamu	2	2	4	56	56	112
306	Taita Taveta	2	2	4	56	56	112
401	Marsabit	2	2	4	56	56	112
402	Isiolo	2	2	4	56	56	112
403	Meru	2	2	4	56	56	112
404	Tharaka-Nithi	2	2	4	56	56	112
405	Embu	2	2	4	56	56	112
406	Kitui	2	2	4	56	56	112
407	Machakos	2	3	5	56	84	140
408	Makueni	2	2	4	56	56	112
501	Garissa	2	2	4	56	56	112
502	Wajir	2	2	4	56	56	112
503	Mandera	2	2	4	56	56	112
601	Siaya	2	2	4	56	56	112
602	Kisumu	2	3	5	56	84	140
603	Migori	2	2	4	56	56	112
604	Homa Bay	2	2	4	56	56	112
605	Kisii	2	2	4	56	56	112
606	Nyamira	2	2	4	56	56	112
701	Turkana	2	2	4	56	56	112
702	West Pokot	2	2	4	56	56	112
703	Samburu	2	2	4	56	56	112
704	Trans Nzoia	2	2	4	56	56	112
705	Baringo	2	2	4	56	56	112
706	Uasin Gishu	2	3	5	56	84	140
707	Elgeyo-Marakwet	2	2	4	56	56	112
708	Nandi	2	2	4	56	56	112
709	Laikipia	2	2	4	56	56	112
710	Nakuru	2	3	5	56	84	140
711	Narok	2	2	4	56	56	112
712	Kajiado	2	2	4	56	56	112
713	Kericho	2	2	4	56	56	112
714	Bomet	2	2	4	56	56	112
801	Kakamega	2	2	4	56	56	112
802	Vihiga	2	2	4	56	56	112
803	Bungoma	2	2	4	56	56	112
804	Busia	2	2	4	56	56	112
<b>Grand Total</b>		<b>90</b>	<b>102</b>	<b>192</b>	<b>2,520</b>	<b>2,856</b>	<b>5,376</b>



## APPENDIX C: ESTIMATES OF SAMPLING ERRORS

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The estimates from a sample survey are affected by two types of error: (1) non-sampling errors, and (2) sampling errors. Non-sampling errors are the result of errors or mistakes that cannot be attributable to sampling and were made in implementing data collection and data processing, such as errors in coverage, response errors, non-response errors, faulty questionnaires, interviewer recording errors, data processing errors, etc. Although numerous efforts were made during the implementation of GATS in Kenya to minimize those errors, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

The sample of respondents selected in the GATS Kenya was only one of the samples that could have been selected from the same population, using the same design and sample size. Each of these samples would yield results that differed somewhat from the results of the actual sample selected. *Sampling errors* are a measure of the variability between all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey results.

The following sampling error measures are presented for each of the selected indicator:

Estimate (R): Weighted prevalence estimate of the indicator:

Standard Error (SE): Sampling errors are usually measured in terms of standard errors for particular estimate or indicator (R). Standard error of an estimate is thus simply the square root of the variance of that estimate, and is computed in the same units as the estimate.

Sample Size (n): Total number of observations used to calculate the prevalence estimate (R).

Design Effect (Deft): Design effect denoted by 'deff' is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. The square root of the design effect denoted by 'deft' is used to show the efficiency of the sample design and is calculated for each estimate as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a DEFT value above 1.0 indicates the increase in the standard error due to the use of a more complex sample design. In general, for a well-designed survey, DEFT usually ranges from 1 to 3. It is common, however, for DEFT to be much larger, up to 7 or 8.

Relative Standard Error (RSE): Relative standard error also known as coefficient of variation (CV) is the ratio of the standard error to the value of the indicator.

Margin of Error (MOE): Margin of error is computed as the product of the desired confidence measure and the standard error of the estimate. The level of confidence is usually based on a value (Z) of the standard normal distribution. For example, for a 95% level of confidence, we can use  $Z=1.96$ .

Confidence Limits ( $R \pm 1.96SE$ ): Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall. For any given statistic calculated from the survey, the value of that statistics

will fall within a range of plus or minus two times the standard error of the statistic in 95 percent of all possible samples of identical size and design.

#### Calculation of Standard Error

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straight forward formulas for calculating sampling errors. However, the GATS Kenya sample is the result of a multi-stage stratified design, and consequently it was necessary to use more complex formulae. For the calculation of sampling errors from GATS Kenya data, SPSS complex samples version 18 was used. The Taylor linearization method of variance estimation was used for survey estimates that are means or proportions.

The Taylor linearization method treats any percentage or average as a ratio estimate,  $r = y/x$ , where  $y$  represents the total sample value for variable  $y$ , and  $x$  represents the total number of cases in the group or subgroup under consideration. The variance of  $r$  is computed using the formula given below:

$$SE^2(r) = \text{var}(r) = \frac{1-f}{x^2} \sum_{h=1}^2 \left[ \frac{m_h}{m_h - 1} \left( \sum_{i=1}^{m_h} Z_{hi}^2 - \frac{Z_h^2}{m_h} \right) \right]$$

in which,  $Z_{hi} = y_{hi} - rx_{hi}$ , and  $Z_h = y_h - rx_h$

where  $h$  (=1 or 2) represents the stratum which is urban or rural,

$m_h$  is the total number of PSUs selected in the  $h$ th stratum,

$y_{hi}$  is the sum of the weighted values of variable  $y$  in the  $i$ th PSU in the  $h$ th stratum,

$x_{hi}$  is the sum of the weighted number of cases in the  $i$ th PSU in the  $h$ th stratum, and

$f$  is the overall sampling fraction, which is so small that it is ignored.

The results are presented in this appendix for the country as a whole, for gender, urban and rural areas. For each variable or indicator, the type of statistic (mean, proportion, or rate) and the base population are given in Table C-1. In addition to the standard error (SE) described above, Tables C-2 to C-6 includes the value of the estimate (R), the sample size (n), the design effect (DEFF), the relative standard error (SE/R), margin of error (MOE) and the 95 percent confidence limits ( $R \pm 1.96SE$ ), for each indicator.

**Appendix Table C1: List of Indicators for Sampling Errors, GATS Kenya, 2014**

<b>Indicator</b>	<b>Estimate</b>	<b>Base Population</b>
Current Tobacco Users	Proportion	Adults ≥ 15 years old
Current Tobacco Smokers	Proportion	Adults ≥ 15 years old
Current Cigarette Smokers	Proportion	Adults ≥ 15 years old
Current Users of Smokeless Tobacco	Proportion	Adults ≥ 15 years old
Daily Tobacco Smoker	Proportion	Adults ≥ 15 years old
Daily Cigarette Smokers	Proportion	Adults ≥ 15 years old
Daily Users of Smokeless Tobacco	Proportion	Adults ≥ 15 years old
Former Daily Tobacco Smokers Among All Adults	Proportion	Adults ≥ 15 years old
Former Tobacco Smokers Among Ever Daily Smokers	Proportion	Ever daily tobacco smokers ≥ 15 years old
Time to First Tobacco use within 5 minutes of waking	Proportion	Daily tobacco users ≥ 15 years old
Time to First Tobacco use within 6-30 minutes of waking	Proportion	Daily tobacco users ≥ 15 years old
Smoking Quit Attempt in the Past 12 Months	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Health Care Provider Asked about Smoking	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Health Care Provider Advised Quitting Smoking	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months and who visited a HCP during the past 12 months
Use of Pharmacotherapy for Smoking Cessation	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Use of Counseling/Advice or Quit Lines for Smoking Cessation	Proportion	Current smokers and former smokers who have been abstinent for less than 12 months
Planning to quit, thinking about quitting, or will quit smoking	Proportion	Current smokers ≥ 15 years old
Exposure to SHS at Home	Proportion	Adults ≥ 15 years old
Exposure to SHS at Workplace	Proportion	Adults who work indoors
Exposure to SHS in Government Buildings/Offices	Proportion	Adults ≥ 15 years old who have visited in past 30 days
Exposure to SHS in Health Care Facilities	Proportion	Adults ≥ 15 years old who have visited in past 30 days
Exposure to SHS in Restaurants	Proportion	Adults ≥ 15 years old who have visited in past 30 days
Exposure to SHS in Public Transportation	Proportion	Adults ≥ 15 years old who have visited in past 30 days
Last cigarette purchase in shop	Proportion	Current manufactured cigarette smokers ≥ 15 years old
Last cigarette purchase at kiosk	Proportion	Current manufactured cigarette smokers ≥ 15 years old
Noticed Anti-tobacco Information on radio or television	Proportion	Adults ≥ 15 years old
Noticed Health Warning Labels on Cigarette Packages	Proportion	Current smokers ≥ 15 years old
Thinking of Quitting Because of Health Warning Labels on Cigarette Package	Proportion	Current smokers ≥ 15 years old
Noticed Any Cigarette Advertisement or Promotion	Proportion	Adults ≥ 15 years old
Noticed Cigarette Marketing in Stores Where Cigarettes are Sold	Proportion	Adults ≥ 15 years old
Believes that Tobacco Smoking Causes Serious Illness	Proportion	Adults ≥ 15 years old
Believes that Tobacco Smoking Causes Strokes	Proportion	Adults ≥ 15 years old
Believes that Tobacco Smoking Causes Heart Attacks	Proportion	Adults ≥ 15 years old
Believes that Tobacco Smoking Causes Lung Cancer	Proportion	Adults ≥ 15 years old
Believes that Using Smokeless Tobacco Causes Serious Illness	Proportion	Adults ≥ 15 years old
Believes that Secondhand Causes Serious Illness in Non-Smokers	Proportion	Adults ≥ 15 years old
Number of Cigarettes Smoked per Day (by daily smokers)	Mean	Current daily cigarette smokers ≥ 15 years old
Time since Quitting Smoking (in years)	Mean	Former smokers ≥ 15 years old
Monthly Expenditures on Manufactured Cigarettes	Mean	Current Manufactured cigarette smokers ≥ 15 years old
Age at Daily Smoking Initiation Among Adults Age 20-34	Mean	Ever daily smokers ≥ 15 years old
Average Amount Spent on 20 Manufactured Cigarettes	Mean	Current Manufactured cigarette smokers ≥ 15 years old
Average cost per 100 packs of manufactured cigarettes	Mean	Current Manufactured cigarette smokers ≥ 15 years old

**Appendix Table C2: Sampling Errors for National Sample, GATS Kenya, 2014**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	Margin of Error (MOE)	Confidence Limits	
							Lower Limit (R-1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Users	0.116	0.009	4,404	3.612	0.079	0.018	0.098	0.134
Current Tobacco Smokers	0.078	0.007	4,408	2.773	0.087	0.013	0.064	0.091
Current Cigarette Smokers	0.077	0.007	4,408	2.765	0.087	0.013	0.064	0.090
Current Users of Smokeless Tobacco	0.045	0.006	4,404	3.148	0.123	0.011	0.034	0.056
Daily Tobacco Smoker	0.060	0.006	4,408	2.890	0.102	0.012	0.048	0.072
Daily Cigarette Smokers	0.059	0.006	4,408	2.882	0.102	0.012	0.048	0.071
Daily Users of Smokeless Tobacco	0.033	0.005	4,404	2.860	0.137	0.009	0.024	0.042
Former Daily Tobacco Smokers Among All Adults	0.027	0.003	4,408	1.832	0.123	0.006	0.020	0.033
Former Tobacco Smokers Among Ever Daily Smokers	0.285	0.033	548	2.920	0.116	0.065	0.220	0.349
Time to first tobacco use within 5 minutes of waking	0.432	0.032	572	2.352	0.074	0.062	0.370	0.495
Time to first tobacco use within 6-30 minutes of waking	0.287	0.033	572	3.128	0.117	0.066	0.222	0.353
Smoking Quit Attempt in the Past 12 Months	0.524	0.033	465	1.984	0.062	0.064	0.460	0.588
Health Care Provider Asked about Smoking	0.391	0.058	140	1.994	0.149	0.115	0.276	0.505
Health Care Provider Advised Quitting Smoking	0.341	0.058	140	2.100	0.171	0.114	0.226	0.455
Use of Pharmacotherapy for Smoking Cessation	0.043	0.016	264	1.561	0.361	0.031	0.013	0.074
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.106	0.030	264	2.564	0.287	0.059	0.046	0.165
Planning to quit, thinking about quitting, or will quit smoking	0.774	0.027	449	1.826	0.034	0.052	0.722	0.826
Exposure to Secondhand at Home	0.143	0.011	4,326	3.959	0.074	0.021	0.122	0.164
Exposure to Secondhand at Workplace	0.176	0.023	882	3.166	0.130	0.045	0.131	0.221
Exposure to Secondhand in Government Buildings/Offices	0.027	0.004	4,383	2.878	0.152	0.008	0.019	0.036
Exposure to Secondhand in Health Care Facilities	0.037	0.005	4,396	3.121	0.136	0.010	0.027	0.047
Exposure to Secondhand in Restaurants	0.096	0.010	4,398	4.825	0.101	0.019	0.077	0.115
Exposure to Secondhand in Public Transportation	0.080	0.007	4,400	2.769	0.085	0.013	0.067	0.094
Last cigarette purchase in shop	0.653	0.039	409	2.755	0.060	0.077	0.577	0.730
Last cigarette purchase at kiosk	0.307	0.039	409	2.876	0.126	0.076	0.231	0.383
Noticed Anti-tobacco Information on radio or television	0.534	0.023	4,405	9.498	0.043	0.045	0.489	0.580
Noticed Health Warning Labels on Cigarette Packages	0.798	0.029	447	2.267	0.036	0.056	0.742	0.854
Thinking of Quitting Because of Health Warning Labels on Cigarette	0.559	0.039	448	2.817	0.071	0.077	0.482	0.636
Noticed Any Cigarette Advertisement or Promotion	0.252	0.016	4,396	5.844	0.063	0.031	0.221	0.283
Noticed Cigarette Marketing in Stores Where Cigarettes are Sold	0.052	0.005	4,405	2.396	0.100	0.010	0.042	0.062
Believes that Tobacco Smoking Causes Serious Illness	0.928	0.011	4,404	7.579	0.012	0.021	0.907	0.949
Believes that Tobacco Smoking Causes Strokes	0.488	0.019	4,403	6.553	0.039	0.038	0.450	0.526
Believes that Tobacco Smoking Causes Heart Attacks	0.704	0.009	4,403	1.824	0.013	0.018	0.686	0.722
Believes that Tobacco Smoking Causes Lung Cancer	0.902	0.010	4,402	4.944	0.011	0.020	0.882	0.921
Believes that Using Smokeless Tobacco Causes Serious Illness	0.834	0.010	4,403	2.898	0.011	0.019	0.815	0.852
Believes that Secondhand Causes Serious Illness in Non-Smokers	0.880	0.011	4,407	4.772	0.012	0.021	0.859	0.901
Number of Cigarettes Smoked per Day (by daily smokers)	9.450	0.551	358	2.081	0.058	1.079	8.371	10.529
Time since Quitting Smoking (in years)	16.817	1.176	146	1.097	0.070	2.305	14.512	19.122
Monthly Expenditures on Manufactured Cigarettes	1,072.017	133.574	405	3.599	0.125	261.804	810.213	1,333.822
Age at Daily Smoking Initiation Among Adult Age 20-34	18.773	0.297	160	1.114	0.016	0.582	18.191	19.354
Average Amount Spent on 20 Manufactured Cigarettes	102.691	9.684	405	9.928	0.094	18.982	83.709	121.672
Average cost per 100 packs of manufactured cigarettes	10,269.059	968.445	405	9.928	0.094	1,898.153	8,370.906	12,167.212



**Appendix Table C3: Sampling Errors for Male Sample, GATS Kenya, 2014**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	Margin of Error (MOE)	Confidence Limits	
							Lower Limit (R-1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Users	0.191	0.015	2,076	2.830	0.076	0.028	0.162	0.219
Current Tobacco Smokers	0.151	0.013	2,077	2.612	0.084	0.025	0.126	0.176
Current Cigarette Smokers	0.151	0.013	2,077	2.611	0.084	0.025	0.126	0.176
Current Users of Smokeless Tobacco	0.053	0.008	2,076	2.857	0.157	0.016	0.037	0.069
Daily Tobacco Smoker	0.116	0.012	2,077	2.751	0.100	0.023	0.093	0.139
Daily Cigarette Smokers	0.116	0.012	2,077	2.752	0.101	0.023	0.093	0.139
Daily Users of Smokeless Tobacco	0.035	0.006	2,076	2.574	0.185	0.013	0.022	0.048
Former Daily Tobacco Smokers Among All Adults	0.049	0.007	2,077	2.058	0.138	0.013	0.036	0.063
Former Tobacco Smokers Among Ever Daily Smokers	0.272	0.037	513	3.471	0.135	0.072	0.200	0.344
Time to first tobacco use within 5 minutes of waking	0.424	0.035	427	2.094	0.082	0.068	0.356	0.492
Time to first tobacco use within 6-30 minutes of waking	0.304	0.036	427	2.664	0.120	0.071	0.233	0.375
Smoking Quit Attempt in the Past 12 Months	0.525	0.035	438	2.095	0.066	0.068	0.457	0.592
Health Care Provider Asked about Smoking	0.356	0.056	124	1.670	0.157	0.109	0.247	0.466
Health Care Provider Advised Quitting Smoking	0.300	0.055	124	1.755	0.182	0.107	0.193	0.407
Use of Pharmacotherapy for Smoking Cessation	0.044	0.016	246	1.552	0.372	0.032	0.012	0.076
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.079	0.024	246	1.884	0.300	0.046	0.032	0.125
Planning to quit, thinking about quitting, or will quit smoking	0.778	0.027	423	1.720	0.034	0.052	0.726	0.830
Exposure to Secondhand at Home	0.168	0.015	2,038	3.178	0.088	0.029	0.139	0.197
Exposure to Secondhand at Workplace	0.230	0.037	478	3.636	0.160	0.072	0.158	0.302
Exposure to Secondhand in Government Buildings/Offices	0.043	0.008	2,063	2.934	0.178	0.015	0.028	0.058
Exposure to Secondhand in Health Care Facilities	0.039	0.008	2,070	3.233	0.195	0.015	0.024	0.055
Exposure to Secondhand in Restaurants	0.133	0.018	2,072	5.897	0.136	0.036	0.098	0.169
Exposure to Secondhand in Public Transportation	0.096	0.013	2,075	3.982	0.134	0.025	0.071	0.121
Last cigarette purchase in shop	0.651	0.041	388	2.822	0.063	0.080	0.571	0.730
Last cigarette purchase at kiosk	0.309	0.041	388	2.983	0.131	0.080	0.230	0.389
Noticed Anti-tobacco Information on radio or television	0.554	0.029	2,074	7.000	0.052	0.057	0.498	0.611
Noticed Health Warning Labels on Cigarette Packages	0.811	0.030	421	2.535	0.037	0.060	0.752	0.871
Thinking of Quitting Because of Health Warning Labels on Cigarette	0.561	0.041	422	2.931	0.074	0.081	0.480	0.642
Noticed Any Cigarette Advertisement or Promotion	0.291	0.019	2,072	3.488	0.064	0.037	0.254	0.327
Noticed Cigarette Marketing in Stores Where Cigarettes are Sold	0.071	0.007	2,074	1.738	0.105	0.015	0.057	0.086
Believes that Tobacco Smoking Causes Serious Illness	0.929	0.016	2,074	7.795	0.017	0.031	0.898	0.960
Believes that Tobacco Smoking Causes Strokes	0.511	0.026	2,073	5.714	0.051	0.051	0.459	0.562
Believes that Tobacco Smoking Causes Heart Attacks	0.698	0.015	2,073	2.293	0.022	0.030	0.668	0.728
Believes that Tobacco Smoking Causes Lung Cancer	0.912	0.012	2,072	3.585	0.013	0.023	0.889	0.935
Believes that Using Smokeless Tobacco Causes Serious Illness	0.850	0.013	2,073	2.736	0.015	0.025	0.825	0.876
Believes that Secondhand Causes Serious Illness in Non-Smokers	0.875	0.017	2,076	5.244	0.019	0.033	0.842	0.907
Number of Cigarettes Smoked per Day (by daily smokers)	9.694	0.586	339	2.189	0.060	1.149	8.545	10.842
Time since Quitting Smoking (in years)	15.597	1.279	132	1.309	0.082	2.507	13.089	18.104
Monthly Expenditures on Manufactured Cigarettes	1,113.005	138.468	384	3.564	0.124	271.397	841.608	1,384.402
Age at Daily Smoking Initiation Among Adult Age 20-34	18.792	0.301	151	1.097	0.016	0.591	18.201	19.383
Average Amount Spent on 20 Manufactured Cigarettes	104.375	9.896	384	10.143	0.095	19.397	84.978	123.772
Average cost per 100 packs of manufactured cigarettes	10,437.499	989.621	384	10.143	0.095	1,939.658	8,497.841	12,377.156

**Appendix Table C4: Sampling Errors for Female Sample, GATS Kenya, 2014**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	Margin of Error (MOE)	Confidence Limits	
							Lower Limit (R-1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Users	0.045	0.005	2,328	1.548	0.119	0.010	0.035	0.055
Current Tobacco Smokers	0.008	0.003	2,331	1.957	0.330	0.005	0.003	0.013
Current Cigarette Smokers	0.007	0.002	2,331	1.986	0.341	0.005	0.002	0.012
Current Users of Smokeless Tobacco	0.038	0.005	2,328	1.551	0.130	0.010	0.028	0.047
Daily Tobacco Smoker	0.006	0.002	2,331	2.162	0.392	0.005	0.001	0.011
Daily Cigarette Smokers	0.006	0.002	2,331	2.215	0.410	0.005	0.001	0.010
Daily Users of Smokeless Tobacco	0.032	0.005	2,328	1.573	0.143	0.009	0.023	0.041
Former Daily Tobacco Smokers Among All Adults	0.005	0.003	2,331	3.539	0.525	0.006	0.000	0.011
Former Tobacco Smokers Among Ever Daily Smokers	0.477	0.166	35	3.773	0.349	0.326	0.151	0.803
Time to first tobacco use within 5 minutes of waking	0.462	0.058	145	1.936	0.125	0.113	0.349	0.576
Time to first tobacco use within 6-30 minutes of waking	0.226	0.042	145	1.458	0.186	0.082	0.144	0.308
Smoking Quit Attempt in the Past 12 Months	0.519	0.159	27	2.628	0.306	0.311	0.208	0.831
Health Care Provider Asked about Smoking	0.674	0.200	16	2.736	0.297	0.392	0.282	1.067
Health Care Provider Advised Quitting Smoking	0.674	0.200	16	2.736	0.297	0.392	0.282	1.067
Use of Pharmacotherapy for Smoking Cessation	0.035	0.038	18	0.724	1.076	0.075	-0.039	0.110
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.635	0.186	18	2.532	0.293	0.364	0.270	0.999
Planning to quit, thinking about quitting, or will quit smoking	0.697	0.146	26	2.526	0.210	0.286	0.410	0.983
Exposure to Secondhand at Home	0.120	0.013	2,288	3.699	0.109	0.026	0.094	0.145
Exposure to Secondhand at Workplace	0.115	0.021	404	1.791	0.185	0.042	0.074	0.157
Exposure to Secondhand in Government Buildings/Offices	0.013	0.002	2,320	0.931	0.177	0.004	0.008	0.017
Exposure to Secondhand in Health Care Facilities	0.035	0.006	2,326	2.372	0.169	0.011	0.023	0.046
Exposure to Secondhand in Restaurants	0.061	0.009	2,326	3.217	0.146	0.017	0.043	0.078
Exposure to Secondhand in Public Transportation	0.066	0.009	2,325	2.817	0.131	0.017	0.049	0.082
Last cigarette purchase in shop	0.705	0.162	21	2.538	0.230	0.318	0.387	1.024
Last cigarette purchase at kiosk	0.263	0.160	21	2.629	0.607	0.313	-0.050	0.576
Noticed Anti-tobacco Information on radio or television	0.515	0.023	2,331	4.735	0.044	0.044	0.471	0.560
Noticed Health Warning Labels on Cigarette Packages	0.553	0.163	26	2.703	0.296	0.320	0.233	0.873
Thinking of Quitting Because of Health Warning Labels on Cigarette	0.518	0.162	26	2.618	0.312	0.317	0.201	0.835
Noticed Any Cigarette Advertisement or Promotion	0.214	0.018	2,324	4.533	0.085	0.036	0.179	0.250
Noticed Cigarette Marketing in Stores Where Cigarettes are Sold	0.033	0.004	2,331	1.395	0.132	0.009	0.025	0.042
Believes that Tobacco Smoking Causes Serious Illness	0.927	0.008	2,330	2.357	0.009	0.016	0.910	0.943
Believes that Tobacco Smoking Causes Strokes	0.467	0.025	2,330	5.860	0.054	0.049	0.418	0.516
Believes that Tobacco Smoking Causes Heart Attacks	0.710	0.013	2,330	1.828	0.018	0.025	0.685	0.735
Believes that Tobacco Smoking Causes Lung Cancer	0.892	0.012	2,330	3.700	0.014	0.024	0.868	0.916
Believes that Using Smokeless Tobacco Causes Serious Illness	0.818	0.013	2,330	2.545	0.016	0.025	0.793	0.843
Believes that Secondhand Causes Serious Illness in Non-Smokers	0.886	0.010	2,331	2.356	0.011	0.020	0.866	0.906
Number of Cigarettes Smoked per Day (by daily smokers)	4.656	0.268	19	0.650	0.058	0.526	4.130	5.181
Time since Quitting Smoking (in years)	27.216	4.554	14	1.331	0.167	8.926	18.291	36.142
Monthly Expenditures on Manufactured Cigarettes	274.365	78.048	21	1.549	0.284	152.975	121.391	427.340
Age at Daily Smoking Initiation Among Adult Age 20-34	18.264	1.043	9	0.688	0.057	2.044	16.221	20.308
Average Amount Spent on 20 Manufactured Cigarettes	45.158	14.252	21	1.762	0.316	27.934	17.224	73.092
Average cost per 100 packs of manufactured cigarettes	4,515.802	1,425.215	21	1.762	0.316	2,793.422	1,722.381	7,309.224

**Appendix Table C5: Sampling Errors for Urban Sample, GATS Kenya, 2014**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	Margin of Error (MOE)	Confidence Limits	
							Lower Limit (R-1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Users	0.091	0.009	2,260	2.092	0.096	0.017	0.074	0.109
Current Tobacco Smokers	0.071	0.007	2,263	1.679	0.098	0.014	0.057	0.085
Current Cigarette Smokers	0.071	0.007	2,263	1.672	0.098	0.014	0.057	0.085
Current Users of Smokeless Tobacco	0.025	0.005	2,260	2.004	0.187	0.009	0.016	0.034
Daily Tobacco Smoker	0.045	0.005	2,263	1.567	0.121	0.011	0.034	0.056
Daily Cigarette Smokers	0.045	0.005	2,263	1.561	0.121	0.011	0.034	0.056
Daily Users of Smokeless Tobacco	0.016	0.004	2,260	2.536	0.265	0.008	0.008	0.024
Former Daily Tobacco Smokers Among All Adults	0.029	0.006	2,263	3.129	0.214	0.012	0.017	0.042
Former Tobacco Smokers Among Ever Daily Smokers	0.359	0.065	281	5.160	0.181	0.128	0.232	0.487
Time to first tobacco use within 5 minutes of waking	0.420	0.047	246	2.179	0.111	0.091	0.328	0.511
Time to first tobacco use within 6-30 minutes of waking	0.356	0.050	246	2.661	0.140	0.098	0.258	0.454
Smoking Quit Attempt in the Past 12 Months	0.572	0.054	247	2.885	0.094	0.105	0.467	0.677
Health Care Provider Asked about Smoking	0.325	0.105	71	3.524	0.323	0.206	0.119	0.531
Health Care Provider Advised Quitting Smoking	0.253	0.079	71	2.304	0.312	0.154	0.098	0.407
Use of Pharmacotherapy for Smoking Cessation	0.084	0.040	143	2.950	0.476	0.078	0.006	0.162
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.125	0.048	143	2.986	0.384	0.094	0.031	0.218
Planning to quit, thinking about quitting, or will quit smoking	0.793	0.041	240	2.398	0.051	0.080	0.713	0.872
Exposure to Secondhand at Home	0.130	0.023	2,225	9.994	0.174	0.044	0.085	0.174
Exposure to Secondhand at Workplace	0.179	0.032	601	4.150	0.178	0.062	0.117	0.242
Exposure to Secondhand in Government Buildings/Offices	0.034	0.009	2,255	5.608	0.265	0.018	0.016	0.052
Exposure to Secondhand in Health Care Facilities	0.041	0.008	2,259	4.069	0.204	0.017	0.025	0.058
Exposure to Secondhand in Restaurants	0.134	0.021	2,258	8.422	0.155	0.041	0.093	0.175
Exposure to Secondhand in Public Transportation	0.133	0.012	2,260	2.910	0.091	0.024	0.109	0.157
Last cigarette purchase in shop	0.595	0.071	229	4.791	0.120	0.139	0.455	0.734
Last cigarette purchase at kiosk	0.360	0.073	229	5.275	0.203	0.143	0.217	0.503
Noticed Anti-tobacco Information on radio or television	0.535	0.016	2,260	2.375	0.030	0.032	0.503	0.566
Noticed Health Warning Labels on Cigarette Packages	0.884	0.026	238	1.522	0.029	0.050	0.833	0.934
Thinking of Quitting Because of Health Warning Labels on Cigarette	0.652	0.053	239	2.925	0.081	0.103	0.548	0.755
Noticed Any Cigarette Advertisement or Promotion	0.287	0.032	2,255	10.986	0.110	0.062	0.225	0.349
Noticed Cigarette Marketing in Stores Where Cigarettes are Sold	0.055	0.010	2,260	4.126	0.177	0.019	0.036	0.074
Believes that Tobacco Smoking Causes Serious Illness	0.951	0.008	2,260	2.756	0.008	0.015	0.936	0.966
Believes that Tobacco Smoking Causes Strokes	0.489	0.017	2,259	2.597	0.035	0.033	0.455	0.522
Believes that Tobacco Smoking Causes Heart Attacks	0.703	0.014	2,259	2.159	0.020	0.028	0.675	0.730
Believes that Tobacco Smoking Causes Lung Cancer	0.943	0.008	2,259	2.560	0.008	0.015	0.927	0.958
Believes that Using Smokeless Tobacco Causes Serious Illness	0.860	0.014	2,260	3.749	0.016	0.028	0.832	0.888
Believes that Secondhand Causes Serious Illness in Non-Smokers	0.923	0.010	2,262	3.523	0.011	0.021	0.903	0.944
Number of Cigarettes Smoked per Day (by daily smokers)	8.289	0.466	187	0.515	0.056	0.913	7.376	9.201
Time since Quitting Smoking (in years)	16.716	1.362	75	0.654	0.081	2.669	14.047	19.385
Monthly Expenditures on Manufactured Cigarettes	786.086	71.576	227	1.075	0.091	140.290	645.797	926.376
Age at Daily Smoking Initiation Among Adult Age 20-34	19.127	0.415	101	0.731	0.022	0.814	18.313	19.941
Average Amount Spent on 20 Manufactured Cigarettes	94.541	2.779	227	1.356	0.029	5.447	89.094	99.988
Average cost per 100 packs of manufactured cigarettes	9,454.149	277.909	227	1.356	0.029	544.701	8,909.448	9,998.850

**Appendix Table C6: Sampling Errors for Rural Sample, GATS Kenya, 2014**

Indicator	Estimate (R)	Standard Error (SE)	Sample size (n)	Design Effect (DEFF)	Relative Error (SE/R)	Margin of Error (MOE)	Confidence Limits	
							Lower Limit (R-1.96SE)	Upper Limit (R+1.96SE)
Current Tobacco Users	0.129	0.014	2,144	3.497	0.105	0.027	0.103	0.156
Current Tobacco Smokers	0.081	0.010	2,145	2.702	0.120	0.019	0.062	0.100
Current Cigarette Smokers	0.081	0.010	2,145	2.695	0.120	0.019	0.062	0.100
Current Users of Smokeless Tobacco	0.056	0.008	2,144	2.708	0.146	0.016	0.040	0.072
Daily Tobacco Smoker	0.067	0.009	2,145	2.719	0.132	0.018	0.050	0.085
Daily Cigarette Smokers	0.067	0.009	2,145	2.712	0.133	0.017	0.050	0.085
Daily Users of Smokeless Tobacco	0.043	0.007	2,144	2.361	0.157	0.013	0.030	0.056
Former Daily Tobacco Smokers Among All Adults	0.026	0.004	2,145	1.191	0.145	0.007	0.018	0.033
Former Tobacco Smokers Among Ever Daily Smokers	0.253	0.036	267	1.784	0.141	0.070	0.183	0.322
Time to first tobacco use within 5 minutes of waking	0.436	0.039	326	2.003	0.089	0.076	0.360	0.512
Time to first tobacco use within 6-30 minutes of waking	0.267	0.041	326	2.843	0.155	0.081	0.186	0.348
Smoking Quit Attempt in the Past 12 Months	0.502	0.040	218	1.374	0.079	0.078	0.424	0.580
Health Care Provider Asked about Smoking	0.426	0.066	69	1.221	0.155	0.130	0.296	0.556
Health Care Provider Advised Quitting Smoking	0.388	0.076	69	1.669	0.197	0.150	0.238	0.537
Use of Pharmacotherapy for Smoking Cessation	0.022	0.009	121	0.431	0.402	0.017	0.005	0.039
Use of Counseling/Advice or Quit Lines for Smoking Cessation	0.096	0.039	121	2.065	0.403	0.076	0.020	0.171
Planning to quit, thinking about quitting, or will quit smoking	0.765	0.034	209	1.371	0.045	0.067	0.698	0.833
Exposure to Secondhand at Home	0.150	0.011	2,101	2.002	0.073	0.022	0.129	0.172
Exposure to Secondhand at Workplace	0.172	0.033	281	2.107	0.190	0.064	0.108	0.236
Exposure to Secondhand in Government Buildings/Offices	0.024	0.004	2,128	1.432	0.166	0.008	0.016	0.032
Exposure to Secondhand in Health Care Facilities	0.035	0.006	2,137	2.449	0.179	0.012	0.022	0.047
Exposure to Secondhand in Restaurants	0.076	0.009	2,140	2.292	0.114	0.017	0.059	0.093
Exposure to Secondhand in Public Transportation	0.052	0.007	2,140	1.977	0.130	0.013	0.039	0.065
Last cigarette purchase in shop	0.685	0.047	180	1.795	0.068	0.091	0.594	0.776
Last cigarette purchase at kiosk	0.278	0.045	180	1.818	0.162	0.089	0.190	0.367
Noticed Anti-tobacco Information on radio or television	0.534	0.035	2,145	10.273	0.065	0.068	0.467	0.602
Noticed Health Warning Labels on Cigarette Packages	0.758	0.039	209	1.699	0.051	0.076	0.682	0.834
Thinking of Quitting Because of Health Warning Labels on Cigarette	0.515	0.050	209	2.081	0.097	0.098	0.417	0.613
Noticed Any Cigarette Advertisement or Promotion	0.233	0.017	2,141	3.412	0.072	0.033	0.200	0.266
Noticed Cigarette Marketing in Stores Where Cigarettes are Sold	0.050	0.006	2,145	1.604	0.119	0.012	0.038	0.062
Believes that Tobacco Smoking Causes Serious Illness	0.915	0.016	2,144	6.687	0.017	0.030	0.885	0.946
Believes that Tobacco Smoking Causes Strokes	0.488	0.028	2,144	6.829	0.058	0.055	0.433	0.543
Believes that Tobacco Smoking Causes Heart Attacks	0.705	0.012	2,144	1.509	0.017	0.024	0.681	0.728
Believes that Tobacco Smoking Causes Lung Cancer	0.880	0.014	2,143	4.065	0.016	0.028	0.852	0.907
Believes that Using Smokeless Tobacco Causes Serious Illness	0.819	0.013	2,143	2.351	0.016	0.025	0.794	0.844
Believes that Secondhand Causes Serious Illness in Non-Smokers	0.857	0.014	2,145	3.552	0.017	0.028	0.829	0.885
Number of Cigarettes Smoked per Day (by daily smokers)	9.867	0.739	171	2.573	0.075	1.448	8.418	11.315
Time since Quitting Smoking (in years)	16.881	1.722	71	1.331	0.102	3.376	13.505	20.257
Monthly Expenditures on Manufactured Cigarettes	1,225.380	195.179	178	3.781	0.159	382.550	842.829	1,607.930
Age at Daily Smoking Initiation Among Adult Age 20-34	18.593	0.401	59	1.363	0.022	0.786	17.807	19.379
Average Amount Spent on 20 Manufactured Cigarettes	105.829	13.247	178	10.226	0.125	25.963	79.866	131.793
Average cost per 100 packs of manufactured cigarettes	10,582.929	1,324.662	178	10.226	0.125	2,596.338	7,986.591	13,179.267

## APPENDIX D: TECHNICAL AND SURVEY STAFF

TECHNICAL STAFF			
SN	Name	Affiliation	Role
1	Mr. Robert Buluma	KNBS	Technical Coordinator
2	Ms. Dorcas Kiptui	MOH	Technical Coordinator
3	Mr. John K. Bore	KNBS	Coordinator/Sampling
4	Mr. Paul W. Ngugi	KNBS	Coordinator/I.T.
5	Dr. Joyce N. Nato	WHO	Coordinator
6	Dr. Gladwell Gathecha	MOH	Coordinator
7	Mr. Samwel Mwenda	KNBS	Coordinator/I.T.
8	Mr. Macdonald Obudho	KNBS	Report Editor
9	Dr. William Maina	MOH	Report Editor
10	Dr. Nivo Ramanandraibe	WHO	Coordination/Reviewer
11	Mr. Steve Litavec	RTI	GATS Software Developer
12	Dr. Krishna Mohan Palipudi	CDC	CDC Focal Point/Reviewer

### SURVEY DATA COLLECTION TEAMS

#### Team 1

1	<b>Ali Noor Hussein Hapicha</b>	<b>Supervisor</b>
2	Ralia Bidu Halake	Interviewer
3	Farahan Hadji Abdirahman	Interviewer
4	Salaton Nteka	Interviewer
5	Alex Lparari Letitoya	Interviewer

#### Team 2

1	<b>Charles M. Mwakazi</b>	<b>Supervisor</b>
2	Abdi Khalif Mohamed	Interviewer
3	Anab Gure	Interviewer
4	Abdi Abdullahi Adan	Interviewer
5	Fardowsa Abdulrashid	Interviewer

#### Team 3

1	<b>Willie Konde</b>	<b>Supervisor</b>
2	Khamis Ali	Interviewer
3	Bond Mwanoyota Mwabili	Interviewer
4	Mary Mwendu Mbuvi	Interviewer
5	Nancy Cherop	Interviewer

#### Team 4

1	<b>Oscar Ouya</b>	<b>Supervisor</b>
2	Daniel E. Namuya	Interviewer
3	Monicah Jeptoo Aengwo	Interviewer
4	Janet Jematia Miningwo	Interviewer
5	Alvin Chirchir Ayabei	Interviewer

#### Team 5

1	<b>Raphael Maritim</b>	<b>Supervisor</b>
2	Mike P Kukat	Interviewer
3	Koach Moses Kiprono	Interviewer
4	Vivian Cheruto Sutter	Interviewer
5	Chebet Seluget	Interviewer

#### Team 6

1	<b>Robert M Nzuli</b>	<b>Supervisor</b>
2	Apollo Kangwana Kasina	Interviewer
3	Elizabeth Wangui Reriani	Interviewer
4	Dan Collins Omondi	Interviewer
5	Fridah Mukami Kithinji	Interviewer

**Team 7**

1	<b>Job Mose Nyandwaki</b>	<b>Supervisor</b>
2	Fridah Katua	Interviewer
3	Alice Kanini Mutunga	Interviewer
4	Urbanus Ikungu Muthoka	Interviewer
5	Gilbert Bii Kibet	Interviewer

**Team 9**

1	<b>Peter K. Kamau</b>	<b>Supervisor</b>
2	John Kamau Macharia	Interviewer
3	Peninah Njeri Chege	Interviewer
4	Sharon Aluoch Okoth	Interviewer
5	Martha M Njagi	Interviewer

**Team 11**

1	<b>Peter Mumbo</b>	<b>Supervisor</b>
2	Winnie Adongo Akoyo	Interviewer
3	Linet Akinyi Odhiambo	Interviewer
4	Collins Pamba Onyango	Interviewer
5	Fred Ochieng Okeyo	Interviewer

**Team 13**

1	<b>Peter J. Akhonya</b>	<b>Supervisor</b>
2	Samuel Leiyen	Interviewer
3	Charles Manyasi	Interviewer
4	Davis Stanley Jillo Alucheri	Interviewer
5	Beatrice Awino Onyango	Interviewer

**Team 8**

1	<b>Pius Miri Ng'ang'a</b>	<b>Supervisor</b>
2	Lilian Wangui	Interviewer
3	Teddy Maina Gachane	Interviewer
4	Francis Kiarie	Interviewer
5	Irene Wanjiru Ngugi	Interviewer

**Team 10**

1	<b>Scholastica Owondo Mwendu</b>	<b>Supervisor</b>
2	Airene Akoth Osulla	Interviewer
3	Denis Onchomba	Interviewer
4	Douglas Otworu Mogeni	Interviewer
5	Sharon Nyamoitah	Interviewer

**Team 12**

1	<b>Livingstone N. Wekhoba</b>	<b>Supervisor</b>
2	Lydia Atieno Oluoch	Interviewer
3	Sharon Rose Sabato	Interviewer
4	Paulus W. Sanya	Interviewer
5	Ezekiel Otieno	Interviewer

**Questionnaire Review Committee (QRC)**

Gary Giovino (Chair)

Ron Borland

Prakash C. Gupta

Jeremy Morton

**Sample Review Committee (SRC)**

William D. Kalsbeek (Chair)

James Michael Bowling

Tarun K. Roy

Krishna Mohan Palipudi

Jason Hsia

Sophia Y. Song

**RTI International**

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Nivo Ramanandraibe

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**CDC Foundation**

Rachna Chandora

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**Centers for Disease Control and Prevention (CDC)**

Krishna Mohan Palipudi, CDC Focal Point for Kenya

Linda Andes

Glenda Blutcher-Nelson

Jeremy Morton

Edward Rainey

Sophia Y. Song

Samira Asma

## APPENDIX E: GLOSSARY OF TERMS

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**Adult** - This was a person aged 15 years and older

**Advertisement** includes any statement, communication, representation or reference aimed at the public and designed to promote or publicise a tobacco product or encourage its use, or draw attention to the nature, properties, advantages or uses of the product; the use, in any advertisement or promotion aimed at the public, of a tobacco product manufacturer's company name where the name or any part of the name is used as, or is included in a tobacco product trade mark; product stacking and product displays of any kind or size;

**Cessation** -The process of stopping the use of any tobacco products, with or without assistance.

**Current tobacco use** - Having consumed tobacco within the past 30 days. It includes daily and occasional user.

**Daily tobacco use** - Consumption of at least one tobacco product every day or nearly every day over a period of a month. Frequency of smoking is an important predictor of nicotine dependence and adverse health outcomes. Current smokers were categorized into daily or occasional smokers.

**Former User** – A person who had been abstinent from tobacco use for more than 12 months

**Interest in quitting** – tobacco users planning or thinking about to quit tobacco use within the next month, twelve months or someday

**Methods used to quit** – Ways in which a tobacco user uses or tries to attain cessation of tobacco use. The methods assessed in this survey include the use of pharmacotherapy e.g nicotine replacement therapy and prescription medications; counselling/advice received or sought at a clinic and a telephone quit line/helpline; use of other methods including traditional medicines, switching to smokeless tobacco, and any other reported methods; as well attempts to quit without assistance.

**Percentage of adults who currently smoke tobacco** - Number of current daily and less than daily tobacco smokers divided by total number of respondents.

**Percentage of adults who currently smoke tobacco daily** - Number of current daily tobacco smokers divided by the total number of respondents.

**Promotion** - A representation, including an advertisement, whether direct or indirect, including any communication of information about a product or service and its price and distribution, that is likely to influence and shape attitudes, beliefs and behaviour about the product or service, or that is intended to or has the effect of inducing consumers to use tobacco products, underestimate the dangers of tobacco consumption, or create recognition of or goodwill for the tobacco manufacturer;

**Public Places** - Any indoor, enclosed, or partially enclosed area which is open to the public or any part of the public, or to which members of the public ordinarily have access, and includes a workplace and a public conveyance

**Quit attempt** – Current tobacco users who tried to quit during the past 12 months and former tobacco users who had been abstinent for 12 months or less

**Second Hand Smoke (SHS)** – A mixture of two forms of smoke that come from burning tobacco namely side stream smoke that comes from the lighted end of a cigarette, pipe, or cigar and mainstream smoke that is exhaled by a smoker.



**Smoked tobacco products** - These are products wholly or partly made of tobacco and requires to be ignited to enable consumption. The smoked products assessed in the survey included manufactured cigarettes, hand rolled cigarettes, pipe (kiko), cigars and shisha

**Smokeless tobacco products** – These are products wholly or partly made of tobacco and do not need to be ignited for it to be consumed. Common smokeless tobacco products found in the country includes chewing tobacco, snuff, kuber and betel quid. These tobacco products are either found un-packaged (wrapped in various materials such as banana leaves) or branded packets.

**Workplace** – Includes indoor and outdoor place of work, public and privately owned work places

## APPENDIX F: MPOWER SUMMARY INDICATORS, GATS KENYA, 2014

Indicator	Overall	Gender		Residence	
		Male	Female	Urban	Rural
<b>M: Monitor tobacco use and prevention policies*</b>					
Current tobacco use	11.6	19.1	4.5	9.1	12.9
Current tobacco smokers	7.8	15.1	0.8	7.1	8.1
Current cigarette smokers	7.7	15.1	0.7	7.1	8.1
Current manufactured cigarette smokers	6.9	13.5	0.6	7.0	6.9
Current hand-rolled cigarette smokers	2.1	4.3	0.1	0.4	3.0
Current smokeless tobacco use	4.5	5.3	3.8	2.5	5.6
Average number of cigarettes smoked per day	9.4	9.7	*	8.3	9.9
Average age at daily smoking initiation among daily smokers of age 20-34 years	18.8	18.8	*	19.1	18.6
Time to first tobacco smoke within 30 minutes from waking	72.0	72.8	68.8	77.6	70.3
Former daily tobacco smokers among ever daily smokers	28.5	27.2	47.7	35.9	25.3
<b>P: Protect people from tobacco smoke*</b>					
Exposure to secondhand smoke at home at least monthly	14.3	16.8	12.0	13.0	15.0
Exposure to secondhand smoke at work <sup>†</sup>	17.6	23.0	11.5	17.9	17.2
Exposure to second hand smoke in public places <sup>†</sup> :					
Government buildings/offices	12.5	15.2	7.9	11.5	13.4
Health care facilities	8.5	10.2	7.2	8.8	8.4
Restaurants	21.2	24.2	16.8	24.9	18.6
Public Transportation	12.4	14.1	10.5	16.6	9.2
<b>O: Offer help to quit tobacco use<sup>1</sup></b>					
Made a quit attempt in the past 12 months	52.4	52.5	51.9	57.2	50.2
Advised to quit smoking by a health care provider	34.1	30.0	*	25.3	38.8
Attempted to quit smoking using a specific cessation method:					
Quit without assistance	70.8	72.3	*	76.2	68.0
Pharmacotherapy	4.3	4.4	*	8.4	2.2
Counseling/advice	10.6	7.9	*	12.5	9.6
Interest in quitting smoking	77.4	77.8	69.7	79.3	76.5
<b>W: Warn about the dangers of tobacco*</b>					
Belief that tobacco smoking causes serious illness	92.8	92.9	92.7	95.1	91.5
Belief that smoking causes stroke	48.8	51.1	46.7	48.9	48.8
Belief that smoking causes heart attack	70.4	69.8	71.0	70.3	70.5
Belief that smoking causes lung cancer	90.2	91.2	89.2	94.3	88.0
Belief that breathing other peoples' smoke causes serious illness	88.0	87.5	88.6	92.3	85.7
Noticed anti-cigarette smoking information at any location <sup>†</sup>	61.5	61.9	61.2	65.1	59.6
Thinking of quitting because of health warnings on cigarette packages	55.9	56.1	51.8	65.2	51.5
<b>E: Enforce bans on tobacco advertising, promotion, and sponsorship*</b>					
Noticed any cigarette advertisement, sponsorship or promotion <sup>†</sup>	25.2	29.1	21.4	28.7	23.3
Noticed any cigarette marketing in the stores where cigarettes are sold <sup>†</sup>	5.2	7.1	3.3	5.5	5.0
<b>R: Raise taxes on tobacco</b>					
Average manufactured cigarette expenditure per month ( <i>local currency</i> )	1,072.0	1,113.0	*	786.1	1,225.4
Average price paid for a pack of 20 manufactured cigarettes ( <i>local currency</i> )	102.7	104.4	*	94.5	105.8
Last manufactured cigarette purchase was in a shop	65.3	65.1	*	59.5	68.5
Last manufactured cigarette purchase was from a kiosks	30.7	30.9	*	36.0	27.8

**Notes:**

<sup>†</sup> In the last 30 days.

<sup>1</sup> Among past year smokers (current smokers and those that quit < 12 months ago)

\* Indicates estimate based on less than 25 unweighted cases and has been suppressed.



MINISTRY OF HEALTH  
TOBACCO CONTROL UNIT

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