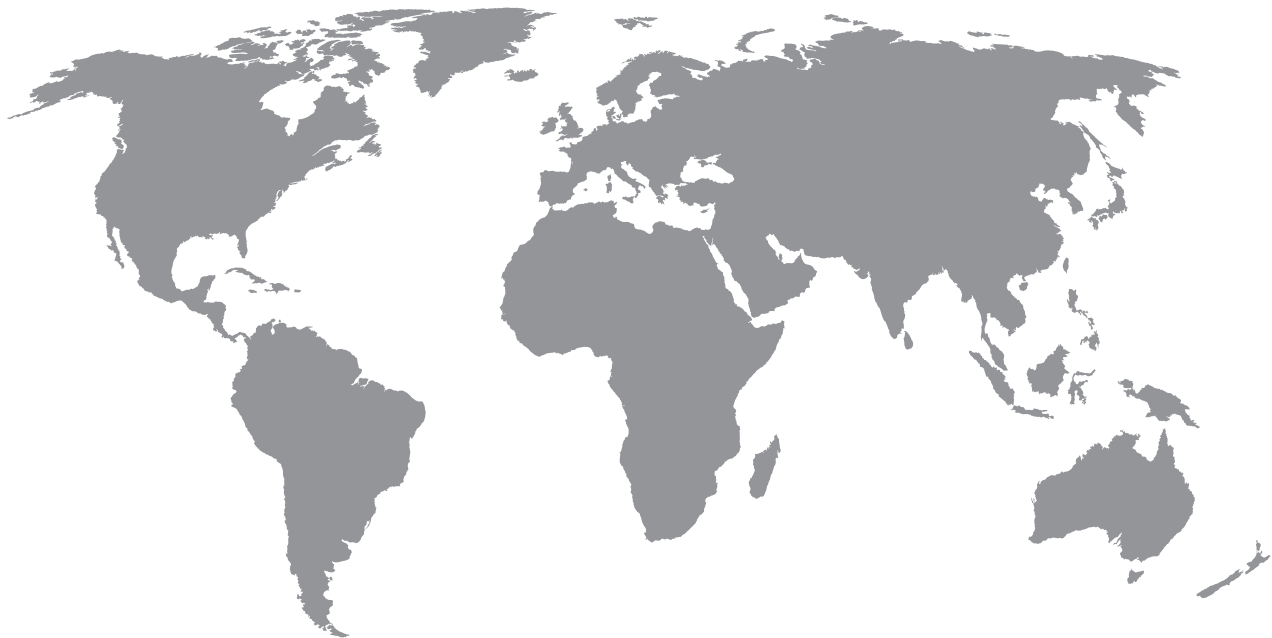




# Global Adult Tobacco Survey (GATS)



**Analysis and Reporting Package**



# **Global Adult Tobacco Survey (GATS) Fact Sheet Templates**

September 2020

## **Global Adult Tobacco Survey (GATS) Comprehensive Standard Protocol**

---

### **GATS Questionnaire**

Core Questionnaire with Optional Questions  
Question by Question Specifications

### **GATS Sample Design**

Sample Design Manual  
Sample Weights Manual

### **GATS Fieldwork Implementation**

Field Interviewer Manual  
Field Supervisor Manual  
Mapping and Listing Manual

### **GATS Data Management**

Programmer's Guide to General Survey System  
Core Questionnaire Programming Specifications  
Data Management Implementation Plan  
Data Management Training Guide

### **GATS Quality Assurance: Guidelines and Documentation**

#### **GATS Analysis and Reporting Package**

Fact Sheet Templates  
Country Report: Tabulation Plan and Guidelines  
Indicator Definitions

#### **GATS Data Release and Dissemination**

Data Release Policy  
Data Dissemination: Guidance for the Initial Release of the Data

## **Suggested Citation**

Global Adult Tobacco Survey Collaborative Group. *Global Adult Tobacco Survey (GATS): Fact Sheet Templates*. Atlanta, GA: Centers for Disease Control and Prevention, 2020.

## **Acknowledgements**

### ***GATS Collaborating Organizations***

- United States Centers for Disease Control and Prevention (CDC)
- CDC Foundation
- Johns Hopkins Bloomberg School of Public Health (JHSPH)
- RTI International
- World Health Organization (WHO)

### ***Financial Support***

Financial support was provided by the *Bloomberg Initiative to Reduce Tobacco Use* through the CDC Foundation with a grant from Bloomberg Philanthropies.

---

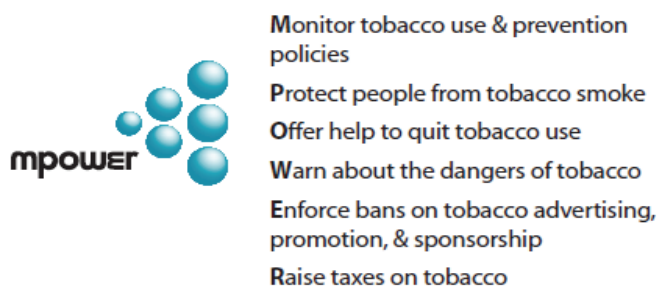
Disclaimer: The views expressed in this manual are not necessarily those of the GATS collaborating organizations.



### GATS Objectives

The Global Adult Tobacco Survey (GATS) is a global standard for systematically monitoring adult tobacco use (smoking and smokeless) and tracking key tobacco control indicators.

GATS is a nationally representative survey, using a consistent and standard protocol across countries including [COUNTRY]. GATS enhances countries' capacity to design, implement and evaluate tobacco control programs. It will also assist countries to fulfill their obligations under the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) to generate comparable data within and across countries. WHO developed MPOWER, a technical package of selected demand reduction measures contained in the WHO FCTC that include:



### GATS Methodology

GATS uses a global standardized methodology. It includes information on respondents' background characteristics, tobacco use (smoking and smokeless), electronic cigarette use, cessation, secondhand smoke, economics, media, and knowledge, attitudes, and perceptions towards tobacco use. In [COUNTRY], GATS was conducted in [YEAR(S)] as a household survey of persons 15 years of age or older by [COUNTRY IMPLEMENTING AGENCY], under the coordination of [MOH]. A multi-stage, geographically clustered sample design was used to produce nationally representative data. A total of XXXXX households were sampled and one individual was randomly selected from each participating household to complete the survey. Survey information was collected electronically by using handheld devices. There were a total of XXXXX completed individual interviews with an overall response rate of XX.X%.

### GATS Highlights

TOBACCO USE
<ul style="list-style-type: none"> <li>XX.X% overall (X million adults), XX.X% of men, and XX.X% of women currently used tobacco.</li> <li>XX.X% overall (X million adults), XX.X% of men, and XX.X% of women currently smoked tobacco.</li> <li>XX.X% overall (X million adults), XX.X% of men, and XX.X% of women currently used smokeless tobacco.</li> </ul>
CESSATION
<ul style="list-style-type: none"> <li>XX.X% of current smokers planned to or were thinking about quitting smoking.</li> <li>XX.X% of smokers who visited a healthcare provider in the past 12 months were advised to quit smoking.</li> </ul>
SECONDHAND SMOKE
<ul style="list-style-type: none"> <li>XX.X% of adults who worked indoors (X million adults) were exposed to tobacco smoke in enclosed areas at their workplace.</li> <li>XX.X% of adults (X million adults) were exposed to tobacco smoke inside their homes.</li> <li>XX.X% of adults (X million adults) were exposed to tobacco smoke when visiting restaurants.</li> </ul>
ECONOMICS
<ul style="list-style-type: none"> <li>The average (mean/median) amount spent on 20 manufactured cigarettes was XX.XX CURRENCY.</li> <li>The average (mean/median) monthly expenditure on manufactured cigarettes was XX.XX CURRENCY.</li> </ul>
MEDIA
<ul style="list-style-type: none"> <li>XX.X% of adults noticed anti-cigarette smoking information on the television or radio.</li> <li>XX.X% of adults noticed (cigarette/tobacco) advertising or promotions in stores where (cigarettes are/tobacco is) sold.</li> <li>XX.X% of adults noticed any (cigarette/tobacco) advertisements, promotions, or sporting event sponsorship.</li> </ul>
KNOWLEDGE, ATTITUDES & PERCEPTIONS
<ul style="list-style-type: none"> <li>XX.X% of adults believed smoking causes serious illness.</li> <li>XX.X% of adults believed breathing other peoples' smoke causes serious illness in non-smokers.</li> </ul>

### TOBACCO USE

TOBACCO USE (smoked and/or smokeless)	OVERALL (%)	MEN (%)	WOMEN (%)
Current tobacco users	XX.X	XX.X	XX.X

### TOBACCO SMOKING

Current tobacco smokers	XX.X	XX.X	XX.X
Daily tobacco smokers	XX.X	XX.X	XX.X
Current cigarette smokers <sup>1</sup>	XX.X	XX.X	XX.X
Daily cigarette smokers <sup>1</sup>	XX.X	XX.X	XX.X
Former daily tobacco smokers <sup>2</sup> (among all adults)	XX.X	XX.X	XX.X
Former daily tobacco smokers <sup>2,3</sup> (among ever daily smokers)	XX.X	XX.X	XX.X

### SMOKELESS TOBACCO USE

Current smokeless tobacco users	XX.X	XX.X	XX.X
Daily smokeless tobacco users	XX.X	XX.X	XX.X
Former daily smokeless tobacco users <sup>4</sup> (among all adults)	XX.X	XX.X	XX.X
Former daily smokeless tobacco users <sup>4,5</sup> (among ever daily users)	XX.X	XX.X	XX.X

[SPACE FOR A GRAPH WITH  
FEATURED INDICATORS]

### ELECTRONIC CIGARETTE USE

	OVERALL (%)	MEN (%)	WOMEN (%)
Ever heard of electronic cigarettes	XX.X	XX.X	XX.X
Ever used electronic cigarettes	XX.X	XX.X	XX.X
Current user of electronic cigarettes	XX.X	XX.X	XX.X

### CESSATION

	OVERALL (%)	MEN (%)	WOMEN (%)
Smokers who made a quit attempt in past 12 months <sup>6</sup>	XX.X	XX.X	XX.X
Current smokers who planned to or were thinking about quitting <sup>7</sup>	XX.X	XX.X	XX.X
Smokers advised to quit by a health care provider in past 12 months <sup>6,8</sup>	XX.X	XX.X	XX.X
Smokeless users who made a quit attempt in past 12 months <sup>9</sup>	XX.X	XX.X	XX.X
Current smokeless users who planned to or were thinking about quitting <sup>7</sup>	XX.X	XX.X	XX.X
Smokeless users advised to quit by a health care provider in past 12 months <sup>8,9</sup>	XX.X	XX.X	XX.X

### SECONDHAND SMOKE

	OVERALL (%)	MEN (%)	WOMEN (%)
Adults exposed to tobacco smoke at the workplace <sup>10,§</sup>	XX.X	XX.X	XX.X
Adults exposed to tobacco smoke at home at least monthly	XX.X	XX.X	XX.X
Adults exposed to tobacco smoke inside: <sup>11,§</sup>			
Government buildings or offices	XX.X	XX.X	XX.X
Healthcare facilities	XX.X	XX.X	XX.X
Restaurants	XX.X	XX.X	XX.X
Public transportation	XX.X	XX.X	XX.X

### ECONOMICS

Average (mean/median) amount spent on 20 manufactured cigarettes (CURRENCY)	XX.XX
Average (mean/median) monthly expenditure on manufactured cigarettes (CURRENCY)	XX.XX
Cost of 100 packs of manufactured cigarettes as a percentage of per capita Gross Domestic Product (GDP) [YEAR] <sup>12</sup>	XX.X

### MEDIA

	OVERALL (%)	CURRENT SMOKERS (%)	NON-SMOKERS (%)
ANTI-TOBACCO WARNINGS			
Adults who noticed anti-cigarette smoking information on the television or radio <sup>§</sup>	XX.X	XX.X	XX.X
	OVERALL (%)	MEN (%)	WOMEN (%)
Current smokers who thought about quitting because of a warning label <sup>§</sup>	XX.X	XX.X	XX.X
	OVERALL (%)	CURRENT SMOKELESS USERS (%)	NON-USERS (%)
Adults who noticed anti-smokeless tobacco information on the television or radio <sup>§</sup>	XX.X	XX.X	XX.X
	OVERALL (%)	MEN (%)	WOMEN (%)
Current smokeless tobacco users who thought about quitting because of a warning label <sup>§</sup>	XX.X	XX.X	XX.X

### TOBACCO INDUSTRY ADVERTISING

	OVERALL (%)	CURRENT (SMOKERS/TOBACCO USERS) (%)	NON-(SMOKERS/USERS) (%)
Adults who noticed (cigarette/tobacco) advertising or promotions in stores where cigarettes are sold <sup>1,3,§</sup>	XX.X	XX.X	XX.X
Adults who noticed any (cigarette/tobacco) advertisements, promotions, or sporting event sponsorship <sup>§</sup>	XX.X	XX.X	XX.X

### KNOWLEDGE, ATTITUDES & PERCEPTIONS

	OVERALL (%)	CURRENT SMOKERS (%)	NON-SMOKERS (%)
Adults who believed smoking causes serious illness	XX.X	XX.X	XX.X
Adults who believed breathing other people's smoke causes serious illness in nonsmokers	XX.X	XX.X	XX.X
	OVERALL (%)	CURRENT SMOKELESS USERS (%)	NON-USERS (%)
Adults who believed smokeless tobacco use causes serious illness	XX.X	XX.X	XX.X

<sup>1</sup> Includes manufactured, [kretek], and hand-rolled cigarettes. <sup>2</sup> Current non-smokers. <sup>3</sup> Quit ratio for daily smoking. <sup>4</sup> Current non-users. <sup>5</sup> Quit ratio for daily smokeless use. <sup>6</sup> Includes current smokers and former smokers who quit in the past 12 months. <sup>7</sup> Planning or thinking about quitting within the next month, 12 months, or someday. <sup>8</sup> Among those who visited a health care provider in past 12 months. <sup>9</sup> Includes current smokeless users and those who quit in past 12 months. <sup>10</sup> Among those who work outside of the home who usually work indoors or both indoors and outdoors. <sup>11</sup> Among those who visited the place in the past 30 days. <sup>12</sup> Estimated [COUNTRY YEAR] per capita GDP = XX,XXX (CURRENCY), provided by the [SOURCE AND DATE]. <sup>13</sup> Includes those who noticed any advertisements or signs promoting (cigarettes/tobacco) in stores where (cigarettes are/tobacco is) sold; (cigarettes/tobacco) at sale prices; or free gifts or discount offers on other products when buying (cigarettes/tobacco). <sup>§</sup> During the past 30 days.

NOTE: Current use refers to daily and less than daily use. Adults refer to persons aged 15 years or older. Data have been weighted to be nationally representative of all non-institutionalized men and women aged 15 years and older. Percentages reflect the prevalence of each indicator in each group, not the distribution across groups.

Financial support was provided by [the Bloomberg Initiative to Reduce Tobacco Use, a program of Bloomberg Philanthropies]. Technical assistance was provided by the U.S. Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and RTI International. Program support was provided by the CDC Foundation.

The findings and conclusions in this fact sheet are those of the author(s) and do not necessarily represent the official position of the CDC.



### BACKGROUND

The Global Adult Tobacco Survey (GATS) is a global standard protocol for systematically monitoring adult tobacco use (smoking and smokeless) and tracking key tobacco control indicators. This household survey collects data on persons 15 years of age or older. In [COUNTRY], GATS was first conducted in [YEAR] and repeated in [YEAR]. GATS [YEAR2] was implemented by [AGENCIES]. Both surveys used similar multistage stratified cluster sample designs to produce nationally representative data. There were [XX,XXX] interviews completed in the [YEAR] survey with an overall response rate of [XX.X%]. In [YEAR], [XX,XXX] interviews were completed with an overall response rate of [XX.X%]. For additional information, refer to the GATS [COUNTRY] [YEAR] and [YEAR] country fact sheets.

GATS enhances countries' capacity to design, implement and evaluate tobacco control programs. It will also assist countries to fulfill their obligations under the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) to generate comparable data within and across countries. WHO has developed MPOWER, a package of six evidence-based demand reduction measures contained in the WHO FCTC.



- Monitor tobacco use & prevention policies
- Protect people from tobacco smoke
- Offer help to quit tobacco use
- Warn about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion, & sponsorship
- Raise taxes on tobacco

### KEY POLICY CHANGES

- Policy change 1
- Policy change 2
- Policy change 3
- Policy change 4
- Policy change 5
- Policy change 6
- Policy change 7
- Policy change 8

### KEY FINDINGS

- Key finding 1
- Key finding 2
- Key finding 3
- Key finding 4
- Key finding 5
- Key finding 6
- Key finding 7
- Key finding 8

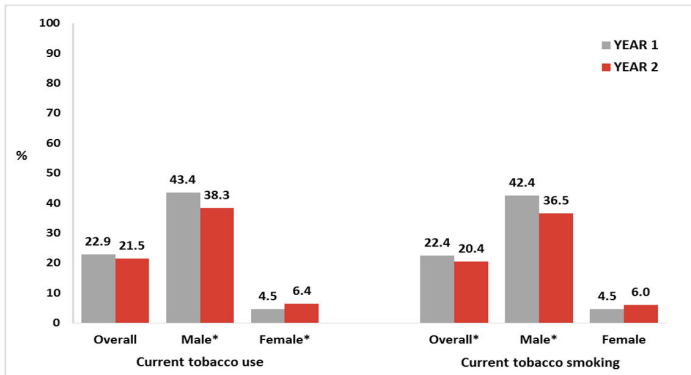
[COUNTRY MOH LOGO]

[COUNTRY IA LOGO]

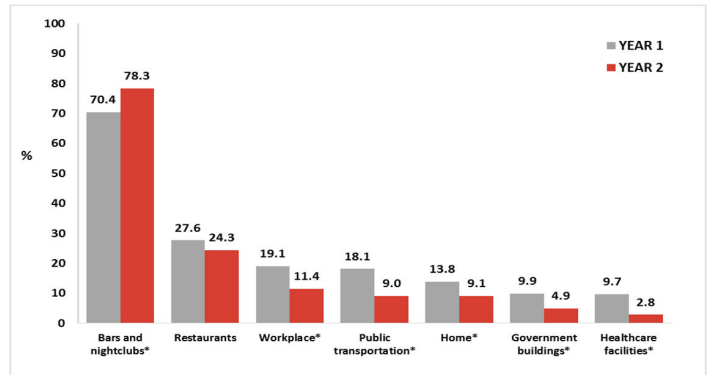
[WHO LOGO]

[CDC LOGO]

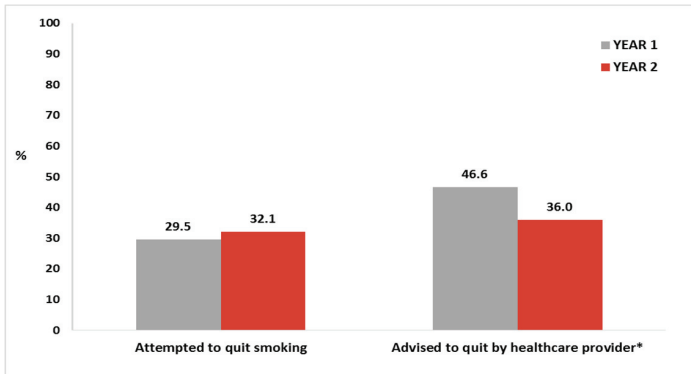
### **m** Prevalence of current tobacco use<sup>1</sup> and current tobacco smoking by gender, [COUNTRY YEAR and YEAR]



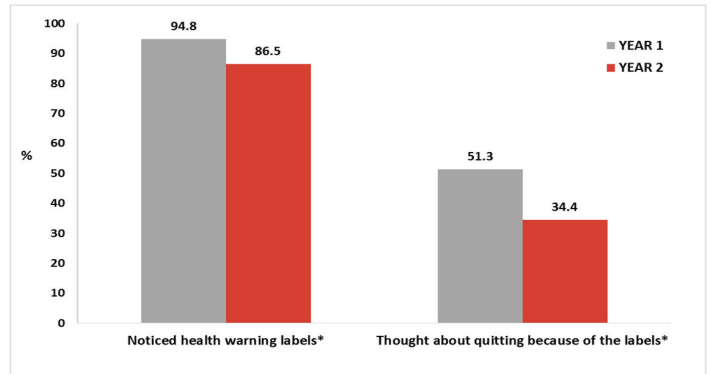
### **p** Exposure to secondhand smoke inside various places<sup>2</sup>, [COUNTRY YEAR and YEAR]



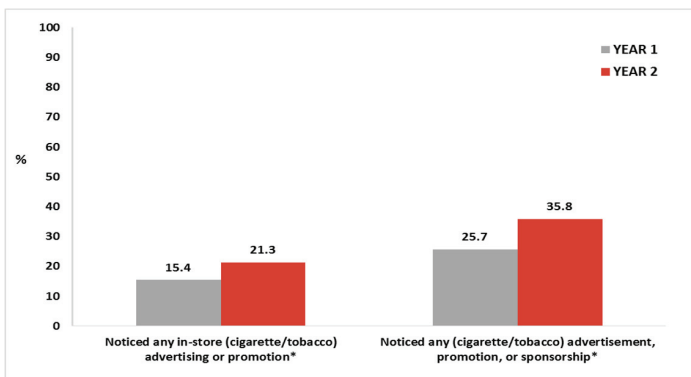
### **o** Quit attempts and advice to quit by a healthcare provider among smokers in the past 12 months, [COUNTRY YEAR and YEAR]



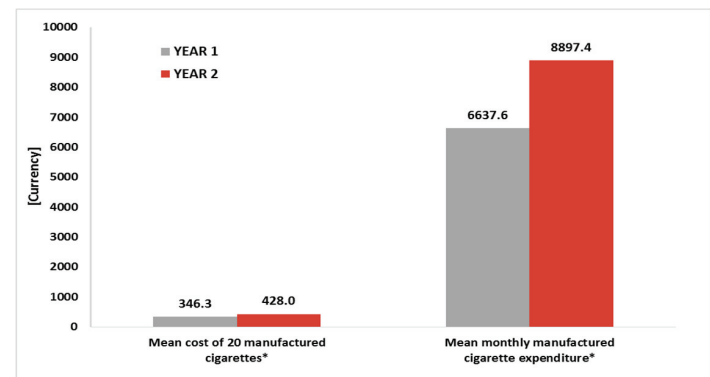
### **w** Noticing and effects of cigarette package health warning labels in the past 30 days among current smokers, [COUNTRY YEAR and YEAR]



### **e** Noticing in-store (cigarette/tobacco) advertising/promotions<sup>3</sup> and any (cigarette/tobacco) advertisement, promotion, or sponsorship during the past 30 days, [COUNTRY YEAR and YEAR]



### **r** Average (mean/median) cost of 20 manufactured cigarettes and cigarette expenditure per month in [CURRENCY]<sup>4</sup>, [COUNTRY YEAR<sup>5</sup> and YEAR]



**NOTES:** <sup>1</sup> Current tobacco use includes current tobacco smoking and/or current smokeless tobacco use. <sup>2</sup> Secondhand smoke indicators calculated as follows: Workplace: among those who work outside of the home who usually work indoors or both indoors and outdoors; Home: exposure to tobacco smoke at home at least monthly; For all other places: among those who visited in the past 30 days. <sup>3</sup> Includes those who noticed any advertisements or signs promoting (cigarettes/tobacco) in stores where (cigarettes are/tobacco is) sold; (cigarettes/tobacco) at sale prices; or free gifts or discount offers on other products when buying (cigarettes/tobacco). <sup>4</sup> Calculated among current manufactured cigarette smokers. <sup>5</sup> GATS [COUNTRY YEAR] cost data were adjusted for inflation for direct comparison to [YEAR] using the Inflation Rate for Average Consumer Prices from the International Monetary Fund's World Economic Outlook Database [DATE ACCESSED]. \* Indicates the relative change between the two years is statistically significant at p<0.05. The relative change can be interpreted as the percentage of the estimate in year 2 as it decreases or increases compared to year 1.

Current use refers to daily and less than daily use. Adults refer to persons aged 15 years or older. Data have been weighted to be nationally representative of all non-institutionalized men and women aged 15 years and older. Percentages reflect the prevalence of each indicator in each group, not the distribution across groups. Results for prevalence estimates and averages are rounded to the nearest tenth (0.1) but relative changes are calculated using un-rounded estimates.

Financial support was provided by [the Bloomberg Initiative to Reduce Tobacco Use through the CDC Foundation with a grant from Bloomberg Philanthropies]. Technical assistance was provided by the U.S. Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and RTI International. Program support was provided by the CDC Foundation.

The findings and conclusions in this fact sheet are those of the author(s) and do not necessarily represent the official position of the CDC.

**Global Adult Tobacco Survey (GATS)  
Country Report:  
Tabulation Plan and Guidelines**

September 2020

## **Global Adult Tobacco Survey (GATS) Comprehensive Standard Protocol**

---

### **GATS Questionnaire**

Core Questionnaire with Optional Questions  
Question by Question Specifications

### **GATS Sample Design**

Sample Design Manual  
Sample Weights Manual

### **GATS Fieldwork Implementation**

Field Interviewer Manual  
Field Supervisor Manual  
Mapping and Listing Manual

### **GATS Data Management**

Programmer's Guide to General Survey System  
Core Questionnaire Programming Specifications  
Data Management Implementation Plan  
Data Management Training Guide

### **GATS Quality Assurance: Guidelines and Documentation**

#### **GATS Analysis and Reporting Package**

Fact Sheet Templates  
Country Report: Tabulation Plan and Guidelines  
Indicator Definitions

#### **GATS Data Release and Dissemination**

Data Release Policy  
Data Dissemination: Guidance for the Initial Release of the Data

## **Suggested Citation**

Global Adult Tobacco Survey Collaborative Group. *Global Adult Tobacco Survey (GATS): Country Report: Tabulation Plan and Guidelines*. Atlanta, GA: Centers for Disease Control and Prevention, 2020.

## **Acknowledgements**

### ***GATS Collaborating Organizations***

- United States Centers for Disease Control and Prevention (CDC)
- CDC Foundation
- Johns Hopkins Bloomberg School of Public Health (JHSPH)
- RTI International
- World Health Organization (WHO)

### ***Financial Support***

Financial support was provided by the *Bloomberg Initiative to Reduce Tobacco Use* through the CDC Foundation with a grant from Bloomberg Philanthropies.

---

Disclaimer: The views expressed in this manual are not necessarily those of the GATS collaborating organizations.



# Contents

---

Chapter	Page
<b>1. Introduction</b> .....	<b>1-1</b>
1.1 Overview of the Global Adult Tobacco Survey .....	1-1
1.2 Use of this Manual .....	1-2
1.3 Notes for Analysis .....	1-2
1.4 Table Titles, Symbols, Notation, and Rounding .....	1-3
1.5 Reporting Point Estimates.....	1-4
1.6 Reporting Subgroup Estimates .....	1-4
1.7 Treatment of Missing Values.....	1-5
1.8 Minimum Number of Unweighted Cases .....	1-5
1.9 Guidelines for Reporting Repeated Global Adult Tobacco Survey Results.....	1-5
<b>2. Country Report Format</b> .....	<b>2-1</b>
<b>3. Country Report Template</b> .....	<b>3-1</b>





# 1. Introduction

---

Tobacco use is a major preventable cause of premature death and disease worldwide, with approximately 1.4 billion people age 15 years or older using tobacco<sup>1</sup>. Furthermore, more than 8 million people die each year due to tobacco-related illnesses<sup>2</sup>. If current trends continue, tobacco use may kill a billion people by the end of this century, and it is estimated that more than three quarters of these deaths will be in low- and middle-income countries<sup>3</sup>. An efficient and systematic surveillance mechanism is essential to monitor and manage the epidemic.

The **Global Adult Tobacco Survey (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 were reviewed and approved by international experts. GATS is intended to enhance the capacity of countries to design, implement and evaluate tobacco control interventions.

In order to maximize the efficiency of the data collected from GATS, a series of manuals has been created. These manuals are designed to provide countries with standard requirements as well as several recommendations on the design and implementation of the survey in every step of the GATS process. They are also designed to offer guidance on how a particular country might adjust features of the GATS protocol in order to maximize the utility of the data within the country. In order to maintain consistency and comparability across countries, following the standard protocol is strongly encouraged.

---

**GATS manuals provide systematic guidance on the design and implementation of the survey.**

---

## 1.1 Overview of the Global Adult Tobacco Survey

GATS is designed to produce national and sub-national estimates among adults across countries. The target population includes all non-institutionalized men and women 15 years of age or older who consider the country to be their usual place of residence. All members of the target population will be sampled from the household that is their usual place of residence.

GATS uses a geographically clustered multistage sampling methodology to identify the specific households that Field Interviewers will contact. First, a country is divided into Primary Sampling Units, segments within these Primary Sampling Units, and households within the segments. Then, a random sample of households is selected to participate in GATS.

---

**The GATS interview is composed of two parts: *Household Questionnaire* and *Individual Questionnaire*. These questionnaires are administered using an electronic data collection device.**

---

---

<sup>1</sup> World Health Organization. WHO report on the global tobacco epidemic, 2019: Offer help to quit tobacco use. Geneva, Switzerland: World Health Organization; 2019. <https://apps.who.int/iris/bitstream/handle/10665/326043/9789241516204-eng.pdf?ua=1>

<sup>2</sup> GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Seattle, WA: Institute for Health Metrics and Evaluation; 2018.

<sup>3</sup> Mathers, C.D., and Loncar, D. Projections of Global Mortality and Burden of Disease from 2002 to 2030. *PLoS Medicine*, 2006, 3(11):e442.

The GATS interview consists of two parts: the *Household Questionnaire* and the *Individual Questionnaire*. The *Household Questionnaire* (household screening) and the *Individual Questionnaire* (individual interview) will be conducted using an electronic data collection device.

At each address in the sample, Field Interviewers will administer the *Household Questionnaire* to one adult who resides in the household. The purposes of the *Household Questionnaire* are to determine if the selected household meets GATS eligibility requirements and to make a list, or roster, of all eligible members of the household. Once a roster of eligible residents of the household is completed, one individual will be randomly selected to complete the *Individual Questionnaire*. The *Individual Questionnaire* asks questions about background characteristics; tobacco smoking; electronic cigarettes; smokeless tobacco; cessation; secondhand smoke; economics; media; and knowledge, attitudes, and perceptions about tobacco.

## 1.2 Use of this Manual

The Global Adult Tobacco Survey (GATS) Country Report and GATS Fact Sheet serve as milestone products for comparability of GATS data between countries, while also presenting key country-specific findings. The Fact Sheet is intended to provide an overview of the key findings and highlights of the survey for a broad audience. The GATS Country Report provides an opportunity to examine these and other findings in more detail and describe the results in the context of each country's unique tobacco control environment. This document provides recommendations for the GATS Country Report.

## 1.3 Notes for Analysis

The purpose of the GATS Country Report is to summarize the major findings of the survey in a format accessible to a variety of audiences. As a result, the report will contain mainly descriptive analyses. However, further multivariate analyses can be conducted to build upon the reported findings.

Sample text and mock tables have been developed to serve as templates for reporting, in terms of structure and content. The tables have been developed to capture important tobacco control indicators that can be generated from the core GATS questionnaire. Many of the indicators are the same as those reported in the Fact Sheet and described in detail in an accompanying document entitled *GATS Indicator Definitions*. The Country Report provides an opportunity to examine these indicators in more detail and present additional indicators likely to be of interest to a variety of audiences. However, not all tables will be relevant for all countries. In addition, some countries may want to include additional indicators generated from adapted country-specific questions included in their own surveys. The tables that are provided in this report are the minimum suggested tables the country may produce, where applicable. In addition, figures may be used to present key findings and should supplement the tables recommended in this report. A list of suggested figures is provided in the Country Report Template.

The principal chapter on tobacco use in the Country Report includes a section on electronic cigarettes. For GATS, tobacco use refers to smoking tobacco (combustible) and using smokeless tobacco products. Use of heated tobacco products is also considered tobacco use, if a country has included the applicable questions in their GATS questionnaire. Using electronic cigarettes is not considered as tobacco use and therefore is reported separately.

The subgroups recommended for cross-tabulations with these indicators are described below and presented in the mock tables as well. In addition to these subgroups, countries may choose to examine

the indicators by other relevant demographic/background characteristics. In reporting cross-tabulations, careful consideration should be given to the precision of subgroup estimates. In some cases, subgroups may be collapsed if there are insufficient observations. Recommendations on the minimum sample size (n) needed for reporting are discussed below.

For most indicators, the reporting of percentages is preferred to facilitate comparisons between estimates. There are some important indicators, however, for which reporting of absolute numbers is informative. For example, it is useful to know how many smokers there are in a country or how many adults are exposed to secondhand smoke (SHS) in public places and the workplace. In general, it is recommended that absolute numbers be presented, along with percentages, for estimates of smoking and smokeless tobacco use and SHS exposure.

Many of the tables shown below on tobacco smoking will have analogous tables on smokeless tobacco or other smoked tobacco products (bidis, waterpipe, etc.). These were not presented below to avoid repetition, but should be added if relevant information has been collected for smokeless tobacco in the survey (e.g., awareness of anti-smokeless tobacco information).

Finally, the mock tables presented here represent suggested approaches for reporting findings from GATS. It is important to note that these tables have been constructed without the advantage of seeing the actual country data. The tables are likely to be modified after initial review of the data. For example, some subgroups may be collapsed if there are small sample sizes in some cells. These modifications should be left to the discretion of the country researchers (including the Ministry of Health) in consultation with CDC and WHO.

#### **1.4 Table Titles, Symbols, Notation, and Rounding**

Tables have a title in bold text. Title should include Table number, title, and a dash to separate the title with survey name, country, and year. For comparison tables, both or all years of the surveys are added to the title.

Example 1. Title for Country Report table: **Table 3.2: Distribution of adults  $\geq$  15 years old by selected demographic characteristics – GATS [Country], [Year].**

Example 2. Title for Country Report table: **Table 3.2: Distribution of adults  $\geq$  15 years old by selected demographic characteristics – GATS [Country], [Year1], [Year2].**

Italicized rows in tables are headers that are not meant to have accompanying statistics.

General footnotes that refer to the entire table should be designated using the term “Note:” Specific footnotes should be designated using numbers (e.g., 1, 2, 3...).

It is recommended that percentages be reported to one decimal place, weighted counts be reported to the nearest 1,000, and unweighted counts be reported as integers.

Symbols and abbreviations are defined immediately below the table, followed by essential descriptive material as briefly as possible. Symbols used with standard table formats:

- " - Indicates estimate based on less than 25 unweighted cases and has been suppressed." See *Section 1.7* for details.
- " N/A - The estimate is "0.0"/"100.0"": Confidence intervals for estimates of 0% or 100% are reported as not applicable (N/A).
- " \*  $p < 0.05$ ": An asterisk indicates a statistically significant change in the country comparison tables.
- " ~ Indicator not available in year XXXX": Indicates the indicator is not available for one of the rounds of GATS in the country comparison tables with three or more rounds of GATS surveys.

## 1.5 Reporting Point Estimates

When reporting point estimates, it is recommended to produce standard errors (SEs) using appropriate methods for analysis of complex survey data. (Taylor Series Linearization (TSL), Jackknife Repeated Replication (JRR) or Balanced Repeated Replication (BRR) are all appropriate; however, Taylor Series Linearization is recommended for reasons of comparability among GATS Country Reports). It is suggested to report the weighted point estimate along with the upper and lower bound 95% confidence interval (95% CI). Currently the default procedures in SUDAAN® and SPSS® calculate asymmetric confidence intervals for proportions while SAS® produces symmetric confidence intervals<sup>4</sup>. STATA® can calculate both asymmetric and symmetric confidence intervals based on the syntax procedures. It is recommended to use statistical tests to determine differences between subgroups. Differences between point estimates should be considered statistically significant if  $p < 0.05$ .

## 1.6 Reporting Subgroup Estimates

The recommended subgroups for reporting tobacco control indicators have been provided in the mock tables. Subgroups based on smoking status are also recommended where necessary, and are reflected in the mock tables provided. These include the following selected demographic/background characteristics from the core questionnaire.

- **Gender:** Male, Female.
- **Age:** It is recommended that 4 broad age groups be reported (15-24, 25-44, 45-64, 65+ years of age); however, these groups can be further separated if data allow (e.g., 15-19 and 20-24 years of age).
- **Residence:** Urban, Rural.
- **Education:** It is recommended that education level be categorized into groups of similar size, which should translate into country relevant school categories or number of years of schooling. In addition, countries may consider reporting education categories for all ages or may consider limiting education categories to respondents who are 25 years old or older. Consideration for the

---

<sup>4</sup> Use of trade names is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

latter is that those younger than 25 may not have reached their full level of educational attainment.

Careful consideration should be given to the precision of subgroup estimates. In some cases, subgroups may be collapsed if there are insufficient observations (see “Minimum number of unweighted cases”). Additionally, other background characteristics may be added as relevant to the country. For example, many tobacco control measures may vary by socioeconomic status (SES). Countries may want to report findings by SES, defined by questions on assets, income, and/or employment status. Other relevant background characteristics may include adapted country-specific demographic variables such as religion, literacy, or geographic region.

## **1.7 Treatment of Missing Values**

In general, missing and “don’t know” responses are excluded from indicator calculations. The main exception is for indicators describing knowledge, attitudes, and beliefs, in which case “don’t know” responses are often included in the denominator. See *GATS Indicator Definitions* for specific guidance on the treatment of missing data.

## **1.8 Minimum Number of Unweighted Cases**

As mentioned above, all estimates should be presented along with the 95% confidence interval. As a rule, for a statistic (averages and proportions or percentages), the recommended minimum sample size (n) of the denominator is 25 unweighted cases. It is recommended that any statistic with an unweighted denominator less than 25 should be suppressed and replaced with a dash (-) in the cell and footnoted at the bottom of the table.

## **1.9 Guidelines for Reporting Repeated Global Adult Tobacco Survey Results**

The purpose of comparing GATS survey results over time is to enable countries to monitor changes in tobacco use prevalence and key tobacco control indicators. Measures of change will provide policy makers, tobacco control advocates and researchers with an indication of the direction of key indicators and where resources should be focused in monitoring, tracking, and reducing the tobacco epidemic.

### **1.9.1 Assessing Appropriateness of Comparisons**

Prior to preparing tables or measures of comparison of estimates from GATS conducted at two or more time periods, careful examination of the comparability of the following is required: sample designs, questionnaires, and survey operations. For most repeated GATS, the surveys will utilize the same core questionnaire, similar sample design, and an equivalent mode of administration (electronic data collection with built in quality control checks). Careful assessment of the comparability of these three elements will result in appropriate measures of change over time.

#### ***Sample Design***

The sample design has an important impact on comparison of current GATS results with previous GATS results. If the sampling frames and sample designs of the two surveys are the same, the comparison is straightforward. If the sampling frames change from one survey year to another, comparison should be based on a common population. If sample designs from two GATs are different, users are recommended to consult with a CDC focal point and the *GATS Sample Design Manual* to explore the comparability of designs over time.

## Questionnaire

When the same core questionnaire is used for the current GATS, the same comparison categories should be utilized for comparison of key indicators over time (e.g., number of male daily smokers ages 15-24 in year 1 with number of male daily smokers ages 15-24 in year 2). For any survey questions that are modified during different GATS administrations, there should be caution in making comparisons due to change in specific questions used to obtain similar indicators.

## Survey Operations

If the quality of survey operations from one GATS administration to another differs, it will impact the calculation of total error for the measure of comparison. A careful review of survey operations and data quality measures should be documented along with result tables to assess the comparability of GATS results from year to year. For example, response rates and missing value patterns should be carefully compared. The assessment should also take into account the mode of survey administration and quality assurance protocols (refer to *GATS Quality Assurance: Guidelines and Documentation* for quality measures).

### 1.9.2 Reporting Measures of Comparison

We recommend reporting estimates between year X and Y, say  $r_1 \dots r_K$ , and the relative change of the two estimates in most recent years,  $R = (r_K - r_{K-1})/r_{K-1}$ , as a percentage, with the 95% of confidence interval of  $R$ . The definition and interpretation of  $R$  are described in the following section.

#### **The Relative Change Between $r_1$ and $r_2$**

The change of two estimates,  $R$ , is a relative measure and can be interpreted as the percentage of the estimate in year 2 as it decreases or increases compared to year 1. This calculation takes into account the percent of change experienced by the population.

As an example, if the estimates of current smoking prevalence among males ages 25-34 are 20.0% in year 1 and 18.0% in year 2, the interpretation of the relative change is that current smoking prevalence among males ages 25-34 decreased 10% from year 1 to year 2. The 95% of confidence interval of  $R$  can be calculated using the following:

Lower bound:  $L(R) = \hat{R} - t_{\frac{\alpha}{2}, k} S(\hat{R})$  and

Upper bound:  $U(R) = \hat{R} + t_{\frac{\alpha}{2}, k} S(\hat{R})$ ,

where  $\hat{R} = \frac{\hat{r}_2 - \hat{r}_1}{\hat{r}_1}$  is the estimate of  $R$ ,  $S(\hat{R}) = \sqrt{\frac{V(r_2)}{r_1^2} + \frac{r_2^2 V(r_1)}{r_1^4}}$  and is the  $\frac{\alpha}{2}$  percent value from a t distribution with degree of freedom of  $k$ . Since the number of PSUs is large following GATS sample design requirement,  $z_{\alpha/2}$  is used as approximation. In GATS analysis,  $\alpha = 0.05$  is used.

Note that the formula for a 95% confidence interval is used when the sample in year 1 and the sample in year 2 are independent. When two samples are not independent, e.g., two samples have the same PSUs, the 95% confidence interval computed is moderately conservative. There is then negative covariance term between year 1 and year 2. Hence, it will reduce the variance of  $\hat{R}$ , though the reduction is often small. See *Appendix C of the GATS Sample Design Manual* for further information.

## ***Adjustment***

When two prevalence rates are compared in epidemiological studies, the direct age-adjusted standardized rates are generally used. To verify the relative change percentage, it is recommended to use the direct method of age standardization. If the two survey years being compared are not too far apart, say within 5 years, and the relative change percentage calculated using direct standardization is similar to the non-standardized, it is recommended to report non-standardized percentages.





## 2. Country Report Format

---

The Country Report may be organized in a manner determined most appropriate by the country. Two general formats are described below.

**Format 1:** This format focuses on presenting each section's tables with a brief interpretation of key findings accompanying each table. It utilizes the following structure:

- Executive Summary
- 1. Introduction
- 2. Methodology
- 3. Sample and Population Characteristics
- 4. Tobacco Use and Electronic Cigarettes
- 5. Cessation
- 6. Secondhand Smoke
- 7. Economics
- 8. Media
- 9. Knowledge, Attitudes and Perceptions
- 10. Comparative Findings (*applies to countries with multiple rounds of GATS surveys*)
- 11. Conclusions and Recommendations
- References
- Appendix A: Questionnaire
- Appendix B: Sample Design
- Appendix C: Estimation of Sampling Errors
- Appendix D: Technical and Survey Staff
- Appendix E: Glossary of Terms
- Appendix F: MPOWER Summary Indicators

**Format 2:** This format presents findings of the report in a structure similar to a peer reviewed journal article. The Results chapter highlights key findings of each GATS topic area of the report: Tobacco Use and Electronic Cigarettes, Cessation, Secondhand Smoke, Economics, Media, and Knowledge, Attitudes and Perceptions. All of the tables are presented in an appendix. The Discussion chapter provides a more in depth discussion of key findings in the context of the country's tobacco control environment. The Conclusions and Recommendations chapter functions similar to the corresponding chapter in Format 1.

- Executive Summary
- 1. Introduction
- 2. Methods

- 3. Results
- 4. Discussion
- 5. Conclusions and Recommendations
- References
- Appendix A: Country Report Tables
- Appendix B: Questionnaire
- Appendix C: Sample Design
- Appendix D: Estimation of Sampling Errors
- Appendix E: Technical and Survey Staff
- Appendix F: Glossary of Terms
- Appendix G: MPOWER Summary Indicators

### 3. Country Report Template

---

This chapter provides the Country Report template for Format 1, as described in the previous chapter. This includes the recommended structure of the report and core table shells with descriptions. The *GATS Indicator Definitions* document provides details for calculating the indicators for these table shells.

## CONTENTS

---

### Preface

### Acknowledgements

<b>Executive Summary</b> .....	<b>3-9</b>
<b>1. Introduction</b> .....	<b>3-10</b>
1.1 Burden of Tobacco in [Country] .....	3-10
1.2 Current Tobacco Control Policies in [Country].....	3-10
1.3 Survey Objectives .....	3-11
<b>2. Methodology</b> .....	<b>3-12</b>
2.1 Study population .....	3-12
2.2 Sampling Design .....	3-12
2.3 Questionnaire .....	3-12
2.4 Data Collection.....	3-13
2.5 Statistical Analysis .....	3-13
<b>3. Sample and Population Characteristics</b> .....	<b>3-14</b>
<b>4. Tobacco Use and Electronic Cigarettes</b> .....	<b>3-16</b>
4.1 Tobacco Use .....	3-16
4.2 Electronic Cigarettes .....	3-31
<b>5. Cessation</b> .....	<b>3-35</b>
<b>6. Secondhand Smoke</b> .....	<b>3-38</b>
<b>7. Economics</b> .....	<b>3-42</b>
<b>8. Media</b> .....	<b>3-45</b>
<b>9. Knowledge, Attitudes and Perceptions</b> .....	<b>3-50</b>
<b>10. Comparative Findings</b> .....	<b>3-52</b>
<b>11. Conclusions and Recommendations</b> .....	<b>3-69</b>
<b>References</b> .....	<b>3-70</b>
<b>Appendix A: Questionnaire</b> .....	<b>3-71</b>
<b>Appendix B: Sample Design</b> .....	<b>3-72</b>
<b>Appendix C: Estimates of Sampling Errors</b> .....	<b>3-73</b>
<b>Appendix D: Technical and Survey Staff</b> .....	<b>3-74</b>
<b>Appendix E: Glossary of Terms</b> .....	<b>3-75</b>
<b>Appendix F: MPOWER Summary Indicators</b> .....	<b>3-76</b>

*Note: The table of contents and list of tables reflects the content and page numbers in this guidance document. These will need to be updated to reflect the content and page numbers of the final report.*

## TABLES

### 3. Sample and Population Characteristics

<b>Table 3.1:</b> Number and percent of households and persons interviewed and response rates, by residence (unweighted) – GATS [Country], [Year].....	3-14
<b>Table 3.2:</b> Distribution of adults ≥ 15 years old by selected demographic characteristics – GATS [Country], [Year]. .....	3-15

### 4. Tobacco Use and Electronic Cigarettes

<b>Table 4.1:</b> Percentage and number of adults ≥15 years old, by detailed smoking status and gender – GATS [Country], [YEAR]. .....	3-16
<b>Table 4.2:</b> Percentage and number of adults ≥15 years old, by detailed smokeless tobacco use status and gender – GATS [Country], [YEAR].....	3-17
<b>Table 4.3:</b> Percentage of adults ≥15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS [Country], [Year]. .....	3-18
<b>Table 4.4:</b> Number of adults ≥15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS [Country], [Year].....	3-20
<b>Table 4.4 (cont.):</b> Number of adults ≥15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS [Country], [Year]. .....	3-21
<b>Table 4.5:</b> Percentage distribution of adults ≥15 years old, by tobacco smoking frequency, gender and selected demographic characteristics – GATS [Country], [Year].....	3-22
<b>Table 4.6:</b> Average number and percentage distribution of cigarettes smoked per day among daily cigarette smokers ≥15 years old, by gender and selected demographic characteristics – GATS [Country], [Year].....	3-24
<b>Table 4.7:</b> Average age and percentage distribution of ever tobacco smokers 20-34 years old by age at smoking initiation, gender and residence – GATS [Country], [Year]. .....	3-25
<b>Table 4.8:</b> Average age and percentage distribution of ever daily smokers 20-34 years old by age at daily smoking initiation, gender and residence – GATS [Country], [Year]. .....	3-26
<b>Table 4.9:</b> Percentage of all adults and ever daily smokers ≥15 years old who are former daily smokers, by selected demographic characteristics – GATS [Country], [Year].....	3-27
<b>Table 4.10:</b> Percentage distribution of former daily smokers ≥15 years old, by time since quitting smoking and selected demographic characteristics – GATS [Country], [Year].....	3-28
<b>Table 4.11:</b> Percentage distribution of current tobacco users ≥15 years old, by tobacco use pattern and selected demographic characteristics – GATS [Country], [Year]. .....	3-29
<b>Table 4.12:</b> Percentage distribution of daily smokers [and/or smokeless tobacco users] ≥15 years old, by time to first [smoke/tobacco use] upon waking and selected demographic characteristics – GATS [Country], [Year].....	3-30
<b>Table 4.13:</b> Electronic cigarette awareness and use among adults ≥ 15 years old, by selected demographic characteristics - GATS [Country], [YEAR]. .....	3-31

**Table 4.14:** Percentage distribution of ever daily electronic cigarette users ≥15 years old, by duration of daily use and selected demographic characteristics – GATS [Country], [YEAR]. .....3-32

**Table 4.15:** Percentage of all adults and ever daily electronic cigarette users ≥15 years old who are former daily electronic cigarette users, by selected demographic characteristics – GATS [Country], [YEAR]......3-33

**Table 4.16:** Reasons for using electronic cigarettes among current electronic cigarettes users ≥15 years old, by selected demographic characteristics – GATS [Country], [YEAR]......3-34

## 5. Cessation

**Table 5.1:** Percentage of smokers ≥15 years old who made a quit attempt and received health care provider advice in the past 12 months, by selected demographic characteristics – GATS [Country], [Year]......3-35

**Table 5.2:** Percentage of smokers ≥15 years old who attempted to quit smoking in the past 12 months, by cessation methods used and selected demographic characteristics – GATS [Country], [YEAR]......3-36

**Table 5.3:** Percentage distribution of current smokers ≥15 years old by interest in quitting smoking and selected demographic characteristics – GATS [Country], [Year]......3-37

## 6. Secondhand Smoke

**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 [Country], [Year]......3-38

**Table 6.2:** Percentage and number of adults ≥15 years old who are exposed to tobacco smoke at home, by smoking status and selected demographic characteristics – GATS [Country], [Year]. .....3-39

**Table 6.3:** Percentage of adults ≥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 [Country], [Year]......3-40

**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 [Country], [Year]. .....3-41

## 7. Economics

**Table 7.1:** Percentage of current manufactured cigarette smokers ≥15 years old, by last brand purchased and selected demographic characteristics – GATS [Country], [Year]. .....3-42

**Table 7.2:** Percentage distribution of manufactured cigarette smokers ≥15 years old, by the source of last purchase of cigarettes and selected demographic characteristics – GATS [Country], [Year]......3-43

**Table 7.3:** Average amount spent for 20 manufactured cigarettes and average cigarette expenditure per month among current manufactured cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [Country], [YEAR]. .....3-44

## 8. Media

<b>Table 8.1:</b> 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 [Country], [Year].	3-45
<b>Table 8.2:</b> 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 [Country], [Year].	3-46
<b>Table 8.3:</b> Percentage of adults $\geq 15$ years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS [Country], [Year].	3-47
<b>Table 8.4:</b> Percentage of current tobacco smokers $\geq 15$ years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS [Country], [Year].	3-48
<b>Table 8.5:</b> Percentage of current non-smokers of tobacco $\geq 15$ years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS [Country], [Year].	3-49

## 9. Knowledge, Attitudes, and Perceptions

<b>Table 9.1:</b> 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 [Country], [YEAR].	3-50
<b>Table 9.2:</b> Percentage of adults $\geq 15$ years old who believe that breathing other people's smoke causes serious illness in non-smokers, by smoking status and selected demographic characteristics – GATS [Country], [YEAR].	3-51

## 10. Comparative Findings

<b>Table 10.1:</b> Distribution of adults $\geq 15$ years old by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-52
<b>Table 10.2:</b> Percentage of adults $\geq 15$ years old, by current tobacco use status and gender – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-53
<b>Table 10.3:</b> Percentage of adults $\geq 15$ years old who are current tobacco smokers of various tobacco products, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-54
<b>Table 10.4:</b> Average number and percentage distribution of cigarettes smoked per day among daily cigarette smokers $\geq 15$ years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-55
<b>Table 10.5:</b> Average and percentage distribution of age at daily smoking initiation among ever daily smokers 20-34 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-56
<b>Table 10.6:</b> Percentage of former daily smokers among all adults and ever daily smokers $\geq 15$ years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-57
<b>Table 10.7:</b> Electronic cigarette awareness and use among adults $\geq 15$ years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-58

<b>Table 10.8:</b> Percentage of smokers ≥15 years old who made a quit attempt and received health care provider advice in the past 12 months, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-59
<b>Table 10.9:</b> Percentage of adults ≥15 years old who are exposed to tobacco smoke at home, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-60
<b>Table 10.10:</b> Percentage of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-61
<b>Table 10.11:</b> Percentage of adults ≥15 years old who were exposed to tobacco smoke when visiting various public places in the past 30 days, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-62
<b>Table 10.12:</b> Average amount spent for 20 manufactured cigarettes among current manufactured cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-63
<b>Table 10.13:</b> Average cigarette expenditure per month among current manufactured cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-64
<b>Table 10.14:</b> Percentage of adults ≥15 years old who noticed anti-cigarette smoking information during the last 30 days in various places, by smoking status – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-65
<b>Table 10.15:</b> Percentage of current smokers ≥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 [COUNTRY], [YEAR1] and [YEAR2].	3-66
<b>Table 10.16:</b> Percentage of adults ≥15 years old who noticed cigarette marketing during the last 30 days, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-67
<b>Table 10.17:</b> Percentage of adults ≥15 years old who believe that tobacco smoking and exposure to secondhand smoke causes serious illness and diseases, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-68

## **Appendix F: MPOWER Summary Indicators**

<b>Table F.1:</b> MPOWER Summary Indicators – GATS [Country], [YEAR].	3-76
<b>Table F.1:</b> MPOWER Summary Indicators – GATS [COUNTRY], [YEAR1] and [YEAR2].	3-77



## FIGURES

---

[A list of suggested figures is provided below.]

### 4. Tobacco Use and Electronic Cigarettes

- Percentage distribution of current tobacco use according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage distribution of current tobacco smokers according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage distribution of daily tobacco smokers according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage distribution of current manufactured cigarette smokers according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage distribution of daily manufactured cigarette smokers according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage distribution of current smokeless tobacco use according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage distribution of daily smokeless tobacco use according to gender and age group, GATS [country], [year]. *(bar graph)*
- Time to first tobacco use upon waking among tobacco users, GATS [country], [year]. *(pie chart)*
- Patterns of tobacco use among all tobacco users, GATS [country], [year]. *(pie chart)*
- Percentage distribution of electronic cigarettes use according to gender and age group, GATS [country], [year]. *(bar graph)*

### 5. Cessation

- Percentage of smokers who made a quit attempt in the past 12 months according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage of smokeless tobacco users who made a quit attempt in the past 12 months according to gender and age group, GATS [country], [year]. *(bar graph)*
- Percentage of current smokers by interest in quitting, GATS [country], [year]. *(pie chart)*
- Percentage of current smokeless tobacco users by interest in quitting, GATS [country], [year]. *(pie chart)*

### 6. Secondhand Smoke

- Percentage of adults exposed to secondhand smoke outside of the home, at home, both outside the home and at home, or not at all, GATS [country], [year]. *(pie chart)*
- Percentage of adults exposure to secondhand smoke in various public places, GATS [country], [year]. *(bar graph)*

### 7. Economics

- Average expenditure (in local currency) incurred by current smokers of manufactured cigarettes according to gender, GATS [country], [year]. *(bar graph)*

- Average expenditure (in local currency) incurred by current smokers of manufactured cigarettes according to age group, GATS [country], [year]. *(bar graph)*

## **8. Media**

- Percentage of current cigarette smokers who noticed health warnings on cigarette package and who thought of quitting according to gender and age group, GATS [country], [year]. *(bar graph)*

## **9. Knowledge, Attitudes and Perceptions**

- Percentage of adults who believe that smoking causes stroke, heart attack and lung cancer by smoking status according to education, GATS [country], [year]. *(bar graph)*
- Percentage of adults who believe that secondhand smoke exposure causes serious illness in non-smokers by smoking status according to education, GATS [country], [year]. *(bar graph)*

## EXECUTIVE SUMMARY

---

*[In this section, include:*

- *Key findings from the survey by section*
- *Recommendations [to be planned with the global community]*

# 1. INTRODUCTION

---

Tobacco use is a major preventable cause of premature death and disease worldwide, with approximately 1.4 billion people age 15 years or older using tobacco<sup>1</sup>. Furthermore, more than 8 million people die each year due to tobacco-related illnesses<sup>2</sup>. If current trends continue, tobacco use may kill a billion people by the end of this century and it is estimated that more than three quarters of these deaths will be in low- and middle-income countries<sup>3</sup>. An efficient and systematic surveillance mechanism is essential to monitor and manage the epidemic.

The World Health Organization (WHO) aims to reduce the global burden of disease and death caused by tobacco, thereby protecting present and future generations from the devastating health, social, environmental, and economic consequences of tobacco consumption and exposure to tobacco smoke. This is accomplished through providing global policy leadership -- promoting the WHO Framework Convention on Tobacco Control (FCTC) and the MPOWER package\* of tobacco policies as a key entry point to the FCTC. The FCTC encourages countries to adhere to its principles, and WHO supports countries in their efforts to implement provisions of the FCTC and MPOWER.

The Global Tobacco Surveillance System (GTSS) was developed to measure the progress of countries in fulfilling the requirements of the FCTC and MPOWER. GTSS consists of the following four components: 1) the Global Youth Tobacco Survey (GYTS), the Global Adult Tobacco Survey (GATS), Tobacco Questions for Surveys (TQS), and Tobacco Questions for Surveys of Youth (TQS-Youth).

GATS 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 were reviewed and approved by international experts. GATS is intended to enhance the capacity of countries to design, implement and evaluate tobacco control interventions.

## 1.1 Burden of Tobacco in [Country]

*[In this section, include information on:*

- *Prevalence of tobacco smoking and smokeless tobacco use*
- *Tobacco Consumption Patterns and Trends: Use other surveys/national surveillance system*
- *Economic Impact of Tobacco Use*
- *Health Impact of Tobacco Use]*

## 1.2 Current Tobacco Control Policies in [Country]

*[In this section, include information on:*

- *FCTC implementation status*

---

\* The MPOWER package is a series of six proven policies aimed at reversing the global tobacco epidemic and include: **M**onitor tobacco use and prevention policies; **P**rotect people from tobacco smoke; **O**ffer help to quit tobacco use; **W**arn about the dangers of tobacco; **E**nforce bans on tobacco advertising, promotion, and sponsorship; and **R**aise taxes on tobacco.

- *Main components of national tobacco control legislation*
- *Current tobacco control initiatives ongoing in the country, such as smoke free legislation, advertisement campaigns, tobacco pricing and taxation]*

### **1.3 Survey Objectives**

The objectives of the GATS are:

- To systematically monitor adult tobacco use (smoking and smokeless) and track key tobacco control indicators in a nationally representative sample of [the Country].
- To track implementation of FCTC recommended policies outlined in the MPOWER package.

## 2. METHODOLOGY

---

### 2.1 Study population

*[In this section:*

- *Describe sample and target population*
- *Describe eligibility criteria*
- *Remind readers of groups that may be excluded (e.g., military and other institutionalized populations)]*

### 2.2 Sampling Design

*[In this section, describe Sample Review Committee finalized sampling design. Refer readers to Appendix B for more detail. Also include information on calculation of sample weights.]*

### 2.3 Questionnaire

*[This description should be modified to reflect the country-specific questionnaire.]*

The GATS [Country] questionnaire consists of [nine] sections. A general description of each section is described below (the full questionnaire is provided in the Appendix A):

- **Background Characteristics:** Gender, age, education, work status, possession of household items.
- **Tobacco Smoking:** Patterns of use (daily consumption, less than daily consumption, not at all), former/past tobacco consumption, age of initiation of smoking, age of initiation of daily smoking, consumption of different tobacco products, (cigarettes, pipes, cigars, waterpipes, and other smoked tobacco), nicotine dependence.
- **Electronic Cigarettes:** Awareness, current use, ever use, past daily use, length of daily use, reasons for use. (Electronic cigarettes are classified as electronic nicotine delivery systems (ENDS) which include various products and terminology such as e-cigarettes, vapes, vape pens, e-hookah, e-pipes, and e-cigars.)
- **Smokeless Tobacco:** Patterns of use (daily consumption, less than daily consumption, not at all), former/past use of smokeless tobacco, age of initiation of smokeless tobacco, age of initiation of daily use of smokeless tobacco, consumption of different smokeless tobacco products (snuff, chewing tobacco, betel quid, etc.), nicotine dependence.
- **Cessation:** Smoking quit attempts, 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 secondhand smoke at home, indoor smoking policy at work place, exposure in last 30 days in: work place, government buildings/offices, health care facilities, restaurants, bars/night clubs, public transportation, universities, schools.
- **Economics:** Type of tobacco product and quantity bought, cost of tobacco product (s), brand, and type of product purchased and source of tobacco products.

- **Media:** Noticing anti-cigarette/smokeless tobacco information from various sources: newspapers or magazines, television, radio, billboards, internet; Noticing and effects of health warning labels on cigarette/smokeless tobacco packages; Noticing cigarette/tobacco advertisements from various sources: stores, television, radio, billboards, posters, newspapers or magazines, cinemas, internet, public transportation, public walls; Noticing sporting events connected with cigarettes/tobacco; Noticing various cigarette/tobacco promotion activities. The reference period for the questions in this section is the last 30 days.
- **Knowledge, Attitudes and Perceptions:** Knowledge about health effects of both smoking and smokeless tobacco.

## 2.4 Data Collection

*[In this section include information on:*

- *Implementing agency*
- *Field training/field staff*
- *Dates in field*
- *Method of capturing data (i.e., handheld)*
- *Languages used*
- *Confidentiality/informed consent]*

## 2.5 Statistical Analysis

*[In this section include information on:*

- *Statistical software utilized*
- *Method used for standard error calculation*
- *Refer to Appendix C for calculations of standard errors]*

### 3. SAMPLE AND POPULATION CHARACTERISTICS

**Table 3.1:** Number and percent of households and persons interviewed and response rates, by residence (unweighted) – GATS [Country], [Year].

	Residence				Total	
	Urban		Rural		Number	Percent
	Number	Percent	Number	Percent		
<i>Selected Household</i>						
Completed (HC)						
Completed – No one eligible (HCNE)						
Incomplete (HINC)						
No screening respondent (HNS)						
Nobody home (HNN)						
Refused (HR)						
Unoccupied (HUO)						
Address not a dwelling (HAND)						
Other <sup>1</sup> (HO)						
Total Households Selected						
<b>Household Response Rate (HRR) (%)<sup>2</sup></b>						
<i>Selected Person</i>						
Completed (PC)						
Incomplete (PINC)						
Not eligible (PNE)						
Not at home (PNH)						
Refused (PR)						
Incapacitated (PI)						
Other <sup>1</sup> (PO)						
Total Number of Sampled Persons						
<b>Person-level Response Rate (PRR) (%)<sup>3</sup></b>						
<b>Total Response Rate (TRR) (%)<sup>4</sup></b>						
<sup>1</sup> Other includes any other result not listed.			<sup>3</sup> The Person-level Response Rate (PRR) is calculated as:			
			$\frac{PC * 100}{PC + PINC + PNH + PR + PI + PO}$			
<sup>2</sup> The Household Response Rate (HRR) is calculated as:			<sup>4</sup> The Total Response Rate (TRR) is calculated as:			
$\frac{HC * 100}{HC + HINC + HNS + HNN + HR + HO}$			$(HRR * PRR) / 100$			
<b>Notes:</b>						
—An incomplete household interview (i.e., roster could not be finished) was considered a nonrespondent to the GATS. Thus, these cases (HINC) were not included in the numerator of the household response rate.						
—The Total Number of Sampled Persons should be equal to the number of Completed [HC] household interviews.						
—A completed person interview [PC] includes respondents who had completed at least question E01 and who provided valid answers to questions B01/B02/B03 (and C01/C02/C03 where applicable). Respondents who did not meet these criteria were considered as incomplete (PINC) nonrespondents to GATS and thus, were not included in the numerator of the person-level response rate.						



**Table 3.2:** Distribution of adults ≥ 15 years old by selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Weighted		Unweighted Number of Adults
	Percentage (95% CI <sup>1</sup> )	Number of Adults (in thousands)	
Overall	100		
<i>Gender</i>			
Male			
Female			
<i>Age (years)</i>			
15-24			
25-44			
45-64			
65+			
<i>Residence</i>			
Urban			
Rural			
<i>Education Level</i> <sup>2,3</sup>			
1			
2			
3			
4			

Note: The following observations were missing: [X] for age, [X] for gender, [X] for residence, and [X] for education

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

<sup>2</sup> Primary or less includes "No formal schooling", "Less than primary school completed", and "Primary school completed"; Secondary includes "Less than secondary school completed", "Secondary school completed", and "Less than high school completed"; High school includes "High school completed"; College or above includes "College/University completed or technological educational institute" and "Post graduate degree completed".

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*This table provides the distribution of adults by various demographic characteristics. Missing values for each of the subgroups should be denoted in a footnote. The unweighted count provides information on cell size and gives a sense of how stable the estimates will be. The weighted values reflect population estimates, after applying sample weights. Refer readers to the appendix on Sample Design for technical details on the sampling design and weighting procedures.*

*The variables listed in Table 3.2 are recommended for use in cross-tabulations of tobacco use and tobacco control indicators, as illustrated in the mock tables presented below. In addition to the variables shown in Table 3.2, countries may choose to report other demographic characteristics, such as religion, racial/ethnic background, employment status, wealth, marital status, literacy, or geographic region, as relevant. In reporting cross-tabulations, analysts should consider cell sizes. In some cases, subgroups may need to be collapsed if there are insufficient observations.*

## 4. TOBACCO USE AND ELECTRONIC CIGARETTES

### 4.1 Tobacco Use

[Section 4.1 will present information on smoking tobacco and smokeless tobacco. In addition, use of heated tobacco products can be presented here (if applicable for the country) as heated tobacco product use is considered tobacco use. Note that electronic cigarettes will be presented separately in Section 4.2.]

**Table 4.1:** Percentage and number of adults ≥15 years old, by detailed smoking status and gender – GATS [Country], [YEAR].

Smoking Status	Overall		Male		Female	
	Percentage (95% CI)	Number in thousands	Percentage (95% CI)	Number in thousands	Percentage (95% CI)	Number in thousands
<b>Current tobacco smoker</b>						
Daily smoker						
Occasional smoker						
Occasional smoker, formerly daily						
Occasional smoker, never daily						
<b>Non-smoker</b>						
Former daily smoker						
Never daily smoker						
Former occasional smoker						
Never smoker						

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

This table provide a detailed description of smoking status among the population. Each of these indicators is calculated among all respondents in that group/category. All rows should have estimates, including the bolded “current tobacco smoker” and “non-smoker” rows. These two bolded estimates should add to 100% and total population estimates. Each level of indentation refers to subheadings that should add to the estimates above them (with the potential for rounding error). For example, the prevalence of “daily” and “occasional” smokers should add to the overall “current tobacco smoker” prevalence. Similarly, the prevalence of “occasional smoker, formerly daily” and “occasional smoker, never daily” should add to the “occasional smoker” prevalence. Many of the subcategories will almost never be used separately (e.g., “occasional smoker, formerly daily” and “occasional smoker, never daily”) and might be routinely combined. However, it is recommended that for this table, the detailed smoking status categories be reported.

**Table 4.2:** Percentage and number of adults ≥15 years old, by detailed smokeless tobacco use status and gender – GATS [Country], [YEAR].

Smokeless Tobacco Use Status	Overall		Male		Female	
	Percentage (95% CI)	Number in thousands	Percentage (95% CI)	Number in thousands	Percentage (95% CI)	Number in thousands
<b>Current smokeless tobacco user</b>						
Daily user						
Occasional user						
Occasional user, formerly daily						
Occasional user, never daily						
<b>Non-user of smokeless tobacco</b>						
Former daily user						
Never daily user						
Former occasional user						
Never user						

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

*If smokeless tobacco use is not common for a country, some of the detailed categories can be removed. For example, a country may only want to present current use, daily use, occasional use, and non-use.*

**Table 4.3:** Percentage of adults ≥15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette		Waterpipe	Other smoked tobacco <sup>2</sup>
			Manufactured	Hand-rolled		
<i>Percentage (95% CI)</i>						
<b>Overall</b>						
<i>Age (years)</i>						
<i>Residence</i>						
<i>Education Level<sup>3</sup></i>						

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

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*This table describes the prevalence of current tobacco smoking and current use of specific products. Countries should adapt this table to report products with significant usage here, for example bidis or water pipes. If kretek usage is reported, it should be documented in the table under “Type of Cigarette” along with “Manufactured” and “Hand-rolled.” The prevalence estimates include both daily and occasional (less than daily use). “Any smoked tobacco” includes any type of smoked tobacco, while “any cigarette” includes manufactured, hand-rolled, and kreteks, where applicable. It is important to note that the estimates reflect prevalence, not the percent distribution of product use; therefore, the denominator for each of these indicators is all respondents in each subgroup. For example, the estimate for manufactured cigarettes is the percentage of all respondents who are current smokers of manufactured cigarettes, not the percent of current smokers who smoke manufactured cigarettes. For this reason, the estimates should not be expected to add to 100%. Table 4.4 presents the same information in terms of absolute numbers.*

*Both Tables 4.3 and 4.4 present results by gender. It is only recommended to present these detailed tables for each gender if the overall current tobacco smoking prevalence is above 5%. If criteria are not met for both genders, one that meets the criteria may be presented.*

**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 [Country], [Year].

Demographic Characteristics	Any smoked tobacco product	Any cigarette <sup>1</sup>	Type of Cigarette			Other smoked tobacco <sup>2</sup>
			Manufactured	Hand-rolled	Waterpipe	
<i>Percentage (95% CI)</i>						
<b>Male</b>						
<i>Age (years)</i>						
<i>Residence</i>						
<i>Education Level<sup>3</sup></i>						
<b>Female</b>						
<i>Age (years)</i>						
<i>Residence</i>						
<i>Education Level<sup>3</sup></i>						

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

**Table 4.4:** Number of adults  $\geq 15$  years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Any smoked tobacco product	Type of Cigarette			Other smoked tobacco <sup>2</sup>
		Any cigarette <sup>1</sup>	Manufactured	Hand-rolled	
<i>Number in thousands</i>					
<b>Overall</b>					
<i>Age (years)</i>					
<i>Residence</i>					
<i>Education Level<sup>3</sup></i>					

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

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

**Table 4.4 (cont.):** Number of adults ≥15 years old who are current smokers of various smoked tobacco products, by gender and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Any smoked tobacco product	Type of Cigarette			Other smoked tobacco <sup>2</sup>
		Any cigarette <sup>1</sup>	Manufactured	Hand-rolled	
<i>Number in thousands</i>					
<b>Male</b>					
<i>Age (years)</i>					
<i>Residence</i>					
<i>Education Level<sup>3</sup></i>					
<b>Female</b>					
<i>Age (years)</i>					
<i>Residence</i>					
<i>Education Level<sup>3</sup></i>					

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

**Table 4.5:** Percentage distribution of adults ≥15 years old, by tobacco smoking frequency, gender and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Tobacco Smoking Frequency			Total
	Daily	Occasional <sup>1</sup>	Non-smoker	
	<i>Percentage (95% CI)</i>			
<b>Overall</b>				100
<i>Age (years)</i>				
15-24				100
25-44				100
45-64				100
65+				100
<i>Residence</i>				
Urban				100
Rural				100
<i>Education Level<sup>2</sup></i>				
1				100
2				100
3				100
4				100

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

*This table describes the smoking frequency of respondents. Because all respondents are either current daily smokers, occasional smokers, or non-smokers, the estimates of prevalence within each category should add to 100%.*



**Table 4.5 (cont.):** Percentage distribution of adults ≥15 years old, by tobacco smoking frequency, gender and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Tobacco Smoking Frequency			Total
	Daily	Occasional <sup>1</sup>	Non-smoker	
	<i>Percentage (95% CI)</i>			
<b>Male</b>				100
<i>Age (years)</i>				
15-24				100
25-44				100
45-64				100
65+				100
<i>Residence</i>				
Urban				100
Rural				100
<i>Education Level</i> <sup>2</sup>				
1				100
2				100
3				100
4				100
<b>Female</b>				100
<i>Age (years)</i>				
15-24				100
25-44				100
45-64				100
65+				100
<i>Residence</i>				
Urban				100
Rural				100
<i>Education Level</i> <sup>2</sup>				
1				100
2				100
3				100
4				100

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

**Table 4.6:** Average number and percentage distribution of cigarettes smoked per day among daily cigarette smokers ≥15 years old, by gender and selected demographic characteristics – GATS [Country], [Year].

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	≥25	
	<i>Mean (95% CI)</i>	<i>Percentage (95% CI)</i>					
<b>Overall</b>							100
<i>Gender</i>							
Male							100
Female							100
<i>Age (years)</i>							
15-24							100
25-44							100
45-64							100
65+							100
<i>Residence</i>							
Urban							100
Rural							100
<i>Education Level<sup>2</sup></i>							
1							100
2							100
3							100
4							100

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

<sup>2</sup> Education level is reported only among respondents 25+years old.

*This table describes the distribution of cigarette smoking consumption among daily cigarette smokers. The categories presented here should add to 100%. Countries with significant use of other products may want to report smoking consumption for these as well (e.g., bidis in India or Bangladesh).*

**Table 4.7:** Average age and percentage distribution of ever tobacco smokers 20-34 years old by age at smoking initiation, gender, and residence – GATS [Country], [Year].

Demographic Characteristics	Average age of smoking initiation (years) <sup>1</sup>	Age at smoking initiation (years) <sup>1</sup>			Total
		<15	15-16	17-19	
	<i>Mean (95% CI)</i>	<i>Percentage (95% CI)</i>			
<b>Overall</b>					100
<i>Gender</i>					
Male					100
Female					100
<i>Residence</i>					
Urban					100
Rural					100

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

*This table describes the distribution of age at which ever smokers first tried smoking. Age of initiation should be calculated among young adult ever smokers (ages 20-34) to reflect more recent patterns of initiation. Age of initiation among older populations reflects historical patterns of initiation. An analysis of birth cohort patterns in age of initiation (by subgrouping on current age) can provide additional information on trends. As specified in the table, the percentages should add to 100% within each row.*

**Table 4.8:** Average age and percentage distribution of ever daily smokers 20-34 years old by age at daily smoking initiation, gender, and residence – GATS [Country], [Year].

Demographic Characteristics	Average age of daily smoking initiation (years) <sup>1</sup>	Age at daily smoking initiation (years) <sup>1</sup>				Total
		<15	15-16	17-19	20+	
	<i>Mean (95% CI)</i>	<i>Percentage (95% CI)</i>				
<b>Overall</b>						100
<i>Gender</i>						
Male						100
Female						100
<i>Residence</i>						
Urban						100
Rural						100

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

*This table describes the distribution of age at which ever daily smokers first began smoking daily. Age of initiation should be calculated among young adult ever daily smokers (ages 20-34) to reflect more recent patterns of initiation. Age of initiation among older populations reflects historical patterns of initiation. An analysis of birth cohort patterns in age of initiation (by subgrouping on current age) can provide additional information on trends. As specified in the table, the percentages should add to 100% within each row*

**Table 4.9:** Percentage of all adults and ever daily smokers ≥15 years old who are former daily smokers, by selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Former Daily Smokers <sup>1</sup> (Among All Adults)	Former Daily Smokers <sup>1</sup> (Among Ever Daily Smokers) <sup>2</sup>
<i>Percentage (95% CI)</i>		
<b>Overall</b>		
<i>Gender</i>		
Male		
Female		
<i>Age (years)</i>		
15-24		
25-44		
45-64		
65+		
<i>Residence</i>		
Urban		
Rural		
<i>Education Level<sup>3</sup></i>		
1		
2		
3		
4		

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*The quit ratio (former daily smokers as a percentage of ever daily smokers) is a key indicator of the success of efforts to encourage cessation among established smokers. This is similar to the indicator “former daily smokers (among all adults)”, except that the denominator is ever daily smokers, rather than all respondents. Therefore, the estimate for the quit ratio should be greater than the estimate for the prevalence of former daily smokers.*

**Table 4.10:** Percentage distribution of former daily smokers  $\geq 15$  years old, by time since quitting smoking and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Time since quitting smoking (years) <sup>1</sup>				Total
	<1	1 to <5	5 to <10	$\geq 10$	
<i>Percentage (95% CI)</i>					
Overall					100
<i>Gender</i>					
Male					100
Female					100
<i>Age (years)</i>					
15-24					100
25-44					100
45-64					100
65+					100
<i>Residence</i>					
Urban					100
Rural					100
<i>Education Level<sup>2</sup></i>					
1					100
2					100
3					100
4					100

<sup>1</sup>Among former daily smokers (current non-smokers).

<sup>2</sup>Education level is reported only among respondents 25+ years old.

*Reporting on time since quitting can provide information on the impact of recent programs and policies, by showing the percentage of recent quitters compared with longer-term quitters. Smokers who have quit for a longer period of time are more likely to remain former smokers. The estimates in this table reflect the percent distribution among former daily smokers, so they should add to 100%.*

*(Analogous tables to the ones presented above for smoked tobacco should be presented here for smokeless tobacco use and other smoked tobacco (bidis, kreteks, etc.) if relevant.)*

**Table 4.11:** Percentage and distribution of current tobacco users ≥15 years old, by tobacco use pattern and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Current Tobacco Users <sup>1</sup>	Type of Current Tobacco Use <sup>2</sup>			Total
		Smoked only	Smokeless only	Both smoked and smokeless	
<i>Percentage (95% CI)</i>					
<b>Overall</b>					100
<i>Gender</i>					
Male					100
Female					100
<i>Age (years)</i>					
15-24					100
25-44					100
45-64					100
65+					100
<i>Residence</i>					
Urban					100
Rural					100
<i>Education Level<sup>3</sup></i>					
1					100
2					100
3					100
4					100

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

<sup>2</sup> Among current tobacco users.

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*This table describes the prevalence of current tobacco use and the percentage distribution of the patterns of current tobacco use. The prevalence of current tobacco use is calculated among all respondents. The types of tobacco use are calculated among current tobacco users and should add to 100%. “Smoked only” reflects the percentage of respondents who currently smoke tobacco only (daily or less than daily). “Smokeless only” reflects the percentage of respondents who currently use smokeless tobacco only (daily or less than daily). “Both smoked and smokeless” reflects the percentage of respondents who currently smoke tobacco and use smokeless tobacco products on either a daily or less than daily basis.*

*Heated tobacco product use should be added to this table as tobacco use if the relevant questions are included in the country-adapted questionnaire*

**Table 4.12:** Percentage distribution of daily smokers [and/or smokeless tobacco users] ≥15 years old, by time to first [smoke/tobacco use] upon waking and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Time to first smoke [or smokeless use]				Total
	≤5 minutes	6-30 minutes	31-60 minutes	>60 minutes	
<i>Percentage (95% CI)</i>					
Overall					100
<i>Gender</i>					
Male					100
Female					100
<i>Age (years)</i>					
15-24					100
25-44					100
45-64					100
65+					100
<i>Residence</i>					
Urban					100
Rural					100
<i>Education Level<sup>1</sup></i>					
1					100
2					100
3					100
4					100

<sup>1</sup> Education level is reported only among respondents 25+ years old.

*This table provides information on the level of addiction of tobacco users by reporting the time to first nicotine administration. Among daily users of both smoked and smokeless tobacco products, the type of product used first should be utilized for reporting time to first use. If the question on time to first smokeless use is not included in the country-adapted questionnaire, this table will only report time to first smoke. The estimates in this table reflect the percent distribution, so they should add to 100%.*



## 4.2 Electronic Cigarettes

[Section 4.2 will present information on electronic cigarettes.]

**Table 4.13:** Electronic cigarette awareness and use among adults ≥ 15 years old, by selected demographic characteristics - GATS [Country], [YEAR].

Demographic Characteristics	Ever heard of electronic cigarettes <sup>1</sup>	Ever users <sup>1</sup>	Ever daily users <sup>1</sup>	Current users <sup>1,2</sup>	Current daily users <sup>1</sup>	Current occasional users <sup>1</sup>	Current users among those who were aware <sup>3</sup>
<b>Overall</b>							
<i>Gender</i>							
Male							
Female							
<i>Age (years)</i>							
15-24							
25-44							
45-64							
65+							
<i>Residence</i>							
Urban							
Rural							
<i>Education Level</i> <sup>4</sup>							
1							
2							
3							
4							

Percentage (95% CI)

<sup>1</sup> Among all adults.

<sup>2</sup> Current use includes daily or less than daily use.

<sup>3</sup> Among those who had ever heard of electronic cigarettes.

<sup>4</sup> Education level is reported only among respondents 25+ years old.

**Table 4.14:** Percentage distribution of ever daily electronic cigarette users ≥15 years old, by duration of daily use and selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Duration of daily electronic cigarette use <sup>1</sup>					Total
	Less than 1 month	1 to 3 Months	4 to 11 months	1 to 2 years	More than 2 years	
<b>Overall</b>						100
<i>Gender</i>						
Male						100
Female						100
<i>Age (years)</i>						
15-24						100
25-44						100
45-64						100
65+						100
<i>Residence</i>						
Urban						100
Rural						100
<i>Education Level</i> <sup>2</sup>						
1						100
2						100
3						100
4						100

Percentage (95% CI)

<sup>1</sup> Among ever daily electronic cigarette users (current daily and former daily).

<sup>2</sup> Education level is reported only among respondents 25+ years old.

**Table 4.15:** Percentage of all adults and ever daily electronic cigarette users ≥15 years old who are former daily electronic cigarette users, by selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Former Daily Electronic Cigarette Users <sup>1</sup> (Among All Adults)	Former Daily Electronic Cigarette Users <sup>1</sup> (Among Ever Daily Users) <sup>2</sup>
<i>Percentage (95% CI)</i>		
<b>Overall</b>		
<i>Gender</i>		
Male		
Female		
<i>Age (years)</i>		
15-24		
25-44		
45-64		
65+		
<i>Residence</i>		
Urban		
Rural		
<i>Education Level<sup>3</sup></i>		
1		
2		
3		
4		

<sup>1</sup> Current non-users of electronic cigarettes.

<sup>2</sup> Also known as the quit ratio for daily electronic cigarette use.

<sup>3</sup> Education level is reported only among respondents 25+ years old.

**Table 4.16:** Reasons for using electronic cigarettes among current electronic cigarettes users ≥15 years old, by selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Reasons for Using Electronic Cigarettes <sup>1</sup>							
	Quit smoking tobacco <sup>2</sup>	Avoid returning to smoking tobacco <sup>3</sup>	Enjoy using	Addicted	Can use where smoking tobacco is not allowed	Less harmful than smoking tobacco	Comes in likeable flavors	Friend or family uses
<b>Overall</b>								
<i>Gender</i>								
Male								
Female								
<i>Age (years)</i>								
15-24								
25-44								
45-64								
65+								
<i>Residence</i>								
Urban								
Rural								
<i>Education Level</i> <sup>4</sup>								
1								
2								
3								
4								

Percentage (95% CI)

<sup>1</sup> Among current electronic cigarette users.

<sup>2</sup> Among current tobacco smokers.

<sup>3</sup> Among former tobacco smokers.

<sup>4</sup> Education level is reported only among respondents 25+ years old.

## 5. CESSATION

**Table 5.1:** Percentage of smokers  $\geq 15$  years old who made a quit attempt and received health care provider advice in the past 12 months, by selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Smoking cessation and health care seeking behavior			
	Made quit attempt <sup>1</sup>	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>
<i>Percentage (95% CI)</i>				
<b>Overall</b>				
<i>Gender</i>				
Male				
Female				
<i>Age (years)</i>				
15-24				
25-44				
45-64				
65+				
<i>Residence</i>				
Urban				
Rural				
<i>Education Level<sup>4</sup></i>				
1				
2				
3				
4				

<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.

<sup>4</sup> Education level is reported only among respondents 25+ years old.

*This table describes smoking cessation behavior, health care seeking behavior, and health care provider assistance. Note the different denominators for some of the indicators.*

**Table 5.2:** Percentage of smokers ≥15 years old who attempted to quit smoking in the past 12 months, by cessation methods used and selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Use of Cessation Method <sup>1</sup>					
	Pharmacotherapy <sup>2</sup>	Counseling/Advice <sup>3</sup>	Electronic cigarettes	Heated tobacco products	Traditional medicines <sup>4</sup>	Attempt to quit without assistance
<b>Overall</b>						
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level<sup>5</sup></i>						
1						
2						
3						
4						

*Percentage (95% CI)*

<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 such as [EXAMPLES FROM QUESTIONNAIRE].

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

<sup>4</sup> For example, [EXAMPLES FROM QUESTIONNAIRE].

<sup>5</sup> Education level is reported only among respondents 25+ years old.

*This table describes the type of cessation method used during the last quit attempt. This includes both successful (recent abstainers) and unsuccessful (current smokers) quit attempts. The categories presented here represent one suggestion for reporting. The choice of category depends on the questionnaire items and relevant cessation methods in country. These estimates should not add to 100% because a respondent may have used multiple methods.*

**Table 5.3:** Percentage distribution of current smokers ≥15 years old by interest in quitting smoking and selected demographic characteristics – GATS [Country], [Year].

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	
Overall				100
<i>Gender</i>				
Male				100
Female				100
<i>Age (years)</i>				
15-24				100
25-44				100
45-64				100
65+				100
<i>Residence</i>				
Urban				100
Rural				100
<i>Education Level</i> <sup>2</sup>				
1				100
2				100
3				100
4				100

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

*This table reports the level of current smokers' interest in quitting smoking. The estimates in this table reflect the percent distribution among current smokers, so they should add to 100%.*

*(Analogous tables to the ones presented above for smoked tobacco should be presented smokeless tobacco use and other smoked tobacco (bidis, kreteks, etc.) if relevant).*

## 6. SECONDHAND SMOKE

**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 [Country], [Year].

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>				
<i>Gender</i>				
Male				
Female				
<i>Age (years)</i>				
15-24				
25-44				
45-64				
65+				
<i>Residence</i>				
Urban				
Rural				
<i>Education Level<sup>2</sup></i>				
1				
2				
3				
4				

<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.

<sup>2</sup> Education level is reported only among respondents 25+ years old.

*This table describes the percentage and number of adults and non-smokers who work indoors or both indoors and outdoors, and are exposed to tobacco smoke at work during the past 30 days. See the GATS Indicator Definitions document for more information.*



**Table 6.2:** Percentage and number of adults ≥15 years old who are exposed to tobacco smoke at home, by smoking status and selected demographic characteristics – GATS [Country], [Year].

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>				
<i>Gender</i>				
Male				
Female				
<i>Age (years)</i>				
15-24				
25-44				
45-64				
65+				
<i>Residence</i>				
Urban				
Rural				
<i>Education Level<sup>2</sup></i>				
1				
2				
3				
4				

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

Table 6.2 describes the percentage and number of adults and non-smokers exposed to tobacco smoke at home either daily, weekly, or monthly. See GATS Indicator Definitions for more information.

Table 6.3 describes the percentage of adults and non-smokers exposed to tobacco smoke in different types of places among the total population. The categories should be modified to reflect the country-specific questionnaire.

Table 6.4 describes the percentage of adults and non-smokers exposed to tobacco smoke in different types of places among those who visited the type of place within the past 30 days. The categories should be modified to reflect the country-specific questionnaire.

**Table 6.3:** Percentage of adults ≥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 [Country], [Year].

Demographic Characteristics	Adults Exposed to Tobacco Smoke <sup>1</sup> in...					
	Government buildings	Health care facilities	Restaurants	Bars or nightclubs	Public transportation	Universities
	<i>Percentage (95% CI)</i>					
<b>Overall</b>						
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level<sup>2</sup></i>						
1						
2						
3						
4						
<b>Non-smokers</b>						
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level<sup>2</sup></i>						
1						
2						
3						
4						

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

**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 [Country], [Year].

Demographic Characteristics	Adults Exposed to Tobacco Smoke <sup>1</sup> in...					
	Government buildings	Health care facilities	Restaurants	Bars or nightclubs	Public transportation	Universities
	<i>Percentage (95% CI)</i>					
<b>Overall</b>						
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level<sup>2</sup></i>						
1						
2						
3						
4						
<b>Non-smokers</b>						
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level<sup>2</sup></i>						
1						
2						
3						
4						

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

## 7. ECONOMICS

**Table 7.1:** Percentage of current manufactured cigarette smokers  $\geq 15$  years old, by last brand purchased and selected demographic characteristics – GATS [Country], [Year].

Demographic Characteristics	Last cigarette brand purchased					Total
	BRAND 1	BRAND 2	BRAND 3	BRAND 4	BRAND 5	
<b>Overall</b>						100
<i>Gender</i>						
Male						100
Female						100
<i>Age (years)</i>						
15-24						100
25-44						100
45-64						100
65+						100
<i>Residence</i>						
Urban						100
Rural						100
<i>Education Level</i> <sup>1</sup>						
1						100
2						100
3						100
4						100

Percentage (95% CI)

Note: Current manufactured cigarette smokers includes daily and occasional (less than daily) smokers. The top five reported brands last purchased among all manufactured cigarette smokers are shown here.

<sup>1</sup> Education level is reported only among respondents 25+ years old.

*This table describes the top manufactured cigarette brand preferences. The top five brands overall should be reported and the percentage of respondents that purchased them. The totals will add to 100% because those who purchased other brands are included in the "Other" category. In some cases, the top five brands for a subgroup may differ from the top five brands overall. If other brands are in the top three brands for any selected demographic subgroup, these should be reported in a footnote.*

**Table 7.2:** Percentage distribution of manufactured cigarette smokers ≥15 years old, by the source of last purchase of cigarettes and selected demographic characteristics – GATS [Country], [Year].

Source	Gender		Age (years)		Residence		
	Overall	Male	Female	15-24	25+	Urban	Rural
Vending machine							
Store							
Street vendor							
Military store							
Duty-free shop							
Outside the country							
Kiosks							
Internet							
From another person							
Other							
<b>Total</b>	100	100	100	100	100	100	100

Percentage (95% CI)

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

*This table describes the source of the last purchase of manufactured cigarettes. The specific source should be adjusted to reflect the items listed in the country-specific questionnaire. The results in this table may be able to provide some information on the potential for tax avoidance or smuggling. The total down the column should add to 100%, if all options asked in the questionnaire are shown in the table.*

**Table 7.3:** Average amount spent for 20 manufactured cigarettes and average cigarette expenditure per month among current manufactured cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Amount spent on 20 manufactured cigarettes (CURRENCY)		Manufactured cigarette expenditure per month (CURRENCY)	
	Mean (95% CI)	Median (95% CI)	Mean (95% CI)	Median (95% CI)
<b>Overall</b>				
<i>Gender</i>				
Male				
Female				
<i>Age (years)</i>				
15-24				
25-44				
45-64				
65+				
<i>Residence</i>				
Urban				
Rural				
<i>Education Level</i> <sup>1</sup>				
1				
2				
3				
4				

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

<sup>1</sup> Education level is reported only among respondents 25+ years old.

See GATS Indicator Definitions for steps in calculating the average amount spent on 20 manufactured cigarettes and cigarette expenditures per month among manufactured cigarette smokers.

The Cigarette Affordability indicator is recommended to be reported in the text. This indicator is included in the GATS Fact Sheet and is described in the GATS Indicator Definitions.

## 8. MEDIA

**Table 8.1:** Percentage of adults ≥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 [Country], [Year].

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							
On television or the radio							
On television							
On the radio							
On billboards							
Internet							
Somewhere else							
Any Location							
<b>Current smokers<sup>1</sup></b>							
In newspapers or in magazines							
On television or the radio							
On television							
On the radio							
On billboards							
Internet							
Somewhere else							
Any Location							
<b>Non-smokers<sup>2</sup></b>							
In newspapers or in magazines							
On television or the radio							
On television							
On the radio							
On billboards							
Internet							
Somewhere else							
Any Location							

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

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

*This table describes the extent to which respondents have noticed anti-cigarette smoking information in various places, by smoking status and suggested demographic characteristics. The places should be adapted to reflect the country-specific questionnaire.*

**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 [Country], [Year].

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>		
<i>Gender</i>		
Male		
Female		
<i>Age (years)</i>		
15-24		
25-44		
45-64		
65+		
<i>Residence</i>		
Urban		
Rural		
<i>Education Level<sup>3</sup></i>		
1		
2		
3		
4		

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*This table describes the percentage of current smokers who noticed health warnings on the cigarette package or thought about quitting because of the warning label. Labeling of tobacco products with health warnings is a key provision of the FCTC. They provide a cue to help smokers quit and to counteract the marketing of tobacco products. Both of these indicators should be calculated among current smokers.*



**Table 8.3:** Percentage of adults ≥15 years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS [Country], [Year].

Places	Overall	Gender		Age (years)			Residence	
		Male	Female	15-24	25+	Urban	Rural	
<i>Noticed cigarette advertisements</i>								
In stores where cigarettes are sold								
On television								
On the radio								
On billboards								
On posters								
In newspapers or magazines								
In cinemas								
On the internet								
On public transportation								
On public walls								
Somewhere else								
Noticed sports sponsorship								
<i>Noticed cigarette promotions</i>								
Free samples								
Sale prices								
Coupons								
Free gifts/discounts on other products								
Clothing/item with brand name or logo								
Mail promoting cigarettes								
Noticed any in-store advertising or promotion of cigarettes <sup>1</sup>								
<b>Noticed any advertisement, sponsorship, or promotion</b>								

<sup>1</sup> Includes those who noticed any advertisements in stores where cigarettes are sold, sale prices on cigarettes, or free gifts/discount offers on other products when buying cigarettes.

*This table describes the extent to which respondents have noticed cigarette marketing in various places, by suggested demographic characteristics. Tables 8.4 and 8.5 report these responses by smoking status. Response categories will vary based on country-specific questionnaires. (If Section G of the questionnaire asks about noticing tobacco marketing (instead of just cigarette marketing), the tables will be updated accordingly.)*

**Table 8.4:** Percentage of current tobacco smokers ≥15 years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS [Country], [Year].

Places	Gender			Age (years)			Residence	
	Overall	Male	Female	15-24	25+	Urban	Rural	
<i>Percentage (95% CI)</i>								
<i>Noticed cigarette advertisements</i>								
In stores where cigarettes are sold								
On television								
On the radio								
On billboards								
On posters								
In newspapers or magazines								
In cinemas								
On the internet								
On public transportation								
On public walls								
Somewhere else								
Noticed sports sponsorship								
<i>Noticed cigarette promotions</i>								
Free samples								
Sale prices								
Coupons								
Free gifts/discounts on other products								
Clothing/item with brand name or logo								
Mail promoting cigarettes								
Noticed any in-store advertising or promotion of cigarettes <sup>1</sup>								
<b>Noticed any advertisement, sponsorship, or promotion</b>								

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

<sup>1</sup> Includes those who noticed any advertisements in stores where cigarettes are sold, sale prices on cigarettes, or free gifts/discount offers on other products when buying cigarettes.

**Table 8.5:** Percentage of current non-smokers of tobacco  $\geq 15$  years old who noticed cigarette marketing during the last 30 days in various places, by selected demographic characteristics – GATS [Country], [Year].

Places	Overall	Gender		Age (years)			Residence	
		Male	Female	15-24	25+	Urban	Rural	
<i>Noticed cigarette advertisements</i>								
In stores where cigarettes are sold								
On television								
On the radio								
On billboards								
On posters								
In newspapers or magazines								
In cinemas								
On the internet								
On public transportation								
On public walls								
Somewhere else								
Noticed sports sponsorship								
<i>Noticed cigarette promotions</i>								
Free samples								
Sale prices								
Coupons								
Free gifts/discounts on other products								
Clothing/item with brand name or logo								
Mail promoting cigarettes								
Noticed any in-store advertising or promotion of cigarettes <sup>1</sup>								
<b>Noticed any advertisement, sponsorship, or promotion</b>								

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

<sup>1</sup> Includes those who noticed any advertisements in stores where cigarettes are sold, sale prices on cigarettes, or free gifts/discount offers on other products when buying cigarettes.

## 9. KNOWLEDGE, ATTITUDES AND PERCEPTIONS

**Table 9.1:** Percentage of adults ≥15 years old who believe that smoking causes serious illness and various diseases, by smoking status and selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Adults who believe that smoking tobacco causes...					
	Serious illness	Stroke	Heart attack	Lung cancer	Diabetes	Emphysema
<b>Overall</b>						
<i>Smoking Status</i>						
Current smokers <sup>1</sup>						
Non-smokers <sup>2</sup>						
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level</i> <sup>3</sup>						
1						
2						
3						
4						

Percentage (95% CI)

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*This table describes beliefs about the dangers of smoking. Estimates are provided for both overall and by current smoking status, since this is an important predictor of beliefs. Countries should add in any other diseases that are included in country-specific questionnaires.*

**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 smoking status and selected demographic characteristics – GATS [Country], [YEAR].

Demographic Characteristics	Belief that breathing other people's smoke causes serious illness in non-smokers
<i>Percentage (95% CI)</i>	
<b>Overall</b>	
<i>Smoking Status</i>	
Current smokers <sup>1</sup>	
Non-smokers <sup>2</sup>	
<i>Gender</i>	
Male	
Female	
<i>Age (years)</i>	
15-24	
25-44	
45-64	
65+	
<i>Residence</i>	
Urban	
Rural	
<i>Education Level</i> <sup>3</sup>	
1	
2	
3	
4	

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

*This table describes beliefs about the harms of secondhand smoke exposure. The beliefs are likely to vary substantially by the smoking status of the respondent. If the optional questions about specific diseases are included, these should be reported here as well.*

*(Analogous tables to the ones presented for smoked tobacco should be presented for smokeless tobacco use and other smoked tobacco (bidis, kreteks, etc.) if relevant.)*

## 10. COMPARATIVE FINDINGS

[This chapter will be included for countries that have conducted more than one round of the GATS survey and want to compare results to previous surveys.]

**Table 10.1:** Distribution of adults ≥15 years old by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	YEAR1			YEAR2		
	Weighted		Unweighted Number of Adults	Weighted		Unweighted Number of Adults
	Percentage (95% CI <sup>1</sup> )	Number of Adults (in thousands)		Percentage (95% CI <sup>1</sup> )	Number of Adults (in thousands)	
Overall	100			100		
<i>Gender</i>						
Male						
Female						
<i>Age (years)</i>						
15-24						
25-44						
45-64						
65+						
<i>Residence</i>						
Urban						
Rural						
<i>Education Level<sup>2,3</sup></i>						
1						
2						
3						
4						

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

<sup>2</sup> Primary school or less includes "No formal schooling", "Less than primary school completed", and "Primary school completed"; Attended secondary school includes "Less than secondary school completed" and "Secondary school completed"; High school graduate includes "High school completed/Technical secondary school"; College graduate or above includes "College/University completed" and "Post graduate degree completed".

<sup>3</sup> Education level is reported only among respondents 25+ years old.

**Table 10.2:** Percentage of adults ≥15 years old, by current tobacco use status and gender – GATS [COUNTRY], [YEAR1] and [YEAR2].

Tobacco Use Status	YEAR1	YEAR2	Relative change
	<i>Percentage (95% CI)</i>		<i>Percentage</i>
<b>Smoking Tobacco</b>			
<b>Overall</b>			
Current smoker			
Daily smoker			
Occasional smoker			
<b>Male</b>			
Current smoker			
Daily smoker			
Occasional smoker			
<b>Female</b>			
Current smoker			
Daily smoker			
Occasional smoker			
<hr/>			
<b>Smokeless Tobacco</b>			
<b>Overall</b>			
Current smokeless tobacco user			
Daily smokeless tobacco user			
Occasional smokeless tobacco user			
<b>Male</b>			
Current smokeless tobacco user			
Daily smokeless tobacco user			
Occasional smokeless tobacco user			
<b>Female</b>			
Current smokeless tobacco user			
Daily smokeless tobacco user			
Occasional smokeless tobacco user			
<hr/>			
<b>Tobacco Use</b>			
<b>Overall</b>			
Current tobacco user			
Daily tobacco user			
Occasional tobacco user			
<b>Male</b>			
Current tobacco user			
Daily tobacco user			
Occasional tobacco user			
<b>Female</b>			
Current tobacco user			
Daily tobacco user			
Occasional tobacco user			

Notes: Current tobacco smoking includes both daily and occasional smoking. Current smokeless tobacco use includes both daily and occasional use. Current tobacco use includes current tobacco smoking and/or current smokeless tobacco use.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.3: Percentage of adults ≥15 years old who are current tobacco smokers of various tobacco products, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].**

Demographic Characteristics	YEAR1				YEAR2				Relative change						
	Any smoke <sup>4</sup> tobacco product		Type of Cigarette		Any smoke <sup>4</sup> tobacco product		Type of Cigarette		Any smoke <sup>4</sup> tobacco product		Type of Cigarette		Other smoked tobacco <sup>2</sup>		
	Any cigarette <sup>1</sup>	Manufactured	Hand-rolled	Waterpipe	Other smoked tobacco <sup>2</sup>	Any cigarette <sup>1</sup>	Manufactured	Hand-rolled	Waterpipe	Other smoked tobacco <sup>2</sup>	Any cigarette <sup>1</sup>	Manufactured	Hand-rolled	Waterpipe	
Percentage (95% CI)															
Overall															
Gender															
Male															
Female															
Age (years)															
15-24															
25-44															
45-64															
65+															
Residence															
Urban															
Rural															
Education Level <sup>3</sup>															
1															
2															
3															
4															

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

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

<sup>4</sup> p<0.05

NOTE: Results for prevalence estimates / averages and 95% CI are rounded to the nearest tenth (0.1). The relative changes are calculated using unrounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.



**Table 10.4:** Average number and percentage distribution of cigarettes smoked per day among daily cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Number of cigarettes smoked on average per day <sup>1</sup>					
	YEAR1			YEAR2		
	Average Number Mean (95% CI)	10-19 Percentage (95% CI)	20+ Percentage (95% CI)	Average Number Mean (95% CI)	10-19 Percentage (95% CI)	20+ Percentage (95% CI)
Overall						
Gender						
Male						
Female						
Age (years)						
15-24						
25-44						
45-64						
65+						
Residence						
Urban						
Rural						
Education Level <sup>2</sup>						
1						
2						
3						
4						

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.5: Average and percentage distribution of age at daily smoking initiation among ever daily smokers 20-34 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].**

Demographic Characteristics	Age at Daily Smoking Initiation (years) <sup>1</sup>					Relative change 15-16 17-19 20+
	YEAR1		YEAR2			
	Average Age Mean (95% CI)	15-16 Percentage (95% CI)	17-19 Percentage (95% CI)	20+ Percentage (95% CI)	Average Age Mean (95% CI)	15-16 Percentage <15
<b>Overall</b>						
Gender						
Male						
Female						
Residence						
Urban						
Rural						

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

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (p.1). The relative changes are calculated using an rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.6:** Percentage of former daily smokers among all adults and ever daily smokers ≥15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Former Daily Smokers (Among All Adults) <sup>1</sup>		Former Daily Smokers (Among Ever Daily Smokers) <sup>1,2</sup>	
	YEAR1	YEAR2	YEAR1	YEAR2
	Percentage (95% CI)		Percentage (95% CI)	
	Relative change		Relative change	
	Percentage		Percentage	
<b>Overall</b>				
<i>Gender</i>				
Male				
Female				
<i>Age (years)</i>				
15-24				
25-44				
45-64				
65+				
<i>Residence</i>				
Urban				
Rural				
<i>Education Level</i> <sup>3</sup>				
1				
2				
3				
4				

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.7: Electronic cigarette awareness and use among adults ≥ 15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].**

	YEAR1			YEAR2			Relative change	
	Ever heard of electronic cigarettes <sup>1</sup>	Ever users <sup>1</sup>	Current users among those who were aware <sup>3</sup>	Ever heard of electronic cigarettes <sup>1</sup>	Ever users <sup>1</sup>	Current users among those who were aware <sup>3</sup>	Ever users <sup>1</sup>	Current users among those who were aware <sup>3</sup>
	Percentage (95% CI)			Percentage (95% CI)			Percentage	
<b>Overall</b>								
<i>Gender</i>								
Male								
Female								
<i>Age (years)</i>								
15-24								
25-44								
45-64								
65+								
<i>Residence</i>								
Urban								
Rural								
<i>Education Level<sup>f</sup></i>								
1								
2								
3								
4								

<sup>1</sup> Among all adults.

<sup>2</sup> Current use includes daily or less than daily use.

<sup>3</sup> Among those who had ever heard of electronic cigarettes.

<sup>4</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.8:** Percentage of smokers ≥15 years old who made a quit attempt and received health care provider advice in the past 12 months, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Smoking cessation and health care seeking behavior					
	Made quit attempt <sup>1</sup>		Asked by HCP if a smoker <sup>1,2</sup>		Advised to quit by HCP <sup>1,2</sup>	
	YEAR1	Relative change YEAR2 Percentage (95% CI)	YEAR1	Relative change YEAR2 Percentage (95% CI)	YEAR1	Relative change YEAR2 Percentage (95% CI)
Overall		Percentage		Percentage		Percentage
Gender						
Male						
Female						
Age (years)						
15-24						
25-44						
45-64						
65+						
Residence						
Urban						
Rural						
Education Level <sup>3</sup>						
1						
2						
3						
4						

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

<sup>2</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.

<sup>3</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.9:** Percentage of adults ≥15 years old who are exposed to tobacco smoke at home, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Adults Exposed to Tobacco Smoke at Home <sup>1</sup>				Relative change	
	YEAR1	Non-smokers	Overall	YEAR2	Overall	Non-smokers
Overall						
Gender						
Male						
Female						
Age (years)						
15-24						
25-44						
45-64						
65+						
Residence						
Urban						
Rural						
Education Level <sup>2</sup>						
1						
2						
3						
4						

Percentage

Percentage (95% CI)

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

<sup>2</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.10:** Percentage of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Adults Exposed to Tobacco Smoke at Work <sup>1</sup>				Relative change	
	YEAR1	Non-smokers	Overall	YEAR2	Overall	Non-smokers
Overall						
Gender						
Male						
Female						
Age (years)						
15-24						
25-44						
45-64						
65+						
Residence						
Urban						
Rural						
Education Level <sup>2</sup>						
1						
2						
3						
4						

Percentage (95% CI)

Percentage

<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.

<sup>2</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using unrounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.11:** Percentage of adults ≥15 years old who were exposed to tobacco smoke when visiting various public places in the past 30 days, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Adults exposed to tobacco smoke <sup>1</sup> in...													
	YEAR1						YEAR2						Relative change	
	Government Buildings	Healthcare Facilities	Restaurants	Public Transportation	Government Buildings	Healthcare Facilities	Restaurants	Public Transportation	Government Buildings	Healthcare Facilities	Restaurants	Public Transportation	Percentage	Percentage
Overall	Percentage (95% CI)						Percentage (95% CI)							
Smoking Status														
Current smokers <sup>2</sup>														
Non-smokers <sup>3</sup>														
Gender														
Male														
Female														
Age (years)														
15-24														
25-44														
45-64														
65+														
Residence														
Urban														
Rural														
Education Level <sup>4</sup>														
1														
2														
3														
4														

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

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

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

<sup>4</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.



**Table 10.12:** Average amount spent for 20 manufactured cigarettes among current manufactured cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Amount spent on 20 manufactured cigarettes (CURRENCY)		Relative change of	
	YEAR1 <sup>1</sup>	YEAR2	mean	median
<b>Overall</b>	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)	Percentage
<i>Gender</i>				
Male				
Female				
<i>Age (years)</i>				
15-24				
25-44				
45-64				
65+				
<i>Residence</i>				
Urban				
Rural				
<i>Education Level</i> <sup>2</sup>				
1				
2				
3				
4				

<sup>1</sup> In adjusted constant [YEAR2][CURRENCY] using the Inflation Rate for Average Consumer Prices from the International Monetary Fund's World Economic Outlook Database.

<sup>2</sup> Education level is reported only among respondents 25+ years old.

\*p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.13:** Average cigarette expenditure per month among current manufactured cigarette smokers ≥15 years old, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Cigarette expenditure per month (CURRENCY)			Relative change of mean	Relative change of median
	YEAR1 <sup>1</sup>	YEAR2	Mean (95% CI)	Median (95% CI)	Percentage
<b>Overall</b>					
<i>Gender</i>					
Male					
Female					
<i>Age (years)</i>					
15-24					
25-44					
45-64					
65+					
<i>Residence</i>					
Urban					
Rural					
<i>Education Level</i> <sup>2</sup>					
1					
2					
3					
4					

<sup>1</sup> In adjusted constant [YEAR2] [CURRENCY] using the Inflation Rate for Average Consumer Prices from the International Monetary Fund's World Economic Outlook Database.

<sup>2</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using unrounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.14:** Percentage of adults ≥15 years old who noticed anti-cigarette smoking information during the last 30 days in various places, by smoking status – GATS [COUNTRY], [YEAR1] and [YEAR2].

Places	YEAR1	YEAR2	Relative change
	<i>Percentage (95% CI)</i>		<i>Percentage</i>
<b>Overall</b>			
In newspapers or in magazines			
On television or the radio			
On television			
On the radio			
On billboards			
On the internet			
Any of the above locations			
<b>Current smokers<sup>1</sup></b>			
In newspapers or in magazines			
On television or the radio			
On television			
On the radio			
On billboards			
On the internet			
Any of the above locations			
<b>Non-smokers<sup>2</sup></b>			
In newspapers or in magazines			
On television or the radio			
On television			
On the radio			
On billboards			
On the internet			
Any of the above locations			

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

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

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.15:** Percentage of current smokers ≥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 [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Current smokers <sup>1</sup> who...			
	Noticed health warnings on cigarette packages <sup>2</sup>		Thought about quitting because of health warnings <sup>2</sup>	
	YEAR1	YEAR2	YEAR1	YEAR2
	Percentage (95% CI)		Percentage (95% CI)	
Overall	Percentage		Percentage	
Gender				
Male				
Female				
Age (years)				
15-24				
25-44				
45-64				
65+				
Residence				
Urban				
Rural				
Education Level <sup>3</sup>				
1				
2				
3				
4				

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

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

<sup>3</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.16:** Percentage of adults ≥15 years old who noticed cigarette marketing during the last 30 days, by selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Noticed any in-store cigarette advertising or promotion <sup>1,2</sup>		Noticed any cigarette advertisement, promotion, or sponsorship <sup>1</sup>	
	YEAR1	YEAR2	YEAR1	YEAR2
<b>Overall</b>	Percentage (95% CI)		Percentage (95% CI)	
<i>Gender</i>	Percentage		Percentage	
Male				
Female				
<i>Age (years)</i>	Percentage		Percentage	
15-24				
25-44				
45-64				
65+				
<i>Residence</i>	Percentage		Percentage	
Urban				
Rural				
<i>Education Level<sup>3</sup></i>	Percentage		Percentage	
1				
2				
3				
4				

<sup>1</sup> During the last 30 days.

<sup>2</sup> Includes those who noticed any advertisements in stores, sale prices, or free gifts/discount offers on other products.

<sup>3</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

**Table 10.17:** Percentage of adults ≥15 years old who believe that tobacco smoking and exposure to secondhand smoke causes serious illness and diseases, by smoking status and selected demographic characteristics – GATS [COUNTRY], [YEAR1] and [YEAR2].

Demographic Characteristics	Adults who believe that smoking causes serious illness			Adults who believe that smoking causes stroke, heart attack, and lung cancer <sup>1,2</sup>			Adults who believe that breathing other people's smoke causes serious illness in non-smokers		
	YEAR1	YEAR2	Relative change	YEAR1	YEAR2	Relative change	YEAR1	YEAR2	Relative change
<b>Overall</b>	Percentage (95% CI)			Percentage			Percentage (95% CI)		
<i>Smoking Status</i>	Percentage			Percentage			Percentage		
Current smokers <sup>3</sup>	Percentage			Percentage			Percentage		
Non-smokers <sup>4</sup>	Percentage			Percentage			Percentage		
<i>Gender</i>	Percentage			Percentage			Percentage		
Male	Percentage			Percentage			Percentage		
Female	Percentage			Percentage			Percentage		
<i>Age (years)</i>	Percentage			Percentage			Percentage		
15-24	Percentage			Percentage			Percentage		
25-44	Percentage			Percentage			Percentage		
45-64	Percentage			Percentage			Percentage		
65+	Percentage			Percentage			Percentage		
<i>Residence</i>	Percentage			Percentage			Percentage		
Urban	Percentage			Percentage			Percentage		
Rural	Percentage			Percentage			Percentage		
<i>Education Level<sup>5</sup></i>	Percentage			Percentage			Percentage		
1	Percentage			Percentage			Percentage		
2	Percentage			Percentage			Percentage		
3	Percentage			Percentage			Percentage		
4	Percentage			Percentage			Percentage		

<sup>1</sup> Among those who believe or don't know if smoking causes serious illness.

<sup>2</sup> Percentage who believed tobacco smoking causes all three of these diseases.

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

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

<sup>5</sup> Education level is reported only among respondents 25+ years old.

\* p<0.05

NOTE: Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using un-rounded prevalence estimates and might be different if calculated using rounded prevalence estimates shown in this table.

## 11. CONCLUSIONS AND RECOMMENDATIONS

---

*[Provide conclusions and policy implications.]*

## REFERENCES

---

*[Include listing of references.]*

1. World Health Organization. WHO report on the global tobacco epidemic, 2019: Offer help to quit tobacco use. Geneva, Switzerland: World Health Organization; 2019.  
<https://apps.who.int/iris/bitstream/handle/10665/326043/9789241516204-eng.pdf?ua=1>
2. GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Seattle, WA: Institute for Health Metrics and Evaluation; 2018.
3. Mathers, C.D., and Loncar D. Projections of Global Mortality and Burden of Disease from 2002 to 2030. PLoS Medicine, 2006, 3(11):e442.



## APPENDIX A: QUESTIONNAIRE

---

*[Provide country-specific GATS questionnaire.]*

## APPENDIX B: SAMPLE DESIGN

---

*[Provide details on country-specific sample design.]*

## APPENDIX C: ESTIMATES OF SAMPLING ERRORS

---

*[Provide estimates of sampling errors. For details, refer to Appendix D of GATS Quality Assurance: Guidelines and Documentation.]*

## APPENDIX D: TECHNICAL AND SURVEY STAFF

---

*[Provide listing of technical and survey staff.]*

## APPENDIX E: GLOSSARY OF TERMS

---

*[Include definitions adapted from the indicator documents for each reported variable. Follow the example provided below.]*

- **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.

## APPENDIX F: MPOWER SUMMARY INDICATORS

[Include table with key MPOWER indicator estimates. The comparison MPOWER table should be used for countries with more than one round of GATS.]

**Table F.1: MPOWER Summary Indicators – GATS [Country], [YEAR].**

Indicator	Overall	Gender		Residence	
		Male	Female	Urban	Rural
<b>M: Monitor tobacco use and prevention policies</b>					
Current tobacco use					
Current tobacco smokers					
Current cigarette smokers					
Current manufactured cigarette smokers					
Current smokeless tobacco use					
Average number of cigarettes smoked per day <sup>1</sup>					
Average age at daily smoking initiation <sup>2</sup>					
Former smokers among ever daily smokers					
<b>P: Protect people from tobacco smoke</b>					
Exposure to secondhand smoke at home at least monthly					
Exposure to secondhand smoke at work <sup>3</sup>					
Exposure to secondhand smoke in public places: <sup>3,5</sup>					
Government building/offices					
Health care facilities					
Restaurants					
Public transportation					
<b>O: Offer help to quit tobacco use</b>					
Made a quit attempt in the past 12 months <sup>4</sup>					
Advised to quit smoking by a health care provider <sup>4,5</sup>					
Attempted to quit smoking using a specific cessation method: <sup>4</sup>					
Pharmacotherapy					
Counseling/advice					
Interest in quitting smoking <sup>6</sup>					
<b>W: Warn about the dangers of tobacco</b>					
Belief that tobacco smoking causes serious illness					
Belief that smoking causes stroke, heart attack, and lung cancer					
Belief that breathing other peoples' smoke causes serious illness					
Noticed anti-cigarette smoking information at any location <sup>5</sup>					
Thinking of quitting because of health warnings on cigarette packages <sup>6,8</sup>					
<b>E: Enforce bans on tobacco advertising, promotion and sponsorship</b>					
Noticed any cigarette advertisement, sponsorship or promotion <sup>5</sup>					
<b>R: Raise taxes on tobacco</b>					
Average cigarette expenditure per month (CURRENCY) <sup>7</sup>					
Average cost of a pack of manufactured cigarettes (CURRENCY) <sup>7</sup>					
Last cigarette purchase was from a store <sup>7</sup>					

**Notes:**

- <sup>1</sup> Among current daily cigarette smokers.
- <sup>2</sup> Among respondents 20-34 years of age who are ever daily tobacco smokers.
- <sup>3</sup> Among those who visited the place in the last 30 days.
- <sup>4</sup> Among past-year tobacco smokers (includes current smokers and those who quit in the past 12 months).
- <sup>5</sup> Among those who visited a health care provider in past 12 months.
- <sup>6</sup> Among current tobacco smokers.
- <sup>7</sup> Among current smokers of manufactured cigarettes.
- <sup>8</sup> In the last 30 days.

**Table F.1: MPOWER Summary Indicators – GATS [COUNTRY], [YEAR1] and [YEAR2].**

Indicator	YEAR1			YEAR2			Relative change		
	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female
	<p><b>M: Monitor tobacco use and prevention policies</b></p> <p>Current tobacco use</p> <p>Current tobacco smokers</p> <p>Current cigarette smokers</p> <p>Current manufactured cigarette smokers</p> <p>Average number of cigarettes smoked per day<sup>1</sup></p> <p>Average age at daily smoking initiation<sup>2</sup></p> <p>Former smokers among ever daily smokers</p> <p><b>P: Protect people from tobacco smoke</b></p> <p>Exposure to secondhand smoke at home at least monthly</p> <p>Exposure to secondhand smoke at work<sup>3</sup></p> <p>Exposure to secondhand smoke in public places;<sup>3,4</sup></p> <p>Government building/offices</p> <p>Health care facilities</p> <p>Restaurants</p> <p>Public transportation</p> <p><b>O: Offer help to quit tobacco use</b></p> <p>Made a quit attempt in the past 12 months<sup>4</sup></p> <p>Advised to quit smoking by a health care provider<sup>4,5</sup></p> <p>Attempted to quit smoking using a specific cessation method:<sup>4</sup></p> <p>Pharmacotherapy</p> <p>Counseling/advice</p> <p>Interest in quitting smoking<sup>6</sup></p> <p><b>W: Warn about the dangers of tobacco</b></p> <p>Belief that smoking tobacco causes serious illness</p> <p>Belief that smoking causes stroke, heart attack, and lung cancer</p> <p>Belief that breathing other peoples' smoke causes serious illness</p> <p>Noticed anti-cigarette smoking information at any location<sup>6</sup></p> <p>Thinking of quitting because of health warnings on cigarette packages<sup>6</sup></p> <p><b>E: Enforce bans on tobacco advertising, promotion and sponsorship</b></p> <p>Noticed any cigarette advertisement, sponsorship or promotion<sup>6</sup></p> <p><b>R: Raise taxes on tobacco</b></p> <p>Average cigarette expenditure per month (CURRENCY)<sup>7,8</sup></p> <p>Average cost of a pack of manufactured cigarettes (CURRENCY)<sup>7,8</sup></p> <p>Last cigarette purchase was from a store<sup>9</sup></p>								

**Notes:**

<sup>1</sup> Among current daily cigarette smokers. <sup>2</sup> Among respondents 20-34 years of age who are ever daily tobacco smokers. <sup>3</sup> Among those who visited the place in the last 30 days. <sup>4</sup> Among past-year tobacco smokers (includes current smokers and those who quit in the past 12 months). <sup>5</sup> Among those who visited a health care provider in past 12 months. <sup>6</sup> Among current tobacco smokers. <sup>7</sup> Among current smokers of manufactured cigarettes. <sup>8</sup> GATS [COUNTRY] [YEAR1] cost data were adjusted for inflation for direct comparison to [YEAR2] using the Inflation Rate for Average Consumer Prices from the International Monetary Fund's World Economic Outlook Database. <sup>9</sup> In the last 30 days.

\* p<0.05

Results for prevalence estimates / averages and 95% CIs are rounded to the nearest tenth (0.1). The relative changes are calculated using unrounded prevalence estimates and might be different if calculated using rounded prevalence estimates as shown in this table.





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

September 2020

## **Global Adult Tobacco Survey (GATS) Comprehensive Standard Protocol**

---

### **GATS Questionnaire**

Core Questionnaire with Optional Questions  
Question by Question Specifications

### **GATS Sample Design**

Sample Design Manual  
Sample Weights Manual

### **GATS Fieldwork Implementation**

Field Interviewer Manual  
Field Supervisor Manual  
Mapping and Listing Manual

### **GATS Data Management**

Programmer's Guide to General Survey System  
Core Questionnaire Programming Specifications  
Data Management Implementation Plan  
Data Management Training Guide

### **GATS Quality Assurance: Guidelines and Documentation**

#### **GATS Analysis and Reporting Package**

Fact Sheet Templates  
Country Report: Tabulation Plan and Guidelines  
Indicator Definitions

#### **GATS Data Release and Dissemination**

Data Release Policy  
Data Dissemination: Guidance for the Initial Release of the Data

## **Suggested Citation**

Global Adult Tobacco Survey Collaborative Group. *Global Adult Tobacco Survey (GATS): Indicator Definitions*. Atlanta, GA: Centers for Disease Control and Prevention, 2020.

## **Acknowledgements**

### ***GATS Collaborating Organizations***

- United States Centers for Disease Control and Prevention (CDC)
- CDC Foundation
- Johns Hopkins Bloomberg School of Public Health (JHSPH)
- RTI International
- World Health Organization (WHO)

### ***Financial Support***

Financial support was provided by the *Bloomberg Initiative to Reduce Tobacco Use* through the CDC Foundation with a grant from Bloomberg Philanthropies.

---

Disclaimer: The views expressed in this manual are not necessarily those of the GATS collaborating organizations.



# Contents

---

Chapter	Page
<b>1. Introduction .....</b>	<b>1-1</b>
1.1 Overview of the Global Adult Tobacco Survey .....	1-1
1.2 Use of this Manual .....	1-2
1.3 Notes for Analysis .....	1-2
<b>2. Fact Sheet Indicators .....</b>	<b>2-1</b>
2.1 Tobacco Use .....	2-1
2.2 Electronic Cigarette Use .....	2-6
2.3 Cessation .....	2-7
2.4 Secondhand Smoke .....	2-10
2.5 Economics .....	2-11
2.6 Media .....	2-14
2.7 Knowledge, Attitudes, and Perceptions .....	2-18
<b>3. Country Report Indicators .....</b>	<b>3-1</b>
3.1 Tobacco Use and Electronic Cigarette Use (Country Report Chapter 4) .....	3-1
3.2 Cessation (Country Report Chapter 5) .....	3-12
3.3 Secondhand Smoke (Country Report Chapter 6) .....	3-15
3.4 Economics (Country Report Chapter 7) .....	3-17
3.5 Media (Country Report Chapter 8) .....	3-20
3.6 Knowledge, Attitudes and Perceptions (Country Report Chapter 9) .....	3-25
<b>Appendix A: Recommendations for the Reporting of GATS Fact Sheet Indicators .....</b>	<b>A-1</b>

## Tables

---

<b>Number</b>		<b>Page</b>
Table 2-1.	Generation of the 6-Level Tobacco Smoking Composite Variable .....	2-1
Table 2-2.	Generation of the 6-level Smokeless Tobacco Composite Variable .....	2-1
Table 3-1.	Generation of the 6-Level Tobacco Smoking Composite Variable (Country Report Table 4.1) .....	3-1
Table 3-2.	Generation of the 6-Level Smokeless Tobacco Composite Variable (Country Report Table 4.2) .....	3-2
Table A-1.	Summary of Recommendations for Primary Reporting of Smoking/Tobacco Use Prevalence Estimates .....	A-1
Table A-2.	Adult Tobacco Use Estimates Reported in WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package .....	A-2
Table A-3.	Summary of Recommendations for Primary Reporting of Other Tobacco Control Indicators from GATS .....	A-4

## List of Indicators

---

<b>Fact Sheet Indicator</b>	<b>Page</b>
FS-1. Current Tobacco Users .....	2-2
FS-2. Current Tobacco Smokers.....	2-2
FS-3. Daily Tobacco Smokers.....	2-2
FS-4. Current Cigarette Smokers.....	2-3
FS-5. Daily Cigarette Smokers.....	2-3
FS-6. Former Daily Tobacco Smokers—Among All Adults .....	2-3
FS-7. Former Daily Tobacco Smokers—Among Ever Daily Smokers.....	2-4
FS-8. Current Smokeless Tobacco Users.....	2-4
FS-9. Daily Smokeless Tobacco Users.....	2-4
FS-10. Former Daily Smokeless Tobacco Users—Among All Adults.....	2-5
FS-11. Former Daily Smokeless Tobacco Users—Among Ever Daily Users.....	2-5
FS-12. Awareness of Electronic Cigarettes.....	2-6
FS-13. Ever Users of Electronic Cigarettes.....	2-6
FS-14. Current Electronic Cigarette Users.....	2-6
FS-15. Smoking Quit Attempt in the Past 12 Months.....	2-7
FS-16. Interest in Quitting Smoking .....	2-7
FS-17. Health Care Provider’s Advice to Quit Smoking Tobacco .....	2-7
FS-18. Smokeless Tobacco Quit Attempt in the Past 12 Months.....	2-8
FS-19. Interest in Quitting Smokeless Tobacco.....	2-8
FS-20. Health Care Provider’s Advice to Quit Smokeless Tobacco Use.....	2-9
FS-21. Exposure to Secondhand Smoke at Work.....	2-10
FS-22. Exposure to Secondhand Smoke at Home.....	2-10
FS-23. Exposure to Secondhand Smoke Inside Various Public Places .....	2-10
FS-24. Average Cost of a Pack of Manufactured Cigarettes.....	2-11
FS-25. Cigarette Expenditure per Month.....	2-12
FS-26. Cigarette Affordability .....	2-13
FS-27. Awareness of Anti-Cigarette Smoking Information on Television (TV) or the Radio.....	2-14
FS-28. Thinking of Quitting Because of Health Warning Labels on Cigarette Packages .....	2-14
FS-29. Awareness of Anti-Smokeless Tobacco Information on Television (TV) or the Radio.....	2-15
FS-30. Thinking of Quitting Because of Health Warning Labels on Smokeless Tobacco Products .....	2-15
FS-31. Awareness of In-Store Cigarette/Tobacco Advertising and Promotions .....	2-16
FS-32. Awareness of Any Cigarette/Tobacco Product Advertising and Promotion .....	2-17
FS-33. Beliefs about the Dangers of Tobacco Smoking.....	2-18
FS-34. Beliefs about the Dangers of Secondhand Smoke .....	2-18
FS-35. Beliefs about the Dangers of Smokeless Tobacco Use.....	2-18

<b>Country Report Indicator</b>	<b>Page</b>
Current Tobacco Smokers (Country Report Tables 4.3 and 4.4) .....	3-2
Current Cigarette Smokers (Country Report Table 4.3 and 4.4) .....	3-2
Current [ <i>Product</i> ] Smokers (Country Report Tables 4.3 and 4.4) .....	3-3
Daily Tobacco Smokers (Country Report Table 4.5) .....	3-3
Number of Cigarettes Smoked Per Day (Country Report Table 4.6) .....	3-3
Age at Smoking Initiation (Country Report Table 4.7) .....	3-4
Age at Daily Smoking Initiation (Country Report Table 4.8) .....	3-4
Former Daily Tobacco Smokers—Among All Adults (Country Report Table 4.9) .....	3-5
Former Daily Tobacco Smokers—Among Ever Daily Smokers (Country Report Table 4.9) .....	3-5
Time since Quitting Smoking (Country Report Table 4.10) .....	3-5
Current Tobacco Users (Country Report Table 4.11) .....	3-6
Patterns of Current Tobacco Use (Country Report Table 4.11) .....	3-6
Time to First Tobacco Use (Country Report Table 4.12) .....	3-7
Awareness of Electronic Cigarettes (Country Report Table 4.13) .....	3-7
Ever Users of Electronic Cigarettes (Country Report Table 4.13) .....	3-7
Ever Daily Electronic Cigarette Users (Country Report Table 4.13) .....	3-8
Current Electronic Cigarette Users (Country Report Table 4.13) .....	3-8
Current Electronic Cigarette Users Among Those Who Are Aware of Electronic Cigarettes (Country Report Table 4.13) .....	3-8
Current Daily Electronic Cigarette Users (Country Report Table 4.13) .....	3-9
Duration of Daily Electronic Cigarette Use (Country Report Table 4.14) .....	3-9
Former Daily Electronic Cigarette Users—Among All Adults (Country Report Table 4.15) .....	3-10
Former Daily Electronic Cigarette Users—Among Ever Daily Users (Country Report Table 4.15) .....	3-10
Reasons for Electronic Cigarette Use (Country Report Table 4.16) .....	3-11
Smoking Quit Attempt in the Past 12 Months (Country Report Table 5.1) .....	3-12
Health Care Provider Asking about Smoking (Country Report Table 5.1) .....	3-12
Health Care Provider's Advice to Quit Smoking Tobacco (Country Report Table 5.1) .....	3-13
Use of Cessation Methods by Smokers (Country Report Table 5.2) .....	3-13
Level of Interest in Quitting Smoking (Country Report Table 5.3) .....	3-14
Exposure to Secondhand Smoke at Work (Country Report Table 6.1) .....	3-15
Exposure to Secondhand Smoke at Home (Country Report Table 6.2) .....	3-15
Exposure to Secondhand Smoke in Public Places Among the Population (Country Report Table 6.3) .....	3-16
Exposure to Secondhand Smoke in Public Places Among those who Visited the Place (Country Report Table 6.4) .....	3-16
Brand of Cigarettes Last Purchased (Country Report Table 7.1) .....	3-17
Source of Cigarette Last Purchase (Country Report Table 7.2) .....	3-17
Average Cost of a Pack of Manufactured Cigarettes (Country Report Table 7.3) .....	3-17
Cigarette Expenditure per Month (Country Report Table 7.3) .....	3-18
Cigarette Affordability (Describe in Country Report Chapter 7) .....	3-19
Awareness of Anti-Cigarette Smoking Information in Specific Channels (Country Report Table 8.1) .....	3-20
Awareness of Anti-Cigarette Smoking Information on TV or the Radio (Country Report Table 8.1) .....	3-20



Noticing Health Warning Labels on Cigarette Packages (Country Report Table 8.2) .....	3-21
Thinking of Quitting Because of Health Warning Labels on Cigarette Packages (Country Report Table 8.2).....	3-21
Awareness of Cigarette/Tobacco Advertising in Specific Channels (Country Report Tables 8.3, 8.4, and 8.5).....	3-22
Awareness of Cigarette/Tobacco Company Sponsored Sporting Event (Country Report Tables 8.3, 8.4, and 8.5).....	3-22
Awareness of Specific Types of Cigarette/Tobacco Products Promotions (Country Report Tables 8.3, 8.4, and 8.5).....	3-23
Awareness of In-Store Cigarette/Tobacco Advertising and Promotions (Country Report Tables 8.3, 8.4, and 8.5).....	3-23
Awareness of Any Cigarette/Tobacco Product Advertising and Promotion (Country Report Tables 8.3, 8.4, and 8.5).....	3-24
Beliefs about the Dangers of Tobacco Smoking (Country Report Table 9.1).....	3-25
Beliefs about Diseases Caused by Smoking (Country Report Table 9.1) .....	3-25
Beliefs about the Dangers of Secondhand Smoke (Country Report Table 9.2) .....	3-25



# 1. Introduction

---

Tobacco use is a major preventable cause of premature death and disease worldwide, with approximately 1.4 billion people age 15 years or older using tobacco<sup>1</sup>. Furthermore, more than 8 million people die each year due to tobacco-related illnesses<sup>2</sup>. If current trends continue, tobacco use may kill a billion people by the end of this century, and it is estimated that more than three quarters of these deaths will be in low- and middle-income countries<sup>3</sup>. An efficient and systematic surveillance mechanism is essential to monitor and manage the epidemic.

The **Global Adult Tobacco Survey (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 were reviewed and approved by international experts. GATS is intended to enhance the capacity of countries to design, implement and evaluate tobacco control interventions.

In order to maximize the efficiency of the data collected from GATS, a series of manuals has been created. These manuals are designed to provide countries with standard requirements as well as several recommendations on the design and implementation of the survey in every step of the GATS process. They are also designed to offer guidance on how a particular country might adjust features of the GATS protocol in order to maximize the utility of the data within the country. In order to maintain consistency and comparability across countries, following the standard protocol is strongly encouraged.

---

**GATS manuals provide systematic guidance on the design and implementation of the survey.**

---

## 1.1 Overview of the Global Adult Tobacco Survey

GATS is designed to produce national and sub-national estimates among adults across countries. The target population includes all non-institutionalized men and women 15 years of age or older who consider the country to be their usual place of residence. All members of the target population will be sampled from the household that is their usual place of residence.

GATS uses a geographically clustered multistage sampling methodology to identify the specific households that Field Interviewers will contact. First, a country is divided into Primary Sampling Units, segments within these Primary Sampling Units, and households within the segments. Then, a random sample of households is selected to participate in GATS.

---

**The GATS interview is composed of two parts: *Household Questionnaire* and *Individual Questionnaire*. These questionnaires are administered using an electronic data collection device.**

---

---

<sup>1</sup> World Health Organization. WHO report on the global tobacco epidemic, 2019: Offer help to quit tobacco use. Geneva, Switzerland: World Health Organization; 2019. <https://apps.who.int/iris/bitstream/handle/10665/326043/9789241516204-eng.pdf?ua=1>

<sup>2</sup> GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Seattle, WA: Institute for Health Metrics and Evaluation; 2018.

<sup>3</sup> Mathers, C.D., and Loncar, D. Projections of Global Mortality and Burden of Disease from 2002 to 2030. *PLoS Medicine*, 2006, 3(11):e442.

The GATS interview consists of two parts: the *Household Questionnaire* and the *Individual Questionnaire*. The *Household Questionnaire* (household screening) and the *Individual Questionnaire* (individual interview) will be conducted using an electronic data collection device.

At each address in the sample, Field Interviewers will administer the *Household Questionnaire* to one adult who resides in the household. The purposes of the *Household Questionnaire* are to determine if the selected household meets GATS eligibility requirements and to make a list, or roster, of all eligible members of the household. Once a roster of eligible residents of the household is completed, one individual will be randomly selected to complete the *Individual Questionnaire*. The *Individual Questionnaire* asks questions about background characteristics; tobacco smoking; electronic cigarettes; smokeless tobacco; cessation; secondhand smoke; economics; media; and knowledge, attitudes, and perceptions about tobacco.

## 1.2 Use of this Manual

Standardized approaches to estimation and reporting are essential to ensure comparability of results across the countries participating in the Global Adult Tobacco Survey (GATS). This document describes the derivation of tobacco control indicators from GATS to be used to track progress towards curbing the global tobacco epidemic. The indicators, developed through consultation with a committee of tobacco surveillance experts, are separated into two categories: (1) indicators recommended for reporting in the country-specific GATS Fact Sheet, and (2) indicators recommended for reporting in the GATS Country Report.

The Fact Sheet and Country Report indicators are described in detail in *Chapters 2 and 3* of this document. Within each chapter, the indicators are ordered as they appear in the guidance materials provided for reporting GATS findings, entitled *GATS Fact Sheet Templates* and *GATS Country Report: Tabulation Plan and Guidelines*. For each indicator, a title and definition of each indicator is presented, followed by a description of the numerator and denominator and guidance on how to treat missing values. In addition, comments on the construction of indicators and guidance for reporting have been provided. *Appendix A* provides a rationale for the recommended indicators to be reported in the GATS Fact Sheet.

Numerous indicators can be generated from GATS and the reporting of the indicators described here does not preclude the reporting of additional indicators as relevant to participating countries. Countries may want to include additional indicators generated from adapted country-specific questions included in their own surveys. For example, the Country Report indicators described in *Chapter 3* focus on smoked tobacco, but analogous indicators should be generated and reported for smokeless tobacco, if applicable. In addition, not all indicators reported here are relevant for all countries. This document describes a minimum set of indicators to be reported in the Fact Sheet and Country Report, presuming the relevant data have been collected in the adapted country-specific questionnaire.

## 1.3 Notes for Analysis

**Question Numbering:** Any question numbering included in the description of the indicators is based on the GATS core questionnaire. The numbering may vary in the adapted country-specific questionnaire.

**Missing Values for All Indicators:** Because the focus of GATS is on tobacco use and tobacco control indicators and many of the questions depend on the ability to classify individuals by tobacco smoking status, any respondents who are unable (“don’t know”) or unwilling (“refused”) to provide an answer to B01, B02, or B03 should be excluded from the calculation of all indicators. If smokeless tobacco use is

common in the country than any respondents who are unable (“don’t know”) or unwilling (“refused”) to provide an answer to C01, C02, or C03 should also be excluded from the calculation of all indicators. Also, any respondents who break off the interview prior to reaching E02 (i.e., if E01 is blank, this indicates the interview was broken off too soon) should be excluded from the calculation of all indicators. Note that these particular cases are deemed as nonrespondents to GATS and should have already been excluded during the production of the final analytical data set. Therefore, the exclusion of these cases does not need to be incorporated when creating the statistical syntax code for the indicators, since these cases should not exist in the final analytic data set.

**Statistical Software and Syntax:** The GATS complex survey design dictates that the statistical software packages used for data analysis be able to account for multiple stages of sampling, stratification, and clustering. Three statistical software programs are recommended for GATS analysis: SAS® (with or without SUDAAN®), SPSS®, and STATA®<sup>4</sup>. SAS and SPSS syntax coding for the GATS core questionnaire is maintained by the GATS Data Coordinating Center (DCC) and can be provided to countries as needed. This syntax will need to be modified to reflect country-specific adaptations of the GATS core questionnaire.

---

<sup>4</sup> Use of trade names is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.



## 2. Fact Sheet Indicators

The GATS Fact Sheet is intended to provide an overview of the key findings and highlights of the survey for a broad audience. The indicators provided in the GATS Fact Sheet are described in this chapter.

### 2.1 Tobacco Use

For GATS, tobacco use refers to using smoking tobacco and smokeless tobacco products. Heated tobacco products are also included as tobacco use if a country has included the applicable questions in their GATS survey. For GATS, electronic cigarettes are not considered as tobacco use and thus are reported separately in *Section 2.2*.

All measures of tobacco use prevalence in GATS should be generated using a 6-level tobacco smoking (or comparable smokeless) composite variable. The *composite variable* for tobacco smoking is generated from the responses to questions B01-B03 and shown in **Table 2-1**. An analogous composite variable for smokeless tobacco use is generated from the responses to questions C01-C03 (**Table 2-2**). The categories from these composite variables can be collapsed to generate the key indicators of tobacco (smoking or smokeless tobacco) described below.

**Table 2-1. Generation of the 6-Level Tobacco Smoking Composite Variable**

Category	Value	Definition
<b>Current tobacco smoker</b>		
Daily tobacco smoker	1	B01= [1]
Occasional (less than daily) tobacco smoker, formerly daily	2	B01= [2] AND B02= [1]
Occasional (less than daily) tobacco smoker, never daily	3	B01= [2] AND B02= [2]
<b>Non-smoker of tobacco</b>		
Former (ex-) daily tobacco smoker	4	B01= [3] AND B03= [1]
Former (ex-) occasional (less than daily) tobacco smoker	5	B01= [3] AND B03= [2]
Never smoker of tobacco	6	B01= [3] AND B03= [3]

**Table 2-2. Generation of the 6-level Smokeless Tobacco Composite Variable**

Category	Value	Definition
<b>Current smokeless tobacco user</b>		
Daily smokeless tobacco user	1	C01= [1]
Occasional (less than daily) smokeless tobacco user, formerly daily	2	C01= [2] AND C02= [1]
Occasional (less than daily) smokeless tobacco user, never daily	3	C01= [2] AND C02= [2]
<b>Non-user of smokeless tobacco</b>		
Former (ex-) daily smokeless tobacco user	4	C01= [3] AND C03= [1]
Former (ex-) occasional (less than daily) smokeless tobacco user	5	C01= [3] AND C03= [2]
Never user of smokeless tobacco	6	C01= [3] AND C03= [3]

---

### FS-1. Current Tobacco Users

**Indicator:** Percentage of adults who currently use tobacco.

**Numerator:** Number of current daily and less than daily tobacco smokers and/or smokeless tobacco users.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This estimate is generated by combining categories 1, 2 and 3 from the 6-level tobacco smoking and the 6-level smokeless tobacco composite variable.
  - (2) The prevalence of current tobacco use should be less than or equal to the total of current tobacco smoking and current smokeless tobacco use prevalence.
  - (3) Heated tobacco product use should also be included as current tobacco use, if these optional questions were included in the questionnaire.
  - (4) Electronic cigarettes are not considered tobacco use for GATS and are reported separately.
- 

### FS-2. Current Tobacco Smokers

**Indicator:** Percentage of adults who currently smoke tobacco.

**Numerator:** Number of current daily and less than daily tobacco smokers.

**Denominator:** Total number of respondents<sup>1</sup>.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is generated by combining categories 1, 2, and 3 from the 6-level tobacco smoking composite variable.
  - (2) It is the most important indicator to report on and, in some cases, the only real point for international comparison.
- 

### FS-3. Daily Tobacco Smokers

**Indicator:** Percentage of adults who currently smoke tobacco daily.

**Numerator:** Number of current daily tobacco smokers.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is category 1 of the 6-level tobacco smoking composite variable. It should be used as a sub-category of the “Current Tobacco Smokers” indicator and rarely used alone.
  - (2) The prevalence of daily tobacco smoking should be less than or equal to the prevalence of current tobacco smoking.
- 

---

<sup>1</sup> It is implied that the denominator includes those with “valid” responses only. Those responses that are “not valid” are described for each indicator under “missing values.”



---

#### **FS-4. Current Cigarette Smokers**

**Indicator:** Percentage of adults who currently smoke cigarettes.

**Numerator:** Number of current daily and less than daily cigarette smokers.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) Cigarette smoking prevalence includes manufactured cigarettes and hand-rolled cigarettes. Kreteks should also be included if this category is included in the questionnaire.
- (2) Current cigarette smoking prevalence can be reported separately where cigarettes are of focal interest. An optional category for reporting would be the prevalence of manufactured cigarette smoking.

---

#### **FS-5. Daily Cigarette Smokers**

**Indicator:** Percentage of adults who smoke cigarettes daily.

**Numerator:** Number of current daily cigarette smokers.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) Cigarette smoking prevalence includes manufactured cigarettes and hand-rolled cigarettes. Kreteks should also be included if this category is included in the questionnaire.
- (2) Daily cigarette smoking prevalence can be used as a subcategory of "Current Cigarette Smokers."
- (3) The prevalence of daily cigarette smoking should be less than or equal to the prevalence of current cigarette smoking.

---

#### **FS-6. Former Daily Tobacco Smokers—Among All Adults**

**Indicator:** Percentage of adults who are ever daily tobacco smokers and currently do not smoke tobacco.

**Numerator:** Number of ever daily tobacco smokers who currently do not smoke tobacco.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is category 4 of the 6-level tobacco smoking composite variable.
- (2) The numerator includes only current non-smokers, not current less than daily smokers.
- (3) This indicator will help contextualize the quit ratio below.

---

### **FS-7. Former Daily Tobacco Smokers—Among Ever Daily Smokers**

**Indicator:** Percentage of ever daily tobacco smokers who currently do not smoke tobacco.

**Numerator:** Number of ever daily tobacco smokers who currently do not smoke tobacco.

**Denominator:** Number of ever daily tobacco smokers.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This is a critical indicator of the success of efforts to encourage cessation among established tobacco smokers. This indicator is also known as the quit ratio for daily smoking.
- (2) The numerator includes only current non-smokers, not current less than daily smokers.
- (3) This is similar to the previous “Former Daily Tobacco Smokers—Among All Adults” indicator, except that the denominator is ever daily tobacco smokers, rather than all respondents. Therefore, the estimate for this indicator should be higher than the estimate for the previous indicator.
- (4) Other optional indicators that can be reported include ever tobacco smoker [tobacco smoking composite = 1-5] and never regular tobacco smoker (non-smoker) [tobacco smoking composite = 5-6].

---

### **FS-8. Current Smokeless Tobacco Users**

**Indicator:** Percentage of adults who currently use smokeless tobacco.

**Numerator:** Number of current daily and less than daily smokeless tobacco users.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is generated by combining categories 1, 2, and 3 from the 6-level smokeless tobacco composite variable.

---

### **FS-9. Daily Smokeless Tobacco Users**

**Indicator:** Percentage of adults who currently use smokeless tobacco daily.

**Numerator:** Number of current daily smokeless tobacco users.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is category 1 of the 6-level smokeless tobacco composite variable. It should be used as a subcategory of the “Current Smokeless Tobacco Users” indicator.
- (2) The prevalence of daily smokeless tobacco use should be less than or equal to the prevalence of current smokeless tobacco use.

---

**FS-10. Former Daily Smokeless Tobacco Users—Among All Adults**

**Indicator:** Percentage of adults who are ever daily smokeless tobacco users and currently do not use smokeless tobacco.

**Numerator:** Number of ever daily smokeless tobacco users who currently do not use smokeless tobacco.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is category 4 of the 6-level smokeless tobacco composite variable.
- (2) The numerator includes only current non-users of smokeless tobacco, not current less than daily users.
- (3) This indicator will help contextualize the quit ratio below.

---

**FS-11. Former Daily Smokeless Tobacco Users—Among Ever Daily Users**

**Indicator:** Percentage of ever daily smokeless tobacco users who currently do not use smokeless tobacco.

**Numerator:** Number of ever daily smokeless tobacco users who currently do not use smokeless tobacco.

**Denominator:** Number of ever daily smokeless tobacco users.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This is a critical indicator of the success of efforts to encourage cessation among established smokeless tobacco users. This indicator is also known as the quit ratio for daily smokeless use.
- (2) The numerator includes only current non-users of smokeless tobacco, not current less than daily users.
- (3) This is similar to the previous “Former Daily Smokeless Tobacco Users—Among All Adults” indicator, except that the denominator is ever daily smokeless tobacco users, rather than all respondents. Therefore, the estimate for this indicator should be higher than the estimate for the previous indicator.
- (4) Other optional indicators that can be reported include ever smokeless tobacco user [smokeless tobacco composite = 1-5] and never regular smokeless tobacco user (non-user) [smokeless tobacco composite = 5-6].

## 2.2 Electronic Cigarette Use

---

### FS-12. Awareness of Electronic Cigarettes

**Indicator:** Percentage of adults who have ever heard of electronic cigarettes.

**Numerator:** Number of adults who have heard of electronic cigarettes.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for the question “Prior to today, have you ever heard of electronic cigarettes or vaping devices?” (EC1) should be excluded.

---

### FS-13. Ever Users of Electronic Cigarettes

**Indicator:** Percentage of adults who have ever used an electronic cigarette.

**Numerator:** Number of current daily and less than daily electronic cigarette users, and current non-users who have ever used an electronic cigarette.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a “don’t know” or “refused” value for either of the following questions should be excluded: “Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?” (EC2) and “Have you ever, even once, used an electronic cigarette or any other vaping device?” (EC3).

**Comments:**

- (1) This indicator is generated from questions EC2 and EC3.
  - (2) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.
- 

### FS-14. Current Electronic Cigarette Users

**Indicator:** Percentage of adults who currently use electronic cigarettes.

**Numerator:** Number of current daily and less than daily electronic cigarette users.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a “don’t know” or “refused” value for the following question should be excluded: “Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?” (EC2).

**Comments:**

- (1) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.
-

## 2.3 Cessation

---

### FS-15. Smoking Quit Attempt in the Past 12 Months

**Indicator:** Percentage of adults who smoked tobacco during the past 12 months and tried to quit during the past 12 months.

**Numerator:** Number of current tobacco smokers who tried to quit during the past 12 months and former tobacco smokers who have been abstinent for <12 months.

**Denominator:** Total number of current tobacco smokers and former tobacco smokers who have been abstinent for <12 months.

**Missing Values:** Respondents with “refused” responses for the question “During the past 12 months, have you tried to stop smoking?” (D01) should be excluded from the denominator.

**Comments:**

- (1) This indicator is a composite of separate questions asked of current and former tobacco smokers. The denominator is defined as all respondents who were tobacco smokers during the previous year (i.e., current tobacco smokers and former tobacco smokers abstinent < 12 months). Calculating this indicator only among current tobacco smokers will underestimate the rate of quit attempts in the past year.
- 

### FS-16. Interest in Quitting Smoking

**Indicator:** Percentage of current tobacco smokers who are planning to quit or thinking about quitting smoking.

**Numerator:** Number of current tobacco smokers who are planning or thinking about quitting smoking within the next month, 12 months, or someday.

**Denominator:** Number of current tobacco smokers.

**Missing Values:** Respondents with “refused” responses for the question “Which of the following best describes your thinking about quitting smoking?...” (D08) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
- 

### FS-17. Health Care Provider’s Advice to Quit Smoking Tobacco

**Indicator:** Percentage of current tobacco smokers and recent quitters (<12 months) who visited a doctor or health care provider (HCP) during the past 12 months and were advised to quit smoking tobacco.

**Numerator:** Number of current tobacco smokers and former tobacco smokers who have been abstinent for <12 months, who report being advised to quit smoking during a visit to a HCP within the past 12 months.

**Denominator:** Number of current tobacco smokers and former tobacco smokers who have been abstinent for <12 months, who visited a HCP in the past 12 months.

**Missing values:** Respondents with “don’t know” or “refused” responses to “How long has it been since you stopped smoking?” (B09a) or respondents with “refused” values for any of the following questions should be excluded from the denominator: “During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoked tobacco?” (B12 if former tobacco smoker, D06 if current tobacco smoker), or “During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?” (B13 if former tobacco smoker, D07 if current tobacco smoker).

---

**Comments:**

- (1) This indicator is a composite of separate questions asked of current and former tobacco smokers. The denominator is defined as all respondents who were tobacco smokers during the previous year (i.e., current tobacco smokers and former tobacco smokers abstinent < 12 months) who visited a HCP during the previous year.
- (2) It is recommended that this indicator be reported with information on the percentage of individuals that visited a doctor or a HCP in the past 12 months (e.g., Of the X% of current tobacco smokers and recent quitters who visited a HCP during the previous 12 months, X% were advised to quit smoking tobacco).
- (3) Alternatively, one may want to report the percentage of all current tobacco smokers and recent quitters who were advised to quit by a HCP in the past 12 months. This could be referred to as the “population impact of health care provider advice.”

---

**FS-18. Smokeless Tobacco Quit Attempt in the Past 12 Months**

**Indicator:** Percentage of adults who used smokeless tobacco during the past 12 months and tried to quit during the past 12 months.

**Numerator:** Number of current smokeless tobacco users who tried to quit during the past 12 months and former smokeless tobacco users who have been abstinent for <12 months.

**Denominator:** Total number of current smokeless tobacco users and former smokeless tobacco users who have been abstinent for <12 months.

**Missing Values:** Respondents with “refused” responses for the question “During the past 12 months, have you tried to stop using smokeless tobacco?” (D09) should be excluded from the denominator.

**Comments:**

- (1) This indicator is a composite of separate questions asked of current and former smokeless tobacco users. The denominator is defined as all respondents who were smokeless tobacco users during the previous year (i.e., current smokeless tobacco users and former smokeless tobacco users abstinent < 12 months). Calculating this indicator only among current smokeless tobacco users will underestimate the rate of quit attempts in the past year.

---

**FS-19. Interest in Quitting Smokeless Tobacco**

**Indicator:** Percentage of current smokeless tobacco users who are planning to quit or thinking about quitting smokeless tobacco.

**Numerator:** Number of current smokeless tobacco users who are planning or thinking about quitting within the next month, 12 months, or someday.

**Denominator:** Number of current smokeless tobacco users.

**Missing Values:** Respondents with “refused” responses for the question “Which of the following best describes your thinking about quitting smokeless tobacco?...” (D16) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.

---

**FS-20. Health Care Provider’s Advice to Quit Smokeless Tobacco Use**

**Indicator:** Percentage of current smokeless tobacco users and recent quitters (<12 months) who visited a doctor or health care provider (HCP) during the past 12 months and were advised to stop using smokeless tobacco.

**Numerator:** Number of current smokeless tobacco users and former smokeless tobacco users who have been abstinent for <12 months, who report being advised to quit smokeless tobacco during a visit to a HCP within the past 12 months.

**Denominator:** Number of current smokeless tobacco users and former smokeless tobacco users who have been abstinent for <12 months, who visited a HCP in the past 12 months.

**Missing Values:** Respondents with “don’t know” or “refused” responses to “How long has it been since you stopped using smokeless tobacco?” (C09a) or respondents with “refused” values for either of the following questions should be excluded from the denominator: “During any visit to a doctor or health care provider in the past 12 months, were you asked if you used smokeless tobacco?” (C12 for former smokeless tobacco users, D14 for current smokeless tobacco users), or “During any visit to a doctor or health care provider in the past 12 months, were you advised to stop using smokeless tobacco?” (C13 for former smokeless tobacco users, D15 for current smokeless tobacco users).

**Comments:**

- (1) This indicator is a composite of separate questions asked of current and former smokeless tobacco users. The denominator is defined as all respondents who were smokeless tobacco users during the previous year (i.e., current smokeless tobacco users and former smokeless tobacco users abstinent < 12 months) who visited a HCP during the previous year.
- (2) It is recommended that this indicator be reported with information on the percentage of individuals that visited a doctor or a HCP in the past 12 months (e.g., Of the X% of smokeless tobacco users and recent quitters who visited a HCP during the previous 12 months, X% were advised to stop using smokeless tobacco).
- (3) Alternatively, one may want to report the percentage of all current smokeless tobacco users and recent quitters who were advised to quit by a HCP in the past 12 months. This could be referred to as the “population impact of health care provider advice.”

## 2.4 Secondhand Smoke

---

### FS-21. Exposure to Secondhand Smoke at Work

**Indicator:** Percentage of indoor workers who were exposed to tobacco smoke at work in the past 30 days.

**Numerator:** Number of respondents who reported being exposed to smoke in indoor areas at work during the past 30 days.

**Denominator:** Number of respondents who work outside of the home who usually work indoors or both indoors and outdoors.

**Missing Values:** Respondents with “don’t know” or “refused” responses to the question “During the past 30 days, did anyone smoke in indoor areas where you work?” (E08) should be excluded from the denominator.

**Comments:**

- (1) Note that individuals who usually work outdoors, even though they might have indoor areas in their workplace are excluded from this calculation, as are individuals who work from their own homes.
  - (2) Some countries may choose to report this as the percentage of the entire population as well.
- 

### FS-22. Exposure to Secondhand Smoke at Home

**Indicator:** Percentage of adults who were exposed to tobacco smoke at home at least monthly.

**Numerator:** Number of respondents who reported being exposed to smoke at home either daily, weekly, or monthly.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “don’t know” or “refused” responses to the question “How often does \*anyone\* smoke inside your home? Would you say daily, weekly, monthly, less than monthly, or never?” (E03) should be excluded from the denominator.

**Comments:**

- (1) Respondents who report that smoking is never allowed in their homes (E01) are not asked the smoking in the home frequency question (E03). These respondents should be included in the denominator.
- 

### FS-23. Exposure to Secondhand Smoke Inside Various Public Places

**Indicator:** Percentage of adults who visited various public places in the past 30 days and were exposed to tobacco smoke inside.

**Numerator:** Number of respondents who reported being exposed to smoke inside (government buildings/healthcare facilities/restaurants/public transportation) in the past 30 days.

**Denominator:** Number of respondents who reported visiting (government buildings/healthcare facilities/restaurants/public transportation) in the past 30 days.

**Missing Values:** Respondents with “refused” values to the relevant questions should be excluded.

**Comments:**

- (1) “Don’t know” responses should be included in the denominator of this indicator. It is assumed that these respondents reported “don’t know” because they did not visit all parts and therefore were not exposed.
-



## 2.5 Economics

### FS-24. Average Cost of a Pack of Manufactured Cigarettes

**Indicator:** Average amount spent on 20 manufactured cigarettes (1 pack) (*in local currency*).

**Missing Values:** Respondents who never bought manufactured cigarettes or those with “refused” responses to “The last time you bought cigarettes for yourself, did you buy loose cigarettes, packs, cartons, or something else?” (F01a) or “don’t know” or “refused” responses to “In total, how much money did you pay for this purchase?” (F02) should be excluded. In addition, less than daily tobacco smokers who report smoking manufactured cigarettes less than once per week should be excluded from the calculation of this indicator.

**Calculation:**

- (1) Using information on the number and unit of last purchase (e.g., 2 packs) and the # of cigarettes per unit (e.g., 20 cigarettes per pack), calculate the number of manufactured cigarettes bought at last purchase (2 packs x 20 cigarettes per pack = 40 cigarettes).
- (2) Divide the amount paid for the last purchase of manufactured cigarettes by the number of manufactured cigarettes bought at the last purchase to calculate the amount paid per cigarette (e.g., \$10/40 cigarettes = \$.25 per cigarette).
- (3) Multiply the amount paid per cigarette by 20 cigarettes/pack to calculate the amount paid per pack of manufactured cigarettes (e.g., \$.25 \* 20 cigarettes/pack = \$5).
- (4) Calculate the number of manufactured cigarettes smoked per day for each individual.
- (5) Generate a new “manufactured cigarette weight,” equal to the product of the sample weight and the number of manufactured cigarettes smoked per day.
- (6) Calculate the average amount paid per pack of manufactured cigarettes across all respondents, weighted by the new “manufactured cigarette weight.”

**Example:**

(1) Respondent	(2) Amount paid per pack of 20 manufactured cigarettes (\$)*	(3) Manufactured cigarettes smoked per day	(4) Individual weight	(3 x 4) Manufactured cigarette weight
1	2.30	15	6340	95100
2	6.00	10	3170	31700
3	4.50	5	5072	25360
4	1.00	3	1902	5706
5	7.00	10	2536	25360
6	2.10	20	5706	114120
7	1.65	2	3804	7608
8	3.80	30	4438	133140
9	4.40	18	3170	57060
10	2.60	4	2219	8876

\* Estimated from questions F01 and F02.

Note: The values in each column of the table, including weights, are purely hypothetical and are presented only for illustrative purposes. These values have no bearing on country-specific data.

Weighted average cost per pack:

$$\begin{aligned} &= \frac{\sum_{i=1}^n w_i x_i}{\sum_{i=1}^n w_i} \\ &= \frac{2.30 \cdot 95100 + 6.00 \cdot 31700 + 4.50 \cdot 25360 + 1.00 \cdot 5706 + 7.00 \cdot 25360 + 2.10 \cdot 114120 + 1.65 \cdot 7608 + 3.80 \cdot 133140 + 4.40 \cdot 57060 + 2.60 \cdot 8876}{95100 + 31700 + 25360 + 5706 + 25360 + 114120 + 7608 + 133140 + 57060 + 8876} \\ &= \$3.45 \end{aligned}$$

where  $n$  = number of manufactured cigarette smokers

$w_i$  = manufactured cigarette weight for  $i^{\text{th}}$  respondent

$x_i$  = amount paid per pack of 20 cigarettes for  $i^{\text{th}}$  respondent

**Comments:**

- (1) This economic indicator is calculated only among manufactured cigarette smokers who smoke manufactured cigarettes at least once per week. An analogous indicator can be generated for all products in the survey for which price information and consumption is collected.
- (2) One pack is assumed to equal 20 manufactured cigarettes.
- (3) This weighted average cost per pack is equivalent to the total expenditures of manufactured cigarettes per day across the target population divided by the total daily consumption of manufactured cigarettes in packs.
- (4) The mean or median can be calculated and reported in the fact sheet.

---

**FS-25. Cigarette Expenditure per Month**

**Indicator:** Average expenditure on manufactured cigarettes per month (*reported in local currency*).

**Missing Values:** Respondents who never bought manufactured cigarettes or those with “refused” responses to “The last time you bought cigarettes for yourself, did you buy loose cigarettes, packs, cartons, or something else?” (F01a) or “don’t know” or “refused” responses to “In total, how much money did you pay for this purchase?” (F02) should be excluded. In addition, less than daily tobacco smokers who report smoking manufactured cigarettes less than once per week should be excluded from the calculation of this indicator.

**Calculation:**

- (1) Using information on the number and unit of last purchase (e.g., 2 packs) and the # of cigarettes per unit (e.g., 20 cigarettes per pack), calculate the number of manufactured cigarettes bought at last purchase (2 packs x 20 cigarettes per pack = 40 cigarettes).
- (2) Divide the amount paid for the last purchase of manufactured cigarettes by the number of manufactured cigarettes bought at the last purchase to calculate the amount paid per cigarette (e.g., \$10/40 cigarettes = \$.25 per cigarette).
- (3) Calculate the number of manufactured cigarettes smoked per day for each individual (e.g., 10 cigarettes per day).
- (4) Multiply the number of manufactured cigarettes smoked per day by the amount paid per cigarette and then multiply by 365 days and divide by 12 months (e.g., 10 cigarettes per day x \$.25 per cigarette x 365 days/12 months = \$76 per month).

**Comments:**

- (1) This economic indicator is calculated only among current manufactured cigarette smokers who smoke manufactured cigarettes at least once per week. An analogous indicator can be generated for all products in the survey for which price information and consumption is collected.
- (2) The mean or median can be calculated and reported in the fact sheet.

---

## **FS-26. Cigarette Affordability**

**Indicator:** Average cost of 100 packs of manufactured cigarettes as a percentage of Gross Domestic Product (GDP) per capita.

**Numerator:** Consumption-weighted cost of 100 packs of manufactured cigarettes.

**Denominator:** Per capita GDP in the country.

**Missing Values:** Respondents who never bought manufactured cigarettes or those with “refused” responses to “The last time you bought cigarettes for yourself, did you buy loose cigarettes, packs, cartons, or something else?” (F01a) or “don’t know” or “refused” responses to “In total, how much money did you pay for this purchase?” (F02) should be excluded. In addition, less than daily tobacco smokers who report smoking manufactured cigarettes less than once per week should be excluded from the calculation of this indicator.

### **Calculation:**

- (1) Use the same approach as described above to calculate consumption-weighted average cost per pack of 20 manufactured cigarettes.
- (2) Multiply the average cost per pack by 100 to estimate the average cost of 100 packs.
- (3) Divide the average cost of 100 packs by the per capita GDP and multiply by 100.

### **Comments:**

- (1) This economic indicator is calculated only among manufactured cigarette smokers who smoke manufactured cigarettes at least once per week. An analogous indicator can be generated for all products in the survey for which price information and consumption is collected.
  - (2) One pack is assumed to equal 20 manufactured cigarettes.
  - (3) The average cost of 100 packs of manufactured cigarettes is weighted by the number of manufactured cigarettes smoked per day.
  - (4) GDP per capita should be obtained from the most recent World Economic Outlook published by the International Monetary Fund, using projections for the year of the survey. The source of the GDP estimate should be referenced.
-

## 2.6 Media

---

### FS-27. Awareness of Anti-Cigarette Smoking Information on Television (TV) or the Radio

**Indicator:** Percentage of adults who have noticed information about the dangers of smoking cigarettes or that encourages quitting on TV or radio in the last 30 days.

**Numerator:** Number of respondents who have noticed information about the dangers of smoking cigarettes or that encourages quitting on TV or radio in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using the following two questions: “In the last 30 days, have you noticed information about the dangers of smoking cigarettes or that encourages quitting in any of the following places? b. On television? c. On the radio?” (G01b and G01c, or the similar questions G201b1 and G201c1). Respondents should be excluded from the denominator if one of the following two conditions is met: 1) both questions are answered “refused,” or 2) one of the questions is answered “refused” and the other question is answered “no” or “not applicable.” (Note that if one of the questions is answered “yes” and the other is answered “refused,” this respondent should still be included in the numerator.)

**Comment:**

- (1) The denominator should include “Not applicable” responses (those who did not watch TV or listen to the radio in the past 30 days).
- (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.

---

### FS-28. Thinking of Quitting Because of Health Warning Labels on Cigarette Packages

**Indicator:** Percentage of current smokers who reported thinking about quitting smoking in the last 30 days because of the warning labels on cigarette packages.

**Numerator:** Number of current smokers who thought about quitting smoking in the last 30 days because of the warning labels on cigarette packages.

**Denominator:** Number of current smokers.

**Missing Values:** Respondents with “refused” responses to either of the following questions should be excluded from the denominator: “In the last 30 days did you notice any health warnings on cigarette packages?” (G02 or G202a) or “In the last 30 days, have warning labels on cigarette packages led you to think about quitting?” (G03 or G203a).

**Comments:**

- (1) Those who did not notice any health warnings or did not see any cigarette packages for G02 (or G202a) and “don’t know” responses to G03 (or G203a) are included in the denominator.
- (2) This indicator is calculated among all current smokers, regardless if they noticed health warnings. An additional indicator can be calculated among only those who noticed health warnings.

---

**FS-29. Awareness of Anti-Smokeless Tobacco Information on Television (TV) or the Radio**

**Indicator:** Percentage of adults who have noticed information about the dangers of smokeless tobacco or that encourages quitting on TV or radio in the last 30 days.

**Numerator:** Number of respondents who have noticed information about the dangers of smokeless tobacco or that encourages quitting on TV or radio in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using the following two questions: “In the last 30 days, have you noticed information about the dangers of using smokeless tobacco or that encourages quitting in any of the following places? b3. On television? c3. On the radio?” (G201b3 and G201c3). Respondents should be excluded from the denominator if one of the following two conditions is met: 1) both questions are answered “refused,” or 2) one of the questions is answered “refused” and the other question is answered “no” or “not applicable.” (Note that if one of the questions is answered “yes” and the other is answered “refused,” this respondent should still be included in the numerator.)

**Comments:**

- (1) The denominator should include “Not applicable” responses (those who did not watch TV or listen to the radio in the past 30 days).
- (2) It is recommended that this indicator be reported for the overall population and separately among current smokeless tobacco users and non-users.

---

**FS-30. Thinking of Quitting Because of Health Warning Labels on Smokeless Tobacco Products**

**Indicator:** Percentage of current smokeless tobacco users who thought about quitting in the last 30 days because of the warning labels on smokeless tobacco products.

**Numerator:** Number of current smokeless tobacco users who thought about quitting in the last 30 days because of the warning labels on smokeless tobacco products.

**Denominator:** Number of current smokeless tobacco users.

**Missing Values:** Respondents with “refused” responses to either of the following questions should be excluded from the denominator: “In the last 30 days did you notice any health warnings on smokeless tobacco products?” (G202c) or “In the last 30 days, have warning labels on smokeless tobacco products led you to think about quitting?” (G203c).

**Comments:**

- (1) Those who did not notice any health warnings or did not see any smokeless tobacco products for G202c and “don’t know” responses to G203c are included in the denominator.
- (2) This indicator is calculated among all current smokeless tobacco users, regardless if they noticed health warnings. An additional indicator can be calculated among only those who noticed health warnings.

---

**FS-31. Awareness of In-Store Cigarette/Tobacco Advertising and Promotions**

**Indicator:** Percentage of adults who have noticed any advertisements or signs promoting cigarettes/tobacco in stores where cigarettes/tobacco products are sold, cigarettes/tobacco at sale prices, or free gifts or discount offers on other products when buying cigarettes/tobacco in the last 30 days.

**Numerator:** Number of respondents who have noticed any advertisements or signs promoting cigarettes/tobacco in stores where cigarettes/tobacco products are sold, cigarettes/tobacco at sale prices, or free gifts or discount offers on other products when buying cigarettes/tobacco in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using the following three questions: “In the last 30 days, have you noticed any advertisements or signs promoting (cigarettes/any tobacco products) in the following places? a. In stores where (cigarettes are/tobacco is) sold?” (G04a/G204a) and “In the last 30 days, have you noticed any of the following types of (cigarette/tobacco product) promotions? b. (Cigarettes/Tobacco products) at sale prices? d. Free gifts or special discount offers on other products when buying (cigarettes/tobacco products)?” (G06b/G206b and G06d/G206d). Respondents should be excluded from the denominator if at least one of the questions is answered “refused” and all of the other remaining questions are answered “no” or “not applicable/don’t know”. (Note that if at least one of the questions is answered “yes,” this respondent should still be included in the numerator regardless of the answers to the other questions.)

**Comments:**

- (1) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (2) The denominator should include “not applicable/don’t know” responses.
- (3) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers/users and non-smokers/users.

---

**FS-32. Awareness of Any Cigarette/Tobacco Product Advertising and Promotion**

**Indicator:** Percentage of adults who have noticed any advertisements or signs promoting cigarettes/tobacco products, cigarette/tobacco product company sponsorship of sporting events, or cigarette/tobacco product promotions in the last 30 days.

**Numerator:** Number of respondents who have noticed any cigarette/tobacco product advertisements, promotions, or sponsorships in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using multiple questions (see comments below). Respondents should be excluded from the denominator if at least one of the questions is answered “refused” and all of the other remaining questions are answered “no” or “not applicable/don’t know”. (Note that if at least one of the questions is answered “yes,” this respondent should still be included in the numerator regardless of the answers to the other questions.)

**Comments:**

- (1) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (2) This indicator is based on responses to the series of questions on cigarette/any tobacco product advertising, sponsorship, and promotion (G04/G204 series, G05/G205, G06/G206 series).
- (3) The denominator should include “not applicable/don’t know” responses.
- (4) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers/users and non-smokers/users.
- (5) Caution should be used in comparing this indicator across countries, because the items asked about in the questionnaire may vary from country to country.

## 2.7 Knowledge, Attitudes, and Perceptions

---

### FS-33. Beliefs about the Dangers of Tobacco Smoking

**Indicator:** Percentage of adults who believe that smoking tobacco causes serious illness.

**Numerator:** Number of respondents who believe that smoking tobacco causes serious illness.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” responses for the question “Based on what you know or believe, does smoking tobacco cause serious illness?” (H01) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
  - (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.
- 

### FS-34. Beliefs about the Dangers of Secondhand Smoke

**Indicator:** Percentage of adults who believe that breathing other people’s smoke causes serious illness in non-smokers.

**Numerator:** Number of respondents who believe that breathing other people’s smoke causes serious illness in non-smokers.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” responses for the question “Based on what you know or believe, does breathing other people’s smoke cause serious illness in non-smokers?” (E23) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
  - (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.
- 

### FS-35. Beliefs about the Dangers of Smokeless Tobacco Use

**Indicator:** Percentage of adults who believe that smokeless tobacco use causes serious illness.

**Numerator:** Number of respondents who believe that smokeless tobacco use causes serious illness.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” responses for the question “Based on what you know or believe, does using smokeless tobacco cause serious illness?” (H03) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
  - (2) It is recommended that this indicator be reported for the overall population and separately among current smokeless tobacco users and non-users.
-



### 3. Country Report Indicators

---

The GATS Country Report provides an opportunity to examine the Fact Sheet indicators and other findings in more detail, and describe the results in the context of each country's unique tobacco control environment. The indicators detailed in this chapter correspond with the table shells provided in the *GATS Country Report: Tabulation Plan and Guidelines*.

#### 3.1 Tobacco Use and Electronic Cigarette Use (Country Report Chapter 4)

For GATS, tobacco use refers to using smoking tobacco and smokeless tobacco products. Heated tobacco products are also included as tobacco use if a country has included the applicable questions in their GATS survey. For GATS, electronic cigarettes are not considered as tobacco use and thus are reported separately.

All measures of tobacco use prevalence in GATS should be generated using a 6-level tobacco smoking (or comparable smokeless) composite variable. The *composite variable* for tobacco smoking is generated from the responses to questions B01-B03 and shown in **Table 3-1**. An analogous composite variable for smokeless tobacco use is generated from the responses to questions C01-C03 (**Table 3-2**). The categories from these composite variables can be collapsed to generate the key indicators of tobacco (smoking or smokeless tobacco) described below. The Country Report indicators described in this and subsequent sections focus on smoked tobacco, but analogous indicators should be generated and reported for smokeless tobacco, if applicable.

**Table 3-1. Generation of the 6-Level Tobacco Smoking Composite Variable (Country Report Table 4.1)**

Category	Value	Definition
<b>Current tobacco smoker</b>		
Daily tobacco smoker	1	B01= [1]
Occasional (less than daily) tobacco smoker, formerly daily	2	B01= [2] AND B02= [1]
Occasional (less than daily) tobacco smoker, never daily	3	B01= [2] AND B02= [2]
<b>Non-smoker of tobacco</b>		
Former (ex-) daily tobacco smoker	4	B01= [3] AND B03= [1]
Former (ex-) occasional (less than daily) tobacco smoker	5	B01= [3] AND B03= [2]
Never smoker of tobacco	6	B01= [3] AND B03= [3]

**Table 3-2. Generation of the 6-Level Smokeless Tobacco Composite Variable (Country Report Table 4.2)**

Category	Value	Definition
<b>Current smokeless tobacco user</b>		
Daily smokeless tobacco user	1	C01= [1]
Occasional (less than daily) smokeless tobacco user, formerly daily	2	C01= [2] AND C02= [1]
Occasional (less than daily) smokeless tobacco user, never daily	3	C01= [2] AND C02= [2]
<b>Non-user of smokeless tobacco</b>		
Former (ex-) daily smokeless tobacco user	4	C01= [3] AND C03= [1]
Former (ex-) occasional (less than daily) smokeless tobacco user	5	C01= [3] AND C03= [2]
Never user of smokeless tobacco	6	C01= [3] AND C03= [3]

---

**Current Tobacco Smokers (Country Report Tables 4.3 and 4.4)**

**Indicator:** Percentage of adults who currently smoke tobacco.

**Numerator:** Number of current daily and less than daily tobacco smokers.

**Denominator:** Total number of respondents<sup>1</sup>.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is generated by combining categories 1, 2, and 3 from the 6-level tobacco smoking composite variable.
- (2) It is the most important indicator to report on and, in some cases, the only real point for international comparison.

---

**Current Cigarette Smokers (Country Report Table 4.3 and 4.4)**

**Indicator:** Percentage of adults who currently smoke cigarettes.

**Numerator:** Number of current daily and less than daily cigarette smokers.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) Cigarette smoking prevalence includes manufactured cigarettes and hand-rolled cigarettes. Kreteks should also be included if this category is included in the questionnaire.
- (2) Current cigarette smoking prevalence can be reported separately where cigarettes are of focal interest. An optional category for reporting would be the prevalence of manufactured cigarette smoking.

---

<sup>1</sup> It is implied that the denominator includes those with “valid” responses only. Those responses that are “not valid” are described for each indicator under “missing values.”

---

### Current [*Product*] Smokers (Country Report Tables 4.3 and 4.4)

**Indicator:** Percentage of adults who currently smoke [*product*].

**Numerator:** Number of current daily and less than daily [*product*] smokers.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “don’t know” or “refused” responses to either of the following questions for the product of interest should be excluded: “On average, how many of the following products do you currently smoke each day?” (B06) and “How many of the following do you currently smoke during a usual week?” (B08).

**Comments:**

- (1) This indicator can be generated for specific tobacco products of interest, e.g. manufactured cigarettes, hand-rolled cigarettes, kreteks, bidis, pipes, cigars, waterpipe tobacco, etc.

---

### Daily Tobacco Smokers (Country Report Table 4.5)

**Indicator:** Percentage of adults who currently smoke tobacco daily.

**Numerator:** Number of current daily tobacco smokers.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is category 1 of the 6-level tobacco smoking composite variable.
- (2) The prevalence of daily tobacco smoking should be less than or equal to the prevalence of current tobacco smoking.
- (3) Country Report Table 4.5 includes prevalence of occasional (less than daily) smokers and non-smokers. Prevalence of occasional smokers should be generated by combining categories 2 and 3 of the 6-level tobacco smoking composite variable. Prevalence of non-smokers should be generated by combining categories 4, 5, and 6 of the 6-level tobacco smoking composite variable.

---

### Number of Cigarettes Smoked Per Day (Country Report Table 4.6)

**Indicator:** Percentage of daily cigarette smokers who report smoking an average of [*less than 5; 5-9; 10-14; 15-24; and 25+*] cigarettes per day.

**Numerator:** Daily cigarette smokers reporting an average of [*less than 5; 5-9; 10-14; 15-24; and 25+*] cigarettes per day.

**Denominator:** Daily cigarette smokers.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) Cigarettes include manufactured cigarettes and hand-rolled cigarettes. Kreteks should also be included if this category is included in the questionnaire.
- (2) See *Chapter 2: Fact Sheet Indicators* for the definition of daily cigarette smokers.
- (3) The average number of cigarettes smoked per day is recommended to be reported in Country Report Table 4.6 as well.

---

### Age at Smoking Initiation (Country Report Table 4.7)

**Indicator:** Percentage of ever smokers ages 20-34 years old who first tried smoking tobacco at [*<15; 15-16; 17-19 and 20+*] years of age.

**Numerator:** Number of ever smokers ages 20-34 years old who first tried smoking tobacco at [*<15; 15-16; 17-19 and 20+*] years of age.

**Denominator:** Number of ever smokers ages 20-34 years old.

**Missing Values:** Respondents with “don’t know” or “refused” responses to “How old were you when you first tried smoking tobacco, even once?” (B04) and to “How many years ago did you first try smoking tobacco, even once?” (B04a) should be excluded.

**Comments:**

- (1) Age of initiation should be calculated among young adult smokers (ages 20-34) to reflect more recent patterns of initiation. Age of initiation among older populations reflects historical patterns of initiation. An analysis of birth cohort patterns in age of initiation (by current age) can provide additional information on trends.
- (2) The average age at smoking initiation is recommended to be reported in Country Report Table 4.7 as well.

---

### Age at Daily Smoking Initiation (Country Report Table 4.8)

**Indicator:** Percentage of ever daily smokers ages 20-34 years old who started smoking daily at [*<15; 15-16; 17-19 and 20+*] years of age.

**Numerator:** Number of ever daily smokers ages 20-34 years old who started smoking daily at [*<15; 15-16; 17-19 and 20+*] years of age.

**Denominator:** Number of ever daily smokers ages 20-34 years old.

**Missing Values:** Respondents with “don’t know” or “refused” responses to “How old were you when you first started smoking tobacco daily?” (B05) and to “How many years ago did you first start smoking tobacco daily?” (B05a) should be excluded.

**Comments:**

- (1) Age of daily initiation should be calculated among young adult ever daily smokers (ages 20-34) to reflect more recent patterns of initiation. Age of daily initiation among older populations reflects historical patterns of initiation. An analysis of birth cohort patterns in age of daily initiation (by current age) can provide additional information on trends.
- (2) The average age at daily smoking initiation is recommended to be reported in Country Report Table 4.8 as well.

---

### Former Daily Tobacco Smokers—Among All Adults (Country Report Table 4.9)

**Indicator:** Percentage of adults who are ever daily tobacco smokers and currently do not smoke tobacco.

**Numerator:** Number of ever daily tobacco smokers who currently do not smoke tobacco.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This indicator is category 4 of the 6-level tobacco smoking composite variable.
- (2) The numerator includes only current non-smokers, not current less than daily smokers.
- (3) This indicator will help contextualize the quit ratio below.

---

### Former Daily Tobacco Smokers—Among Ever Daily Smokers (Country Report Table 4.9)

**Indicator:** Percentage of ever daily tobacco smokers who currently do not smoke tobacco.

**Numerator:** Number of ever daily tobacco smokers who currently do not smoke tobacco.

**Denominator:** Number of ever daily tobacco smokers.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This is a critical indicator of the success of efforts to encourage cessation among established tobacco smokers. This indicator is also known as the quit ratio for daily smoking.
- (2) The numerator includes only current non-smokers, not current less than daily smokers.
- (3) This is similar to the indicator above, except that the denominator is ever daily tobacco smokers, rather than all respondents. Therefore, the estimate for this indicator should be higher.
- (4) Other optional indicators that can be reported include ever tobacco smoker [tobacco smoking composite = 1-5] and never regular tobacco smoker (non-smoker) [tobacco smoking composite = 5-6].

---

### Time since Quitting Smoking (Country Report Table 4.10)

**Indicator:** Percentage of former daily smokers who quit smoking [*<1 year ago, 1 to <5 years ago, 5 to <10 years ago, 10+ years ago*].

**Numerator:** Number of former daily smokers who quit smoking [*<1 year ago, 1 to <5 years ago, 5 to <10 years ago, 10+ years ago*].

**Denominator:** Number of former daily smokers who do not smoke tobacco.

**Missing Values:** Respondents with “don’t know” or “refused” responses for the following question should be excluded: “How long has it been since you stopped smoking?” (B09a).

**Comments:**

- (1) This indicator is calculated among former daily smokers who do not currently smoke.
- (2) Reporting on time since quitting can provide information on the impact of recent programs and policies, by showing the percentage of recent quitters compared with longer-term quitters. Smokers who have quit for a longer period of time are more likely to remain former smokers.

---

### **Current Tobacco Users (Country Report Table 4.11)**

**Indicator:** Percentage of adults who currently use tobacco.

**Numerator:** Number of current daily and less than daily tobacco smokers and/or smokeless tobacco users.

**Denominator:** Total number of respondents.

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) This estimate is generated by combining categories 1, 2 and 3 from the 6-level tobacco smoking and the 6-level smokeless tobacco composite variable.
- (2) The prevalence of current tobacco use should be less than or equal to the total of current tobacco smoking and current smokeless tobacco use prevalence.
- (3) Heated tobacco product use should also be included as current tobacco use, if these optional questions were included in the questionnaire.
- (4) Electronic cigarettes are not considered tobacco use for GATS and are reported separately.

---

### **Patterns of Current Tobacco Use (Country Report Table 4.11)**

**Indicator:** Percentage of current tobacco users who only smoke tobacco; only use smokeless tobacco; or smoke tobacco and use smokeless tobacco.

**Numerator:** Number of current tobacco users who only smoke tobacco; only use smokeless tobacco; or smoke tobacco and use smokeless tobacco.

**Denominator:** Total number of current tobacco users (smokers and/or smokeless users).

**Missing Values:** See note about missing values in *Section 1.1*.

**Comments:**

- (1) "Only smoke tobacco" reflects the percentage of current tobacco users who currently smoke tobacco only (daily or less than daily). "Only use smokeless tobacco" reflects the percentage of current tobacco users who currently use smokeless tobacco only (daily or less than daily). "Smoke tobacco and use smokeless tobacco" reflects the percentage of current tobacco users who currently smoke tobacco and use smokeless tobacco products on either a daily or less than daily basis.
- (2) Heated tobacco product use should also be included as current tobacco use, if these optional questions were included in the questionnaire. In this instance, there will be seven categories: Smoked only; Smokeless only; Heated tobacco products only; Both smoked and smokeless; Both smoked and heated tobacco products; Both smokeless and heated tobacco products; and Smoked, smokeless, and heated tobacco products.
- (3) Electronic cigarettes are not considered tobacco use for GATS and are reported separately.

---

### Time to First Tobacco Use (Country Report Table 4.12)

**Indicator:** Percentage of daily smokers or smokeless tobacco users who report first tobacco use [*≤5 minutes; 6-30 minutes; 31-60 minutes; >60 minutes*] after waking.

**Numerator:** Number of daily smokers or smokeless tobacco users who report first tobacco use [*≤5 minutes; 6-30 minutes; 31-60 minutes; >60 minutes*] after waking.

**Denominator:** Total number of daily smokers or smokeless tobacco users.

**Missing Values:** Respondents with “refused” values for both of the following questions should be excluded: “How soon after you wake up do you usually have your first smoke?...” (B07) and “How soon after you wake up do you usually use smokeless tobacco for the first time?...” (C07).

**Comments:**

- (1) If the respondent is both a daily smoker and smokeless tobacco user, the earliest time to first tobacco use should be used.
- (2) If the question for smokeless tobacco (C07) is not included in the country questionnaire, then only time to first smoke will be reported.
- (3) This indicator is a measure of nicotine dependence.

---

### Awareness of Electronic Cigarettes (Country Report Table 4.13)

**Indicator:** Percentage of adults who have ever heard of electronic cigarettes.

**Numerator:** Number of adults who have heard of electronic cigarettes.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for the question “Prior to today, have you ever heard of electronic cigarettes or vaping devices?” (EC1) should be excluded.

---

### Ever Users of Electronic Cigarettes (Country Report Table 4.13)

**Indicator:** Percentage of adults who have ever used an electronic cigarette.

**Numerator:** Number of current daily and less than daily electronic cigarette users, and current non-users who have ever used an electronic cigarette.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a “don't know” or “refused” value for either of the following questions should be excluded: “Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?” (EC2) and “Have you ever, even once, used an electronic cigarette or any other vaping device?” (EC3).

**Comments:**

- (3) This indicator is generated from questions EC2 and EC3.
- (4) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.

---

### Ever Daily Electronic Cigarette Users (Country Report Table 4.13)

**Indicator:** Percentage of adults who have ever used electronic cigarettes daily.

**Numerator:** Number of current daily electronic cigarette users and former daily electronic cigarette users.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a "don't know" or "refused" value for either of the following questions should be excluded: "Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?" (EC2) and "Have you ever used electronic cigarettes or any other vaping device daily in the past" (EC4).

**Comments:**

- (1) This indicator is generated from questions EC2 and EC4.
- (2) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.
- (3) Current non-users who have never used an electronic cigarette (EC3=2) should be included in the denominator.

---

### Current Electronic Cigarette Users (Country Report Table 4.13)

**Indicator:** Percentage of adults who currently use electronic cigarettes.

**Numerator:** Number of current daily and less than daily electronic cigarette users.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a "don't know" or "refused" value for the following question should be excluded: "Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?" (EC2).

**Comments:**

- (2) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.

---

### Current Electronic Cigarette Users Among Those Who Are Aware of Electronic Cigarettes (Country Report Table 4.13)

**Indicator:** Percentage of adults who currently use electronic cigarettes among adults who have ever heard of electronic cigarettes.

**Numerator:** Number of current daily and less than daily electronic cigarette users.

**Denominator:** Number of adults who have heard of electronic cigarettes.

**Missing Values:** Respondents with a "don't know" or "refused" value for the following question should be excluded: "Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?" (EC2).

**Comments:**

- (1) Respondents who have never heard of electronic cigarettes (EC1=2) will have skipped over EC2 and thus will not be included in the denominator.



---

### **Current Daily Electronic Cigarette Users (Country Report Table 4.13)**

**Indicator:** Percentage of adults who currently use electronic cigarettes daily.

**Numerator:** Number of current daily electronic cigarette users.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a "don't know" or "refused" value for the following question should be excluded: "Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?" (EC2).

**Comments:**

- (1) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.
- (2) The prevalence of daily electronic cigarette use should be less than or equal to the prevalence of current electronic cigarette use.
- (3) Country Report Table 4.13 includes the prevalence of current occasional (less than daily) electronic cigarette use.

---

### **Duration of Daily Electronic Cigarette Use (Country Report Table 4.14)**

**Indicator:** Percentage of ever daily electronic cigarette users who used electronic cigarettes on a daily basis for *[less than 1 month, 1 to 3 months, 4 to 11 months, 1 to 2 years, or more than 2 years]*.

**Numerator:** Number of current daily electronic cigarette users and former daily electronic cigarette users who used electronic cigarettes on a daily basis for *[less than 1 month, 1 to 3 months, 4 to 11 months, 1 to 2 years, or more than 2 years]*.

**Denominator:** Number of current daily electronic cigarette users and former daily electronic cigarette users.

**Missing Values:** Respondents with "don't know" or "refused" responses to "For how long have you been using e-cigarettes or any other vaping device on a daily basis?/For how long did you use e-cigarettes or any other vaping device on a daily basis?" (EC5) should be excluded.

**Comments:**

- (1) The indicator groupings will add to 100%.

---

**Former Daily Electronic Cigarette Users—Among All Adults (Country Report Table 4.15)**

**Indicator:** Percentage of adults who are ever daily electronic cigarette users and currently do not use electronic cigarettes.

**Numerator:** Number of ever daily electronic cigarette users who currently do not use electronic cigarettes.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with a "don't know" or "refused" value for either of the following questions should be excluded: "Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?" (EC2) and "Have you ever used electronic cigarettes or any other vaping device daily in the past" (EC4).

**Comments:**

- (1) This indicator is generated from questions EC2 and EC4.
- (2) Respondents who have never heard of electronic cigarettes (EC1=2) should be included in the denominator.
- (3) Current non-users who have never used an electronic cigarette (EC3=2) should be included in the denominator.
- (4) The numerator only includes current non-users. (Current less than daily users who used daily in the past are excluded from the numerator.)
- (5) This indicator will help contextualize the quit ratio below.

---

**Former Daily Electronic Cigarette Users—Among Ever Daily Users (Country Report Table 4.15)**

**Indicator:** Percentage of ever daily electronic cigarette users who currently do not use electronic cigarettes.

**Numerator:** Number of ever daily electronic cigarette users who currently do not use electronic cigarettes.

**Denominator:** Number of ever daily electronic cigarette users.

**Missing Values:** Respondents with a "don't know" or "refused" value for either of the following questions should be excluded: "Do you currently use electronic cigarettes or any other vaping device on a daily basis, less than daily, or not at all?" (EC2) and "Have you ever used electronic cigarettes or any other vaping device daily in the past" (EC4).

**Comments:**

- (1) This indicator is also known as the quit ratio for daily electronic cigarette use.
- (2) This indicator is generated from questions EC2 and EC4.
- (3) The numerator only includes current non-users. (Current less than daily users who used daily in the past are excluded from the numerator.)
- (4) This is similar to the indicator above, except that the denominator is ever daily electronic cigarette users, rather than all respondents. Therefore, the estimate for this indicator should be higher.

---

**Reasons for Electronic Cigarette Use (Country Report Table 4.16)**

**Indicator:** Percentage of current electronic cigarette users who also currently smoke tobacco, who use electronic cigarettes to try to quit smoking tobacco.

**Numerator:** Number of current electronic cigarette users who use electronic cigarettes to try to quit smoking tobacco.

**Denominator:** Number of current electronic cigarette users who also currently smoke tobacco.

**Indicator:** Percentage of current electronic cigarette users who are former tobacco smokers, who use electronic cigarettes to avoid going back to smoking tobacco.

**Numerator:** Number of current electronic cigarette users who use electronic cigarettes to avoid going back to smoking tobacco.

**Denominator:** Number of current electronic cigarette users who are former tobacco smokers.

**Indicator:** Percentage of current electronic cigarette users who use electronic cigarettes because *[they enjoy it; they are addicted to it; they can use it at times when or in places where tobacco smoking is not allowed; it is less harmful than smoking tobacco; it comes in flavors they like; a friend or family member uses them]*.

**Numerator:** Number of current electronic cigarette users who use electronic cigarettes because *[they enjoy it; they are addicted to it; they can use it at times when or in places where tobacco smoking is not allowed; it is less harmful than smoking tobacco; it comes in flavors they like; a friend or family member uses them]*.

**Denominator:** Number of current electronic cigarette users.

**Missing Values:** Respondents with “refused” responses should be excluded from the denominator for each of the specific indicators (E6a through h).

**Comments:**

- (1) The indicators may change depending on the item list included in the adapted country-specific questionnaire.

## 3.2 Cessation (Country Report Chapter 5)

---

### Smoking Quit Attempt in the Past 12 Months (Country Report Table 5.1)

**Indicator:** Percentage of adults who smoked tobacco during the past 12 months and tried to quit during the past 12 months.

**Numerator:** Number of current tobacco smokers who tried to quit during the past 12 months and former tobacco smokers who have been abstinent for <12 months.

**Denominator:** Total number of current tobacco smokers and former tobacco smokers who have been abstinent for <12 months.

**Missing Values:** Respondents with “refused” responses for the question “During the past 12 months, have you tried to stop smoking?” (D01) should be excluded from the denominator.

**Comments:**

- (1) This indicator is a composite of separate questions asked of current and former tobacco smokers. The denominator is defined as all respondents who were tobacco smokers during the previous year (i.e., current tobacco smokers and former tobacco smokers abstinent < 12 months). Calculating this indicator only among current tobacco smokers will underestimate the rate of quit attempts in the past year.

---

### Health Care Provider Asking about Smoking (Country Report Table 5.1)

**Indicator:** Percentage of current smokers and recent quitters (<12 months) who visited a doctor or health care provider (HCP) during the past 12 months and were asked if they were a smoker.

**Numerator:** Number of current smokers and recent quitters (<12 months), who visited a doctor or HCP during the past 12 months and were asked if they were a smoker.

**Denominator:** Number of current smokers and recent quitters (<12 months), who visited a doctor or HCP during the past 12 months.

**Missing Values:** Respondents with “don’t know” or “refused” responses to “How long has it been since you stopped smoking?” (B09a) or “refused” responses to “During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoked tobacco?” (B12 if former tobacco smoker, D06 if current tobacco smoker) should be excluded.

**Comments:**

- (1) This indicator is a composite of separate questions asked of current and former tobacco smokers. The denominator is defined as all respondents who were tobacco smokers during the previous year (i.e., current tobacco smokers and former tobacco smokers abstinent < 12 months) who visited a HCP during the previous year.
- (2) It is suggested that this indicator be reported with information on the percentage of individuals that visited a doctor or a HCP in the past 12 months (e.g., Of the X% of current tobacco smokers and recent quitters who visited a HCP during the previous 12 months, X% were asked if they smoked tobacco).

---

### Health Care Provider's Advice to Quit Smoking Tobacco (Country Report Table 5.1)

**Indicator:** Percentage of current tobacco smokers and recent quitters (<12 months) who visited a doctor or health care provider (HCP) during the past 12 months and were advised to quit smoking tobacco.

**Numerator:** Number of current smokers and recent quitters (<12 months), who report being advised to quit smoking during a visit to a HCP in the past 12 months.

**Denominator:** Number of current smokers and recent quitters (<12 months), who visited a HCP in the past 12 months.

**Missing values:** Respondents with “don’t know” or “refused” responses to “How long has it been since you stopped smoking?” (B09a) or respondents with “refused” values for any of the following questions should be excluded from the denominator: “During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoked tobacco?” (B12 if former tobacco smoker, D06 if current tobacco smoker), or “During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?” (B13 if former tobacco smoker, D07 if current tobacco smoker).

#### Comments:

- (1) This indicator is a composite of separate questions asked of current and former tobacco smokers. The denominator is defined as all respondents who were tobacco smokers during the previous year (i.e., current tobacco smokers and former tobacco smokers abstinent < 12 months) who visited a HCP during the previous year.
- (2) It is suggested that this indicator be reported with information on the percentage of individuals that visited a doctor or a HCP in the past 12 months (e.g., Of the X% of current tobacco smokers and recent quitters who visited a HCP during the previous 12 months, X% were asked if they smoked tobacco). This is presented in Country Report Table 5.1.
- (3) Alternatively, one may want to report the percentage of all current tobacco smokers and recent quitters who were advised to quit by a HCP in the past 12 months. This could be referred to as the “population impact of health care provider advice.”

---

### Use of Cessation Methods by Smokers (Country Report Table 5.2)

**Indicator:** Percentage of current smokers who made a quit attempt during the past 12 months and recent quitters (<12 months), who used [*pharmacotherapy; counseling/advice; electronic cigarettes; heated tobacco products; traditional medicines; try to quit without assistance*] during the last 12 months.

**Numerator:** Number of current smokers who made a quit attempt during the past 12 months and recent quitters (<12 months), who used [*pharmacotherapy; counseling/advice; electronic cigarettes; heated tobacco products; traditional medicines; try to quit without assistance*] during the last 12 months.

**Denominator:** Number of current smokers who made a quit attempt during the past 12 months and recent quitters (<12 months).

**Missing Values:** Respondents with “refused” responses for any of the questions that make up this indicator and “no” responses for the remaining questions in the cessation aide grouping should be excluded from the denominator (e.g., pharmacotherapy = nicotine replacement therapy [B14b/D03b] and other prescription medications [B14c/D03c]). If an individual responded “yes” to at least one of the questions, they should be included in the indicator, regardless of the degree of missing responses to the remaining questions.

#### Comments:

- (2) This indicator is calculated among all respondents who made a smoking quit attempt in the past 12 months.
- (3) Based on the GATS core questionnaire, the following indicators are suggested for reporting:

- a. Pharmacotherapy – nicotine replacement therapy; other prescription medications
  - b. Counseling/advice – counseling, including at a smoking cessation clinic; a quit line or smoking telephone support line
  - c. Using electronic cigarettes instead of smoking tobacco
  - d. Using heated tobacco products instead of smoking tobacco
  - e. Using traditional medicines
  - f. Trying to quit without assistance
  - g. Other methods – traditional medicines; switching to smokeless tobacco; anything else.
- (4) The groupings may change depending on the item list included in the adapted country-specific questionnaire.
- (5) The indicator groupings may add to over 100% because multiple methods can be used for a quit attempt.

---

### Level of Interest in Quitting Smoking (Country Report Table 5.3)

**Indicator:** Percentage of current smokers [*who are planning to quit within the next month, who are thinking about quitting within the next 12 months, who will quit someday but not in the next 12 months, who are not interested in quitting, or who don't know if they are interested in quitting*].

**Numerator:** Number of current smokers [*planning to quit within the next month, thinking about quitting within the next 12 months, who will quit someday but not in the next 12 months, who are not interested in quitting, or who don't know if they are interested in quitting*].

**Denominator:** Number of current smokers.

**Missing Values:** Respondents with “refused” values for the question “Which of the following best describes your thinking about quitting smoking?...” (D08) should be excluded.

**Comments:**

- (1) “Don't know” responses should be treated as a separate category.
-

### 3.3 Secondhand Smoke (Country Report Chapter 6)

---

#### Exposure to Secondhand Smoke at Work (Country Report Table 6.1)

**Indicator:** Percentage of indoor workers who were exposed to tobacco smoke at work in the past 30 days.

**Numerator:** Number of respondents who reported being exposed to tobacco smoke in indoor areas at work during the past 30 days.

**Denominator:** Number of respondents who work outside of the home who usually work indoors or both indoors and outdoors.

**Missing Values:** Respondents with “don’t know” or “refused” responses to the question “During the past 30 days, did anyone smoke in indoor areas where you work?” (E08) should be excluded from the denominator.

**Comments:**

- (1) Note that individuals who usually work outdoors, even though they might have indoor areas in their workplace are excluded from this calculation, as are individuals who work from their own homes.
  - (2) It is recommended that this indicator be calculated among both of the following: (a) All respondents, (b) Non-smokers.
  - (3) Some countries may choose to report this as the percentage of the entire population as well.
- 

#### Exposure to Secondhand Smoke at Home (Country Report Table 6.2)

**Indicator:** Percentage of adults who were exposed to tobacco smoke at home at least monthly.

**Numerator:** Number of respondents who reported being exposed to tobacco smoke at home either daily, weekly, or monthly.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “don’t know” or “refused” responses to the question “How often does \*anyone\* smoke inside your home? Would you say daily, weekly, monthly, less than monthly, or never?” (E03) should be excluded from the denominator.

**Comments:**

- (1) Respondents who report that smoking is never allowed in their homes (E01) are not asked the smoking in the home frequency question (E03). These respondents should be included in the denominator.
  - (2) It is recommended that this indicator be calculated among both of the following: (a) All respondents, (b) Non-smokers.
-

---

### Exposure to Secondhand Smoke in Public Places Among the Population (Country Report Table 6.3)

**Indicator:** Percentage of all *[adults/non-smokers]* who were exposed to tobacco smoke inside *[location]* in the past 30 days.

**Numerator:** Number of *[respondents/non-smokers]* who reported being exposed to tobacco smoke inside *[location]* in the past 30 days.

**Denominator:** Total number of *[respondents/non-smokers]*.

**Missing Values:** For each location, respondents with “don’t know” or “refused” values to “During the past 30 days, did you visit any *[location]*?” and “refused” values to “Did anyone smoke inside of any *[location]* that you visited in the past 30 days?” should be excluded.

**Comments:**

- (1) It is recommended that this indicator be calculated among both of the following: (a) All respondents, (b) Non-smokers.
- (2) “Don’t know” responses for the question “Did anyone smoke inside of any *[location]* that you visited in the past 30 days?” should be included in the denominator of this indicator. It is assumed that these respondents reported “don’t know” because they did not visit parts of the building and therefore were not exposed.
- (3) Separate indicators can be generated for each of the locations included in Section E of the questionnaire.
- (4) This indicator provides a measure of exposure to tobacco smoke across the entire population.

---

### Exposure to Secondhand Smoke in Public Places Among those who Visited the Place (Country Report Table 6.4)

**Indicator:** Percentage of *[adults/non-smokers]* who visited *[location]* and were exposed to tobacco smoke inside in the past 30 days.

**Numerator:** Number of *[respondents/non-smokers]* who reported being exposed to tobacco smoke inside *[location]* in the past 30 days.

**Denominator:** Number of *[respondents/non-smokers]* who reported visiting the *[location]* in the past 30 days.

**Missing Values:** For each location, respondents with “refused” values to “Did anyone smoke inside of any *[location]* that you visited in the past 30 days?” should be excluded.

**Comments:**

- (1) It is recommended that this indicator be calculated among both of the following: (a) Overall, (b) Non-smokers.
- (2) “Don’t know” responses for the question “Did anyone smoke inside of any *[location]* that you visited in the past 30 days?” should be included in the denominator of this indicator. It is assumed that these respondents reported “don’t know” because they did not visit parts of the building and therefore were not exposed.
- (3) Separate indicators can be generated for each of the locations included in Section E of the questionnaire.
- (4) This indicator provides a measure of exposure to tobacco smoke among persons who visited the location in the past 30 days. This is useful for evaluating the effectiveness of or need for policies in different settings.



### 3.4 Economics (Country Report Chapter 7)

---

#### Brand of Cigarettes Last Purchased (Country Report Table 7.1)

**Indicator:** Percentage of manufactured cigarette smokers whose last purchase was [*Brand X*].

**Numerator:** Number of manufactured cigarette smokers whose last purchase was [*Brand X*].

**Denominator:** Number of manufactured cigarette smokers.

**Missing Values:** Respondents with 'refused' values for the following question should be excluded: "What brand did you buy the last time you purchased cigarettes for yourself?" (F03).

**Comments:**

- (1) It is recommended that the top five brands purchased overall be reported.
- 

#### Source of Cigarette Last Purchase (Country Report Table 7.2)

**Indicator:** Percentage of manufactured cigarette smokers whose last cigarette purchase was from a [*vending machine, store, street vendor,...*].

**Numerator:** Number of manufactured cigarette smokers whose last cigarette purchase was from a [*vending machine, store, street vendor,...*].

**Denominator:** Number of manufactured cigarette smokers.

**Missing Values:** Respondents with "refused" or "don't remember" responses for the following question should be excluded: "The last time you purchased cigarettes for yourself, where did you buy them?" (F04).

**Comments:**

- (1) The specific categories should be adjusted to reflect the item list used in the adapted country-specific questionnaire.
- 

#### Average Cost of a Pack of Manufactured Cigarettes (Country Report Table 7.3)

**Indicator:** Average amount spent on 20 manufactured cigarettes (1 pack) (*reported in local currency*).

**Missing Values:** Respondents who never bought manufactured cigarettes or those with "refused" responses to "The last time you bought cigarettes for yourself, did you buy loose cigarettes, packs, cartons, or something else?" (F01a) or "don't know" or "refused" responses to "In total, how much money did you pay for this purchase?" (F02) should be excluded. In addition, less than daily tobacco smokers who report smoking manufactured cigarettes less than once per week should be excluded from the calculation of this indicator.

**Calculation:**

- (1) Using information on the number and unit of last purchase (e.g., 2 packs) and the # of cigarettes per unit (e.g., 20 cigarettes per pack), calculate the number of manufactured cigarettes bought at last purchase (2 packs x 20 cigarettes per pack = 40 cigarettes).
- (2) Divide the amount paid for the last purchase of manufactured cigarettes by the number of manufactured cigarettes bought at the last purchase to calculate the amount paid per cigarette (e.g., \$10/40 cigarettes = \$.25 per cigarette).
- (3) Multiply the amount paid per cigarette by 20 cigarettes/pack to calculate the amount paid per pack of manufactured cigarettes (e.g., \$.25 \* 20 cigarettes/pack = \$5).
- (4) Calculate the number of manufactured cigarettes smoked per day for each individual.
- (5) Generate a new "manufactured cigarette weight," equal to the product of the individual sampling weight and the number of manufactured cigarettes smoked per day.
- (6) Calculate the average amount paid per pack of manufactured cigarettes across all respondents, weighted by

the new “manufactured cigarette weight.”

**Example:**

(1) Respondent	(2) Amount paid per pack of 20 manufactured cigarettes (\$)*	(3) Manufactured cigarettes smoked per day	(4) Individual weight	(3 x 4) Manufactured cigarette weight
1	2.30	15	6340	95100
2	6.00	10	3170	31700
3	4.50	5	5072	25360
4	1.00	3	1902	5706
5	7.00	10	2536	25360
6	2.10	20	5706	114120
7	1.65	2	3804	7608
8	3.80	30	4438	133140
9	4.40	18	3170	57060
10	2.60	4	2219	8876

\* Estimated from questions F01 and F02.

Note: The values in each column of the table, including weights, are purely hypothetical and are presented only for illustrative purposes. These values have no bearing on country-specific data.

Weighted average cost per pack:

$$= \frac{\sum_{i=1}^n w_i x_i}{\sum_{i=1}^n w_i}$$

$$= \frac{2.30 \cdot 95100 + 6.00 \cdot 31700 + 4.50 \cdot 25360 + 1.00 \cdot 5706 + 7.00 \cdot 25360 + 2.10 \cdot 114120 + 1.65 \cdot 7608 + 3.80 \cdot 133140 + 4.40 \cdot 57060 + 2.60 \cdot 8876}{95100 + 31700 + 25360 + 5706 + 25360 + 114120 + 7608 + 133140 + 57060 + 8876}$$

$$= \$3.45$$

where  $n$  = number of manufactured cigarette smokers

$w_i$  = manufactured cigarette weight for  $i^{\text{th}}$  respondent

$x_i$  = amount paid per pack of 20 cigarettes for  $i^{\text{th}}$  respondent

**Comments:**

- (1) This economic indicator is calculated only among manufactured cigarette smokers who smoke manufactured cigarettes at least once per week. An analogous indicator can be generated for all products in the survey for which price information and consumption is collected.
- (2) One pack is assumed to be equal to 20 cigarettes.
- (3) This weighted average cost per pack is equivalent to the total expenditures of manufactured cigarettes per day across the target population divided by the total daily consumption of manufactured cigarettes in packs.
- (4) The mean and median are both reported in Table 7.3.

**Cigarette Expenditure per Month (Country Report Table 7.3)**

**Indicator:** Average expenditure on manufactured cigarettes per month (*reported in local currency*).

**Missing Values:** Respondents who never bought manufactured cigarettes or those with “refused” responses to “The last time you bought cigarettes for yourself, did you buy loose cigarettes, packs, cartons, or something else?” (F01a) or “don’t know” or “refused” responses to “In total, how much money did you pay for this purchase?” (F02) should be excluded. In addition, less than daily tobacco smokers who report smoking manufactured cigarettes less than once per week should be excluded from the calculation of this indicator.

**Calculation:**

- (1) Using information on the number and unit of last purchase (e.g., 2 packs) and the # of cigarettes per unit (e.g., 20 cigarettes per pack), calculate the number of manufactured cigarettes bought at last purchase (2 packs x 20 cigarettes per pack = 40 cigarettes).
- (2) Divide the amount paid for the last purchase of manufactured cigarettes by the number of manufactured cigarettes bought at the last purchase to calculate the amount paid per cigarette (e.g., \$10/40 cigarettes = \$.25 per cigarette).
- (3) Calculate the number of manufactured cigarettes smoked per day for each individual (e.g., 10 cigarettes per day).
- (4) Multiply the number of manufactured cigarettes smoked per day by the amount paid per cigarette and then multiply by 365 days and divide by 12 months (e.g., 10 cigarettes per day x \$.25 per cigarette x 365 days/12 months = \$76 per month).

**Comments:**

- (1) This economic indicator is calculated only among current manufactured cigarette smokers who smoke manufactured cigarettes at least once per week. An analogous indicator can be generated for all products in the survey for which price information and consumption is collected.
- (2) The mean and median are both reported in Table 7.3.

---

**Cigarette Affordability (Describe in Country Report Chapter 7)**

**Indicator:** Average cost of 100 packs of manufactured cigarettes as a percentage of Gross Domestic Product (GDP) per capita.

**Numerator:** Consumption-weighted cost of 100 packs of manufactured cigarettes.

**Denominator:** Per capita GDP in the country.

**Missing Values:** Respondents who never bought manufactured cigarettes or those with “refused” responses to “The last time you bought cigarettes for yourself, did you buy loose cigarettes, packs, cartons, or something else?” (F01a) or “don’t know” or “refused” responses to “In total, how much money did you pay for this purchase?” (F02) should be excluded. In addition, less than daily tobacco smokers who report smoking manufactured cigarettes less than once per week should be excluded from the calculation of this indicator.

**Calculation:**

- (1) Use the same approach as described above to calculate consumption-weighted average cost per pack of 20 manufactured cigarettes.
- (2) Multiply the average cost per pack by 100 to estimate the average cost of 100 packs.
- (3) Divide the average cost of 100 packs by the per capita GDP and multiply by 100.

**Comments:**

- (1) This economic indicator is calculated only among manufactured cigarette smokers who smoke manufactured cigarettes at least once per week. An analogous indicator can be generated for all products in the survey for which price information and consumption is collected.
- (2) One pack is assumed to be equal to 20 manufactured cigarettes.
- (3) The average cost of 100 packs of manufactured cigarettes is weighted by the number of manufactured cigarettes smoked per day.
- (4) GDP per capita should be obtained from the most recent World Economic Outlook published by the International Monetary Fund, using projections for the year of the survey. The source of the GDP estimate should be referenced.

### 3.5 Media (Country Report Chapter 8)

---

#### Awareness of Anti-Cigarette Smoking Information in Specific Channels (Country Report Table 8.1)

**Indicator:** Percentage of adults who have noticed information about the dangers of smoking cigarettes or that encourages quitting [*in newspapers or magazines, on TV, on the radio, on billboards, on the internet*] in the last 30 days.

**Numerator:** Number of respondents who have noticed information about the dangers of smoking cigarettes or that encourages quitting [*in newspapers or magazines, on TV, on the radio, on billboards, on the internet*] in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for any of the questions about anti-cigarette information should be excluded from the calculation of the relevant indicator. For example, those with missing values for the question “In the last 30 days, have you noticed any information about the dangers of smoking cigarettes or that encourages quitting in any of the following places? In newspapers or in magazines?” (G01a or similar question G201a1) should be excluded from the indicator “Awareness of anti-cigarette information in newspapers or magazines.”

**Comments:**

- (1) An indicator can be reported for each of the channels asked about in the questionnaire.
- (2) The denominator should include “Not applicable” responses.
- (3) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.
- (4) Additional indicators can be created for other tobacco products that were included in the country-adapted questionnaire (e.g., awareness of anti-smokeless tobacco information).

---

#### Awareness of Anti-Cigarette Smoking Information on TV or the Radio (Country Report Table 8.1)

**Indicator:** Percentage of adults who have noticed information about the dangers of smoking cigarettes or that encourages quitting on TV or radio in the last 30 days.

**Numerator:** Number of respondents who have noticed information about the dangers of smoking cigarettes or that encourages quitting on TV or radio in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using the following two questions: “In the last 30 days, have you noticed information about the dangers of smoking cigarettes or that encourages quitting in any of the following places? b. On television? c. On the radio?” (G01b and G01c, or the similar questions G201b1 and G201c1). Respondents should be excluded from the denominator if one of the following two conditions is met: 1) both questions are answered “refused,” or 2) one of the questions is answered “refused” and the other question is answered “no” or “not applicable.” (Note that if one of the questions is answered “yes” and the other is answered “refused,” this respondent should still be included in the numerator.)

**Comment:**

- (1) The denominator should include “Not applicable” responses (those who did not watch TV or listen to the radio in the past 30 days).
- (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.

---

### Noticing Health Warning Labels on Cigarette Packages (Country Report Table 8.2)

**Indicator:** Percentage of current smokers who noticed health warnings on cigarette packages in the last 30 days.

**Numerator:** Number of current smokers who noticed health warnings on cigarette packages in the last 30 days.

**Denominator:** Number of current smokers.

**Missing Values:** Respondents with “refused” values for the following question should be excluded: “In the last 30 days did you notice any health warnings on cigarette packages?” (G02 or G202a).

**Comments:**

- (1) Those who did not see any cigarette packages are included in the denominator.
- (2) Additional indicators can be created for other tobacco products that were included in the country-adapted questionnaire (e.g., noticing health warning labels on smokeless tobacco packages).

---

### Thinking of Quitting Because of Health Warning Labels on Cigarette Packages (Country Report Table 8.2)

**Indicator:** Percentage of current smokers who reported thinking about quitting smoking in the last 30 days because of the warning labels on cigarette packages.

**Numerator:** Number of current smokers who thought about quitting smoking in the last 30 days because of the warning labels on cigarette packages.

**Denominator:** Number of current smokers.

**Missing Values:** Respondents with “refused” responses to either of the following questions should be excluded from the denominator: “In the last 30 days did you notice any health warnings on cigarette packages?” (G02 or G202a) or “In the last 30 days, have warning labels on cigarette packages led you to think about quitting?” (G03 or G203a).

**Comments:**

- (1) Those who did not notice any health warnings or did not see any cigarette packages for G02 (or G202a) and “don’t know” responses to G03 (or G203a) are included in the denominator.
- (2) This indicator is calculated among all current smokers, regardless if they noticed health warnings (i.e., the denominator is the same as the previous indicator). An additional indicator can be calculated among only those who noticed health warnings.
- (3) Additional indicators can be created for other tobacco products that were included in the country-adapted questionnaire (e.g., thinking of quitting because of health warning labels on smokeless tobacco packages).

---

### **Awareness of Cigarette/Tobacco Advertising in Specific Channels (Country Report Tables 8.3, 8.4, and 8.5)**

**Indicator:** Percentage of adults who have noticed any advertisements or signs promoting cigarettes/tobacco products [*in stores, on television, on the radio, on billboards,...*] in the last 30 days.

**Numerator:** Number of respondents who have noticed any advertisements or signs promoting cigarettes/tobacco products [*in stores, on television, on the radio, on billboards,...*] in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for any of the questions about cigarette/tobacco advertising should be excluded from the calculation of the relevant indicator. For example, those with missing values for the question “In the last 30 days, have you noticed any advertisements or signs promoting cigarettes/any tobacco products in the following places? In stores where cigarettes are/tobacco is sold?” (G04a or G204a) should be excluded from the indicator “Awareness of cigarette advertising in stores where cigarettes are/tobacco is sold.”

**Comments:**

- (1) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (2) An indicator can be reported for each of the channels asked about in the questionnaire.
- (3) The denominator should include “Not applicable” responses.
- (4) It is recommended that this indicator be reported for the overall population (Country Report Table 8.3) and separately among current tobacco smokers/users (Table 8.4) and non-smokers/users (Table 8.5).
- (5) Indicators measuring tobacco marketing will be adapted or created based on the country-adapted questionnaire (e.g., tobacco and electronic cigarettes, tobacco including heated tobacco products).

---

### **Awareness of Cigarette/Tobacco Company Sponsored Sporting Event (Country Report Tables 8.3, 8.4, and 8.5)**

**Indicator:** Percentage of adults who have noticed any sport or sporting event associated with cigarette/tobacco product brands or companies in the last 30 days.

**Numerator:** Number of respondents who have noticed any sport or sporting event associated with cigarette/tobacco product brands or companies in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for the following question should be excluded: “In the last 30 days, have you noticed any sport or sporting event that is associated with cigarette/tobacco product brands or cigarette/tobacco product companies?” (G05 or G205).

**Comments:**

- (1) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (2) The denominator should include “don’t know” responses.
- (3) It is recommended that this indicator be reported for the overall population (Country Report Table 8.3) and separately among current tobacco smokers/users (Table 8.4) and non-smokers/users (Table 8.5).

---

### **Awareness of Specific Types of Cigarette/Tobacco Products Promotions (Country Report Tables 8.3, 8.4, and 8.5)**

**Indicator:** Percentage of adults who noticed *[free samples of cigarettes/tobacco products, cigarettes/tobacco products at sales prices, coupons for cigarettes/tobacco products, free gifts or discounts on other products when buying cigarettes/tobacco products, clothing or other items with a cigarette/tobacco product brand name or logo, cigarette/tobacco product promotions in the mail]* in the last 30 days.

**Numerator:** Number of respondents who noticed *[free samples of cigarettes/tobacco products, cigarettes/tobacco products at sales prices, coupons for cigarettes/tobacco products, free gifts or discounts on other products when buying cigarettes/tobacco products, clothing or other items with a cigarette/tobacco product brand name or logo, cigarette/tobacco product promotions in the mail]* in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for any of the questions about cigarette promotions should be excluded from the calculation of the relevant indicator. For example, those with missing values for the question “In the last 30 days, have you noticed any of the following types of cigarette/tobacco product promotions? Free samples of cigarettes/tobacco products?” (G06a or G206a) should be excluded from the indicator “Awareness of free samples of cigarettes/tobacco products.”

#### **Comments:**

- (1) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (2) An indicator can be reported for each of the specific types of promotions asked about in the questionnaire.
- (3) The denominator should include “don’t know” responses.
- (4) It is recommended that this indicator be reported for the overall population (Country Report Table 8.3) and separately among current tobacco smokers/users (Table 8.4) and non-smokers/users (Table 8.5).

---

### **Awareness of In-Store Cigarette/Tobacco Advertising and Promotions (Country Report Tables 8.3, 8.4, and 8.5)**

**Indicator:** Percentage of adults who have noticed any advertisements or signs promoting cigarettes/tobacco in stores where cigarettes/tobacco products are sold, cigarettes/tobacco at sale prices, or free gifts or discount offers on other products when buying cigarettes/tobacco in the last 30 days.

**Numerator:** Number of respondents who have noticed any advertisements or signs promoting cigarettes/tobacco in stores where cigarettes/tobacco products are sold, cigarettes/tobacco at sale prices, or free gifts or discount offers on other products when buying cigarettes/tobacco in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using the following three questions: “In the last 30 days, have you noticed any advertisements or signs promoting (cigarettes/any tobacco products) in the following places? a. In stores where (cigarettes are/tobacco is) sold?” (G04a/G204a) and “In the last 30 days, have you noticed any of the following types of (cigarette/tobacco product) promotions? b. (Cigarettes/Tobacco products) at sale prices? d. Free gifts or special discount offers on other products when buying (cigarettes/tobacco products)?” (G06b/G206b and G06d/G206d). Respondents should be excluded from the denominator if at least one of the questions is answered “refused” and all of the other remaining questions are answered “no” or “not applicable/don’t know”. (Note that if at least one of the questions is answered “yes,” this respondent should still be included in the numerator regardless of the answers to the other questions.)

**Comments:**

- (1) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (2) The denominator should include “not applicable/don’t know” responses.
- (3) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers/users and non-smokers/users.

---

**Awareness of Any Cigarette/Tobacco Product Advertising and Promotion (Country Report Tables 8.3, 8.4, and 8.5)**

**Indicator:** Percentage of adults who have noticed any advertisements or signs promoting cigarettes/tobacco products, cigarette/tobacco product company sponsorship of sporting events, or cigarette/tobacco product promotions in the last 30 days.

**Numerator:** Number of respondents who have noticed any cigarette/tobacco product advertisements, promotions, or sponsorships in the last 30 days.

**Denominator:** Total number of respondents.

**Missing Values:** This is a combined indicator using multiple questions (see comments below). Respondents should be excluded from the denominator if at least one of the questions is answered “refused” and all of the other remaining questions are answered “no” or “not applicable/don’t know”. (Note that if at least one of the questions is answered “yes,” this respondent should still be included in the numerator regardless of the answers to the other questions.)

**Comments:**

- (6) Section G Structure #1 in the GATS questionnaire will be used by countries wanting only to measure cigarette marketing. Section G Structure #2 will be used by countries to measure marketing of any tobacco product (both smoked and smokeless tobacco).
- (7) This indicator is based on responses to the series of questions on cigarette/any tobacco product advertising, sponsorship, and promotion (G04/G204 series, G05/G205, G06/G206 series).
- (8) The denominator should include “not applicable/don’t know” responses.
- (9) It is recommended that this indicator be reported for the overall population (Country Report Table 8.3) and separately among current tobacco smokers/users (Table 8.4) and non-smokers/users (Table 8.5).
- (10) Caution should be used in comparing this indicator across countries, because the items asked about in the questionnaire may vary from country to country.



### 3.6 Knowledge, Attitudes and Perceptions (Country Report Chapter 9)

---

#### Beliefs about the Dangers of Tobacco Smoking (Country Report Table 9.1)

**Indicator:** Percentage of adults who believe that smoking tobacco causes serious illness.

**Numerator:** Number of respondents who believe that smoking tobacco causes serious illness.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” responses for the question “Based on what you know or believe, does smoking tobacco cause serious illness?” (H01) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
  - (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.
- 

#### Beliefs about Diseases Caused by Smoking (Country Report Table 9.1)

**Indicator:** Percentage of adults who believe that smoking causes *[stroke, heart attack, lung cancer, diabetes, emphysema, etc.]*.

**Numerator:** Number of respondents who believe that smoking causes *[stroke, heart attack, lung cancer, diabetes, emphysema, etc.]*.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” values for any of the questions about specific diseases caused by smoking (H02 series) should be excluded from the relevant indicator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
  - (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.
  - (3) Analogous indicators can be generated for beliefs about the diseases caused by smokeless tobacco use and other tobacco products for which these questions are asked.
- 

#### Beliefs about the Dangers of Secondhand Smoke (Country Report Table 9.2)

**Indicator:** Percentage of adults who believe that breathing other people’s smoke causes serious illness in non-smokers.

**Numerator:** Number of respondents who believe that breathing other people’s smoke causes serious illness in non-smokers.

**Denominator:** Total number of respondents.

**Missing Values:** Respondents with “refused” responses for the question “Based on what you know or believe, does breathing other people’s smoke cause serious illness in non-smokers?” (E23) should be excluded from the denominator.

**Comments:**

- (1) “Don’t know” responses are included in the denominator.
  - (2) It is recommended that this indicator be reported for the overall population and separately among current tobacco smokers and non-smokers.
-



## Appendix A: Recommendations for the Reporting of GATS Fact Sheet Indicators

---

### A.1 Introduction

This document contains options and recommendations for reporting the key tobacco control indicators from GATS. There are a wide range of topic areas in GATS, including smoking and smokeless tobacco use, cessation, secondhand smoke, economics, media, and knowledge, attitudes, and perceptions. Each section contains numerous questions that can be used to generate many different estimates and indicators. This paper focuses on the primary estimates to be reported from GATS. This document is aimed to help countries decide which indicators to use. It is not designed to prevent the use of other indicators for special purposes, but to provide some consistency in the headline indicators used across the countries participating in GATS.

These headline indicators would be likely to be used by the news media and in presentations to and by key decision makers in each country, and by WHO and other international organizations. The general principle is to keep the headlines as simple as possible, while not combining aspects of tobacco use or tobacco control that people would expect to be kept separate. Additionally, consideration is given to comparability across other surveys and data collection systems.

### A.2 Tobacco Use Indicators

A summary of the preliminary recommendations for primary (“headline”) reporting of tobacco use indicators is shown in **Table A-1** and described in detail below. The rationale for the key questions around the reporting of tobacco use indicators is described below.

**Table A-1. Summary of Recommendations for Primary Reporting of Smoking/Tobacco Use Prevalence Estimates**

Category	Primary (“Headline”) Reporting*	Secondary
Type of tobacco	Tobacco smoking and smokeless use separately	Any tobacco use
Type of smoked tobacco	All smoked tobacco	Cigarettes (manufactured, hand-rolled, and kreteks) and other (if relevant)
Frequency of use	Current use (daily and non-daily combined)	Daily use
Cessation	Point prevalence of former daily users	Point prevalence of past daily and non-daily use of tobacco

\* Primary reporting should include estimates by gender. Additional subgroups for secondary reporting may include age group, urban/rural area, and SES, as relevant.

#### ***Should smoking be reported separately from smokeless as the headline measure?***

Recommendation: Tobacco smoking and smokeless tobacco use should be kept separate for the main reporting. This does not preclude reporting measures of total tobacco use, but merely that the headline figures should be smoked (and a second of smokeless where it is relevant).

Rationale: These two kinds of tobacco use are quite different and thus they need to be treated as two different forms of behavior. The type and degree of harm due to smoked and smokeless use is markedly different. For example, only smoked tobacco has the potential to cause SHS exposure, and it accounts

for almost all the lung disease. As smoke free policies grow, it will be useful to track whether substitution behavior with smokeless products may be occurring. Additionally, GATS has been designed to collect detailed information on these two categories separately. Finally, most studies report smoking and smokeless (where measured) separately, thus for comparability, they should be kept separate. In the WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package, a principal source for tracking tobacco use and control efforts around the world, smoking is the focus of the reported prevalence estimates (**Table A-2**). In countries where the proportion of tobacco use made up by smokeless users is substantial, it is suggested that both estimates be reported. An aggregate of total tobacco use can easily be obtained by adding together the prevalence of each, controlling for joint use.

**Table A-2. Adult Tobacco Use Estimates Reported in WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package**

Location	Data reported
Appendix I – Country Profiles	Country-reported estimates are presented and vary in definition
Appendix II – Policy Data	Age-standardized prevalence of adult daily smoking (both genders combined)
Appendix III – Internationally Comparable Estimates	Adjusted and age-standardized prevalence <ol style="list-style-type: none"> <li>Smoking any tobacco product (including cigarettes, cigars, pipes, bidis, kreteks, etc.</li> <li>Smoking cigarettes (manufactured)</li> <li>Current smoking (daily + non-daily)</li> <li>Daily smoking</li> </ol>
Appendix IV – Country-Provided Prevalence Data	Country-reported estimates are presented and vary in definition (e.g., current tobacco smoking, daily tobacco smoking, daily tobacco smoking, current cigarette use, daily cigarette use, current any tobacco use.)

***Is cigarette use reported as the main indicator or should all smoked tobacco be combined?***

Recommendation: All smoked tobacco should be reported as the primary indicator. Prevalence of cigarette use (including manufactured, hand-rolled, and kreteks) should be a secondary indicator.

Rationale: GATS has been designed to collect all of the different types of smoked tobacco in one section. It is possible to disaggregate the prevalence to cigarettes, but this would limit the utility of international comparisons. In many countries, manufactured cigarettes are the main source of smoked tobacco. However, other smoked products such as hand-rolled cigarettes, bidis, kreteks, and shisha are more prevalent than manufactured cigarettes in some countries. They are all harmful to users and those exposed to tobacco smoke generated from their use. Where cigarette use is reported for international comparisons, it is recommended that manufactured cigarettes, hand-rolled cigarettes, and kreteks be combined, given the similarities of these products. However, for special purposes it may be important to separate them out, and where there is an identified use, this should be done. In many countries, it will be useful to report cigarette smoking separately as an additional indicator. Depending on the purpose this might just be manufactured cigarettes or also include hand-rolled and/or kreteks, bidis, etc. It can be useful to align this indicator with any indicator of estimated daily consumption.

Other products like large cigars and water pipes are smoked quite differently, and are more difficult to combine, especially when it comes to assessing levels of use. In the WHO report, tobacco smoking is

presented in Appendix II: Policy Data, while modeled estimates of tobacco smoking and cigarette smoking are presented in Appendix III: Internationally Comparable Estimates.

***Should daily use or any regular current use be primarily reported?***

Recommendation: Current use (daily and non-daily) should be the headline measure. Daily use will be a secondary indicator.

Rationale: Combining daily and non-daily use results in cleaner categories (current smoker, former smoker, never smoker), which are easier for simple reporting. It does not leave a messy small group (less than daily users) who do not fit into any of the main categories. Reporting only daily users will underestimate the total number of tobacco users in the country. All tobacco use incurs some harm and should be targeted for intervention. A substantial fraction of non-daily users may smoke more than 20 cigarettes per month, so some are more like dailies and others report difficulty quitting, so the non-dailies cannot be considered uniformly non-dependent. The main pattern of smoking behavior is daily smoking and including less-than-daily smokers will not have a big impact on the estimate. However, it is important not to give the impression that occasional smoking is acceptable or harmless.

***What should be the primary indicator for cessation (of smoked or smokeless tobacco)?***

Recommendation: Point prevalence of ex-daily users should be reported.

There are two issues embedded in this recommendation. These are discussed separately.

Recommendation: The measure should relate to past daily use.

Rationale: Previous daily use is the most reliable indicator of past use and a more valid indicator of true quitting. It is more memorable than at least the lower levels of occasional use, which may be discounted, particularly by older respondents. If never-daily users are included it exaggerates the impact of efforts to get tobacco users to quit, and the extent of genuine quitting is a critical indicator to be monitoring.

Recommendation: It should use point prevalence.

Rationale: The use of point prevalence does not require complex computation and is easier to explain. It is a valid indicator for population studies, where there is no incentive to quit just before the survey (unlike some clinical settings). If it is not used, there are a small group of non-classifiable individuals (i.e., those who have quit but not for the required period of time). The benefits of requiring a period of abstinence are not strong and do not justify the extra complexity doing so produces.

### **A.3 Tobacco Control Indicators**

***What other key indicators should receive prominence in reporting (e.g., in Fact Sheets and Country Reports)?***

Other key headline measures to be reported include indicators that can be used to track progress on achieving the objectives of the WHO Framework Convention on Tobacco Control (FCTC) which have been embodied in indicators in WHO's MPOWER package, a series of policies aimed at reversing the global tobacco epidemic. These policies include: protect people from tobacco smoke; offer help to quit tobacco use; warn about the dangers of tobacco; enforce bans on tobacco advertising, promotion, and sponsorship; and raise taxes on tobacco. A summary of the recommendations is provided in **Table A-3**, followed by the rationale and justification for these indicators.

**Table A-3. Summary of Recommendations for Primary Reporting of Other Tobacco Control Indicators from GATS**

<b>Category</b>	<b>Primary (“Headline”) Reporting</b>
<b><i>Cessation</i></b>	
HCP advice	HCP advice to quit in the past 12 months
Attempt to quit	Attempt to quit in the past 12 months
Intent to quit	Planning to quit or thinking about quitting someday
<b><i>Secondhand Smoke</i></b>	
SHS at work	Exposure to SHS at work in the past 30 days
Beliefs about SHS	Belief that SHS causes serious illness in non-smokers*
<b><i>Economics</i></b>	
Cigarette affordability	Consumption-weighted price of 100 packs of cigarettes as a percentage of Gross Domestic Product (GDP) per capita
<b><i>Media</i></b>	
Awareness of anti-tobacco messages	Notice anti-tobacco messages on TV or radio in the last 30 days*
Health warning labels	Thought about quitting in the last 30 days because of warning labels
In-store marketing	Noticed tobacco advertising in stores where tobacco is sold in last 30 days*
Marketing through other channels	Noticed tobacco marketing in at least one channel (other than in stores) in the last 30 days*
<b><i>Knowledge, Attitudes, and Perceptions</i></b>	
Beliefs about dangers of tobacco	Belief that smoking [or smokeless tobacco use] causes serious illness*

\* Report overall for primary reporting and by smoking status for secondary reporting.

### **Health Care Provider’s Advice to Quit\***

**Recommendation:** Report the percentage of adults who smoked during the past 12 months and visited a doctor or health care provider (HCP) during the past 12 months who were advised to quit smoking tobacco.

**Rationale:** Even brief advice to quit smoking from a HCP has been shown to increase the chances that a smoker will successfully quit and remain abstinent. One of the MPOWER package recommendations includes the incorporation of tobacco cessation advice into primary health care services. This indicator should be generated using a composite of separate questions asked of current and former smokers. The denominator should include all respondents who were smokers during the previous year (i.e., current smokers and former smokers abstinent < 12 months) who visited a HCP during the previous year. If former smokers quit within the last year, the HCP should still be talking with them about quitting. It is recommended that this indicator be reported with information on the proportion of individuals that visited a

\* Indicators are analogous for smoking and smokeless tobacco use. The recommendation and rationale utilizes smoking as an example.

doctor or a HCP in the past 12 months (e.g., Of the X% of smokers and recent quitters who visited a HCP during the previous 12 months, X% were advised to quit smoking).

### **Quit Attempt in the Past 12 Months\***

**Recommendation:** Report the percentage of adults who smoked during the past 12 months who tried to quit during the past 12 months.

**Rationale:** The quit attempt rate is a strong indicator of the progress of tobacco control efforts to curb tobacco use. It is a more sensitive indicator to tobacco control efforts than tobacco use prevalence, which will take more time to change. However, respondents tend to over-report this, specifically as tobacco use becomes looked upon less favorably by the general public. It is recommended that all quit attempts be included in the calculation of this indicator, i.e., all who assert they have made an attempt, rather than restricting quit attempts to some arbitrary duration, e.g., those which last at least 24 hours or some other time frame. Similar to the indicator above, the denominator should be defined as all respondents who were current smokers during the previous year (i.e., current smokers and former smokers abstinent < 12 months). Calculating this indicator only among current smokers will underestimate the rate of quit attempts in the past year as it would exclude attempts that are currently successful.

### **Interest in Quitting\***

**Recommendation:** Report the percentage of current smokers who are planning to quit or thinking about quitting someday.

**Rationale:** Intent to quit is a more responsive short-term indicator to tobacco control efforts than quit attempt and both are more sensitive than prevalence. Smokers often start thinking about quitting well before making a quit attempt. It is recommended that the primary indicator include all of those who are planning to quit or thinking about quitting someday. This will reflect the most optimistic scenario of quitting behavior and captures the overall mindset of smokers by including anyone who thinks that they should quit, whether action is taken immediately or not. This is particularly important for countries where there has been little or no systematic public education about the harms of smoking. This means a broader definition of intention to quit that includes some who would be treated as pre-contemplators in the Prochaska Transtheoretical Model stages (Prochaska, et al. 1997). In some countries, this may capture a substantial fraction of smokers, while in others the percent of smokers with an interest in quitting may still be quite low. The shorter the estimated time frame to quit, the more likely an attempt will be made in the next year (at least in western countries), but the effect is ordinal, so the actual time frame used does not matter much, it merely affects the baseline percentages, which will be very low for 1 month and under 15% for 6 months in many countries. This indicator can be combined with reports of quit attempts in the last year as an overall index of quitting interest. Where the percentage reporting some interest in quitting is high, it may also be useful to report levels of planning in the next month and/or next 6 months as well.

---

\* Indicators are analogous for smoking and smokeless tobacco use. The recommendation and rationale utilizes smoking as an example.

## **Exposure to SHS at Work**

**Recommendation:** Report the percentage of adults who were exposed to SHS in indoor areas at work in the past 30 days.

**Rationale:** In GATS, there are two key questions that address the potential for SHS in the workplace. One question refers to the presence of a workplace smoking restriction policy and the other refers to whether anyone smoked in indoor areas in the workplace in the past 30 days. Similar to the recommendation for SHS in the home, an indicator of exposure is preferred to an indicator of policy. The policy is a mechanism used to achieve the goal of reducing exposure to SHS. One may want to compare the policy and exposure to determine how effective it is, but it is not recommended to report the policy independently. There may be a smoking restriction policy with little or no compliance.

In constructing the indicator, the denominator should include only those individuals who work primarily indoors or both indoors and outdoors. Individuals who usually work outside but have indoor areas in their workplace should be excluded from the calculation. Individuals who smoke predominantly or completely outside cannot be exposed to extended indoor exposure at work, and including them with indoor workers could be misleading.

## **Beliefs About the Dangers of SHS**

**Recommendation:** Report the percentage of adults who believe that breathing other people's smoke causes serious illness in non-smokers.

**Rationale:** Belief that SHS is dangerous is a strong indicator of education and support for tobacco control policies. This indicator provides information on the success of existing public education campaigns, while identifying subgroups of the population who still need to be reached. Education of the general public about the harms of tobacco use and SHS exposure is an important step to garnering public support for tobacco control programs and policies. Belief about the dangers of SHS is a relatively sensitive indicator that tends to rise before strong support for policies to control SHS exposure. It is important to track during the early stages of tobacco control initiatives as SHS exposure needs to be accepted as a problem (by policy makers) before policies are enacted to control it, and if the population do not believe it, they may be less inclined to comply with smoke-free rules. In the construction of this indicator, respondents who state that they "don't know" whether SHS causes serious illness in non-smokers should be included in the denominator (so that they can be treated as part of the population who do not know).

## **Cigarette Affordability**

**Recommendation:** Consumption-weighted price of 100 packs of cigarettes as a percentage of Gross Domestic Product (GDP) per capita.

**Rationale:** Increasing tobacco taxes will increase unit price. Higher prices prevent initiation and promote quitting. They also lead to fewer cigarettes smoked each day among current smokers. For every 10% increase in the price of a pack of cigarettes, consumption has been shown to decline by 4-8%, depending on the economic development of the country (Blecher et al. 2004) In GATS, information will be available from respondents on the price paid for their last cigarette purchase. This information is not particularly useful on its own, even if standardized to a common currency, as the cost of living can vary dramatically between countries. The price per pack is most useful when combined with information on income to describe cigarette affordability. Some options for anchoring cigarette prices to a measure of income



include disposable income, average wage, minimum wage, and per capita gross domestic product (GDP). It is important that the same metric be used in all countries in order to facilitate comparisons. Blecher et al., (2004) used GDP in a recent international comparison of cigarette affordability. Numerous other tobacco economics' indicators will be useful for in-country analyses, such as the major unit of purchase, location of purchase as a measure of tax avoidance, and brand as a measure of the penetration of multinational corporations.

### **Awareness of Anti-Tobacco Messages\***

**Recommendation:** The headline measure should be the percentage of respondents who have noticed information about the dangers of smoking cigarettes or that encourages quitting on TV or radio in the last 30 days.

**Rationale:** Warnings about the dangers of tobacco is a critical component of a comprehensive tobacco control strategy. The core GATS questionnaire includes the following channels through which respondents are asked about noticing anti-tobacco messages: newspapers/magazines, television, radio, billboards, and "somewhere else." Countries are free to add other channels to the questionnaire as relevant. For a headline indicator, it would be necessary to combine channels into a single estimate of exposure to anti-tobacco messaging. Experience tends to show that the more categories asked about the higher the responding, as cued recall is generally superior to uncued. In addition, the challenge of combining all channels into one indicator is that different countries may specify different channels in the questionnaire. If a channel is included in the options because a country is specifically using that media or a channel is excluded because no campaigns are in place, then this could overestimate or underestimate the prevalence of this indicator for global comparisons. For these reasons, it is not recommended to aggregate exposure across all channels asked about for cross-country comparisons. It is not recommended to combine the common items as it has no clear referent meaning (i.e., it does not refer to any meaningful category, as mass electronic media – radio and TV does) and may be confused for overall awareness. Overall awareness may vary considerably from any estimate from a subset of channels depending on the relationship between targeting of the channels and their presence on the core list.

In order to ensure comparability across countries, it is recommended that the headline indicator be restricted to noticing information on TV or radio, as this can be referred to as mass electronic media. For country-specific analyses, the specific channels will be important to track the impact of public education campaigns and assess the relative utility of different media. It is critical that countries include any media in/on which they are expending resources (e.g., in India, painting on the walls is one approach to providing information and should be listed). When reporting exposures, it should be made clear what channels are included and that channels are omitted. Although comparisons have their limitations, a headline indicator is useful to focus attention on the extent to which these critical messages are reaching the public.

---

\* Indicators are analogous for smoking and smokeless tobacco use. The recommendation and rationale utilizes smoking as an example.

## Health Warning Labels on Tobacco Products\*

Recommendation: Report the percentage of current smokers who thought about quitting smoking in the last 30 days because of the warning labels on cigarette packages.

Rationale: The labeling of tobacco products with health warnings are a key provision of the WHO FCTC and are reflected in the WHO MPOWER package. They provide a cue to help smokers quit and to counteract the marketing of tobacco products. It is important to track the impact of these warnings on smokers' behavior because factors such as size, language, and use of graphics may have differential effects on the smoker. Although an indicator of noticing health warning labels would provide information on the extent to which smokers are exposed to these messages, it is less likely to correlate with subsequent action to reduce or quit smoking (Yong et al. 2008). The indicator recommended for awareness of warning labels incorporates the likelihood of a health-promoting response to the messages on these labels. This measure also has the value of standing alone as it has high face validity.

## Exposure to Tobacco Marketing\*

Recommendations:

- Report the percentage of respondents who have noticed advertisements or signs promoting cigarettes in stores where cigarettes are sold in the last 30 days.
- Report the percentage of respondents who have noticed any advertisements or signs promoting cigarettes, cigarette company sponsorship of sporting events, or cigarette promotions (other than in stores where cigarettes are sold) in the last 30 days.

Rationale: Advertising and promotional strategies promote tobacco use. Advertising bans reduce awareness of pro-tobacco marketing and reduce tobacco consumption. Not all bans are created equal – various channels remain open in countries with bans. Companies can increase marketing in remaining channels and/or exploit loopholes whenever possible in order to reach smokers and potential customers. Comprehensive bans on tobacco advertising, sponsorship, and promotion are a key provision of the WHO FCTC and policy in the WHO MPOWER package. Indicators of advertising and promotional strategies would provide information on respondents' noticing pro-tobacco marketing strategies.

It is recommended that two indicators be reported to reflect exposure to tobacco advertising, sponsorship, and promotion: (1) in stores and (2) all channels. Point of sale advertising is a critical channel and is likely to be one of the last places where advertising and promotion will disappear. Even in countries with advanced tobacco control policies, such as Australia, exposure to point of sale advertising is greater than 50% (Harris et al., 2006). Ideally, all marketing cues would be eliminated and tobacco products would be hidden from plain view in a store with a sign stating “cigarettes sold here.”

In the GATS core questionnaire, 16 other specific channels of advertising, sponsorship, and promotion are specified. For a headline indicator, it is preferable to combine these channels into one indicator of exposure to tobacco marketing. One option is to report the mean number of channels through which respondents are exposed, which has been shown to correlate with the strength of tobacco marketing restrictions (Harris et al., 2006). However, this is not likely to be easily interpretable by key decision-

---

\* Indicators are analogous for smoking and smokeless tobacco use. The recommendation and rationale utilizes smoking as an example.

makers/stakeholders and comparability will be limited if the number of channels included in the survey differs by country. Instead, it is recommended that a simpler composite indicator of exposure to tobacco marketing from any the channels specified in the GATS core questionnaire be used. These core channels should be common to all country-specific questionnaires, ensuring comparability of the indicator. It is anticipated that this indicator will still be sensitive enough to detect key differences between countries. For example, a recent study in Malaysia and Thailand showed a large difference in the extent of exposure to tobacco advertising/sponsorship/promotion using a similar indicator (Yong et al., 2008).

It is recommended that these indicators be reported among all respondents for primary reporting and by smokers and non-smokers for secondary reporting. This is primarily for simplicity and to minimize the number of headline indicators. Tobacco marketing is intended both to provide cues to smokers as well as non-smokers (particularly, young non-smokers), so assessing overall population exposure is useful. That said, smokers will be more sensitized to tobacco marketing and more likely to report awareness than non-smokers. Thus, there would be expected to be a correlation between the extent of smoking and the amount of advertising noticed. In countries with a lower smoking prevalence, the overall estimate among the full population may be biased downward. As a result, the difference between countries may be slightly exaggerated when assessing overall awareness, but this will not affect the overall rankings. Reporting the indicator separately for smokers and non-smokers can provide additional information on the extent to which exposure to marketing cues are targeted at smokers.

These indicators are intended to highlight the situation in different countries for the purposes of making international comparisons. Each country should undertake more detailed analyses to help inform policy decisions, such as the level of exposure to each of these channels and the relative importance among subpopulations. In particular, subgroups defined by urban/rural area and age group may be particularly interesting. For example, young non-smokers are particularly at risk from tobacco marketing since this is the time during which initiation is most likely to occur. The level of detail to which estimates can be generated by age group will depend on sample size considerations.

### **Beliefs about the dangers of tobacco use\***

**Recommendation:** Proportion of smokers/non-smokers who believe that smoking causes serious illness.

**Rationale:** The proportion of adults that believes smoking causes serious illness reflects the level of knowledge and awareness about the dangers of smoking. This indicator provides information on the success of existing public education campaigns, and can be useful for identifying any subgroups of the population who still need to be reached. Education of the general public about the harms of tobacco use and SHS exposure is an important step to garnering public support for tobacco control programs and policies. This indicator reflects the early stages of the tobacco epidemic – awareness of tobacco as a public health problem. With time, this indicator will reach very high levels, but it is still likely to be low in some countries at present.

---

\* Indicators are analogous for smoking and smokeless tobacco use. The recommendation and rationale utilizes smoking as an example.

## A.4 Subgroup Analysis and Adjustment

### *What subgroups should be reported for the primary prevalence estimates?*

#### **Gender**

Recommendation: All headline reporting of tobacco use and cessation measures should present male and female rates separately. If the overall rate is presented, gender-specific rates should be presented alongside. Only where the difference between the two is small (e.g. less than 10%) would it be acceptable to focus on the overall rate.

Rationale: In most countries, the gender difference in tobacco use is large, in some cases more than 50% absolute value. Recognizing this, GATS was designed to produce reliable estimates by gender. Reporting a combined, overall estimate is misleading and overlooks this important information. In some countries, an increase in female tobacco use has been observed long after male use became common. In some Asian countries, there is no evidence of recent increases in female tobacco use, even though prevalence is very low. It is critical to track the rates of smoking among women, as in some countries it is primarily a prevention challenge (to prevent tobacco industry marketing to women or to counter its influence). By contrast, in most countries, the main challenge for men is to reduce prevalence.

#### **Age group**

Recommendation: Reporting estimates by age group is not necessary for headline reporting, but should be considered for secondary presentation. It is recommended that no more than 3-4 age groups be used for reporting. The typical age groups for GATS are:

- 15-24 years old (onset of tobacco use);
- 25-44 years old (pre-disease);
- 45-64 years old (tobacco-related disease onset); and
- 65+ years old.

Rationale: Age-specific estimates provide useful information on the scope of the epidemic and are particularly useful when reported in just a few groups. Prevalence among young adults provides insight into the effectiveness of prevention programs and is an indicator of the future burden of disease in the population, while prevalence among middle- and old-age reflects past failures, although it is a better indicator of the current burden of disease. The age groups typically reported vary between surveys and it would be useful to have consistent age groupings to facilitate cross-country comparisons, when applicable. Because age-specific estimates were not considered in the calculation of sample size, the age groups should be large enough to ensure an acceptable margin of error.

#### **Urban/rural area**

Recommendation: Reporting estimates by urban/rural area is not necessary for headline reporting, but should be considered for secondary presentation, where relevant. The criterion used for defining urban/rural should be the definition used in the survey design.

Rationale: In many countries, substantial differences in tobacco use/smoking are observed in urban and rural locations. These differences may be due to a number of factors, including education, promotion of tobacco, poverty, media reach, and policy enforcement. Tobacco control programs and policies may not

be equally effective in all groups and separate monitoring and reporting can provide information on whether certain subgroups should be targeted. In recognition of these differences, GATS has been designed to provide reliable estimates by urban/rural area.

### **Socioeconomic status (SES)**

**Recommendation:** Reporting estimates by SES is not necessary for headline reporting, but should be considered for secondary presentation. Education should be grouped into tertiles as the primary measure of SES, based on country-specific categories and distributions.

**Rationale:** Reporting of prevalence by SES provides key information about the relationship between tobacco use and poverty in order to target interventions and explore the impact of policies on income subgroups. This relationship may change over time. Similar to urban/rural area, policies and programs to reduce tobacco use may have differential effects on the population based on the level of SES. Because this measure is relative to country, it is problematic to use for cross-country comparisons. Thus, it should not be routinely used for international comparisons.

### ***What are recommendations for control for sociodemographic characteristics when making comparisons?***

**Recommendation:** Fact Sheets and Country Reports should report the prevalence, weighted to be representative of the general adult population. Age- and gender- standardization to the standard world population should be used only for cross-country reports and comparisons, not for individual Country Reports or Fact Sheets. Because age and gender are strong determinants of smoking behavior and the age and gender distribution will differ by country, it is recommended that cross-country reports of overall prevalence use age- and gender-standardized estimates, based on the WHO World Standard population. This will remove age structure and gender as a source of differing rates. Direct standardization should use stable age-specific rates; otherwise this method can be inappropriate. It is suggested to use a small number of age categories (3-4) in GATS and collapse the standard WHO population to match these categories.

When reporting subgroup estimates in the Country Report, the prevalence weighted to population weights should be reported. This reflects the actual burden in the population. Researchers may choose to investigate observed differences between subgroups in more detail by controlling for sociodemographic factors.

**Rationale:** For a given country, the prevalence of tobacco use or other tobacco control indicators (weighted to the general population) is the most appropriate indicator, as it reflects the actual burden in the country. For cross-country comparisons, the crude prevalence may not be directly comparable due to differing age structures or distributions of other sociodemographic factors.

Similarly, the crude prevalence is the most appropriate metric for reporting indicators within a country across subpopulations defined by sociodemographic factors (e.g., gender, urban/rural area). Reporting prevalence estimates by subgroups provides useful information on how tobacco use and other key indicators vary across the population. However, one might be interested in asking the question of whether differences between the prevalence in men and women or urban and rural areas can be partially (or fully) accounted for by differing age structures or distributions of other sociodemographic factors.

In epidemiologic terms, the control of age or other factors can be conducted through stratification or adjustment. For example, an investigator may want to examine differences in prevalence between urban

and rural areas. If the age distributions vary between these groups (e.g., if younger people tend to live in urban areas compared to rural areas), then it is unclear whether the differences observed are due to age, a strong determinant of smoking behavior, or other characteristics of the urban or rural environment. A simple approach to dealing with confounding by age is to present urban and rural estimates separately by age group. Then the estimates of prevalence can be compared across urban and rural area, within each age group. The limitation of stratification is that it becomes difficult to display estimates across more than a few variables at a time and the sample size ( $n$ ) in each cell can become small, resulting in estimates that are unstable or non-informative. Another approach is the standardization of the urban and rural prevalence to a common age structure. The limitation of this approach is that although inferences can be made with respect to differences between estimates, the estimates themselves have no intuitive meaning because they are standardized to a population that does not reflect reality. Numerous texts discuss the issues of stratification and adjustment as a means of controlling for confounding in epidemiologic studies (e.g., Koepsell et al., 2003).

## A.5 References

- Blecher, E., van Walbeek, C. An international analysis of cigarette affordability. *Tob Control*. 2004 Dec;13(4):339-46.
- Harris, F., MacKintosh, A.M., Anderson S., et al.; ITC Collaboration. Effects of the 2003 advertising/promotion ban in the United Kingdom on awareness of tobacco marketing: findings from the International Tobacco Control (ITC) Four Country Survey. *Tob Control*. 2006 Jun;15 Suppl 3:iii26-33.
- Koepsell, T., Weiss, N. *Epidemiologic Methods: Studying the Occurrence of Illness*. New York: Oxford University Press, Inc., 2003.
- Prochaska, J., Velicer, W. The transtheoretical model of health behavior change. *Am J Health Promot*. 1997 Sep-Oct;12(1):38-48.
- WHO Report on the Global Tobacco Epidemic, 2008: *The MPOWER package*. Geneva, World Health Organization, 2008.
- Yong, H., Borland, R., Hammond, D., et al. Levels and correlates of awareness of tobacco promotional activities among adult smokers in Malaysia and Thailand: findings from the International Tobacco Control Southeast Asia (ITC-SEA) Survey. *Tob Control*. 2008 Feb;17(1):46-52.



**Global Adult Tobacco Survey (GATS)**