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PREFACE

In August 2006, the World Health Organization (WHO) and the United States Centers for Disease Control and Prevention (CDC/USA) convened an expert consultation to discuss adult tobacco surveillance and made recommendations for the development of a standard survey protocol. The expert consultation also recognized the challenges of limited funding and methodological complexities when conducting systematic adult tobacco surveys and identified a lack of comparability in ongoing national surveys.

The Global Adult Tobacco Survey (GATS) is a household survey that was launched in February 2007 as a new component of the ongoing Global Tobacco Surveillance System (GTSS). GATS will enable countries to collect data on key tobacco control measures in the adult population.

Implementing GATS in countries will enhance their capacity to design, implement and evaluate tobacco control programs. It will also assist countries to fulfill their obligations under the WHO Framework Convention on Tobacco Control (FCTC) to generate comparable data within and across countries. In addition, WHO developed a set of six tobacco control demand measures (known as MPOWER*) as an entry point to the full implementation of the WHO FCTC at the country level. By effectively implementing the MPOWER strategies, countries can impact the tobacco epidemic and meet their commitments to WHO FCTC.

GATS was initially implemented in 14 countries where more than half of the world's smokers live and that bear the highest burden of tobacco use: Bangladesh, Brazil, China, Egypt, India, Mexico, Philippines, Poland, Russian Federation, Thailand, Turkey, Ukraine, Uruguay and Vietnam.

National GATS Committee

The Brazilian Ministry of Health, through an Executive Committee, was the national coordinating agency. The Committee consists of the following Ministry bodies: Secretaria de Vigilância em Saúde (SVS), Instituto Nacional de Câncer (INCA), and the Agência Nacional de Vigilância Sanitária (ANVISA). The Committee also worked in collaboration with the Fundação Oswaldo Cruz (Fiocruz), which is technically responsible for the Health Supplement of the National Household Sample Survey (NHSS).

Implementing Agency

The *Fundação Instituto Brasileiro de Geografia e Estatística* (IBGE) was the agency in charge of implementing the survey following the GATS standard protocol.

International partners

The Pan American Health Organization (PAHO/WHO) facilitated the introduction of GATS to the Brazilian government in order to obtain political commitment, provided technical and management assistance, coordinated all phases of survey implementation with the national and international partners to facilitate and strengthen country surveillance capacity, and provided logistics and technical advice through the process.

The Centers for Disease Control and Prevention provided technical assistance for implementing standard survey operating practices. The standardized GATS protocol and methodology included the core and optional questionnaires, a sampling design framework, a series of manuals, and a series of guidelines. The CDC Foundation was responsible for administration of the survey funds.

Johns Hopkins Bloomberg School of Public Health provided technical support in GATS methods and protocol.

Financial support for the survey was provided by Bloomberg Initiative to Reduce Tobacco Use and the Brazilian Ministry of Health.

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* ***M****onitoring 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*

Message from the Minister of Health

The invitation to participate in the Global Adult Tobacco Survey (GATS) arrived in 2007 at a time when Brazil needed more information on several dimensions of tobacco control in our country. With the ratification of the Framework Convention on Tobacco Control treaty by Congress in 2005, the activities to reduce tobacco use in Brazil were expanded to accomplish the recommendations of the treaty.

The challenge was enormous! The survey needed to not only provide national estimates, but also provide a detailed picture.

Thus, a GATS National Committee comprised by institutions from the Ministry of Health working on tobacco control and surveillance (*Secretaria de Vigilância em Saúde*, *Instituto Nacional de Câncer*, *Agência Nacional de Vigilância Sanitária* and *Fundação Oswaldo Cruz*) was formed and in partnership with the *Instituto Brasileiro de Geografia e Estatística*, a wider survey with supplemental financial support from the Ministry of Health was proposed.

Today we can see how right we were to accept this invitation and the challenge to expand the survey. A larger number of interviews allow us to assess the impact of our tobacco control measures and see what future planning is needed for continued progress for all regions of Brazil, and as far as possible, for the states of the federation..

We would like to thank the GATS International Committee composed by the World Health Organization, the Pan American Health Organization, the Centers for Disease Control and Prevention and the Johns Hopkins Bloomberg School of Public Health and Bloomberg Philanthropies for the opportunity to conduct this survey and to participate in an international surveillance system that will enable us to compare our results with those obtained by other participating countries.

Finally, I would like to emphasize, that GATS implementation in Brazil, a country of continental proportions, brought us new knowledge and technical improvements that will be of great use in the next rounds of the survey. This knowledge may also be shared with future GATS countries, as the effort to reduce tobacco use is global and we must unite ourselves to achieve this goal.

Ministry of Health of Brazil

Message from the Director of the *Instituto Nacional de Câncer*

The *Instituto Nacional de Câncer* (INCA) is notable in Brazil for its role in the fight to reduce morbidity and mortality associated with tobacco use, especially cancer. To achieve this goal, a set of activities focusing on various aspects of tobacco control has been developed in a coordinated way, as well as dissemination of knowledge on the subject all over the country.

To succeed, INCA established partnerships with other governmental and non-governmental organizations in Brazil, and with other nations.

As a response to the globalization and the increase of the tobacco epidemic, the Framework Convention on Tobacco Control was developed. This treaty establishes a set of targets and activities to be followed by the participating countries. In Brazil, a National Committee for FCTC Implementation, composed by 16 different ministries – Comissão Nacional para Implementação da *Convenção-Quadro para o Controle do Tabaco* (CONICQ) –, was created with the objective to work towards the treaty ratification.

At the end of 2005 Brazil ratified the Framework Convention on Tobacco Control. The responsibilities on tobacco control increased and new interventions became to be necessary in order to reduce the tobacco production and the tobacco consumption.

From the late 80s, when the National Tobacco Control Program (NTCP) was created, the need to develop mechanisms to assess the impact of these actions and to develop new scientific studies on the subject became more evident. However, nationwide data on tobacco use, including urban and rural areas, were scarce. Furthermore, significant differences in the indicators of tobacco use among the geographical regions of the country were being observed. These differences indicated that surveys should allow data disaggregation enough to enable planning of tobacco control activities in specific areas and with high-risk groups.

The invitation to participate in the new surveillance system of smoking among adults of the World Health Organization came to meet that need. The system provides not only information about tobacco use, but also on other equally important dimensions such as cessation, exposure to media, access to products, economic issues and knowledge about the risks associated with tobacco consumption.

The GATS Brazil was carried out with the union of institutions of the Ministry of Health in the GATS National Committee and the *Instituto Brasileiro de Geografia e Estatística*. Other international institutions such as Centers of Disease Control and Prevention, World Health Organization, the Pan American Health Organization and the Johns Hopkins Bloomberg School of Public Health also contributed to the challenge of producing the information with quality.

These efforts were not in vain. The data produced and available in the country today will certainly help to assess what we are doing right and what we need to improve.

This report has a great potential of use supporting activities developed by those working directly on tobacco control. We expect it to be widespread in Brazil and other countries, and to contribute to the global fight to reduce tobacco use.

Instituto Nacional de Câncer

Message from the Health Surveillance Secretary

In recent decades, chronic, non-communicable diseases (NCD), such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, have become a major public health problem around the globe. The World Health Organization (WHO) estimated that NCD were responsible for over 35 million deaths (61% of all deaths) in 2005. The 6 leading risk factors for these deaths are: high blood pressure, tobacco use, high blood sugar, physical inactivity, overweight and obesity and high cholesterol. Once a problem of developed nations, the WHO reports that 80% of deaths due to chronic diseases today occur in low and middle income countries. In Brazil, there were over 700,000 deaths due to NCD in 2005, making it the most important cause of death. Between 1930 and 2006 the proportion of deaths caused by NCD increased more than three-fold, from 10% to over 40%.

Tobacco smoking, the second most prevalent risk factor for death from NCD is responsible for 18% of all deaths from cancer and 71% of all deaths from lung cancer. Brazil is one of the few countries worldwide to document important decreases in smoking rates resulting from strong tobacco-control policies. The collaborations established within the GATS project helped strengthen governmental policies and further documented their impact.

This ground-breaking report provides a larger scope of the problem and provides additional feedback to policy makers and public health workers for the implementation of a more comprehensive and integrated public health approach in order to further improve the lives of Brazilians.

Health Surveillance Secretariat

Message from the President of *Instituto Brasileiro de Geografia e Estatística*

When IBGE was asked to implement GATS in Brazil, we evaluated three aspects: the importance of the issue, as highlighted by the World Health Organization and Ministry of Health; the opportunity to conduct the survey in 2008 as part of the National Household Sample Survey - NHSS, together with the Health Supplement; and the possibility to use a method that requires the person selected to respond to the interview, a characteristic that differentiates the GATS Brazil from NHSS methodology. This experience was especially important because this will be the interview method proposed in the coming years for studies that require this methodology in the Integrated Household Surveys. It is noteworthy that the use of information technology was a major factor that enabled this research and the testing of this methodology.

Conducting GATS nationwide was a challenge. Fortunately, it proved to be successful and generated significant results on both national and international fronts. In addition, the integration of the GATS into the 2008 National Household Survey allowed for the use of IBGE expertise and ensured the institutionalization of the GATS into future surveys.

Finally, while IBGE has contributed our expertise to this project, unquestionably, the exchange of experiences between international and national partners has been a great contribution from the GATS to IBGE and the country.

Instituto Brasileiro de Geografia e Estatística

Message from Director of Pan American Health Organization

Tobacco is the leading preventable cause of death in the world. Globally, smoking is responsible for more than five million deaths, one million of which are in the Americas Region.

This is a problem that affects all countries, therefore it was important to seek innovative and comprehensive solutions to address an epidemic of this scale. During the 56th World Health Assembly of the World Health Organization the Framework Convention on Tobacco Control (FCTC) was adopted as the first international legally binding, public health negotiated treaty under the auspices of WHO.

To help countries comply with the obligations of the WHO FCTC, WHO has developed a policy package, known as MPOWER, which aims to reduce tobacco use and enable the implementation of the FCTC in countries.

Recognizing the seriousness of this problem, the Brazilian government has been investing in actions to combat this epidemic for over twenty years. Although the country has successfully reduced tobacco consumption over the last two decades, the number of smokers is still high. Data in this report indicate that in 2008, 24.6 million Brazilians were smokers; this demonstrates the need to continue to strengthen and monitor national strategies for tobacco control.

Monitoring is an important component of this process and is one of the tools of MPOWER. The Global Adult Tobacco Survey – GATS is the result of a global effort involving several partnerships that came together to enable the gathering of comprehensive and standardized data that is both nationally and internationally comparable. Fourteen countries participated in the first round of the GATS including Brazil: Bangladesh, China, Egypt, India, Mexico, Philippines, Poland, Russia, Thailand, Turkey, Ukraine, Uruguay and Viet Nam. Within this process Brazil has again demonstrated their commitment to the FCTC. In Brazil, the GATS was integrated into the National Household Survey (NHSS) and allowed for the systematic collection of national data on tobacco use and was jointly supported by the Bloomberg Philanthropies and the Brazilian Ministry of Health.

The information presented in this report is based on the findings of GATS Brazil. They present a baseline for future analyses and allow us to reflect on the advances Brazil has made, while also highlighting important areas that still need improvement, such as smoke-free environments, advertising at points of sale and measures applied to pricing and taxation of tobacco products.

By developing and maintaining strong tobacco control policies and coordinating and cooperating with both national and FCTC parties we can protect national policies against the tobacco industry. By working to meet the requirements of the FCTC, we can protect current and future generations from the devastating health, social, environmental and economic impact of tobacco.

On behalf of the Pan American Health Organization, I would like to congratulate Brazil and especially the national GATS partner institutions on their accomplishment. This was truly a global effort and Brazil has displayed tremendous leadership. We look forward to Brazil's continued role as a leader in the fight against tobacco.

Pan American Health Organization

Message from the Chief of Global Tobacco Control Branch

On behalf of the U.S. Centers for Disease Control and Prevention (CDC) Office on Smoking and Health, we congratulate Brazil in publishing the Global Adult Tobacco Survey (GATS) Country Report. This report marks a milestone in Brazil's participation in the first global survey to track adult tobacco use and related trends using standardized methods. This report has great potential to improve tobacco use prevention and control efforts in Brazil.

We would like to also take this opportunity to acknowledge the outstanding technical expertise and leadership shown by Brazil. Brazil was the first GATS country to integrate the GATS into an existing survey, the National Household Sample Survey (NHSS), while maintaining international standards and the collaborative nature of this initiative. This required creativity, in-depth knowledge of the protocol, technical skills and effective communication among multiple partners, both nationally and internationally. The design and conduct of GATS in Brazil as a part of the NHSS has set a new global standard for integrating GATS into existing survey systems and ensured the future sustainability of GATS in Brazil.

Brazil has long been a global leader in tobacco control and the commitment shown by the Ministry of Health and all GATS Brazil National Partners, INCA (*Instituto Nacional de Câncer*), IBGE (*Instituto Brasiliero de Geografia e Estatística*), SVS (*Secretaria de Vigilância em Saúde*), ANVISA (*Agência Nacional de Vigilância Sanitária*) and Fiocruz (*Fundação Oswaldo Cruz*) is exemplified in the production of this report. The data presented here will provide an important baseline for future work in Brazil and the GATS experience in Brazil will provide other countries with a model to follow.

These data also will assist Brazil with continued monitoring and evaluation of the World Health Organization's Framework Convention on Tobacco Control (FCTC) articles. Through the successful completion of GATS, Brazil has shown strong commitment to the effective implementation of the MPOWER package of six evidence based policies, based on these FCTC measures: Monitor tobacco use and prevention policies; Protect people from secondhand smoke; Offer help to those who want to quit; Warn about the dangers of tobacco; Enforce bans on tobacco advertising, promotion, and sponsorship; and Raise taxes on tobacco products.

We thank the Ministry of Health and all GATS Brazil National partners for their leadership in making the GATS a success. As one of only 14 countries to participate in the survey so far, Brazil has shown a vision for saving lives and improving health. The global tobacco epidemic is predicted to kill 8 million people a year by 2030 and remains one of the biggest health challenges our world faces.

The U.S. CDC's Global Tobacco Control Branch looks forward to ongoing collaboration with you in our mutual mission to prevent the needless toll of tobacco in your country and all countries of the world.

With sincere congratulations!

Global Tobacco Control Branch
U.S. Centers for Disease Control and Prevention

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Acronym

Acronym	Description of the Acronym
ACT	Aliança de Controle do Tabagismo (Tobacco Use Control Alliance)
ADESF	Associação de Defesa do Fumante (Association for Smoker Protection)
AMB	Associação Médica Brasileira (Brazilian Medical Association)
ANS	Agência Nacional de Saúde Suplementar (National Supplement Health Agency)
Anvisa	Agência Nacional de Vigilância Sanitária (National Sanitary Surveillance Agency)
BRIC	Brasil, Rússia, Índia e China
CCCTCB	Comitê Coordenador do Controle do Tabagismo no Brasil (Coordinator Comittee of Tobacco Use Control in Brazil)
CDC	Centers for Disease Control and Prevention
CIDA	Canadian International Development Agency
CNCT	Comissão Nacional para o Controle do Tabaco (National Commission for Tobacco Control)
CONASEMS	Conselho Nacional de Secretarias Municipais de Saúde (National Council of Municipal Health Secretariats)
CONASS	Conselho Nacional de Secretários Estaduais de Saúde (National Council of State Health Secretaries)
CONICQ	Comissão Nacional para Implementação da Convenção-Quadro para o Controle do Tabaco (National Commission for FCTC Implementation)
GATS	Global Adult Tobacco Survey
GHPSS	Global Health Professional Students Survey
GPDTA	Gerência de Produtos Derivados do Tabaco (Tobacco Products Department)
GSPS	Global School Personal Survey
GTSS	Global Tobacco Surveillance System
GYTS	Global Youth Tobacco Survey
IBGE	Instituto Brasileiro de Geografia e Estatística (Brazilian Geographic and Statistic Institute)
IESC	Instituto de Estudos em Saúde Coletiva (Public Health Studies Institute)
INCA	Instituto Nacional de Câncer (National Cancer Institute)
IPCA	Índice Nacional de Preços ao Consumidor Amplo (National Index of Consumer Prices)
IPI	Imposto sobre Produtos Industrializados (Industrialized Products Tax)
ITC	International Tobacco Control Policy Evaluation Project
MERCOSUL	Mercado Comum do Sul (Common South Market)
MPOWER	WHO publication with six key strategies: Monitor tobacco use and prevention policies Protect people from tobacco smoke Offer help to quit tobacco use Enforce bans on tobacco advertising, promotion and sponsorship Raise taxes on tobacco
NHSS	National Household Sample Survey
NTCP	National Tobacco Control Program
PAHO	Pan American Health Organization
PDA	Personal Digital Assistant

Acronym	Description of the Acronym
PIS/Cofins	Programa de Integração Social / Contribuição para o Financiamento da Seguridade Social (Social Integration Program / Contribution to Social Security Financing)
PUC Rio	Pontifícia Universidade Católica do Rio de Janeiro (Pontifical Catholic University of Rio de Janeiro)
Redeh	Rede de Desenvolvimento Humano (Human Development Network)
RTZ	Rede Tabaco Zero (Zero Tobacco Network)
SAS	Secretaria de Atenção à Saúde (Health Care Secretariat)
SNVS	Sistema Nacional de Vigilância Sanitária (National Sanitary Surveillance System)
SUS	Sistema Único de Saúde (Public Health System)
SVS	Secretaria de Vigilância em Saúde (Health Surveillance Secretariat)
UFF	Universidade Federal Fluminense (Fluminense Federal University)
UFRJ	Universidade Federal do Rio de Janeiro (Federal University of Rio de Janeiro)
WHO	World Health Organization

EXECUTIVE SUMMARY

The results of important actions aimed at decreasing in tobacco demand and supply in Brazil over the last decades are reflected on the text and tables presented in this national household survey, which was conducted in 2008. This document provides information derived from a survey inserted into a tobacco consumption epidemiologic surveillance national system and from social, economic and health-related indicators, as determined in Article 20 ("Scientific and technical cooperation and information disclosure") and Article 21 ("Presentation of reports and information interchange") of the Framework Convention on Tobacco Control (FCTC). GATS includes several dimensions related to the most important strategies to reduce morbidity and mortality associated with smoking. It is also part of a wide-ranging multicentric study underway in 13 countries.

Methodology

The target population of the Global Adult Tobacco Survey conducted in Brazil (GATS Brazil) consisted of people aged 15 or older. A probabilistic household sample was selected in four stages: municipality, census tract, household and individual. The questionnaire included information about the household and the selected individual (socio-demographic characteristics, tobacco consumed, smokeless tobacco, cessation, secondhand exposure to tobacco smoke, economics, media and knowledge). The expected sample size for the GATS Brazil was 40,000 people, with the objective of generating estimates for the country as a whole and for five geographical regions, stratified by gender and residence (urban and rural). The global response rate was 95.2%. A total of 39,425 interviews were conducted, 33,680 in urban areas and 5,745 in rural areas. The indicators were calculated for the general population and stratified by gender, age group, household residence (urban or rural), schooling level, income level, and region.

Tobacco Use

Based on the GATS Brazil, it was estimated that in 2008, there were 26.6 million smokers in the Brazilian population 15 years or older (17.2%). The prevalence among men was 21.6% (which corresponded to 14.8 million men) and the prevalence among women was 13.1% (which corresponded to 9.8 million women). Among the 17.2% of current smokers, most used tobacco products daily (15.1%), whereas the proportion of occasional smokers was only 2.1%. This pattern was noticed in all regions of the country. Most current smokers consumed cigarettes. The prevalence of the use of manufactured cigarettes was 14.4% and the prevalence of the use of hand-rolled cigarettes was 5.1%. The percentage of smokers of other tobacco products, such as cigars, pipes, *cigarillos*, Indian cigars and hookahs, was low: 0.8% on average, 0.9% among men and 0.7% among women. For the first time in Brazil, it was possible to estimate the proportion of users of smokeless tobacco, such as snuff and chewing tobacco. The percentage of individuals who consumed this type of product was 0.4% overall (0.6% among men and 0.3% among women). The overall prevalence of tobacco use in Brazil (smoked and/or smokeless) found in the survey was 17.5% (22% among men and 13.3% among women).

Among daily smokers and former daily smokers aged 20 to 34, the average age of initiation of smoking ranged from 17 to 19. Women started smoking earlier than men.

The regional heterogeneity related to tobacco consumption in a large country like Brazil presents a great challenge for the National Tobacco Control Program (NTCP). For instance, in the Southern region of the country, where most of the tobacco in Brazil is manufactured, prevalence is higher compared to the other regions and young people have a level of nicotine dependence close to that of adults. Besides, when the data from the rural areas of the country are compared to urban areas, tobacco prevalence is noticeably higher and hand-rolled cigarettes are more often consumed in rural areas. It can also be noted that cigarette smoking use reflects Brazilian social inequality (e.g., individuals with none or less than a year of schooling and with the lowest purchasing power represent the highest smoking prevalence).

Based on the principles of equity and social justice expressed in the Brazilian Constitution, where health is everyone's right and the State's duty, Brazilian social and economic policies must develop actions aimed at reducing the risk of disease and other harms, as well as ensuring universal and equal access to actions and services for health promotion, protection and recovery. The importance of these efforts becomes even more evident after confirming that, despite the decrease in tobacco consumption observed throughout the last decades, the absolute number of tobacco users in the country is still high (around 25 million among those 15 years of age or older).

Cessation

As far as the motivation of Brazilian smokers to quit tobacco use is concerned, the survey revealed that a significant share of the population had tried to quit smoking in the previous 12 months (45.6%, which corresponds to approximately 12 million smokers). When this assessment was carried out only among young people, it was found that this subgroup was also very motivated to try to quit using tobacco (48%). Therefore, one of the challenges for the National Tobacco Control Program is to understand the characteristics of the smoking population (degree of dependence, population groups that are more vulnerable to the influence of the tobacco industry, differences in access to health care services etc.) so as to be able to offer more adequate cessation strategies to different subgroups of smokers who are trying to quit tobacco use.

Secondhand Exposure

An alarming finding was the number of non-smokers who said they were exposed to secondhand tobacco smoke in at least one of the environments surveyed: around 22 million people (18.8%) in the total population. Nine million people (22.8%), mentioned exposure to tobacco smoke in the work place, five million (4.1%) in health care facilities, 12 million (10.1%) in restaurants, 5.5 million (4.8%) on public transportation, and 4.3 million (3.7%) in government buildings or offices.

The data presented in the survey regarding exposure to tobacco smoke point to the urgent need for complete implementation of the recommendations contained in the Framework Convention on Tobacco Control, specifically in its 8th article (protection against secondhand smoking) in Brazil. For this to occur, it is necessary that the legislation in force, specifically the 1996 Law and its regulatory decrees, which still allow separate smoking areas, be altered so as to completely prohibit the use of tobacco products in enclosed public spaces.

Although the campaign to render tobacco consumption a socially unacceptable behavior in Brazil is relentless and has been successful in recent years, there are still niches where this behavior is still acceptable. Awareness among population in general and specifically among current and future health professionals is key to creating a permanent health promotion model in Brazilian society. The GATS Brazil data showed that there is still a long road ahead that depends on specific actions. For instance, around 70% of those surveyed who had recently visited health professionals reported they were asked by doctors and other professionals whether they were smokers or not, but only 57% said they were advised to quit smoking.

Knowledge and the Media

The survey responses obtained regarding knowledge and the media indicated that the country is on the right path concerning dissemination of information about the dangers that stem from the use of and exposure to tobacco smoke. Around 96% of the individuals surveyed believed smoking could cause serious illness, 91% believed that breathing in other people's smoke could cause serious illnesses in non-smokers, 67% had noticed anti-cigarette information on warning labels or on radio or television, and 65% of smokers considered quitting after looking at the pictures and warnings on cigarette packages. Therefore, Brazilian society has considerable knowledge of health problems related to smoking and an acute awareness of anti-cigarette smoking information as disseminated in the general media and on cigarette packages, resulting from countless actions of the National Tobacco Control Program in the last decades and strong support

from the media. Nevertheless, around 3 out of 10 individuals surveyed had noticed cigarette marketing at points of sale, and this number increased to 4 out of 10 when considering all forms of tobacco promotion or advertising.

Regarding awareness of anti-cigarette smoking information broadcast on the radio and television and education level, there was no difference in awareness of this information on the radio by number of years of schooling. This was not the case with television, where awareness increased with the number of years the interviewee had studied in school. Such findings suggest that radio may be the medium of communication that enables the most egalitarian dissemination of information. However, television is still the most wide-ranging medium in the country.

As for age groups, it was observed that young people were less aware of anti-cigarette information on the radio compared to individuals over 24 years of age (24.3% versus 32.1%), whereas on television, there was no significant difference in terms of age (62.9% versus 64.2%). This finding point to an opportunity to adapt the language of information broadcast on the radio to appeal to younger people, in addition to intensifying the broadcast of information on channels targeted to young audiences.

The differences in awareness of either anti-cigarette information or cigarette marketing by subgroups of individuals (by age, schooling level, and household residence) suggest the need to vary communications by the National Tobacco Control Program so as to counter more efficiently the effects of marketing and/or promotion of tobacco products to target audiences.

Economy

The incorporation of economic aspects into GATS Brazil was an improvement to the Brazilian tobacco control policy. Information related to smokers' expenditures, broken down by gender, level of education, region, and household residence, made it possible to create a better profile of manufactured cigarette consumption by the Brazilian population and identify the regions and age groups in which the smoking problem was greater.

Cigarettes spending ranged from 4.8% to 7.0% of the family expenditures, making price and tax policies even more necessary, especially when the increase in the purchasing power of the Brazilian people justifies an increase in cigarette taxes so as to obtain an acceptable margin for the minimum wage/cigarette price ratio.

Continuing to improve this type of information by conducting studies of demand and carrying out evaluations will help the National Tobacco Control Policy in Brazil reach its goals.

1 INTRODUCTION

1.1 The Country – Socio-demographic Characteristics

Located in South America, Brazil is a federal republic with a presidential government. It is formed by the union of 26 federated states and a Federal District, with a total of 5,565 municipalities. With the fifth largest population in the world, the country had an estimated population of 190 million in 2008, distributed over five main regions: North (8.0%), Northeast (28.0%), Midwest (7.2%), South (14.8%) and Southeast (42.8%). Most of the population lives in urban areas (84.0%) and along the coast. With an area of 8,511,925 km^2, equivalent to 47.0% of the entire South American continent, the country has the fifth largest land mass on the planet.

According to data from the National Household Sample Survey (NHSS) 2008, the trend toward a younger population has leveled off. Younger people constituted a smaller proportion of the total population than in previous years, while the proportion of older people increased. The same pattern was seen by geographic region, a decrease in the younger segment of the population and an increase in older one. The Southern and Southeastern regions had the oldest populations (Figure 1.1).

The ninth largest economy in the world in purchasing power parity (2008), eighth in nominal GDP (2009) and largest Latin American economy**, Brazil has 15% to 20% of all the world's biodiversity, including the Amazon Rainforest with 3.6 million km², as well as the Atlantic forest, the *Pantanal* and the *Cerrado*. Brazil is a founding member of the United Nations, the G20, the *Mercosul*, and the Union of South American Nations and it is one of the BRIC (Brazil, Russia, India and China) countries.

The average real working monthly income (from the population aged 10 or older, employed and paid), estimated at R$ 1,036.00 in 2008, was 1.7% higher than that of the previous year (R$ 1,019.00). Regarding the distribution of employed people by activity, the most significant areas were agriculture, industry, and commerce and repair, accounting for 17.4%, 15.1% and 17.4% of the working population, respectively. There were regional differences in these three groups, especially in the agriculture group. Whereas the national percentage of people employed in the agricultural group was 17.4%, in the Northeast this percentage was 30.8%, and in the Southeast it was 8.9%. The industry group employed more people in the Southeast (18.2%) and in the South (18.7%). The commerce and repair group percentages in all the regions were close to national rates, with the most significant participation in the North (18.8%) and the Midwest (19%).

Concerning levels of education, data from the NHSS 2008 revealed that, among adults aged 15 or older, there were still around 14.2 million illiterate people in Brazil, representing 10% of the population. The rate of illiteracy in this age group showed regional disparities. In the Northeastern region, the rate was almost twice as high as the national rate. However, this region was the only one to show a decrease in the illiteracy rate compared to 2007.

* *International Monetary Fund, World Economic Outlook Database. Data from 2008.*

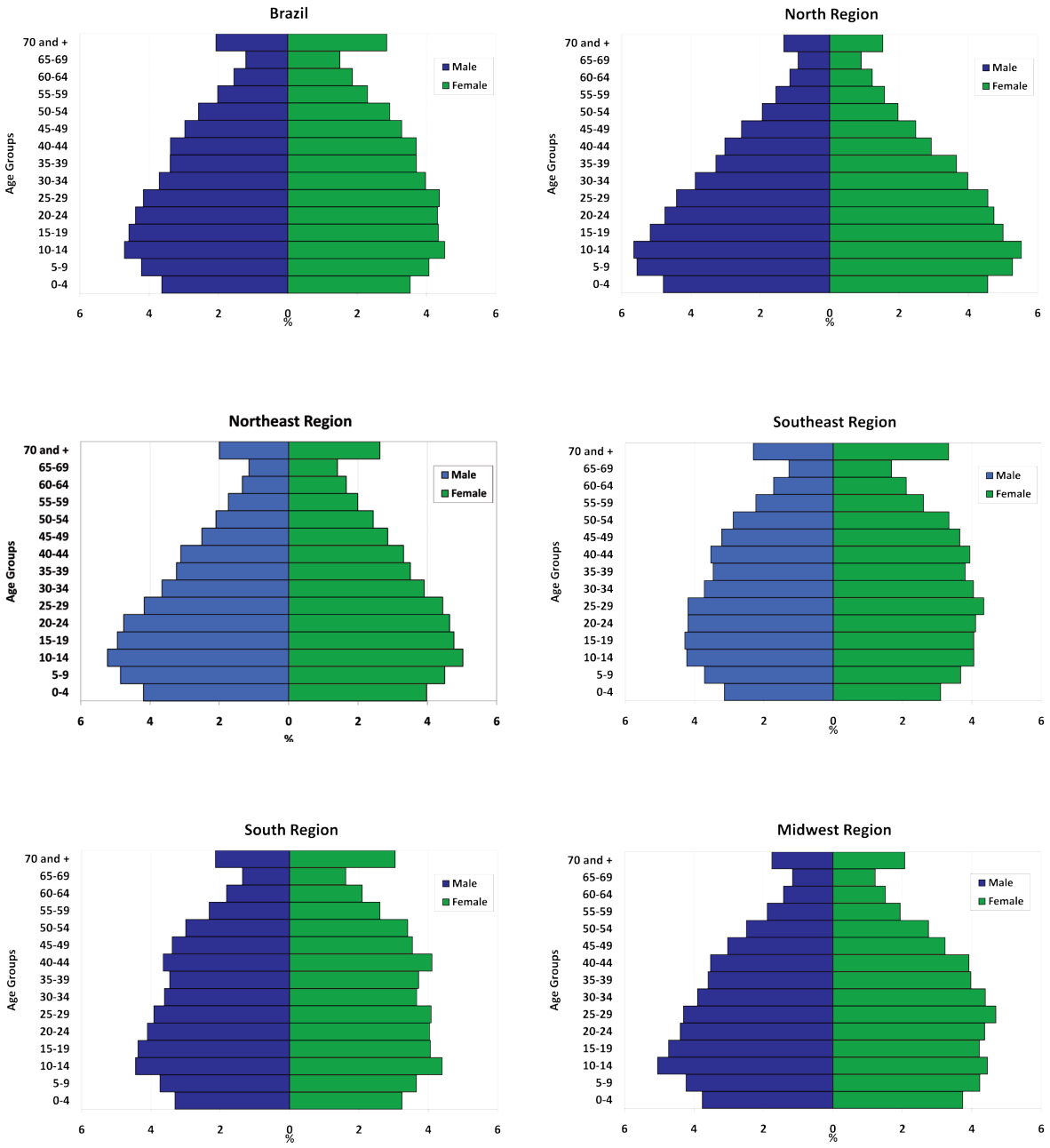


Figure 1.1 Population distribution by gender and age, Brazil and Geographical Regions – 2008

Source: NHSS/2008.

In the 10 to 14 year age group, in which the child or teenager should already be at least literate, the illiteracy rate was estimated at 2.8%. In the Southeastern, Southern and Midwestern regions, the illiteracy rate in this age group was less than 1.5%, while in the Northern and Northeastern regions, it was estimated at 3.5% and 5.3%, respectively. The illiteracy rate for men aged 15 or older was estimated at 10.2%, and for women in the same age group it was 9.8%. In the Southeastern and Southern regions, the illiteracy rates were higher for women than for men.

1.2 The Brazilian Health System

The Government is the main financier of the country's public health system. Historically, half of the expenses have been covered by the federal government, with the other half covered by the states and municipalities. The Government devises national policies, but they are implemented by its partners (states, the Federal District, municipalities, Non Governmental Organizations and private initiatives).

The *Sistema Único de Saúde* (SUS), created in 1988 by the Federal Constitution, is one of the largest public health systems in the world . It covers everything from outpatient care to organ transplants, aiming to ensure complete, universal and free access to the entire population. In addition to offering appointments, examinations and admissions, the SUS also promotes vaccination campaigns and heath prevention and surveillance activities – such as food inspection and drug registration.

Municipalities have the greatest responsibility for the health of their populations. Ever since the "Health Pact" of 2006[3], municipal officials have become, either immediately or progressively, fully responsible for managing the public health activities and services offered in their territories. When the municipality does not offer all health services, it negotiates with other neighboring municipalities in order to achieve full health assistance for its population. This pact must also be negotiated with state officials. The state government implements national and state policies, in addition to organizing health care in its territory.

The first contact with the health system occurs, preferentially, through primary care (health care units, health centers, Family Health units etc.). After this first assistance, the patient may be referred to other more complex services, such as specialized hospitals and clinics.

In 2008, there were an estimated 57.6 million households in Brazil, of which 27.5 million (47.7%) were enrolled in the Family Health Program. The Northeastern and Southeastern regions had the greatest concentration of households enrolled in the Program (35.4% and 33.1%, respectively), followed by the Southern Region (16.5%), the Midwestern Region (7.6%) and the Northern Region (7.4%).[4] .

Basic medications are acquired by the state and municipal health departments, depending on the pact made in the region. Human insulin and the so-called strategic medications – included in specific programs, such as Women's Health, Tobacco Use, and Food and Nutrition – are obtained by the Ministry of Health. Special medications (considered expensive or meant for continuous treatment, such as those used by post-transplantation or chronic kidney disease patients) are purchased by the health departments, which are reimbursed after presenting proof of delivery to the patient. On average, the federal government transfers 80% of the cost of the special medications to health departments, depending on prices obtained in the bidding process.

In addition to SUS, individuals may opt to pay for a supplementary, private health assistance plan, which gathers health insurance companies, medical doctors, nurses, dentists and other professionals, besides hospitals, laboratories and clinics, into a network of health services. The *Agência Nacional de Saúde Suplementar* (ANS), a regulatory agency linked to the Ministry of Health, promotes balanced relationships between all the parties interested in supplementary health.

In 2008, the National Household Sample Survey indicated that only 25.9% of the Brazilian population (49.2 million people) had private health insurance plans. In other words, around three-fourths of the population makes use of the SUS for health care. Among those with a private health insurance plan, 77.5% contracted plans from private companies and 22.5% had a civil servant health assistance plan. The percentage of the population covered by health insurance plans was higher in urban areas (29.7%) than in rural areas (6.4%). The percentages of those covered by health insurance in the Southeastern and Southern Regions (35.6% and 30%, respectively) were nearly three times higher than those in the Northern (13.3%) and Northeastern (13.2%) regions[4].

1.3 The Burden of Tobacco in Brazil

1.3.1 Health impact of tobacco use

According to the World Health Organization (WHO)[5], tobacco is the second major cause of death in the world. Several articles in the literature have associated active smoking to mortality caused by several types of cancer (lung, oral, pharynx, larynx, esophageal, stomach, pancreatic, bladder, renal, cervical and acute myeloid leukemia), chronic obstructive pulmonary disease (COPD), coronary disease, high blood pressure and cerebrovascular accidents[6 7 8]. Besides that, secondhand smoking in adults may cause adverse effects in the cardiovascular system, coronary disease and lung cancer. Among children, including fetuses, secondhand smoking is particularly associated with adverse effects on the respiratory system, sudden infant death syndrome, and adverse effects on neuropsychological and growth development[10].

It is estimated that smoking is responsible for over five million deaths each year and that, if the current tobacco use trends persist, this number may surpass eight million by 2030. As to deaths caused by secondhand smoke, it is estimated that around 600 thousand individuals die every year due to exposure to cigarette smoke[11]. Lung cancer mortality is considered an important indicator of the characteristics of the tobacco epidemic and the consequences to health[12]. According to analysis conducted by Ezzati & Lopez[13], around 70% of the deaths caused by lung cancer worldwide can be explained by the use of tobacco. In some populations, the mortality attributable to tobacco use may be much higher, up to 87% among men living in the U.S.[14].

In Brazil, from 2000 to 2004, lung cancer was the leading cause of death by cancer among men (around 55 thousand or 30% of the deaths caused by tobacco-related cancers) and the second cause of death by cancer among women (around 26 thousand or 24% of the deaths caused by tobacco-related cancers)[15]. An analysis of lung cancer mortality conducted from 1979 to 2007 shows an increasing trend until 1995, when it stabilized. Among women, however, during the same time period, a discrete increase trend is observed (Figure 1.2).

In 2008, circulatory system diseases were the main cause of death (almost 315 thousand deaths) in Brazil[16] . Nearly 11% of the total number of deaths due to these illnesses worldwide can be attributed to smoking (17% among men and 4% among women)[13].

A study conducted in Brazil in 2003 indicated that, of all deaths of individuals aged 35 or older in 16 Brazilian cities, around 14% (approximately 24 thousand) could be attributed to tobacco use, of which ischemic heart diseases (4.4 thousand deaths), lung cancer (1.1 thousand deaths) and chronic obstructive pulmonary diseases (4.4 thousand deaths) were the most common[17]. Also in Brazil, data from a recent study conducted by INCA in partnership with the *Instituto de Estudos em Saúde Coletiva* (IESC) revealed that every year 25 out of every 1,000 deaths of individuals aged 35 or older, living in urban areas, are caused by exposure to secondhand smoke in the household[18].

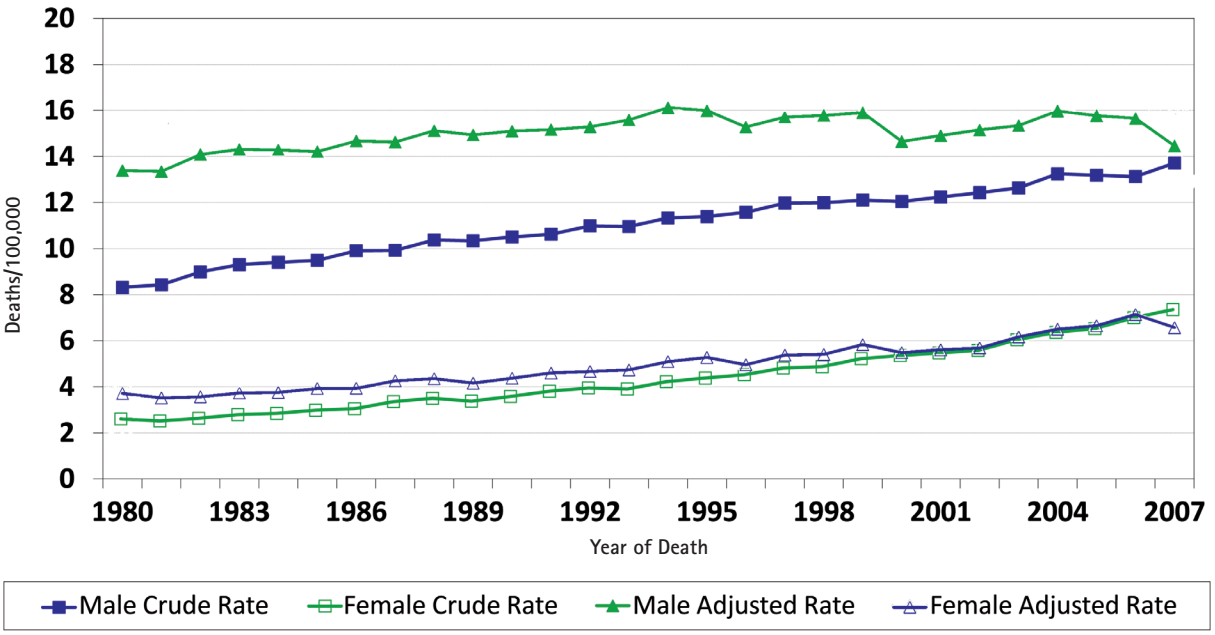


Figure 1.2 Adjusted[a] and crude mortality rates by malignant neoplasm of trachea, bronchus and lung, Male and Female – 1980-2007.

[a] Adjusted by the World Population modified by Doll et al 1966.
Source: Sistema de Informações de Mortalidade/DATASUS/MS. http://www.datasus.gov.br. Access on: Jul 27th 2010.
Populations:
1980, 1991 e 2000: IBGE – Demographic Census.
1996: IBGE – Population count.
1981-1990, 1992-1999, 2001-2006: IBGE – Preliminary estimates for intercensus years, stratified by age and gender. MS/SE/DATASUS
2007-2009: IBGE - UNFPA/IBGE Project (BRA/4/P31A).

1.3.2 Patterns and Trends in Tobacco Use – Prevalence of smokers in Brazil from 1989 to 2008

Currently, there are around 1.2 billion smokers worldwide[19]. In Brazil, a survey conducted in 1989, covering urban and rural areas except the rural areas of the Northern Region[20], revealed that there were nearly 27.7 million smokers aged 18 or older at that time[16].

In 2003, another population-based survey[21], with the same coverage as the 1989 study, obtained a 21.9% smoking prevalence among individuals 18 years or older. At the time, this represented around 24.8 million smokers[20]. Also in 2003, a survey conducted in only 16 Brazilian capital cities[22] revealed a 20.3% cigarette consumption proportion for individuals 18 years or older.

The most recent study to estimate tobacco prevalence in Brazil was concluded in 2008: a phone inquiry covering the capital cities of all 27 Brazilian states[23], which indicated 15.2% prevalence among individuals 18 years or older.

GATS Brazil, the subject of this report, covered the urban and rural areas of all the Brazilian regions[24] and revealed an 18.1% cigarette consumption prevalence among individuals 18 years of age or older, indicating an estimated total of 24 million smokers[16 24]. These surveys, as a whole, point to a gradual decrease in the country's smoking prevalence[25].

1.3.3 The Economic Impact of Tobacco Use

Smoking generates a substantial economic burden to society, characterized by the costs of medical care and loss of productivity due to morbidity and early death[26 27]. Recent estimates of the burden of this risk factor indicate global yearly losses of 500 billion dollars due to illnesses, decreased productivity, and early deaths[28].

In developed countries, the gross costs, including all the expenses for treatment of tobacco-related diseases, range from 0.1% to 1.1% of the Gross Domestic Product (GDP) . In developing countries, this information is scarce; however, it is estimated that, proportionally, the costs of medical care are as high as in developed countries[30].

The World Bank estimates that prevention policies are the most cost-effective to implement. They are an important component of a country's economy as far as the population's health maintenance is concerned. It has been calculated that to implement a set of public health interventions in which tobacco control is included, governments would have to spend, on average, four dollars per capita in low-income countries and seven dollars per capita in middle-income countries.

The treatment of tobacco-related diseases include costs associated with health services, loss of production – due to death or illness – and reduced productivity, early retirements, pensions and benefits paid, fires and other types of accidents, pollution and environmental degradation, research and education, and deaths of smokers and non-smokers, besides the suffering of smokers, non-smokers and their families.

In Brazil, the economic magnitude of this risk factor has still not been sufficiently studied and, consequently, there are not enough data to support the National Tobacco Control Program (NTCP). Despite this limitation, research has tried to estimate the cost of medical care for the public health system[31]. A 2005 study that calculated the direct costs of tobacco-related admissions and chemotherapy procedures, for cancer, circulatory, and respiratory system diseases from the SUS perspective, estimated these costs to be R$338.7 million, 8% of the total medical assistance costs, for these three groups of diseases. These results may be underestimated, which suggests that more research is needed in Brazil to measure the total burden of smoking, from society's perspective[32].

The economics of tobacco use is a subject that is increasingly salient on the public agenda, having gained force since the mid 90s, when a study about the tobacco sector in Brazil incorporated an econometrical analysis showing that an increase in the price of cigarettes, through an increase in cigarette taxes, was capable of reducing consumption while increasing tax collection[33].

Many economic strategies and measures have been recently applied by government agencies to help control tobacco use in Brazil. Three areas stand out as being extremely important for effective control: policies for prices and taxes, tobacco cultivation, and illegal markets for cigarettes.

Increasing prices is the most effective way to reduce consumption, especially among young people and people from the lower income brackets. In Brazil, a study showed that increasing prices by 10% would reduce consumption of tobacco products by 4.8%[34] . Saying that more expensive cigarettes would encourage illegal commerce instead of reducing consumption is a myth. In fact, more expensive cigarettes reduce per capita consumption. Studies carried out by the World Bank and the WHO have shown that increases in taxes and prices reduce per capita cigarette consumption[34].

The increase in cigarette prices, caused by increased taxes rates, reduces per capita consumption, but always by a smaller rate than the tax increase, this enables higher tax collections.

A theory that is spread widely by the tobacco industry in order to hinder in this policy is that reduced cigarette consumption causes more unemployment. There is no evidence of the truth of this prediction, since demand would decrease slowly, allowing the adjustment process to be gradual.

Brazil is the second largest tobacco producer in the world and has been the leader export to other countries since 1993. Tobacco leaf from Brazil is known internationally for its good quality and low price, due to its low internal production costs. Despite lower yields, manual cultivation contributes to a higher quality product, thanks to the care with which the tobacco leaves are handled. The employment of growers and their families on farms results in lower salary expenses, thus reducing production costs, but at the same time causing severe damage to their health and the environment.

The relationship between the tobacco industry and tobacco growers in Brazil is characterized by mutual dependence, but with different weighting factors on each side. The tobacco industry's purchasing power is greater than the tobacco growers' bargaining capacity, and the latter ends up submitting to a classification of leaves regulated by the former during the stage of agricultural financing. Thus, the tobacco grower must abide by prices and criteria established by the tobacco industry.

Some initiatives have been observed, especially in the Southern Region of Brazil, to substitute other activities for tobacco culture, which enable the grower's family to support itself and become integrated to other local and international commercial chains.

The illegal cigarette market in Brazil includes three distinct activities: tax evasion, falsification, and illegal commerce. While tax evasion is defined as the internal production of cigarettes without tax payment and control by the authorities, falsification is the commercialization of cigarettes that imitate a local brand, usually manufactured outside the country, also without tax payments. Illegal commerce is the practice of bringing in cigarettes from abroad without paying importation and other internal fees. This practice is a recent phenomenon in Brazil and was especially significant in the 90s. An important part of the illegal commerce at that time was Brazilian cigarettes exported to Paraguay in order to be later illegally reintroduced into Brazil without the payment of import fees and other domestic taxes. As exported products, these cigarettes were exempt from paying internal taxes[34].

The long Brazilian borders and tax asymmetry between Brazil and some of its neighbors are important factors contributing to illegal commerce[34]. After global exposure of documents describing illegal commerce practices in 2001, large companies started to help Brazilian authorities repress their illegal commerce rivals. From 2003 on, the fight against illegal commerce of cigarettes acquired a different tone, with a Congressional investigation and conspicuous repression operations carried out by federal authorities, with the support of tobacco companies, through an association created to defend trademark rights.

1.4 Tobacco Control Policies, National Legislation, Ongoing Initiatives for Tobacco Control in the Country

From the 50s on, several pieces of international scientific evidence have surfaced, identifying tobacco use as one of the main factors causing cancer and another 50 diseases. In the late 70s, some groups began to worry about the consequences of smoking in Brazil. However, these groups faced a lot of pressure from the tobacco industry because there was consensus that smoking was a social habit.

The first tobacco control activities were initiated by health professionals, who warned society in general and the governmental bodies specifically about the harms associated with smoking. The movement arose in different parts of the country, especially in the states of *Bahia*, *Paraná*, *Rio Grande do Sul*, *Espírito Santo*, *São Paulo* and *Rio de Janeiro*.

In 1977, the *Associação Nacional de Câncer* gathered, at the *Associação Paulista de Medicina*, some of the health professionals most concerned about the problem, to prepare guidelines for action on tobacco use control. It was then that the idea of creating a national commission to oversee the matter began to grow.

In 1979, during a medical congress in *Bahia*, the "*Salvador* Letter" was written. In addition to warning about the risks of smoking and estimating its mortality at around 100 thousand deaths per year, the proposal was to combat smoking through prevention, educational programs and the passing of laws to regulate tobacco use.

Also in 1979, the S*ociedade Brasileira de Cancerologia* presented a national proposal of strategies against smoking, which was taken over by the *Associação Médica Brasileira* (AMB) and became the main channel for anti-tobacco action. Since then, the AMB has been actively organizing regional commissions and committees in professional societies and associations, and stimulating the development of tobacco control programs, along with medical doctors and medical and health professions students[35]. Its first National Program Against Tobacco served as a model for the Ministry of Health to structure its own program in 1985.

In 1984, members of medical societies and associations working in tobacco control created the *Comitê Coordenador do Controle ao Tabagismo no Brasil* (CCCTB). This committee was associated with the *Comitê Latinoamericano Coordenador do Controle do Tabagismo* (CLACCTA), which was created in 1983 under the sponsorship of the International Union Against Cancer (UICC). Members of CCCTB worked at the state and municipal level, generating chapters in every State of the Federation to sustain a social movement for tobacco control.

In July 1986, Federal Law No. 7,488 regulated tobacco advertising and imposed partial restrictions on tobacco consumption, paving the way to broadening legislation, despite a small initial impact.

In 1988, the AMB participated in promoting and executing a total prohibition of smoking on airplanes, including all flights of any duration within the national territory, and provided technical-scientific evidence that confirmed the harms of smoking in this environment.

In the late 80s, the *Instituto Nacional de Câncer* (INCA) became responsible for implementing and coordinating tobacco control activities in Brazil. The movement, which had a timid start in the medical societies, thus acquired a government countenance. From then on, diffusion of information about this important risk factor for cancer and other diseases intensified, giving rise to the National Tobacco Control Program.

For nine years, educational activities were restricted and specific, but in 1996, they began to be developed continuously, nationwide, by the state and municipal health departments, assisted and coordinated by INCA and sometimes in partnership with non-governmental organizations.

In the early 90s, some medical congresses started including smoking on their agendas. Health professional societies, such as nurses associations, joined the movement to reduce smoking. Isolated actions were carried out among students and teenagers, as well as campaigns and newsletters in different places around the country.

In 1995, the *Associação de Defesa do Fumante* (ADESF), a non-profit organization, was founded. It filed collective civil actions against Souza Cruz and Philip Morris in defense of smokers' rights. As a pioneer in the promotion of collective action against tobacco companies, ADESF argued that such companies should pay for the pain and suffering and damage to property of smokers who were harmed by the use of cigarettes. In this action, ADESF managed to reverse the onus of evidence, which meant that the industry now had to prove that cigarettes did not cause dependence and that it did not promote deceptive advertising. However, after 15 years, the merit of the action has not yet been judged, the industry has not submitted any "evidence", and discussion has been restricted to procedural issues.

1.4.1 The National Tobacco Control Program (NTCP)

The National Tobacco Control Program (NTCP) was established by the Ministry of Health in 1989, through the *Instituto Nacional de Câncer* (INCA). One of the great efforts of the NTCP, since the mid 90s, has been the creations of partnerships with state and municipal health departments. This network, involving the

health departments of 26 states, the Federal District and over four thousand municipalities, has served as a framework for the internalization of the NTCP measures relevant to the health sector in SUS.

The initial dissemination model of this program, in the 90s, was guided by the need to reach opinion makers and form a critical mass capable of changing social acceptance of smoking. It was a context in which smoking was seen as a lifestyle choice with broad social acceptance, stimulated by advertising. The model prioritized three major community channels: schools, work environments and health units. Pilot projects were planned in order to develop specific methodologies and materials to reach the target audiences of these channels. An example was the diffusion, through the network of states and municipalities, of the "Learning About Health" Program. Until 2008 it comprised around 14,000 schools, with 122,214 teachers and 2,409,602 students. The model also made it possible to establish partnerships with small, medium and large companies, especially nationwide institutions, such as *Banco do Brasil, Petrobrás, Eletrobras, Infraero,* and the *Empresa Brasileira de Correios e Telégrafos*, among others. This strategy broadened the range of smoking control activities (smoke-free environments and smoking cessation) through company health programs, reaching millions of workers and their families.

Including the local media in this network created an important channel for increasing the population's knowledge about the harms of smoking, thus reducing the social acceptance of smoking and motivating smokers to quit.

From 1999 on, the network also made it possible to qualify thousands of health professionals, including medical doctors, nurses, psychologists, dentists, social assistants and others, to include brief counseling to smokers during routine visits and to promote smoke-free environments in health units.

From 2005 on, formal treatment for smoking cessation began to be provided by SUS health units in a planned and monitored way. This process was aligned with the formation of a critical mass of health professionals, who were sensitized to the issue of nicotine dependence and realized the need to investigate the smoking status of their patients during routine visits and offer of support for smoking cessation.

At present, the focal points of this network are still interconnected via an email group managed by INCA, through which they receive information and share their initiatives with their partners in other states and municipalities. Every year, INCA coordinates national workshops to assess and plan tobacco use control actions, with the participation of representatives from state and municipal health departments and other partners from the Ministry of Health and civil society organizations.

1.4.1.1 The Framework Convention on Tobacco Control (FCTC)

In 1999, the *Comissão Nacional para Controle do Tabaco* (CNCT) was created with the objective of supporting the Brazilian Government in its decisions and positions during negotiations at the Framework Convention. The CNCT had an advisory role and comprised nine representatives of government ministries connected to the health sector.

The FCTC was the first international public health treaty, negotiated under the auspices of the WHO in 192 countries. It articulated a group of multi-sectorial and trans-frontier actions to combat the worldwide smoking epidemic. Its main objectives are:

> "To protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke by providing a framework for tobacco control measures to be implemented by the Parties at the national, regional and international levels in order to reduce continually and substantially the prevalence of tobacco use and exposure to tobacco smoke."

The guiding principles, described in Article 4, establish people's right to information about the serious risks of smoking and their right to protection through legislative, executive and administrative and other measures to prevent initiation, promotes and support smoking cessation, and protects every person from exposure to secondhand tobacco smoke.

In general, the core measures established by the FCTC have two purposes: reducing the demand for and the supply of tobacco products. .

The demand reduction measures are contained in Articles 6 to 14 and are related to: price and tax policies targeting the tobacco industry as an instrument to reduce smoking (Article 6); protection against the risks of exposure to tobacco smoke (Article 8); regulation of the content and emissions of tobacco products focusing on reducing the consequences of using these products (Article 9); regulation of the disclosure of the information about tobacco products (Article 10); regulation of the packaging and labeling (Article 11); education, communication, training and awareness of the public (Article 12); prohibition of the publicity, promotion and sponsorship of tobacco products (Article 13); and promotion of smoking cessation (Article 14).

The measures related to reduction of the supply of tobacco are contained in Articles 15 to 17 and involve: combating the illicit trade of tobacco products as a way to recover tax losses and reduce the access of young people and the low-income population to the low-price products offered by the illegal market (Article 15); prohibiting sales to minors (Article 16); and promoting and supporting economically viable alternatives to tobacco production from the perspective of sustainable development (Article 17). They also provide for protection of the health of workers and the environment related to the production of tobacco and its byproducts (Article 18).

The measures in Articles 17 and 18 are of special interest to Brazil, since the country is the second largest producer and major exporter of tobacco in the world. This creates conditions of great social, economic and health vulnerability for 200,000 families of small tobacco growers who are part of the tobacco production chain.

Through Article 19, the FCTC approaches the issue of penal and civil responsibility, including compensation for damages and losses resulting from tobacco use.

In Article 20, the FCTC addresses aspects of smoking surveillance and its impact on health, the economy and the environment, as well as monitoring measures adopted for control and measurement of impact. Moreover, in Articles 21 and 22, research and scientific and technical cooperation, as well as exchange of information among countries, are regarded as essential to guide evidence-based implementation of the treaty.

An important concern expressed in the FCTC's text is the dishonest practices of the tobacco industry, aiming to "*undermine or depreciate the tobacco control activities*". This concern resulted in governments pledging to protect the tobacco control policy or program from undue interferences from the tobacco industry and its subsidiaries (Article 5.3).

In addition to these articles, the FCTC has institutional mechanisms and financial resources for implementation, as well as a secretariat and global implementation, through the Conference of the Parties. It also maintains the relationships among members of the Conference of the Parties and other intergovernmental organizations, and between the FCTC and other legal agreements and instruments from the perspective of international rights and the solution of controversies among member countries.

As far as political management and administration are concerned, in the General Obligations chapter (Articles 5.1 and 5.2) the FCTC directs governments to adopt national coordination mechanisms of a multi-sectorial nature. Through Article 26, governments express their commitment to adequately finance the treaty's implementation.

Another important characteristic of the treaty is recognition of the need to prioritize measures that benefit the most vulnerable populations, include gender issues in tobacco control policies, and include civil society in their implementation. By ratifying the FCTC, governments also agree to embrace implementation of the treaty in their country's development policy.

In 2003, the Brazilian President signed, in conjunction with the United Nations, a commitment to implement the Framework Convention on Tobacco Control and promote the ratification of the country's adhesion to this treaty by the legislative powers. In the same year, the President created the *Comissão Nacional para Implementação da Convenção Quadro para o Controle do Tabaco* (CONICQ) via Presidential Decree. Its mission is to articulate the organization and implementation of an inter-sectorial government agenda for the fulfillment of the Framework Convention's obligations and to promote the development, implementation, and assessment of strategies, plans and programs, as well as the policies, legislation and other measures for the fulfillment of the Convention's obligations[36]. It comprises representatives from 16 government ministries.

This Commission has enabled the convergence of different government sectors for discussion and articulation of strategies related to all topics included in the Framework Convention. It allows different technical areas of the government to study, discuss and propose actions whose results depend on synergies arising from actions performed by different sectors of the government, such as health, education, communication, economy, agriculture, agrarian development, work and employment, industry and commerce, gender, chemical dependence, justice, planning, environment, and foreign affairs, among others.

CONICQ's performance in defending the ratification of this treaty by the National Congress was key to deconstructing the tobacco industry's opposing lobby efforts to Brazilian parliamentarians.

In November 2005, Brazil's adherence to the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) was ratified by the National Congress. In January 2006, it was proclaimed by the President[37 38].

> Since the ratification of the FCTC by the National Congress, and its promulgation by the President, the national implementation of this international treaty has gained the status of State Policy - the National Tobacco Control Policy. The FCTC measures become the guide for actions and commitments to be fulfilled by the Brazilian State from the perspective of its development policy.

1.4.1.2 Current Objectives of the National Tobacco Control Policy

One of the most important achievements in tobacco control in Brazil was the conversion of the NTCP, which was restricted to the health sector, into an intersectorial State Policy - the National Tobacco Control Policy - with the involvement of different sectors of government, working together to make their programs and policies converge and achieve the objectives of the FCTC.

Today, the role of the NTCP is to develop the FCTC measures, which fall under the SUS. Besides this program, other programs and activities associated with the National Tobacco Control Policy include: Regulation of Tobacco Products Policy, which is a specific function of the *Agência Nacional de Vigilância Sanitária* (ANVISA); the National Production Diversification of Tobacco Cultivated Areas, from the Ministry of Agrarian Development; and the Policy of Prices and Taxes on Tobacco Industry, headed by the Finance Ministry, among other programs and policies.

The main objective of the National Tobacco Control Policy is to implement, at the national level, the obligations assumed by Brazil as a State-Party of the FCTC, and to cooperate with other countries and international organizations in order to achieve its goals. The policy guidelines follow the guiding principles of the FCTC and its general obligations.

The National Tobacco Control Policy's goal is to improve the population's health and strengthen the mechanisms of social protection for small farmers who cultivate tobacco, consolidating family agriculture and contributing to the promotion of sustainable development. Likewise, it joins with national efforts to reduce national inequalities and to achieve macroeconomic balance, recovery and sustainable growth, income distribution and generation of employment. In environmental terms, the National Tobacco Control Policy cooperates to increase productivity and decrease external vulnerability, as well as management and improvement of the quality of the environment, by promoting the preservation and sustainable use of national resources and environmental education.

Lastly, the National Tobacco Control Policy supports initiatives to combat corruption, promote national interests and intensify Brazil's commitment to a culture of peace, solidarity and human rights in the international arena.

1.4.1.3 Tobacco Control Political Governance

The governance structure of the National Tobacco Control Policy has two dimensions: an intersectorial dimension, through which the health sector works together with all government sectors who share responsibility for implementation of the FCTC measures; and a sectorial dimension, where the National Tobacco Control Policy actions are implemented through existing programs under the National Health Policy.

In the intersectorial dimension, governance is through CONICQ, consisting of the following Ministries and Presidential Secretariats: Health, Education, Agriculture, Livestock and Supply, Agricultural Development, Justice, Finance, Science and Technology, Labor and Employment, Communications, Foreign Affairs, Environmental, Civil, Planning and Budget, Office of Drug Policy, Special Secretariat of Policies for Women, and the Ministry of Development, Industry and Foreign Trade. The Minister of Health is the chair of this Commission, and the *Instituto Nacional de Câncer* (INCA) serves as the Executive Secretariat.

In the health sector, the following institutions are involved:

***Instituto Nacional de Câncer* (INCA)** – A body of the Ministry of Health created in 1937. Since 1989, it has coordinated the NTCP actions and is also CONICQ's Executive Secretariat, in charge of mediating the internal implementation of the FCTC into the National Health Policy. It monitors the implementation of the National Tobacco Control Policy, and coordinates and mediates the implementation of changes in direction and/or strengthening. It acts in partnership with other areas of the Ministry of Health, promoting crosscutting issues in the different strategic health agendas (family's health, women's health, children' and teenager's health, workers' health. etc.).

***Secretaria de Vigilância em Saúde* (SVS)** – In 2003, when it was created, the SVS started collaborating with the NTCP to construct a tobacco epidemiologic surveillance system, making it possible to follow prevalence trends in Brazil.

***Agência Nacional de Vigilância Sanitária* (Anvisa)** – Created in 1999 to coordinate the *Sistema Nacional de Vigilância Sanitária* (SNVS), its role is to coordinate the health surveillance national network of states and municipalities by assuring compliance with the laws related to tobacco control.

***Secretaria de Gestão Estratégica e Participativa* (SGEP)** – In 2001, with the creation of a quitting smoking hotline, an important partnership was established with INCA as the coordinator of the National Tobacco Control Policy. Through this secretariat, the National Tobacco Control Policy interacts with the *Conselho Nacional de Saúde* (CNS), the SUS's jurisdiction for social participation.

***Secretaria de Atenção à Saúde* (SAS)**– Partnership with SAS is mainly through internal implementation of smoking control activities in primary care and managing smoking cessation treatment interventions, through

the SUS. It carries out smoking control by approaching specific groups concerned with women's health, children's and teenager's health, and family health, among others.

Secretaria de Ciência, Tecnologia e Insumos Estratégicos **(SCTIE)** – In 2004, with the structuring of the smoking cessation treatment in SUS, the relationship of the NTCP with the *Departamento de Assistência Farmaceutica*/SCTIE was strengthened in terms of planning, acquiring and distributing inputs for tobacco dependence treatment to municipalities.

Assessoria de Comunicação Social **(ASCOM)** – The partnership between the NTCP and the social communication offices of the Ministry of Health and INCA has been critical to the development of campaigns and other communication activities through the mass media. More recently, links were strengthened with the social communication departments of state health departments and other governmental areas integrated with CONICQ.

Assessoria Parlamentar do Ministério da Saúde – Via partnerships with this body, it became possible to interact and negotiate with legislative bodies in a coordinated way and mediate the passage of laws favorable to strengthening the National Tobacco Control Policy.

CONASS and CONASEMS – The *Conselho Nacional de Secretários Estaduais de Saúde* (CONASS) and the *Conselho Nacional de Secretários Municipais de Saúde* (CONASEMS) have been great partners of the National Tobacco Control Policy, in the promotion of smoking control on the SUS's agenda and at the state and municipal levels. Sharing of activities about smoking control at these two councils have been fundamental to this end.

Comitê Gestor da Promoção da Saúde - Created in June 2008[39], it articulates and integrates health promotion activities within the scope of the SUS. It gathers together all the secretariats of the Ministry of Health, its foundations, agencies and the *Conselho Nacional de Secretários Municipais de Saúde* (CONASEMS) and the Conselhos Nacionais de Secretários Estaduais de Saúde (CONASS).

Agência Nacional de Saúde Suplementar **(ANS)** – Incorporates smoking control activities, such as smoking cessation, into health insurance plans.

Organized Civil Society: The National Tobacco Control Policy has partnerships with several representatives of civil society, among which it is worth emphasizing the *Aliança de Controle do Tabagismo* (ACT), for being completely dedicated to this issue. It has assembled over 400 other organizations and representatives of different interests, including those committed to sustainable rural development, gender, environment, education and judicial power. Other important partners include the Brazilian Societies of Pulmonology, Cardiology, Clinical Oncology and Dentistry, besides the AMB and the *Conselho Federal de Medicina*.

1.4.2 National Legislation

Since 1986, several legislative measures have been implemented in Brazil involving tobacco control (see Annex 1).

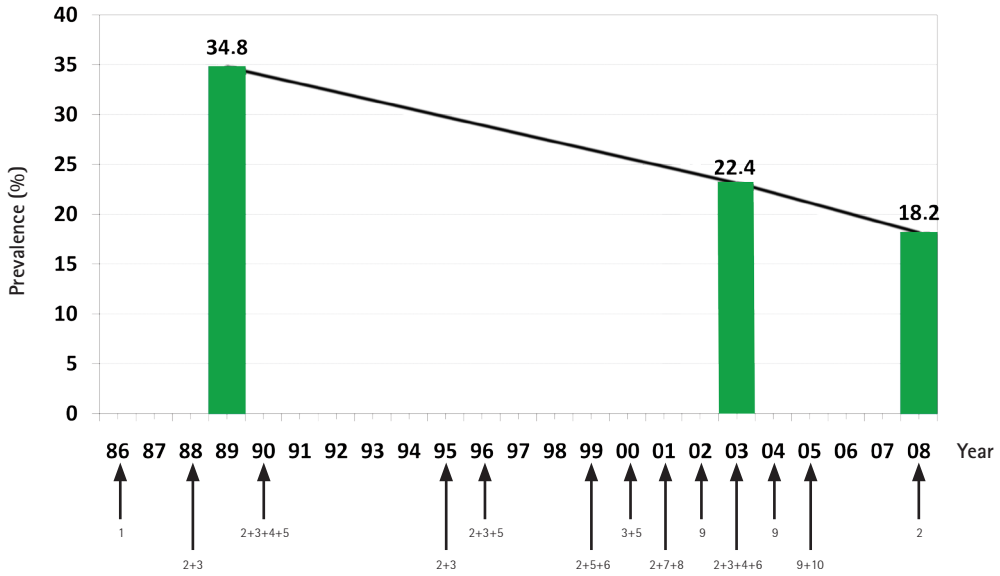
Ever since the 80s, measures supported in legal ministerial guidelines, presidential decrees and laws approved at the National Congress have been supporting tobacco control efforts in Brazil. The prohibition of advertising of tobacco products was established for all kinds of media, along with the implementation of warnings on cigarette packages and restriction of tobacco smoke exposure in public places. However, there was still a need for a governmental body with authority to inspect and control the entire legislative framework in force.

In 1999, through Federal Law No. 9,782, the *Agência Nacional de Vigilância Sanitária* (Anvisa) was created and, for the first time, tobacco products were included in the group of products under health surveillance. In 2000, the *Gerência de Produtos Fumígenos*, later named *Gerência de Produtos Derivados do Tabaco*, was created to deal with this new and previously unfamiliar issue in the field of health surveillance.

Until late 2005, Anvisa's activities were restricted to the collection of information given by the tobacco industry, which included the use of health warnings. When the FCTC was ratified, Anvisa started participating in several international events, such as meetings of the Tobacco Laboratory Network (TobLabNet) of the World Health Organization, as well as sessions of the Conference of the Parties and its preliminary activities.

Through the *Sistema Nacional de Vigilância Sanitária* (SNVS), results obtained from GATS Brazil have helped direct the inspection of tobacco products by region, state and municipality. Thus, it is expected that an instrument like GATS Brazil will not only generate data to allow for a national assessment of activities related to tobacco consumption in Brazil, but will also help identify needs and harmonize inspection activities in a country as large as Brazil, as long as the survey allows stratification by region, state and municipality.

Figure 1.3 shows the chronology of some tobacco control activities implemented between 1986 and 2008 which may have contributed for the almost 48% decrease in smoking prevalence over the last 19 years in Brazil.



Labels

1 Starting of annual tobacco control campaigns
2 Use of health warnings into tobacco products
3 Advertisement restrictions
4 Prohibition to sale tobacco products to minors
5 Prohibition to smoke in specific places
6 Creation of Interministerial commission on tobacco control
7 Prohibition of brand descriptors: light, ultralight, mild and similars
8 Quit line numbers on cigarette packs
9 Smoking cessation treatment
10 Brazil's Framework Convention on Tobacco Control ratification

Figure 1.3 Smoking prevalence among adults aged 18 years or older and National tobacco control strategies implemented between 1986 to 2008.

Note: Adapted from Figueiredo CV. Um panorama do tabagismo em 16 Capitais e Distrito Federal: tendências e heterogeneidades. [Tese de Doutorado]. Rio de Janeiro: Instituto de Medicina Social; 2007.

1.5 Civil Society's Participation in Tobacco Use Control

The active participation of the population, through the full exercise of citizenship, can go far to help change paradigms and develop public policies related to tobacco products. Working through civil society networks contributed to the growing awareness of the harms associated with smoking and the adoption of efficient measures to prevent tobacco use and protect the Brazilian population's health.

The role of organized civil society in tobacco control activities related to prevention, protection and smoking cessation is widely recognized. The international experience demonstrates that the most efficient and sustainable long-term tobacco control programs require the active engagement and participation of civil society. The Framework Convention on Tobacco Control itself regards this as one of its seven guiding principles.

Even though awareness among general population about smoking is high in Brazil (as demonstrated by survey results and in the visible decrease in smoking's social acceptance), the smoking control community has begun to face some challenges. Smoking control is often mentioned as a successful example of an effective regulation, which should be followed by alcohol control and even by control of advertising seen by children. There seems to be a general belief that the smoking problem has already been solved and, therefore, no longer deserves so much attention on the public health agenda. Another difficulty is the chronic character of the problem; since the deleterious effects of smoking are slow and sparse, the adoption of efficient measures to counter them does not seem to be an urgent matter and could be postponed or replaced by more urgent health issues.

Another challenge inherent to the success of measures adopted so far is the resistance of the tobacco industry and its allies. At times, they are successful in weakening arguments for merits of the policies and seduce some less-informed intellectuals, newspaper writers and opinion makers, who then end up confusing the anti-tobacco movement with an "anti-smoker" campaign, as if the target of the adopted policies were smokers.

Partnership with organized civil society proves to be ever more necessary for the mobilization and maintenance of initiatives of public interest[40]. The autonomous participation of civil society organizations contributes to the conception and management of public policies and the construction of new democratic representation structures. Some smoking control activities were actually conceived by representatives of civil society, allowing the movement to reach the level it is at today, even though there are still many measures that still need be taken.

In 2000, the Ministry of Health forwarded to the National Congress the Law Project (LP) No. 3,156, restricting advertising of cigarettes and other tobacco products. It prohibited advertising of tobacco products on television, radio, newspapers, magazines, billboards, and posters, as well as sponsoring cultural and sportive activities. The use of posters would only be allowed at cigarette sales venues.

Then INCA created a network of medical, health, scientific, research and judicial societies, non-governmental organizations, coordinators of smoking control programs, companies, schools and universities in order to sensitize parliamentarians about the need to restrict advertising.

Despite heavy opposition from the tobacco industry and representatives of advertising agencies and regulatory councils, the opinion of civil society was that advertising tobacco products influenced consumption, especially among young people. LP No. 3,156 was approved, and transformed into law No. 10,167/2000, which amended law No. 9,294/1996.

Recognizing the importance of civil society's voice for approval of tobacco use control measures and laws, INCA held a Social Mobilization Forum called "For a World without Tobacco", which aimed at engaging organized civil society in favor of smoking control. It was at this time that the partnership with the Human Development Network (Redeh) began, through an agreement with the *Instituto Nacional de Câncer*, in a project called "*Prevention: the Path to Health*".

During this same period, the World Health Organization started promoting public meetings in Geneva to discuss the possible creation of a global tobacco control treaty. Redeh participated in these meetings, which were followed by negotiations for what would become the Framework Convention on Tobacco Control (FCTC).

In 2003, in an effort to form a network interchange for tobacco control measures in Brazil to strengthen the engagement of civil society, representatives of non-governmental and governmental organizations from several states gathered in São Paulo, and created the *Rede Tabaco Zero* (RTZ), with support from the Canadian International Development Agency (CIDA).

The first objective of RTZ was to work for ratification of the Framework Convention on Tobacco Control. With over 100 organizations from different sectors and Redeh as the executive secretariat, RTZ started working to disseminate knowledge about smoking issues, the treaty, and the importance of its ratification for Brazil.

In late 2005, despite opposition pressure, the Framework Convention on Tobacco Control was ratified. Now it was time to ensure its implementation. In mid 2006, international strategic planning for civil society participation in tobacco control, which was initiated when RTZ was created, became a project financed by the Canadian International Development Agency.

In late 2006, the Bloomberg Initiative to Reduce Tobacco Use, presided over by the mayor of New York City, Michael Bloomberg, launched a program of financial support to governmental and non-governmental organizations presenting projects to reduce tobacco consumption. It was thanks to these funds that the RTZ was officially established as a non-governmental organization in Brazil and became known as *Aliança de Controle do Tabagismo* (ACT). Currently, it brings together entities from different sectors (health, environment, gender, education, human rights), and scientific and activist communities sensitive to the need for tobacco control.

The mission of ACT is to monitor implementation of and compliance with the measures and protocols recognized by the FCTC, develop smoking control capacity in the five regions of the country, and promote and support a network of organizations committed to smoking control and correlated activities.

To complete its mission, ACT aims to consolidate the network in order to strengthen the role of organized civil society in the process of elaboration and implementation of public policies. For this to be feasible, activities are planned to inform and mobilize the population, in addition to creating and carrying out effective tobacco control public policies.

Among initiatives carried out by the ACT, are the following:

1. Monitoring implementation of the FCTC in Brazil;
2. conception, development and disclosure of public opinion surveys on secondhand smoke;
3. campaign for smoke-free enclosed spaces;
4. campaign for the prohibition of tobacco products advertising;
5. advocacy to municipal, state and federal authorities and politicians to discuss the implementation of the FCTC and the legislation related to this issue;
6. conduct research in national and international partnerships in search of knowledge;
7. development and disclosure of studies, as well as translation of texts and articles;
8. sensitization of the Judiciary;
9. sponsorship of seminars and meetings for capacity building, integration and mutual support among governmental and non-governmental organizations;
10. participation and follow up of the international negotiation meetings of the articles and protocols of the FCTC through its participation in the Framework Convention Alliance, comprising over 350 organizations from more than 100 countries, whose mission is to promote strong guidelines for the Framework Convention, as well as implementation in the national level.

2 OBJECTIVES OF THE SURVEY

The WHO identifies smoking as a risk factor to life to be combated with high priority, taking into account the high number of casualties associated with tobacco use worldwide. In this context, the WHO and the CDC conducted the Global Adult Tobacco Survey (GATS) in 14 countries.

The countries involved were Bangladesh, Brazil, China, Egypt, the Russian Federation, the Philippines, India, Mexico, Poland, Thailand, Turkey, Ukraine, Uruguay and Vietnam. The project also involved the CDC Foundation and the Johns Hopkins Bloomberg School of Public Health, with Bloomberg Philanthropies as the main financier.

In Brazil, the *Instituto Brasileiro de Geografia e Estatística* (IBGE) and the Ministry of Health, through the *Instituto Nacional de Câncer* (INCA), the *Secretaria de Vigilância em Saúde* (SVS) and the *Agência Nacional de Vigilância Sanitária* (Anvisa), formed a partnership in order to conduct a special survey embedded in the 2008 National Household Sample Survey (NHSS) concerning the topic. The GATS Brazil had two objectives: supporting national policies for tobacco control and enabling international comparability of the resulting statistics. The specific objectives were:

- Systematically monitoring tobacco use and other key indicators for tobacco control, on individuals 15 years of age or older, through regular periodical surveys, inserted in the country's surveillance system, with a regional and national scope, by gender and household residence.
- Monitoring the implementation of the FCTC in Brazil, as well as the strategies recommended by the MPOWER plan.

Thus, the technical teams of IBGE and INCA, under the guidance of the GATS International Technical Committee, carried out the GATS in Brazil, based on the internationally proposed methodology and covering use of tobacco products, cessation attempts, secondhand smoking, access to awareness campaigns about the risks of smoking and people's perception of these risks, as well as aspects related to the purchase of manufactured cigarettes.

3 METHODOLOGY

3.1 Studied Population

The target population of the GATS Brazil was individuals 15 years of age or older, living in private or collective households in the area comprehended by the NHSS, that is, the entire national territory.

People living in embassies, consulates and legations were excluded from the survey, as well as institutionalized people or those living in collective institutional households, such as soldiers in barracks or military facilities; inmates in prisons; residents in schools, orphanages, nursing homes, or hospitals; and religious people in convents or monasteries.

3.2 Sampling Plan

One of the main purposes of the sampling plan for the GATS Brazil was to enable estimates of the percentage of people with various characteristics related to tobacco consumption, both nationally and in each of the geographical regions. The investigation was carried out at households and the sampling plan employed was the same as in the NHSS, with an extra stage to select one resident aged 15 or older from each household.

An important distinction of GATS Brazil was a prohibition to interview by proxy, as opposed to the NHSS, which allows the information to be conveyed by another person living in the household. Due to this restriction, GATS Brazil was conducted in a sub sample of the NHSS household sample for the NHSS; in each household of this sub sample, one resident 15 years of age or older was selected to answer the GATS Brazil individual questionnaire.

The NHSS sampling plan consisted of a probabilistic household sample obtained in three selection stages: primary units (municipalities); secondary units (census tract); and tertiary (households, including private households and housing units in collective households). Selection of the primary and secondary units was based on the territorial divisions and the census tracts used for the 2000 Demographic Census (details in Annex 2).

In the first stage, the primary units (municipalities) were classified into two categories: self-representative (probability 1 of belonging to the sample) and non-self-representative. The municipalities belonging to the second category went through a process of stratification and, in each stratum, two municipalities were selected, with replacement and probability of selection proportional to the size of the resident population obtained in the 2000 Demographic Census.

In the second stage, the secondary units (census tracts) were selected in each municipality of the sample, also with proportional probability and replacement, and the number of households existing when the 2000 Demographic Census was carried as a size measure.

In the third stage, private households and housing units in collective households were selected, with equi-probability, from each census tract of the sample, for investigation of the characteristics of the residents and residence. The rural areas of *Rondônia, Acre, Amazonas, Roraima, Pará* and *Amapá* were included in 2004, according to the methodology used in municipalities already selected in the first stage of the selection process. The rural sectors were selected with the same methodology as the urban sectors and the same sampling fraction used for the urban sectors was maintained. As direct application of this sampling fraction would result in a greater quantity of units to be selected in some municipalities, without an equivalent benefit in the accuracy level of the estimates, varied sub-sampling factors were adopted for those municipalities.

In the fourth stage, a resident 15 years of age or older was selected from each household of the GATS Brazil sample, with equiprobability, for investigation of the characteristics related to tobacco use. The selection process was carried out using a randomization table.

The GATS Brazil sample corresponded to 1/3 of the households and housing units in collective households selected for the NHSS. The size of the sample (Annex 2) was defined by taking into account the goal of obtaining estimates of the percentage of people with certain characteristics related to tobacco consumption, nationally and in each of the geographical regions.

Considering a non-response rate of 20% (which included empty and destroyed households, refusal and incomplete interviews), a sampling size of 50,000 individuals was established, which represented selection of approximately one household for every three in the NHSS sample (Table A.I). All in all, 39,425 interviews were conducted, 33,680 in the urban areas and 5,745 in the rural areas (Table A.2).

For more details of the sampling plan and sampling errors, see Annex 2 and Annex 3, respectively.

3.3 Questionnaire

The GATS Brazil questionnaire comprised two instruments: a household and an individual questionnaire. Each had a basic set of questions that applied to all countries participating in the survey. The questionnaires were developed by a committee of international specialists and revised by the Executive Committee of the survey in Brazil, so as to adapt it to the country's reality and needs (Annex 4).

The household questionnaire provided information about the household residents and identified individuals suitable for the survey. The individual questionnaire contained eight sections: socio-demographic characteristics, smoked tobacco, smokeless tobacco, cessation, secondhand exposure to tobacco smoke, economics, media and knowledge.

For Brazil, some changes were made in the original questionnaire proposed by the GATS International Committee. The household questionnaire was changed to adapt itself to the process and the logistics used in the NHSS. In the individual one, changes were made to comply with the following aspects: (a) adaptation of the questions to the socio-demographic characteristics of the informants, reflecting the reality of the country and matching the format of the questionnaire used in the NHSS; (b) inclusion of new questions to obtain data similar to that obtained in previous surveys about smoking carried out in Brazil, assessing the smoking control measures developed and supporting tobacco control policies and actions in the country; (c) exclusion of some questions about smokeless tobacco, since wide-ranging surveys previously carried out in the country showed that the size of this group of users was very small.

The questions about tobacco in the individual questionnaire were applied at the end of the NHSS interviews.

After revision of the questionnaire, a pretest was carried out. Recommendations given during the pretest and approved by the GATS International Committee were incorporated into the final version of the GATS Brazil questionnaire.

3.3.1 Electronic Collection Instrument and Data Insertion Quality Control Application

For the GATS Brazil data collection, Personal Digital Assistants (PDA)* were used. The information collected by the interviewer was stored directly in the PDA, thus eliminating the typing stage and avoiding errors related

* *Electronic organizer or handheld computer with built-in agenda, calendar, tasks, and in some cases, other applications similar to those of a personal computer, such as spreadsheets, word processing, access to e-mails etc.*

to the skip standards. Communication between the PDA and the microcomputer enabled the data to be transferred from one environment to another, using the Microsoft ActiveSync program.

Over the course of the survey, the information collected was sent, via IBGE network, from the State Units to IBGE's Central Database, where it was consolidated.

An application was developed that would only register valid values with the correct flow of questions, to ensure the continuity of the interview. In order to alert the interviewer, the system sent messages informing that registered information differed from the combination of answers. These alerts could be simple warnings, confirmed or not by the interviewer, or impossibilities blocking the continuity of the interview.

3.4 Pretest

In 2008, a GATS Brazil pretest was carried out with the objectives of a) evaluating the applicability of the questionnaire in Brazil in terms of clarity in the questions, logical flow or sequence of questions and appropriateness of the answer categories; b) determining the adherence and motivation of the interviewed person when he/she was answering the questions; c) establishing the average duration of an interview, and d) testing the performance of the electronic questionnaire.

The pretest fieldwork was carried out in the municipalities of *Macaé* and *Rio de Janeiro*, in the state of *Rio de Janeiro*. A qualification training course was offered for the interviewers and the technical team in April 2008. The pretest, conducted in the same month, lasted 10 days. This fieldwork involved 26 interviewers, who tested the questionnaire using the PDA, in a sample of 419 households, with individuals stratified by gender, smoking status, and age group. In total, 618 interviews were conducted, 563 in urban areas and 55 in rural areas. Overall, 288 men and 330 women were interviewed. Regarding the status of the smoker, at the time of the interview, 172 said they were current smokers, 80 said they were former smokers and 366 said they were non-smokers (Table 3.1).

Table 3.1 Distribution of respondents in the survey pretest by smoking status, age, place of residence and gender

	Smokers				Former smokers				Never smoker			
	Age Groups (years)				Age Groups (years)				Age Groups (years)			
	15 to 29	30 to 49	50 or +	Total	15 to 29	30 to 49	50 or +	Total	15 to 29	30 to 49	50 or +	Total
Urban area												
Male	26	41	8	75	2	8	16	26	38	82	46	166
Female	27	42	8	77	3	9	19	31	43	93	52	188
Total	53	83	16	152	5	17	35	57	81	175	98	354
Rural area												
Male	2	5	1	8	0	1	7	8	1	1	3	5
Female	2	8	2	12	2	4	9	15	2	1	4	7
Total	4	13	3	20	2	5	16	23	3	2	7	12
Both areas												
Male	28	46	9	83	2	9	23	34	39	83	49	171
Female	29	50	10	89	5	13	28	46	45	94	56	195
Total	57	96	19	172	7	22	51	80	84	177	105	366

Source: IBGE, 2008

In *Macaé*, after the interviewers conducted their interviews, they met with a team located near the selected household and reported in detail what had happened during the interview, pointing out the questions that

had been easily understood and those that presented difficulties when asked. In *Rio de Janeiro*, due to the distances, the interviewers went to the field and returned two days later to report the problems they found to the team that was following the test in *Rio de Janeiro*. At the end of the test, there was a meeting to consolidate all the findings.

3.5 Data Collection

3.5.1 Implementing Agency

The IBGE, a public foundation linked to the Ministry of Planning, Budget and Management, was the agency responsible for conducting the survey in Brazil. It acted as executor and supervisor, ensuring the realization of high quality standards at all stages of the survey.

The *Fundação Instituto Brasileiro de Geografia e Estatística* (IBGE) was founded on February 13th, 1967, for an undetermined duration, with its headquarters in *Rio de Janeiro*, it is ruled by Law No. 5,878, of May 11th 1973, and by its Bylaws and other applicable provisions.

The IBGE Foundation's mission is to describe Brazil, providing the necessary information to understand the country's reality and to promote citizenship through the production, analysis, research and dissemination of information of a statistical (demographic and socio-economic) and geo-scientific (geographic, cartographic, geodesic and environmental) nature.

The IBGE as the country's official body of research, conducts decennial censuses and quick population counts in the periods between the censuses, in addition to monthly, quarterly, semi-annual and annual surveys in the following areas: cattle raising, economy, geosciences, geography, cartography, commerce, industry, social indicators, work and revenue, gross domestic product, prices and natural resources. The complete list of surveys carried out by this entity is available at: http://www.ibge.gov.br/home/estatistica/pesquisas/default.shtm.

3.5.2 Field Training and Formation of the Data Collection Team

The GATS Brazil data collection was supported by the same structure the IBGE used in the NHSS. In each of the 27 states, there was a regional team responsible for data collection and decentralized examination of the survey data. Each team had a regional coordinator, supervisors, interviewers, administrative and informatics support. The number of supervisors and interviewers depended on the number of households selected in each of the federal states. For the NHSS, each interviewer was responsible for approximately 25 households a week or 100 households a month. The 2008 NHSS field team had 27 coordinators, 349 supervisors and 2,180 interviewers.

The training was held in two stages. In the first, the representatives of the state offices met with the technical teams of the IBGE, the GATS executive committee, the PAHO/WHO and the CDC Foundation in *Bento Gonçalves*, state of *Rio Grande do Sul*, for the central training. This was in August 2008, with a duration of one week and 220 participants.

Afterwards, the trained technical staff replicated the training in their respective states with the local teams and with the support of the central team. This stage involved 2,673 professionals.

A dynamic system for the qualification of the field teams was implemented to ensure the quality of the data collection. The main goals were:

- Expanding the knowledge of the teams concerning the objectives and conceptual aspects of the survey.
- Ensuring quality in the registration stage of the units in the selected census tract and in the data collection.

- Optimizing management of the fieldwork.
- Offering techniques that ensured greater ease in approaching the informants*.
- Developing awareness about the confidentiality of the information collected.
- Noting that the law compels citizens to provide the IBGE with information, but pointing out that there are other resources that must precede mentioning the law when attempting to conduct an interview**.

The training consisted of the preparation of the field teams to carry out the listing and interview operations, and was divided into:

- Sessions on the general aspects of the survey.
- Instructions about the basic concepts and definitions.
- Group study sessions, followed by debates and presentations.
- Exercise sessions.
- Simulated interview sessions
- Fieldwork practice.
- Practical exercises about revision, sedimentation and application of the concepts.
- Didactic and pedagogical practices.
- Group dynamics seeking integration.
- Instructions for the use of the PDA.
- Instructions for the use of the NHSS system on the intranet.
- Instructions related to the supervision stage.
- Sessions of information about the use of the survey for the application of public policies.
- Seminars with several topics related to the fieldwork.
- Final assessment of the information, i.e., verification carried out at the end of each training session, to determine whether the trainee was prepared to act as a survey interviewer.

3.5.3 Data Collection and Storage Methods

The fieldwork was divided into two operations: listing of the census tract and direct interviews. In both operations, the information was collected with the help of a PDA.

The listing entailed the registration and classification of the type of all residential and non-residential units existing in the census tract selected for the survey sample. This procedure started three months before the interviews. The listing provided the framework for the selection of the sampling households.

The interview operation started on October 1st and lasted for three consecutive months. In the week before the interviews started, the interviewers received the PDAs, which had been previously loaded with the addresses of the households selected to participate in the survey by the supervisors.

Interviewers with no fieldwork experience were accompanied by supervisors in their first visits to the households. During the data collection, the supervisors monitored their work, re-interviewing, assessing the

* *There is currently in the Research Management at IBGE a Workshop Approach to Informant whose main objective is to develop techniques and ways to reduce the rates of non-response. Recently we developed a video approach to the informant. This video is used during training of the interviewers.*

** *All population surveys conducted by IBGE are regulated by Law No. 5,534, 1968, establishing the obligation of providing information requested by this entity to every person who is under the jurisdiction of Brazilian law. The information is confidential and can only be used exclusively for statistical purposes.*

procedures and all the work involving the data collection and work production template. In GATS Brazil specifically, all households were checked by the supervisors.

Interviewers were requested, to the extent possible, to return to the office to upload their complete interviews to the database for integrity assessment by the supervisors, who codified the descriptions of the residents' occupations and activities.

After the codification, the process of decentralized criticism started (in the regional units). The central unit received information about the conclusions and started a centralized process of analyzing the consistency of the information.

Interviews were conducted personally and interviewers registered all the answers in the PDA, following the natural sequence of the questionnaire.

The GATS Brazil interviews could only be carried out with the selected individuals. If that individual was not present at the time of the first visit, a preliminary appointment was made, which could be done by phone, for a return to the household to conduct the interview. The interviewer was instructed to try at least three times to complete the questionnaire before classifying the interview as incomplete.

In some cases, additional groups advised by a supervisor were created to conduct interviews that had not yet been completed. The objective was to reduce the number of lost household interview opportunities to a minimum.

In addition to the application developed to maintain the quality of data insertion, ensure consistency of the data collected and to reduce input rates, a quality control system covering the following items was implemented:

- Reports of qualitative, quantitative and managerial monitoring.
- Managerial meetings with the fieldwork teams.
- Technical visits (visits to the state units by technical staff of the central unit).
- Field interview checking system (stage of the re-interview conducted).
- Critique Forum (intranet-based forum that allowed the field teams to clear up doubts, give suggestions etc.).
- Insertion of consistent criticism in the PDA.

3.5.4 Language

All interviews were conducted in Portuguese, the official language of the country.

3.5.5 Ethical Aspects

The IBGE complies with the norms proposed by the United Nations Statistics Commission, abiding by the principles of impartiality, equal access, maintenance of professional and ethical standards, responsibility and transparency, prevention against data misuse, efficiency and confidentiality.

For this reason, the IBGE is exempt from submitting all its surveys to the National Ethics Committee and is not obliged to obtain Informed Consent from the individuals interviewed. However, all the individuals participating in the GATS Brazil were assured that the information obtained during the interview was only for research reasons and would not be used for any other purpose, and that identification data, such as name and address, would never be associated with the interviewee's answers.

3.6 Statistical Analysis

3.6.1 Method Used for Calculating the Standard Error

The expansion of the NHSS sample used ratio estimators whose independent variable was the projected resident population of each federal state, according to the type of area (metropolitan region and the rest of the federal state; rural and urban areas and the combination of these two subdivisions in *Pará*). These projections considered population growth since the last Demographic Census based on growth hypotheses associated with fecundity, mortality and migration rates.

In the definition of the GATS Brazil expansion factors, selection proportional to 1/3 in the third stage and selection of one resident 15 years of age or older in the fourth stage were also considered, as well as a correction for the cases in which this resident did not answer the questions. Additionally, the GATS Brazil weighting factors were adjusted so that the population estimates by gender would correspond to the NHSS total population by gender estimated from the whole sample, in each of the geographical regions. Details about the calculation of the sample expansion factors are presented in Annex 2.

Considering the expansion process adopted by the NHSS and the GATS Brazil, it is worth emphasizing that the level of precision is strongly linked to the hypotheses made for the fecundity, mortality and migration rates. The calculation of the sampling error should, therefore, take two sources of variation into account: the sampling error deriving from the selection of units for the sample and the error derived from the mathematical model employed to estimate the population. For the GATS Brazil, only the sampling errors deriving from the selection of units for the sample were calculated.

The calculations of the expansion factors and the estimates were made by using the SAS software*. The sampling errors were calculated with the software SUDAAN**. The details of the sampling errors are described in Annex 3.

3.6.2 Criticism and Imputing Methods

The process of statistical imputing is the procedure through which values are assigned to one or more variables of a register in a database, according to certain criticism rules. Therefore, it is possible to divide it into two stages: criticism and imputing.

The criticism stage aims to identify variables unanswered by the person interviewed or variables in which the individual gave information that was inconsistent with that provided by other people or with other variables he/she had answered.

The statistical imputing process is an appropriate technique to solve the lack of an answer problem. The lack of an answer is one of the most common problems in surveys, either because of the difficulty in making contact with the informant or refusal of the interviewee to give the requested information.

Many may wonder why imputing was used instead of a code, such as "ignored", for the unanswered variable. This would not have been appropriate, since average imputing was, in fact, being implicitly considered; in other words, the distribution of the variable is assumed to be the same in the group of the respondents and the group of the non-respondents.

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* *SAS INSTITUTE INC. (1999). SAS Online Doc®. NC: SAS Institute Inc.*

** *SHAH, Babubhaiv V.; BARNWELL; B.G.; HUNT, P.N.; et. al. SUDAAN User's Manual - Professional Software for Survey Data Analysis for multi-stage sample designs - release 6.0. NC: Research Triangle Institute, 1992. 592 p.*

To avoid the distortion caused by average imputing (be it implicit or not), there are some imputing techniques which preserve the relationship between the variables of the database, such as statistical modeling, hot deck, closest neighbor (register) etc.

For the stage of criticism and imputing, the software used was CANCEIS*. This software was developed by Statistics Canada (STATSCAN) for the criticism and imputing stage of the 2001 Canadian demographic census. Further details about the CANCEIS are presented in Annex 5.

After the utilization of the CANCEIS for criticism and imputing, the imputing rate for each variable of the survey was assessed, which represented the total number of registers with values different from the null over the total number of registers inputted with answers different from null. Most variables presented very low imputing rates. Only 15 out of the 237 variables obtained imputing rates higher than 1%, indicating that the registers had a small number of inconsistent data.

* *CANCEIS Development Team. CANCEIS Version 4.5 User's Guide. Social Survey Methods Division, Statistics Canada, 2007.*

4 SAMPLE AND POPULATION CHARACTERISTICS

The population of the GATS Brazil sample presents a socio-demographic profile very similar to that of the population estimated by the 2008 National Household Sample Survey. Both had a slightly higher number of women than men, were mostly composed of adults, with an ages ranging from 25 to 44 years old, and had a mainly urban population (Table 4.1).

Table 4.1 Distribution of adults ≥ 15 years old, by selected socio-demographic characteristics. GATS Brazil 2008 and NHSS 2008.

Socio-demographic characteristics	Sample size		Expanded sample	
	Number	%	Number	%
Overall	**39 425**	**100.0**	**142 999**	**100.0**
Gender				
Male	18 039	45.8	68 538	47.9
Female	21 386	54.2	74 461	52.1
Age (years)				
15-24	7 539	19.1	33 063	23.1
25-44	17 093	43.4	56 452	39.5
45-64	10 239	26.0	38 613	27.0
65 or more	4 554	11.6	1 487	1.0
Place of residence				
Urban	33 680	85.4	121 281	84.8
Rural	5 745	14.6	21 718	15.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008

5 TOBACCO USE

The prevalence of tobacco use in Brazil (smoked and smokeless) found in the survey was 17.5% (22.0% among men and 13.3% among women). This proportion corresponded to around 25 million people.

Estimate of smoked tobacco prevalence and percentage of smokers in the country

Based on the GATS Brazil, it is estimated that, in 2008, 17.2% of the population aged 15 years or older were current smokers (24.6 million), 21.6% men (14.8 million) and 13.1% women (9.8 million) (Tables 5.1 and 5.2). Around 82% of the total number of smokers lived in urban areas (20.1 million) and 18% lived in rural areas (4.4 million) (Table 5.3).

Smoked tobacco use pattern

Among the 17.2% of current smokers, most used tobacco products daily (15.1%), whereas the percentage of occasional smokers was only 2.1%. This pattern was noticed in all regions of the country (Table 5.2). Most current smokers consumed cigarettes, the prevalence of the use of manufactured cigarettes being 14.4% and the prevalence of the use of hand-rolled cigarettes was 5.1%. The percentage of smokers of other tobacco products, such as cigars, pipes, *cigarillos*, Indian cigars and hookahs was low: 0.8% overall, 0.9% among men and 0.7% among women (Table 5.4). These rates, although much lower than those observed in cigarette consumption, represented approximately 600,000 men and 560,000 women, who were at risk of developing the same diseases related to cigarette consumption, with relatively higher risks for mouth cancer[41 42].

Smokeless tobacco use pattern

For the first time in Brazil, it was possible to estimate the percentage of smokeless tobacco users, such as snuff and chewing tobacco. The proportion of individuals who consumed this type of product was 0.4% overall (0.6% among men and 0.3% among women), which corresponded to 420,000 men and 200,000 women.

Smoking in rural areas

The GATS Brazil was the first national survey to allow for a more careful analysis of the magnitude and characteristics of smoking in rural areas. The percentage of smokers was higher in the rural areas (20.4%) compared to the urban areas (16.6%) (Table 5.4). Nevertheless, due to the high concentration of the population in the urban areas, the absolute number of smokers was considerably higher in the latter area.

In the rural areas, a higher proportion of straw or hand-rolled cigarette smokers was observed compared to the urban areas (13.8% versus 3.6%), as described in Table 5.4. The highest prevalence of smokeless tobacco users was also found in rural areas compared to urban areas (1.2% versus 0.3%).

Prevalence of cigarette consumption according to selected socio-demographic variables

The percentage of smokers increased progressively from the 15-24 year old group to the 45-64 years old group, but for those 65 years, there was a considerable decrease (Table 5.4). When the percentage of smokers was analyzed by gender and age (Figure 5.1), men consistently presented higher percentages than women in all age subgroups. For people under 25 years old, the difference between men and women was greater than for the 25-44 and the 45-64 age groups.

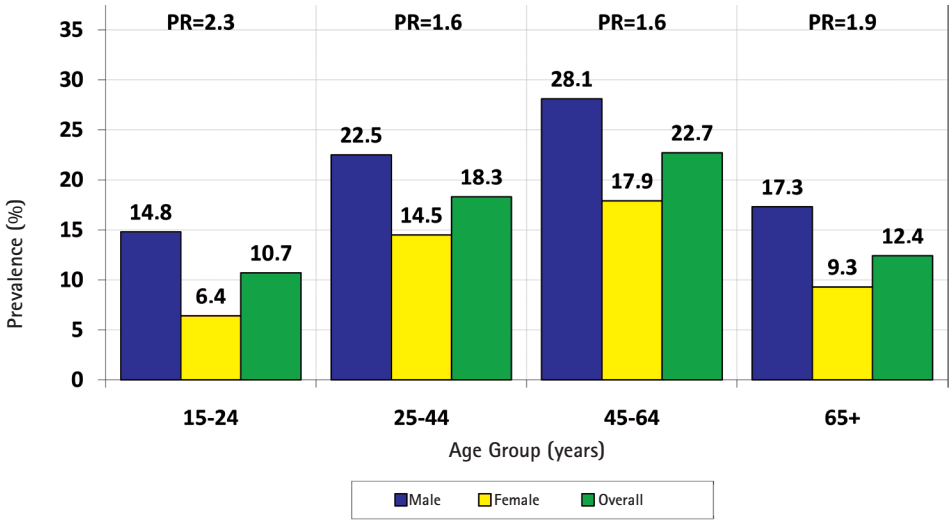

Figure 5.1 Prevalence and prevalence ratio (PR) of smokers by age and gender. GATS Brazil, 2008.

Smoking is a problem that reflects the social inequalities of the country: the percentage of smokers decreased with the increase in the number of years of schooling. Tobacco users with 11 or more years of education represented about half the percentage of tobacco users with none or less than a year of schooling. A similar inverse relationship was observed between smoking and income (Table 5.4). This relationship was maintained regardless of the type of tobacco smoked. Data on the prevalence of smokers by self-referred skin color indicated that this variable may also be understood as a social determinant, reflecting inequalities in the income and schooling levels of individuals and, consequently, their respective cigare tte consumption patterns. Higher smoking prevalence among population groups that are economically underprivileged is a trend in several countries and suggests the need for promotion of tobacco control policies targeted specifically to these subgroups. There is a clear need for a policies around cigarette prices and taxes and elimination of illegal markets, which are especially efficient in reducing cigarette consumption among the low-income population[30 43 44 45].

Initiation age

Among daily smokers and former daily smokers aged 20 to 34, the predominant initiation age was in the 17 to 19 range (Table 5.14).

Women started smoking earlier than men and the Northeastern and Midwestern Regions represented the highest proportion of individuals who started smoking before turning 15 (Table 5.14).

A factor that had a differential impact on initiation age was education level. Among daily or former daily smokers with none or less than a year of schooling, the proportion of individuals who started smoking before turning 15 years old was higher than for those with eight years of schooling or more.

Early initiation in tobacco use is an important prognostic factor for disease and must be combated. The earlier a person becomes dependent on tobacco, the higher the risk of premature death in the middle and older age groups. The difference of a few years in tobacco use initiation can increase the risk of health damages almost twofold.

Regional differences in the prevalence of current smokers

There were no significant differences among the proportions of current smokers in the Northern, Northeastern, Southeastern and Midwestern Regions. Only the Southern Region presented higher percentages compared to the others (Table 5.2). These findings are consistent with the results observed in other studies conducted in Brazil[22]. Tobacco production is concentrated mainly in the South, which possibly influences social, political and economic domains in terms of promoting tobacco acceptance and consumption.

The percentage of current smokers was higher among men, compared to women, in all the regions. Among women, there was a gradual increase in the prevalence of smoking of the Northern, Northeastern and Midwestern regions, towards levels in the Southeastern and Southern Regions. The latter presented the highest percentage of female smokers (Table 5.2), as has already been observed in other surveys over the last 20 years[20]. According to the model of Lopez and Collishaw[12], which proposes that cigarette consumption trends be described in stages, a possible hypothesis is that the tobacco epidemic started earlier in the Southern Region. Another hypothesis already mentioned is influence of the tobacco industry in that region, as well as the high concentration of European immigrants and their socio-cultural impact on the region's smoking behavior[46] . These factors could explain the earlier initiation in tobacco use and, consequently, the higher proportion of smokers observed in this region.

Nicotine dependence

Two questions included in the survey contributed independently to a better understanding of the nicotine dependence associated with cigarette consumption: average daily cigarette consumption and time interval between waking up and lighting the first cigarette. When these questions were analyzed conjointly through the Heaviness of Smoking Index[47], women, young people, individuals with low education and household income levels and the population living in rural areas and the Northern and Northeastern Regions appeared less likely to demonstrate elevated nicotine dependence, according to the dependence cut-off proposed by Chabrol *et al*[48] (Table 5.19, 5.20).

A higher percentage of young people of the Southern Region (age 15 to 24 years old) showed evidence of a high or very high nicotine dependence than this age group in other regions (statistically significant differences were observed in the comparison between the Southern and Northern regions and between Southern and Southeastern regions) (Figure 5.2). This finding shows the need for specific strategies focusing on the Southern Region to prevent initiation and encourage cessation. This population, as previously mentioned, is the most vulnerable to the regional tobacco industry's marketing strategies and, consequently, to "cultural normalization"[49], that is, the acceptance of tobacco consumption.

It is possible that lower dependence levels associated with living in rural areas, being less educated, erning less money and living in the Northern and Northeastern Regions may be associated with socio-economic issues, which would imply more restricted access to tobacco products (Table 5.19, 5.20).

Finally, it was noticed that, in rural areas, where daily cigarette consumption was lower and hand-rolled cigarettes prevailed, the time interval between waking up and lighting the first cigarette was as long as the one observed in the urban areas, suggesting a use pattern to be investigated in future surveys (Tables 5.4, 5.10, 5.17)

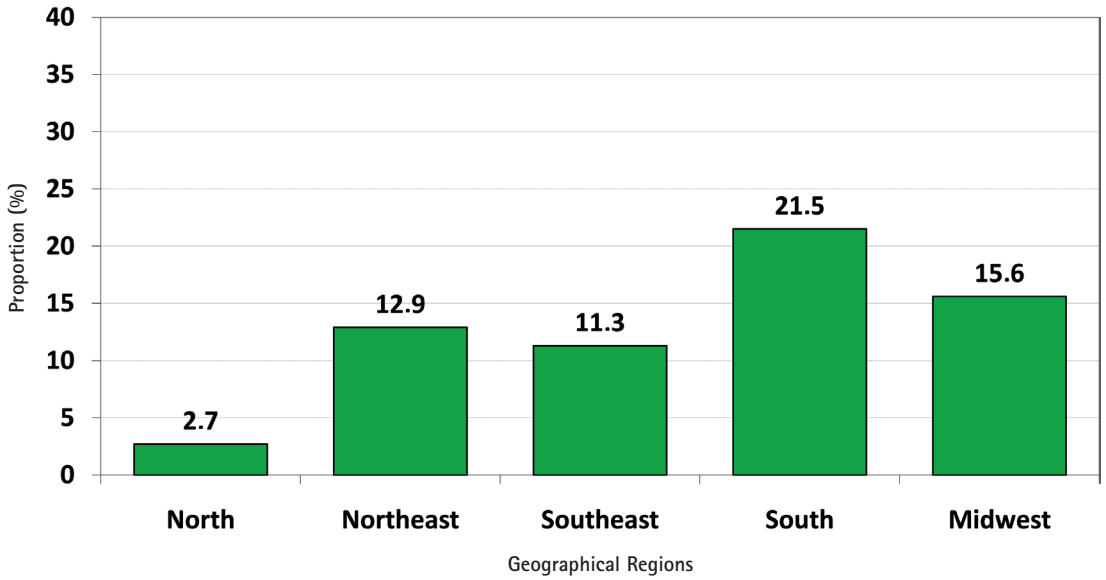

Figure 5.2 Proportion of young people (15-24 years old) with high and very high levels of nicotine dependence, by Geographical Region. GATS Brazil, 2008.

6 CESSATION

Items in the questionnaire about smoking cessation had four aspects: smoking quitting attempts, commitment of medical doctors and other health professionals to the smoking issue as a risk factor for disease, methods used for smoking cessation (counseling and pharmacotherapy), and information about the prevalence of former smokers and the cessation index.

Out of the total number of individuals 15 years of age or older who smoked, 45.6% had attempted to quit smoking in the previous 12 months, however women attempted to quit smoking more frequently than men (49.5% versus 43%) (Table 6.1). This difference was similar in all regions of the country, which suggests that women are more concerned about their health than men. Indeed, studies about gender differences in health care point out that, despite living longer than men, women suffer more morbidity and psychological problems and make use of health services more frequently than men [4 50 51 52 53 54 55].

Another important piece of information was that 58.8% of the population that smoked or had quit smoking for less than 12 months had gone to a medical doctor or health professional for some reason. Out of this total, 71% were asked whether they were smokers and 57.1% were advised to quit smoking. These numbers show that approximately 40% of medical doctors or health professionals do not give due importance to smoking as a disease and a risk factor for other diseases (Tables 6.2, 6.3, 6.4).

Sensitization and training of health professionals regarding smoking as a risk factor for about 50 diseases and as a disease in itself (nicotine dependence) is fundamental. An important strategy would be to include smoking and treatment in the medical school curriculum. Since smoking was only recently recognized by the WHO as a disease (1997)[56], several schools of medicine and other health areas still do not include it in this category. Consequently, students graduate without knowing how to recognize and treat tobacco dependency, in addition to not being trained to ask patients about tobacco use or recommend cessation.

Regarding the method used to quit smoking in the population studied, counseling and pharmacotherapy were highlighted. The results showed that 15.2% of smokers went through counseling and 6.7% used some form of pharmacotherapy. These percentages were higher among women, which seems to support the idea that women generally search out health services more frequently and try to quit smoking at higher rates than men (Table 6.5).

The information about young people from 15 to 24 years old deserves attention, since this age group had the lowest percentage of use of any support method for quitting smoking. Although this group went to medical doctors or health professionals the least (48.4%), it showed the same level of willingness to quit smoking as the adults (Tables 6.1 and 6.2). These combined data seem to demonstrate that there is a niche to be better explored for tobacco control action - specific strategies to support smoking cessation among young people who want to quit smoking.

As far as household residence and schooling levels were concerned, pharmacotherapy was more often used by the residents of urban areas and those with more years of education. The same trend was not seen for counseling, which did not present any significant statistical variation when analyzed (Table 6.5). This suggests that counseling reached the population as a whole in an equalitarian and democratic fashion.

Former smokers and cessation index

The proportion of former daily smokers was 14.1%, representing 20.1 million individuals aged 15 or older in the total population. Among ever daily smokers, 46.9% were former daily smokers. The proportion of former daily smokers was higher among men than among women (Table 6.7).

Regarding the time elapsed since the former daily smokers 15 years of age and older had quit smoking, 57.3% had quit for 10 years or more. This finding held for all demographic characteristics studied (Table 6.8).

The cessation index (CI), including all the current smokers (daily and occasional) and the former smokers, corresponded to:

$$CI = \frac{\text{former smokers}}{\text{former smokers + smokers}}$$

In Brazil, the cessation index was around 50%. The highest values were observed among women and residents of the Northern and Northeastern Regions. An inverse behavior, although not statistically significant, was observed in the Southern Region. As expected, the older the age group, the higher the cessation index (Table 6.10).

Measures adopted in Brazil through the National Tobacco Control Program (NTCP) to suppress smoking are meant increase smokers' motivation to quit. Thus, supporting smokers in smoking cessation becomes an important strategy in tobacco control and a citizens' right. The smoking treatment program in the SUS network is one of the most recent large-scale actions in the country.

However, in the context of a public health system in a country with a population as large as Brazil's, implementation of smoking treatment faces several challenges. In the Southern and Southeastern Regions, all states implemented treatment, whereas in all states in the Northern, Midwestern and Northeastern Regions, there is constant fluctuation in the number of municipalities offering assistance to smokers, as a consequence of instability in the conveyance of information or the level of organization of programs in these areas.

Despite the need to further stimulate smoking treatment in the health services network, it is important to note that the outstanding decrease in the prevalence of smokers observed in Brazil in the last 20 years was probably caused by a series of combined actions in the legislative, social and political arenas, which stimulated a social change in smoking behavior[49]. The data related to the cessation index point in this direction and are in accordance with data from the household survey on risk factors and reported morbidity for non-communicable diseases conducted from 2002 to 2004, in the main capital municipalities, where the authors mentioned that Brazil's tobacco use cessation index - around 50% - was higher than those observed in many other countries, including the United States[22].

7 SECONDHAND EXPOSURE TO TOBACCO SMOKE

Exposure of smokers and non-smokers to smoke from tobacco products is a relevant issue for health policies[57] [58]. The frequency of this exposure reflects the multidimensional relationship between the socio-cultural context, income availability, and access to places of exposure.

Workplace

Exposure to secondhand smoke in the workplace in Brazil was reported by 24.4% of respondents who worked in closed environments, representing around 12 million individuals in Brazil, out of which nine million were not smokers (Table 7.1).

Women, individuals under 65 years old, people with 11 or more years of education, and those who earned the equivalent of at least two minimum wages* represented the lowest rates of secondhand smoke exposure at work. Similar values were found in both the urban and the rural environments. (Table 7.1)

The high percentage of exposure to secondhand smoke causes much concern because it indicates lack of compliance to Federal Law No. 9294, which has prohibited smoking in enclosed collective spaces since 1996. The work environment potentially provides up to eight hours of daily exposure to workers who may have no options. As a consequence, secondhand smoke is now considered an occupational hazard[10].

Health care facilities

Exposure to secondhand smoke in health care facilities was reported by 4% of those surveyed, which represented around six million individuals, five million of whom were not smokers (Table 7.3). Even though this percentage was much lower than that reported for work environments, it still causes concern due to the incoherence of allowing such detrimental behavior in places that exist precisely to protect and care for people's health. The situation is even worse when the smoker is a health professional, who might be an important role model with great influence on the community he or she serves.

In contrast to the work environment, women (smokers and/or non-smokers) were more exposed to environmental tobacco smoke in health facilities than men (Table 7.3). This finding is consistent with previous studies showing that women use health services more frequently than men[4 50 51 52 53 54 55].

There were no differences in secondhand exposure to tobacco smoke in health facilities among individuals with different education or income levels (Table 7.3). A possible explanation for this finding is the fact that, in Brazil, the network of health care facilities provides universal access and supports a heterogeneous population from a socio-economic perspective[59]. However, the fact that 4% of individuals who may already have health problems are exposed to tobacco smoke in health facilities reinforces the seriousness of the secondhand smoke problem.

Finally, among non-smokers, those living in the Northern and Southern Regions were the least exposed to tobacco smoke in healthcare facilities (Table 7.3). Due to the fact that these regions have very distinct socio-demographic profiles[4], the possible causes of this finding can be very different. A recent survey found that access to health services in the Northern Region was the lowest in the country, whereas access was 50% more available in the Southern Region. The reasons behind lower exposure in Southern Region health units would, therefore, deserve more detailed study, reinforcing the multidimensional aspects of exposure to tobacco smoke in specific places.

* *Brazilian minimum wage= R$415,00 (US$ 219).*

Restaurants

Exposure to tobacco smoke in restaurants was reported by 9.9% of those surveyed, representing around 14 million individuals in Brazil, 12 million of whom were not smokers. The highest exposure percentages were observed among residents of the Southern and Southeastern Regions (Table 7.4). It is possible that the higher number of restaurants as well as greater attendance in these regions could partially explain this finding.

Women, individuals over 65 years old, individuals with less than 11 years of schooling, those who earned less than two minimum wages* and those living in rural areas reported the lowest exposure to secondhand smoking in restaurants (Table 7.4).

Public transportation

Exposure to secondhand smoke on public transportation was reported by 4.5% of those surveyed, which represented around 6.5 million individuals, of whom 5.5 million were non-smokers (Table 7.5). In Brazil, there is legislation prohibiting the use of smoked tobacco products on public transportation. These findings demonstrate that the law has not been universally complied with and point to a greater need for inspection and implementation of mechanisms that enable the population to denounce such transgressions. As a start, educational campaigns and activities need to emphasize the existence of this prohibition.

The lowest proportion of exposure to secondhand smoke on public transportation was reported among residents of the Southern Region. Overall, women, individuals over 65 years old, individuals with eight or more years of schooling and those who earned less than two minimum wages reported the highest exposure (Table 7.5).

Government buildings or offices

Exposure to secondhand smoke in government buildings or offices was reported by 3.6% of those surveyed, representing around five million individuals in Brazil, 4.3 million being non-smokers. There were no gender or regional differences (Table 7.6).

Comments on tobacco smoke secondhand exposure

Regarding general public places (not including the workplace), about one in every five individuals surveyed reported having been exposed to tobacco smoke in public places (26 million individuals in Brazil, 22 million being non-smokers) (Figure 7.1).

Men and women reported similar proportions of exposure to tobacco smoke in public places. Irrespective of smoking status, individuals 65 years of age or older, individuals living in rural areas, individuals with less than 11 years of schooling, and those with an income lower than two minimum wages were the least exposed to tobacco smoke.

Data from the survey regarding exposure to tobacco smoke point to an urgent need for Brazil to fully implement the recommendations contained in the Framework Convention on Tobacco Control, specifically Article 8, protection against exposure to secondhand smoke.

There is already massive popular support for prohibition of the use of tobacco products in public places in Brazil, as demonstrated by public opinion surveys, which show that even smokers support such measures. Because of flaws in the federal law, states and municipalities have passed a series of legislative acts to fully protect the population from secondhand exposure since this survey was conducted. Despite some legislation opposing the prohibitions, the movement appears to be progressive and its impact will probably been seen in the next GATS Brazil assessment.

* *Brazilian minimum wage= R$415,00 (US$ 219).*

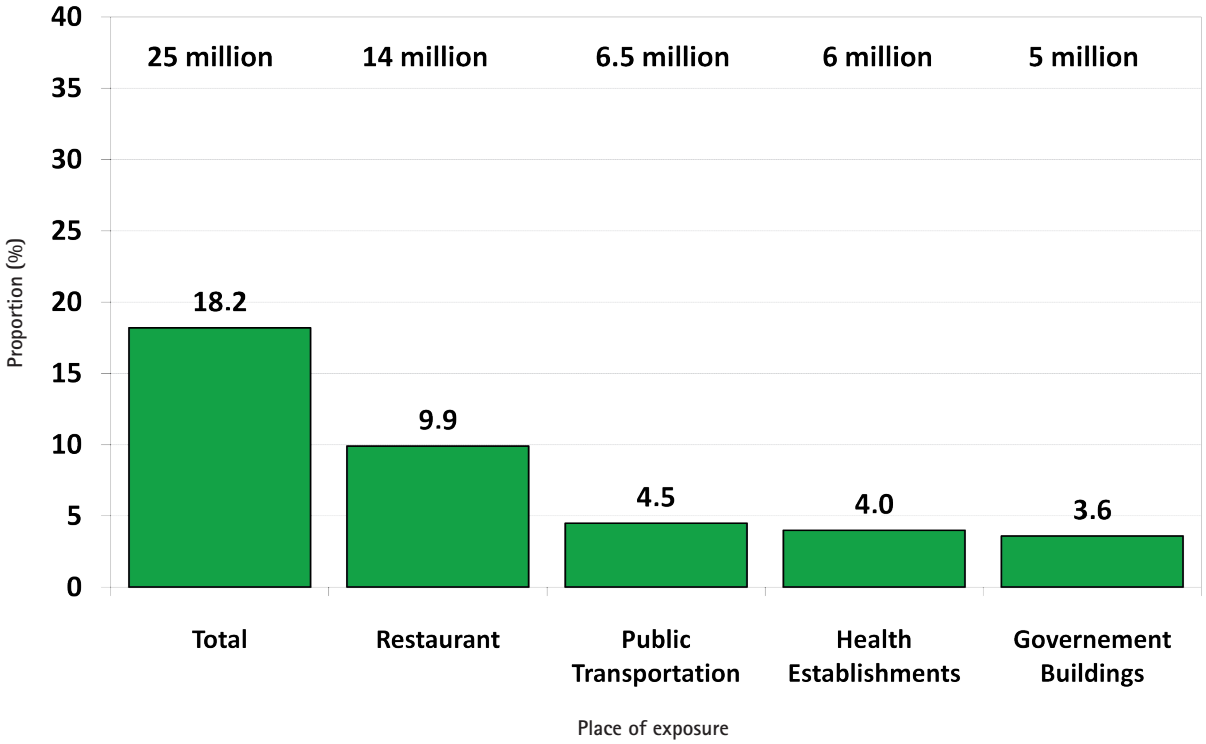

Figure 7.1 Proportion of adults ≥ 15 years o ld exposed to secondhand smoke, by place of exposure. GATS Brazil, 2008.

8 MEDIA

Two issues are addressed in this section: the use of the media to inform and disseminate data related to tobacco control and promotion of tobacco products.

Over 70% of all those surveyed said they had noticed anti-cigarette smoking information in different media, including television and radio, newspapers and magazines and others. Among these, the highest proportion was associated with the television, even when stratified by gender, age, household residence, years of schooling, and tobacco use (Table 8.1).

As for regional differences, those from the Northern Region reported the lowest proportion of individuals who had obtained information about the dangers of smoking or messages to quit smoking. This trend was maintained even after stratification, with few exceptions. The same happened in the rural areas, which had lower percentages than urban areas (Table 8.1).

Regarding education level, awareness of anti-smoking information increased with the number of years of schooling. However, no difference was observed between years of schooling and awareness of this information on the radio, as opposed to television, where awareness increased with years of schooling. Such findings suggest that radio democratizes communication of information, making it noticeable regardless of educational level (Table 8.1, 8.2).

Women were aware of tobacco control information in a manner similar to that of men, in terms of media channels (Table 8.1).

Young people were less aware of information communicated by radio, whereas on television there was no great difference in terms of age. This points to the need to adapt the language of the information broadcast through the radio to young people and to focus more on channels directed at this audience (Table 8.1).

Generally speaking, the survey indicated that the information about tobacco control was widely diffused among the population and that the tobacco control activities in Brazil seemed to have achieved their goal of increasing the spread of information through campaigns and programs. However, there should be greater exploration of and investment in other means of communication, such as radio.

The percentage of smokers who reported noticing health warnings on cigarette packages was 87.7%. This number ranged from 81% in the Northern region, to 92.1% in the Southeastern Region. The percentage tended to increase with years of schooling and monthly income, and in younger age groups. It was also lower in the rural areas, compared to the urban ones (Table 8.5).

Around 65% of people interviewed said they had considered quitting smoking because of warning labels on the cigarette packages. There was a greater difference between the Northern and Southeastern Regions (59.6% versus 66.7%) and the percentage was higher among women compared to men. The highest percentages of individuals who considered quitting after seeing the warnings were observed among young people from 15 to 24 years old (Tables 8.5, 8.6).

The survey showed that 30.4% of smokers and non-smokers had noticed cigarette advertising at points of sale, indicating that the tobacco industry has been efficiently using these places to expose its products. Even though Brazil has legislation that restricts advertising to inside points of sale, the ideal scenario would be total prohibition of tobacco products marketing, as well as requirements to keep tobacco products out of plain sight where they are sold. In Canada, for instance, cigarettes are stored out of the direct sight of the consumers, following the recommendations of the Framework Convention on Tobacco Control.

The survey results showed that men, residents of urban areas and young people (15 to 24 years old) reported the highest awareness of tobacco advertising in all forms (Table 8.7). These findings seem to confirm previous studies pointing to the need for specific action targeted to the younger audience, in order to counter the promotion and advertisement of tobacco products[60 61 62 63].

Among both smokers and non-smokers, awareness of tobacco promotion in movies was higher than on the Internet, 8.6% in Brazilian movies and 11.3% in foreign movies. It is possible that it was influenced by seeing people smoking in the movies (although cigarette marketing in the movies is prohibited) (Table 8.7).

On the other hand, experience shows that whenever publicity, promotion and advertisement of tobacco products are legally prohibited in one medium of communication, there is migration to new media, such as video games, cell phones and the Internet[64]. This underscores the importance of continuous monitoring of awareness of all types of marketing and advertising.

This issue becomes particularly relevant when considering the results of a survey conducted on cell phone and Internet use in Brazil, which revealed an increase in their use by the population aged 10 and older. According to this survey, Internet access increased among this population from 20.9%, in 2005 to 34.8% in 2008. The number of mobile cell phones owned also increased greatly during the period surveyed, – from 36.6%, in 2005, to 53.8%, in 2008, in this same population[65].

9 ECONOMY

Economic studies of tobacco use in Brazil started in the 90s, as an initiative of the National Tobacco Control Program[33]. In this decade, studies supported by PAHO and the World Bank[34 66] were published and based on them, a comprehensive analysis of different aspects of the tobacco economy in Brazil and an NTCP assessment were conducted. Other work has been carried out in the economic arena, such as the cost studies already mentioned in the Introduction and the recent analyses of price and tax policies in Brazil[67 68].

Economic aspects associated with smoking control

The economic analysis section of GATS Brazil aimed to describe the survey results and associate them with the literature and public policy around smoking control. GATS Brazil presents economic data associated with the average monthly expenditures on manufactured cigarettes, by region and stratified by gender, age, household residence (urban or rural), and education level. The survey also obtained information related to the places where tobacco products could be purchased, either officially (bars, taverns or restaurants, stores or tobacco stores, supermarkets, suburban markets or grocery stores, bakeries or snack bars, and newsstands) or informally (street vendors).

Average monthly expenses for manufactured cigarettes

Average monthly expense and income

Table 9.1 shows that the average monthly expense for manufactured cigarettes purchased by daily smokers 15 years or older in Brazil was R$55.50*. Considering that the average price for a package of cigarettes in September 2008 was R$2.56, it was estimated that the average monthly consumption was 21.7 packages a month (or 14.5 cigarettes/day).

As previously mentioned, price and tax policies for smoking control aim to reduce purchasing power in terms of cigarettes. Although monthly income or *per capita* income of the individual or all household members is an important indicator of purchasing power, other income indicators must be considered when discussing the price and tax policy for tobacco products in Brazil, especially those that may be more representative of the low-income sectors. A better indicator of the purchasing power in terms of cigarettes of the poorest sectors of society is the minimum wage divided by the average price of a cigarette package, which is used by the IBGE in calculating the National Broad Consumer Price Index (IPCA) and shows the number of cigarette packages that can be purchased on a minimum wage5. Thus, considering the average cigarette package price in the IPCA and the minimum wage** of September 2008, it was possible for a low-income smoker to buy 150 packages of cigarettes a month in September 2008, while he or she could buy 83 in January 1996 and 112 in January 2003.

Figure 9.1 shows the purchasing power of the minimum wage in terms of cigarette packages from January 1990 to March 2010. From early 1992 to mid 1995, tobacco companies adopted high prices relative to the minimum wage, thus decreasing purchasing power in terms of cigarettes. At the time, there was no increase in taxes. This was a deliberate policy of the tobacco company with the most market share combined with massive cigarette exportations to Paraguay. The result was the growth of the tax-free (and therefore cheaper) cigarette market coming back in from Paraguay. Since mid 1995, the purchasing power of the minimum wage in terms of cigarettes has been growing steadily, despite fluctuations due to lack of synchronization of the adjustment of the two variables. There was an increase from 80 to over 160 packages in the first semester of 2006, when the Ministry of Finance decided to gradually abandon the policy of taxes and actual low prices on cigarettes, which had been practiced since 1999. However, despite an increase of the Tax on Industrialized

* *At survey time, R$1.00=US$ 1.90.*

** *Brazilian minimum wage= R$415,00 (US$ 219).*

Products (IPI) in 2007, the purchasing power of the minimum wage remained at around 150 cigarette packages. After the increases in the IPI and the PIS/COFINS in 2009, it was only possible to purchase 130 cigarette packages with the minimum wage. In 2010, on the other hand, the increase in the minimum wage enabled a recovery in the purchasing power of the low-income population, up to 145 cigarette packages.

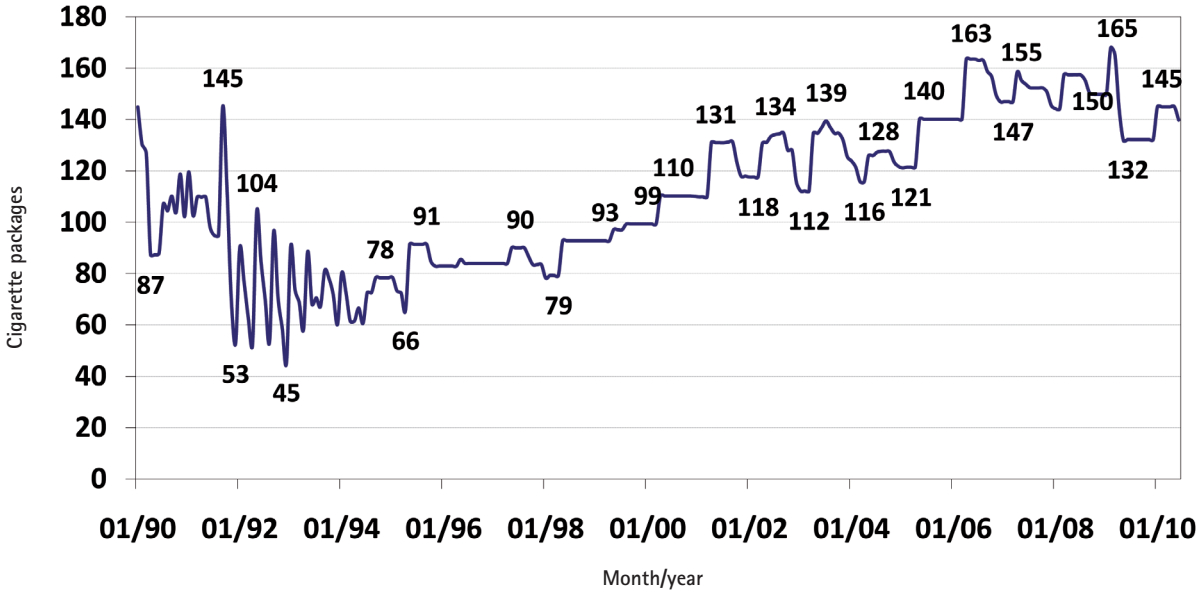

Figure 9.1 Number of cigarette packages bought with one minimum wage, 01/1990 to 06/2010. Brazil.

Source: Aliança de Controle do Tabagismo (2010)

Price and tax policies must support health policies, with the objective of reducing smoking prevalence. The real increases in the price of the cigarette should increase the collection of taxes and reduce cigarette consumption. To achieve both of these goals, it is critical to maintain the income/price ratio of the packages within margins that do not unbalance the taxpayer cigarette market. Figure 9.1 shows the increase in the number of cigarette packages purchased by the poor population over the last years, as a result of the country's growth and the increase in the real income, allowing for new increases in taxes and prices. These increases left the minimum wage/package price ratio within reasonable margins, above 100 packages, without pushing the population in search of tax-free cigarettes.

The distribution of the average cigarette purchase expense per region is associated with *per capita* income and the age and gender distribution of the population. The real average monthly income verified by the NHSS in 2008 was lower in the Northern (R$ 796.00) and Northeastern (R$ 666.00) Regions, compared to the Southern (R$ 1,165.00), Southeastern (R$ 1,188.00) and Midwestern (R$ 1,250.00) Regions. Smokers in the Northern Region spent R$ 41.58 or 5.2% of their average monthly income on cigarettes, whereas this expenditure in the Northeast was R$ 46.39 (7%). The Southern, Southeastern and Midwestern Regions registered the highest average expenditure. Smokers in the South spent on average R% 58.88 a month, which represented 5.1% of their income. The smokers of the Southeast spent, on average, R$ 58.97 a month, which represented 5% of their income, whereas in the Midwest, the expense was R$ 60.27 or 4.8% of their income*.

The average incomes explain why average cigarette expenditures are above the national average in the Southeastern, Southern and Midwestern Regions, as they are the most developed regions in Brazil. However, average monthly cigarette expenditures in proportion to average income in the Northeast stand out as the highest among the regions.

* *This analysis considers the per capita average income and not income of the smoker.*

Many surveys show that the ratio of families' total expenditures on tobacco products to family income is very high. In Bulgaria, low-income families with at least one smoker spent 10.4% of their total income on tobacco products, in 1996[69]. In China, in the district of Minhang, this ratio reached 17%[70].

The GATS Brazil data seem to suggest that smokers made an important share of their income available for cigarette purchase. Specialists point out that an expense representing 2% to 4% of total expenditures is already high and generates an important opportunity cost for families[71]. In this analysis, the proportion of average expenses related to cigarettes ranged from 4.8% to 7%, suggesting an important opportunity cost.

Average monthly expense and gender

As expected, men reported higher monthly expenditures on manufactured cigarettes than women. This ratio was greater than 20% nationally and in almost all regions of Brazil, except for the Midwest, where it was only 11%. The reduced ratio in the Midwest seemed to be associated with higher average expenses by the female population, much higher than the national average.

In absolute terms, men spent more (R$ 59.73) than women (R$ 49.29) on cigarette purchases. Considering the average cigarette package price of R$2.56, women purchased, on average, 19.3 packages a month (13 cigarettes/day), while men purchased 23.3 packages a month (16 cigarettes/day).

The higher prevalence of male smokers and higher expenditures by this group are reflected in the opportunity costs and health damage that smoking inflicts. These two effects can be observed in both the short and long term. In middle and low income households, cigarette consumption can generate short-term losses for the smoker and the family, since using scarce resources to purchase cigarettes (or other tobacco products) does not allow them to be used for essentials, such as food, education and health care services.

In many countries, including Brazil, cigarettes are much more economically accessible than food. A study in Brazil comparing the cost of a cigarette package to the cost of a kilo of bread, by using the "minutes of work necessary to buy both items" index, showed that the cost of a kilo of bread was almost three times higher than the cost of a cigarette package[72].

In the long term, there are economic losses due to the decrease in productivity caused by early mortality and morbidity, and medical costs for tobacco-related diseases, including the effects of exposure to secondhand smoking among members of the smoker's family[73 74 75].

Average monthly expense and age group

It is known that average expenditures for manufactured cigarettes tend to increase with age, due to increased personal income and entrenched nicotine dependency. In late maturity, consumption decreases due to the apparition of health problems associated with tobacco consumption and a decrease in available income. This trend was evident at the national level in Brazil, and in the Southeastern and Southern Regions, but less evident in the North and Northeast, where the average expenditure decreased for people over 44 years old.

The Midwestern Region seemed atypical. Although differences were not statically significant, young people 15 to 24 years old in that region reported spending R$ 61.91 a month on cigarettes, 26% more than the average young person in Brazil and almost 7% more than people aged 25 to 44 in the same region. That is, young people with low personal incomes and just beginning to develop nicotine dependence spent a lot, whatever the basis of comparison. Additionally, in the first two age groups, the Midwestern Region had the highest expenditures in the country and in the 45 to 64 age group, expenditures were lower than average only in the Southern Region.

Average monthly expense and place of residence

As expected, urban households reported higher expenditures for manufactured cigarettes (R$ 57.08) compared to rural households (R$ 42.10), as a result of higher available income and consumption habits. The difference between urban and rural expenditures varied from 12% in the North, to 38% in the Northeast, with 20% and 30% in the Southeast and South. Once again, the Midwestern Region seemed to show atypical behavior: it had the highest average expenditures among urban households in the country (R$62.43) and the highest difference compared to rural households (56%), although this was not statistically significant.

Despite the differences in expenditures, the repercussions of smoking can be observed for both types of residency. A study carried out in China demonstrated that poverty increased in urban and rural areas by 6.4% and 1.9%, respectively, due to direct expenditures on cigarettes. The expenditures on tobacco consumption and medical assistance for tobacco-related illnesses were found to be responsible for impoverishing 30.5 million urban and 23.7 million rural residents[76].

Average monthly expense and education level

Years of schooling are known to be associated with income level – the more schooling, the higher the average level of personal income. Therefore, education level is considered a marker of an individual's socio-economic status. Associations among smoking, income and educational level are already well established in the literature and have been remarkably observed in the economics of average and low income groups. Average expenditures tend to increase with years of schooling due to higher income, but a higher education level also increases receptiveness to information about the harms of smoking, so a reduction in positive associations between cigarette expenditures and educational levels, or even a negative association, may be expected.

The survey showed that average expenditure on cigarettes for Brazil overall increased with education level. Regional analyses revealed that the highest average expenditures for smokers with up to one year of education were found in the Southeastern and Midwestern Regions, although this was not statistically significant. Assuming that the average income of people with up to one year of education ranges between half to one minimum wage, an average expenditure of between R$ 42.00 and R$ 47.00 for cigarettes, as reported in the survey, represents 10% to 20% of their average income.

In GATS Brazil, household *per capita* income indicated that smoking prevalence among individuals with an income of up to one quarter of a minimum wage was 19.9%, whereas the percentage of smokers with an income above two minimum salaries was 13.5% (Table 5.5). In the analysis of manufactured cigarette use only, the lowest prevalence (12.8%) was observed among smokers with a monthly income of two minimum salaries or more, while 15.9% of smokers mentioned having an income from one fourth and one half of a minimum wage.

Manufactured cigarette sale venues in Brazil

Figure 9.2 shows that the main sources of manufactured cigarettes for Brazilians were bars, taverns and restaurants (53%), followed by supermarkets, suburban markets or grocery stores (22%) and bakeries and snack bars (15%). A smaller volume is acquired in newsstands, stores or tobacco stores and gas stations (2%).

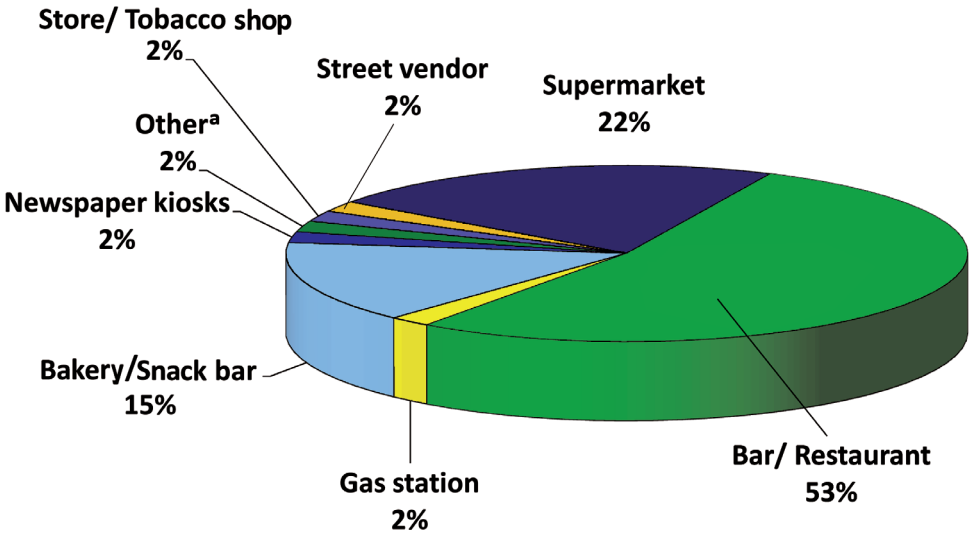

Figure 9.2 Percentage distribution of the source of last purchase of cigarettes among manufactured cigarette smokers ≥ 15 years old. GATS Brazil, 2008.

[a] Includes convenience stores, duty free shops, Internet and others

Although estimates of the illegal market of cigarettes in Brazil point to a volume of approximately 35% of the total consumption[77], GATS Brazil indicated that the proportion of purchases from street vendors was very low. In Brazil, the sale of smuggled and falsified cigarettes, or even those associated with tax evasion, takes place mostly on the streets of the largest metropolitan centers. This points to the need for surveys that carefully examine total cigarette consumption.

10 KNOWLEDGE

Out of the total number of respondents 15 years of age or older, 96.1% said they believed smoking could cause serious diseases. The percentages were 93% among smokers and 96.7% among non-smokers (Table 10.1).

The most frequently expressed perception was tobacco as a risk factor for lung cancer: 94.7% of the total number of people interviewed, 90.6% of smokers and 95.6% of non-smokers (Table 10.4).

Despite percentages over 70%, there was less recognition of the risks associated with strokes, both among smokers (70.1%) and non-smokers (73.7%). This result showed greater variation by different stratifications, with only 43% of smokers 65 years of age or older in the Midwest (Table 10.2).

Over 90% of the surveyed population recognized the association between exposure to secondhand smoke and serious diseases, even when different stratifications were made (Table 10.5).

In all the results about the awareness of the harms of smoking, there was a repeated pattern of lower proportions in the 65 and older age group, in rural areas, among smokers, and among individuals with none or less than one year of schooling. Such findings may reflect heterogeneity in access to information and its relationship to individual risk perception. It is also worth mentioning that the defensive avoidance[78 79 80] inherent in smokers may contribute to underestimation of the proportions of beliefs about the relationship between smoking and disease (Figure 10.1).

A similar assessment was carried out by the International Tobacco Control (ITC Brazil) survey, in three Brazilian capitals. The results, released in March 2010, were: knowledge of the association of smoking with cardiovascular disease was 95% among smokers and 95.5% among non-smokers; with strokes, it was 83.2% among smokers and 86.1% among non-smokers; and for lung cancer, it was 96% among smokers and 99% among non-smokers[81].

Regarding the use of smokeless tobacco products, 68.2% of all those surveyed considered such products detrimental to health, and, following the same patterns seen among tobacco smokers, the proportion was lower among smokeless tobacco users when compared to non-smokers (58.3% versus 70.3%). Although the number of consumers of these products was not high, this result indicates the importance of intensifying actions to inform that population.

The survey informants indicated high levels of knowledge about the harms caused by smoking, which seems to indicate that the educational interventions developed in Brazil, whether continuous or restricted, have been fulfilling their purpose. For instance, for over 20 years, the Smoking Control Program in Brazil has been developing or encouraging comprehensive actions that include legislative, economic and social mobilization action, in addition to education. The following are especially important channels of information dissemination: continuous actions developed at schools, health care units, and companies, in addition to campaigns using posters, pamphlets, billboards and other types of small media, especially on the National Day Against Tobacco and World No Tobacco Day. Another important strategy has been inclusion of health warnings on packages of tobacco products. Messages were initiated in 1988 and illustrations were added in 2001. Brazil is already in the 3rd cycle of warnings with images on cigarette packages[82].

Concerning the fact that there is less recognition of smoking as a risk factor for strokes, it is important to remember that at the time of the GATS Brazil survey, the second group of warnings that was being diffused did not yet mention strokes. It was included only in the third cycle, currently in circulation. This topic should be better developed, especially because of the known interaction between smoking and the use of oral contraceptives, which severely increases the risk of stroke in women using them[83].

The trend toward less knowledge among individuals with lower education levels and in rural areas seems to indicate the need to intensify or develop more specific or appropriate strategies for these groups. Since the association between smoking and diseases seem generally to be well established, it also points to opportunities to approach other topics related to tobacco in the educational actions as well.

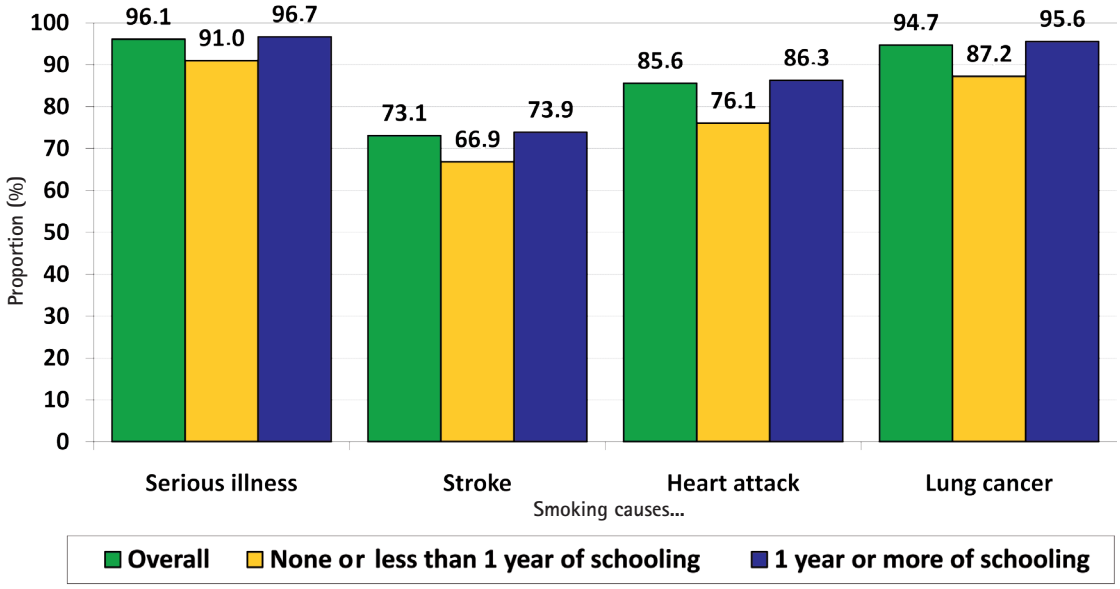

Figure 10.1 Proportion of adults ≥ 15 years old who believe that smoking causes serious illness, lung cancer, stroke and heart attack. GATS Brazil, 2008.

11 COUNTRY CHALLENGES – THE MPOWER PERSPECTIVE

FCTC member countries and the WHO have committed themselves to protecting the health of their populations and adhering to the fight against the tobacco epidemic. In order to help them fulfill that promise and transform worldwide consensus into a global reality, the WHO developed MPOWER, a series of policies based on FCTC measures. Through the effective implementation of these policies, the countries will be able to have an impact on the tobacco epidemic and fulfill their commitment with the FCTC.

MPOWER was launched in 2008 and comprises six interventions, each reflecting one of the FCTC articles. It is an integral part of the WHO Health Plan for the Prevention and Control of Non-transmitted Diseases.

Tobacco control activities began in Brazil in the 1980s; in 1989, the National Tobacco Use Control Program was created in the Instituto Nacional de Câncer (INCA) of the Ministry of Health. Since then, new legislation, supported by Ministerial Rules, Presidential Decrees and Laws, approved by the National Congress and reinforced by a regulatory agency, have worked to strengthen tobacco control in Brazil. The prohibition of tobacco product advertising in all forms of media, along with implementation of health warnings on tobacco products and restriction of tobacco smoke exposure in public places, have been an integral part of this movement.

The Framework Convention on Tobacco Control was ratified by the Brazilian government in November 2005 and the Inter-sectoral Commission for the Implementation of this convention currently has the participation of 16 ministries. This reaffirms Brazil's interest in ensuring that all measures presented in this treaty are followed and sustainable.

Tobacco control activities are supported by inter-sectoral activities that focus on different aspects of the tobacco problem. Given that Brazil is the second largest producer and the largest exporter of tobacco in the world, approaching this problem demands a complex intervention strategy, with the cooperation and involvement of many government ministries in the development of tobacco control policies.

In order to both improve the tobacco control strategy and measure the impact of specific policies outlined in the FCTC, a nationally representative tobacco use surveillance system – including urban and rural areas – needed to be developed.

The Global Adult Tobacco Survey (GATS) provided an opportunity to utilize an internationally comparable surveillance system protocol that would provide data on tobacco use measures.

GATS, conducted in Brazil in 2008 as a part of the National Household Sample Survey (NHSS), provided comprehensive data on tobacco use that may serve as a baseline for monitoring implementation of the FCTC articles in Brazil, as well as the strategies recommended by the MPOWER.

Utilizing GATS Brazil results as they relate to MPOWER, the following conclusions and recommendations are presented below:

Monitoring tobacco use

The national surveillance system of the Ministry of Health produces information about the risk factors for chronic, non-transmitted diseases, through periodic and regular surveys that include indicators related to tobacco use in Brazilian capitals. The data from this surveillance system have been extremely important to the construction, monitoring and assessment of health policies at the national level.

One of the main global challenges in tobacco control is the standardization of surveys on tobacco use. Currently, various surveys use different instruments, which generate indicators that are not necessarily comparable. Article 20 of the FCTC determines that the Member States must implement a surveillance system in order

to provide data that are comparable over time and on the national, regional and global level. Additionally, a monitoring system of the tobacco industry's activities should be constructed.

GATS was integrated into the Health Supplement of the Annual National Household Sample Survey (NHSS). Integrating GATS into an existing nationally representative household survey provided the opportunity to implement a national tobacco surveillance system in Brazil.

GATS is one of the four components of the Global Tobacco Surveillance System (GTSS). The GTSS has been implemented in most Member States of the WHO for over 10 years, using a standard protocol. It includes the Global Youth Tobacco Survey (GYTS), conducted among school students from 13 to 15 years old. This is the oldest component, initiated in 1999 and it has been implemented in more than 160 countries. The Global School Personnel Survey (GSPS), which focuses on school personnel, and the Global Health Professional Students Survey (GHPSS), with university students, are the other school-based surveys of GTSS. Brazil is an active part of the GTSS and has conducted surveys among school students aging from 13 to 15 years old and health professional students since 2002.

Protect people from secondhand tobacco smoke

While Federal Law No. 9294/96 has provided protection from secondhand tobacco smoke, it is outdated under the FCTC, as it allows special areas for smokers in indoor public areas. It is necessary to support and approve national legislation that totally bans smoking in indoors public environments, in accordance with Article 8 of the FCTC. The Ministry of Health has been working hard to approve Law Project No. 315/2008, which takes into account this measure. As of the summer of 2009, this law was under consideration for approval in the Federal Senate.

Several Brazilian States and Municipalities, aware of the necessity to protect the population against the risks of secondhand smoke, have already approved local laws promoting 100% smoke-free environments.

Offer help to quit tobacco use

Among the key strategies developed by Brazil to reduce the burden and prevalence of tobacco use are interventions to reduce smoking initiation and to promote smoking cessation.

Smoking cessation programs take into account smokers' dependence level and current level of motivation to quit smoking. The interventions are diverse and vary from national cessation campaigns, dissemination of self-help materials, and health warnings on tobacco products packages, to telephone cessation counseling (Quitlines). Additionally, the Public Health System promotes the intensive treatment of smokers with a high levels of dependence, including those with psychiatric co-morbidities. As part of this process, it is important to also develop health professionals' capacity and knowledge of the importance of integrating smoking cessation in their health care practices.

Warning about the dangers of tobacco

Health warnings on tobacco products[84] packaging represent one of the most cost-efficient measures available to alert the public to the risks of tobacco, as they can be implemented at no cost to the Government. It is a widely publicized measure that informs users about the risks and consequences of smoking in a simple and direct fashion. The GATS Brazil data indicate that warnings on the packages, along with pictorial images, motivated 65% of smokers to consider quitting. This result is consistent with another study conducted in Brazil[81].

The use of cigarette package warning labels was adopted in 1988 and pictorial warning labels were introduced in 2002. The actual pictures introduced in 2008 are very strong and have a greater impact than the previous ones. The third set of health warnings was developed by a technical work group of experts from INCA,

Anvisa, the Neurobiology Laboratory at the *Universidade Federal do Rio de Janeiro* (UFRJ), the Behavior Neurophysiology Laboratory at the *Universidade Federal Fluminense* (UFF) and the Department of Arts & Design at the *Pontifícia Universidade Católica do Rio de Janeiro* (PUC Rio).

The goal is to continue to raise awareness among different population groups about the risks of tobacco use. Developing legislation to require health warnings that cover both sides of the tobacco product package and to increase the size of the health warnings at points of sale is encouraged. It is also important to enforce the social norms that lead to a decrease in tobacco use and promote tobacco smoke-free environments throughout the country, using non tobacco funding to develop communication strategies aimed at raising society's awareness of the harms of tobacco use and to achieve behavior and social change.

Enforcing bans on tobacco advertising, promotion and sponsorship

In Brazil, cigarette advertisements have been progressively restricted since the 1990s. As of 2009, tobacco product advertisements are officially restricted to the inside venues of points of sale. However, data from GATS Brazil showed that 40% of the population 15 years of age or older had noticed cigarette advertisements or promotions, indicating this that this restriction was not effective enough.

Tobacco companies have been developing sophisticated marketing strategies for their product packages, with the objective of encouraging tobacco initiation among young people as well as maintaining addiction and consumption among regular users. This strategy has been more and more used, mainly due to the global trend of banning tobacco product advertising. Another common strategy is cigarette sales linked with items appealing to young people, such as backpacks and headphones, among others. In addition tobacco companies violate national legislation by sponsoring events for young people where they promote cigarette brands such as Lucky Strike, Free, Hollywood and Carlton*.

It is necessary to increase inspection of events sponsored by tobacco products and to improve Federal Law to ban completely the advertising of tobacco products.

Raising taxes on tobacco

Despite recent tax increases on cigarettes, it is necessary to establish a long-term policy of systematic tax increases, in order to achieve the goal of reducing the consumption of tobacco products.

It is important to coordinate all governmental activities in order to reduce illegal commerce and improve coordination with multilateral organizations. It is also important to stimulate cooperation with neighboring countries and to encourage research on the relationship between legal and illegal markets and tax policy.

Other priorities

- To strengthen the actions of the National Program of Diversification in Tobacco Production;
- To increase resources for projects and research in this area;
- To ensure that strategies for economically sustainable alternatives to tobacco farming be evidence-based and systematically assessed;
- To create ways to counter and reduce the influence of the tobacco industry.

* *See Lucky Strike Lab - http://www.novomilenio.inf.br/ano02/0207b001.htm;*
Free Zone Tecnopop http://www.tecnopop.com.br/portfolio_projeto.php?cod=34
http://www2.uol.com.br/tododia/ano2005/junho/100605/cidades.htm
http://www.portaldapropaganda.com/noticias_dia/2005/07/27/0006

Table 5.1 - Number of adults ≥ 15 years old, by Geographical Region, gender and smoking status. GATS Brazil, 2008.

Gender and smoking status	Adults ≥ 15 years old (1 000 persons)					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**142 999**	**10 516**	**38 640**	**62 305**	**21 270**	**10 268**
Current tobacco smoker	24 552	1 767	6 629	10 400	4 051	1 706
Daily smoker	21 539	1 410	5 594	9 342	3 675	1 518
Occasional Smoker	3 013	357	1 035	1 058	375	188
Occasional Smoker, formerly daily	1 251	162	395	472	139	83
Occasional Smoker, never daily	1 762	195	639	586	236	105
Non-smoker	118 446	8 750	32 011	51 905	17 219	8 561
Former daily smoker	20 140	1 290	5 412	8 638	3 239	1 561
Never daily smoker	98 306	7 459	26 599	43 267	13 981	7 000
Former occasional smoker	5 846	648	1 632	2 279	819	469
Never smoker	92 460	6 812	24 967	40 988	13 162	6 531
Male	**68 538**	**5 210**	**18 549**	**29 552**	**10 238**	**4 988**
Current tobacco smoker	14 789	1 144	4 246	6 034	2 299	1 066
Daily smoker	12 958	910	3 540	5 475	2 100	934
Occasional smoker	1 831	234	706	559	199	132
Occasional smoker, formerly daily	702	102	231	238	67	63
Occasional smoker, never daily	1 129	132	475	321	132	69
Non-smoker	53 749	4 066	14 303	23 518	7 939	3 922
Former daily smoker	11 808	786	2 943	5 138	1 996	944
Never daily smoker	41 941	3 280	11 360	18 381	5 943	2 978
Former occasional smoker	2 851	331	771	1 115	427	206
Never smoker	39 090	2 948	10 589	17 265	5 516	2 772
Female	**74 461**	**5 306**	**20 090**	**32 753**	**11 032**	**5 280**
Current tobacco smoker	9 764	623	2 383	4 366	1 752	640
Daily smoker	8 581	500	2 054	3 867	1 576	584
Occasional smoker	1 183	123	328	499	176	56
Occasional Smoker, formerly daily	550	60	164	234	72	19
Occasional Smoker, never daily	633	63	164	264	104	37
Non-smoker	64 698	4 684	17 708	28 387	9 280	4 639
Former daily smoker	8 333	504	2 469	3 501	1 242	617
Never daily smoker	56 365	4 180	15 239	24 886	8 038	4 022
Former occasional smoker	2 995	317	861	1 164	391	263
Never smoker	53 369	3 863	14 378	23 723	7 646	3 759

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
Note: Current smoker includes both daily and occasional (less than daily) smoker

Table 5.2 - Percentage of adults ≥ 15 years old, by Geographical Region, gender and smoking status. GATS Brazil, 2008.

Gender and smoking status	Percentage of adults ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Current tobacco smoker	17.2	16.8	17.2	16.7	19.0	16.6
Daily smoker	15.1	13.4	14.5	15.0	17.3	14.8
Occasional Smoker	2.1	3.4	2.7	1.7	1.8	1.8
Occasional Smoker, formerly daily	0.9	1.5	1.0	0.8	0.7	0.8
Occasional Smoker, never daily	1.2	1.9	1.7	0.9	1.1	1.0
Non-smoker	82.8	83.2	82.8	83.3	81.0	83.4
Former daily smoker	14.1	12.3	14.0	13.9	15.2	15.2
Never daily smoker	68.7	70.9	68.8	69.4	65.7	68.2
Former occasional smoker	4.1	6.2	4.2	3.7	3.8	4.6
Never smoker	64.7	64.8	64.6	65.8	61.9	63.6
Male	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Current tobacco smoker	21.6	22.0	22.9	20.4	22.5	21.4
Daily smoker	18.9	17.5	19.1	18.5	20.5	18.7
Occasional smoker	2.7	4.5	3.8	1.9	1.9	2.6
Occasional smoker, formerly daily	1.0	2.0	1.2	0.8	0.7	1.3
Occasional smoker, never daily	1.6	2.5	2.6	1.1	1.3	1.4
Non-smoker	78.4	78.0	77.1	79.6	77.5	78.6
Former daily smoker	17.2	15.1	15.9	17.4	19.5	18.9
Never daily smoker	61.2	62.9	61.2	62.2	58.0	59.7
Former occasional smoker	4.2	6.4	4.2	3.8	4.2	4.1
Never smoker	57.0	56.6	57.1	58.4	53.9	55.6
Female	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Current tobacco smoker	13.1	11.7	11.9	13.3	15.9	12.1
Daily smoker	11.5	9.4	10.2	11.8	14.3	11.1
Occasional smoker	1.6	2.3	1.6	1.5	1.6	1.1
Occasional Smoker, formerly daily	0.7	1.1	0.8	0.7	0.7	0.4
Occasional Smoker, never daily	0.8	1.2	0.8	0.8	0.9	0.7
Non-smoker	86.9	88.3	88.1	86.7	84.1	87.9
Former daily smoker	11.2	9.5	12.3	10.7	11.3	11.7
Never daily smoker	75.7	78.8	75.9	76.0	72.9	76.2
Former occasional smoker	4.0	6.0	4.3	3.6	3.5	5.0
Never smoker	71.7	72.8	71.6	72.4	69.3	71.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
Note: Current smoker includes both daily and occasional (less than daily) smoker.

Table 5.3 - Number of current smokers ≥ 15 years old, by smoked tobacco product and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Current smokers ≥ 15 years old (1 000 persons)				
	Any smoked tobacco product	Cigarette			Other smoked tobacco [2]
		Any cigarette [1]	Manufactured	Hand-rolled	
Overall [3]	**24 552**	**24 425**	**20 645**	**7 314**	**1 122**
Gender					
Male	14 789	14 734	12 233	5 041	585
Female	9 764	9 692	8 412	2 273	537
Age (years)					
15-24	3 545	3 529	3 291	728	197
25-44	10 324	10 303	8 999	2 734	281
45-64	8 771	8 745	7 149	2 871	382
65+	1 913	1 848	1 207	982	263
Place of residence					
Urban	20 132	20 058	18 051	4 320	877
Rural	4 420	4 367	2 594	2 994	245
Years of schooling					
None or less than a year	4 035	3 958	2 341	2 551	316
1 to 3 years	3 307	3 298	2 497	1 653	134
4 to 7 years	7 132	7 125	6 254	1 927	119
8 to 10 years	4 125	4 109	3 830	685	123
11 years or more	5 905	5 888	5 674	491	429
Monthly household income per capita [4]					
None or less than 1/4 of the minimum wage	2 691	2 672	1 843	1 545	76
1/4 to less than 1/2 of the minimum wage	4 595	4 594	3 509	1 920	187
1/2 to less than 1 minimum wage	6 323	6 297	5 411	1 936	234
1 to less than 2 minimum wages	6 366	6 305	5 637	1 337	301
2 minimum wages and more	3 739	3 724	3 539	353	260

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
Note: Current smoker includes daily and occasional (less than daily) smoker.

[1] Includes manufactured cigarettes, hand rolled cigaretets, and kreteks.

[2] Includes Bidis, pipes, cigars or cigarillos, narguile, and other products.

[3] Includes individuals with undetermined years of schooling and/or monthly household income.

[4] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.4 - Percentage of current smokers ≥ 15 years old, by smoked tobacco product and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of current smokers ≥ 15 years old				
	Any smoked tobacco product	Cigarette			Other smoked tobacco [2]
		Any cigarette [1]	Manufactured	Hand-rolled	
Overall [3]	**17.2**	**17.1**	**14.4**	**5.1**	**0.8**
Gender					
Male	21.6	21.5	17.8	7.4	0.9
Female	13.1	13.0	11.3	3.1	0.7
Age (years)					
15-24	10.7	10.7	10.0	2.2	0.6
25-44	18.3	18.3	15.9	4.8	0.5
45-64	22.7	22.6	18.5	7.4	1.0
65+	12.9	12.4	8.1	6.6	1.8
Place of residence					
Urban	16.6	16.5	14.9	3.6	0.7
Rural	20.4	20.1	11.9	13.8	1.1
Years of schooling					
None or less than a year	25.7	25.2	14.9	16.3	2.0
1 to 3 years	23.1	23.0	17.4	11.5	0.9
4 to 7 years	20.3	20.2	17.8	5.5	0.3
8 to 10 years	14.9	14.8	13.8	2.5	0.4
11 years or more	11.9	11.8	11.4	1.0	0.9
Monthly household income per capita [4]					
None or less than 1/4 of the minimum wage	23.1	23,0	15.9	13.3	0.7
1/4 to less than 1/2 of the minimum wage	20.4	20.4	15.6	8.5	0.8
1/2 to less than 1 minimum wage	17.6	17.5	15.0	5.4	0.6
1 to less than 2 minimum wages	16.1	15.9	14.2	3.4	0.8
2 minimum wages and more	13.3	13.3	12.6	1.3	0.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicilios 2008.
Note: Current smoker includes daily and occasional (less than daily) smoker.

(1) Includes manufactured cigarettes, hand rolled cigaretets, and kreteks.

(2) Includes Bidis, pipes, cigars or cigarillos, narguile, and other products.

(3) Includes individuals with undetermined years of schooling and/or monthly household income.

(4) Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.5 - Number of current smokers ≥ 15 years old, by Geographical Region, gender and smoked tobacco product. GATS Brazil, 2008.

Smoked tobacco product	Current smokers ≥ 15 years old (1 000 persons)					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall						
Any smoked tobacco product	24 552	1 767	6 629	10 400	4 051	1 706
Any cigarette [1]	24 425	1 759	6 550	10 369	4 040	1 706
Manufactured	20 645	1 393	4 721	9 491	3 621	1 419
Hand-rolled	7 314	682	3 196	1 886	998	552
Other smoked tobacco [2]	1 122	108	300	475	188	51
Male						
Any smoked tobacco product	14 789	1 144	4 246	6 034	2 299	1 066
Any cigarette [1]	14 734	1 144	4 232	6 004	2 288	1 066
Manufactured	12 233	929	3 034	5 402	1 991	877
Hand-rolled	5 041	438	2 189	1 338	680	396
Other smoked tobacco [2]	585	49	115	251	129	40
Female						
Any smoked tobacco product	9 764	623	2 383	4 366	1 752	640
Any cigarette [1]	9 692	615	2 318	4 366	1 752	640
Manufactured	8 412	465	1 687	4 089	1 629	542
Hand-rolled	2 273	244	1 007	548	318	156
Other smoked tobacco [2]	537	58	185	224	59	11

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008
Note: Current smoker includes daily and occasional (less than daily) smoker.

[1] Includes manufactured cigarettes, hand rolled cigaretets, and kreteks.

[2] Includes Bidis, pipes, cigars or cigarillos, narguile, and other products.

Table 5.6 - Percentage of current smokers ≥ 15 years old, by Geographical Region, gender and smoked tobacco product. GATS Brazil, 2008.

Smoked tobacco product	Percentage of current smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall						
Any smoked tobacco product	17.2	16.8	17.2	16.7	19.0	16.6
Any cigarette [1]	17.1	16.7	17.0	16.6	19.0	16.6
Manufactured	14.4	13.3	12.2	15.2	17.0	13.8
Hand-rolled	5.1	6.5	8.3	3.0	4.7	5.4
Other smoked tobacco [2]	0.8	1.0	0.8	0.8	0.9	0.5
Male						
Any smoked tobacco product	21.6	22.0	22.9	20.4	22.5	21.4
Any cigarette [1]	21.5	22.0	22.8	20.3	22.3	21.4
Manufactured	17.8	17.8	16.4	18.3	19.5	17.6
Hand-rolled	7.4	8.4	11.8	4.5	6.6	7.9
Other smoked tobacco [2]	0.9	0.9	0.6	0.8	1.3	0.8
Female						
Any smoked tobacco product	13.1	11.7	11.9	13.3	15.9	12.1
Any cigarette [1]	13.0	11.6	11.5	13.3	15.9	12.1
Manufactured	11.3	8.8	8.4	12.5	14.8	10.3
Hand-rolled	3.1	4.6	5.0	1.7	2.9	3.0
Other smoked tobacco [2]	0.7	1.1	0.9	0.7	0.5	0.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
Note: Current smoker includes daily and occasional (less than daily) smoker.
[1] Includes manufactured cigarettes, hand rolled cigaretets, and kreteks.
[2] Includes Bidis, pipes, cigars or cigarillos, narguile, and other products.

Table 5.7 - Percentage distribution of adults ≥ 15 years old, by smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage distribution of adults ≥ 15 years old			
	Total	Smoking status		
		Daily	Occasional [1]	Non-smoker
Overall [2]	**100.0**	**15.1**	**2.1**	**82.8**
Age (years)				
15-24	100.0	8.4	2.3	89.3
25-44	100.0	15.9	2.4	81.7
45-64	100.0	20.8	1.9	77.3
65+	100.0	11.7	1.2	87.1
Place of residence				
Urban	100.0	14.5	2.1	83.4
Rural	100.0	18.0	2.3	79.6
Years of schooling				
None or less than 1 year	100.0	23.3	2.4	74.3
1 to 3 years	100.0	21.3	1.8	76.9
4 to 7 years	100.0	18.0	2.3	79.7
8 to 10 years	100.0	12.5	2.4	85.1
11 years or more	100.0	10.1	1.8	88.1
Color or race				
White	100.0	13.5	1.8	84.7
Non-white	100.0	16.6	2.4	81.0
Monthly household income per capita [3]				
None or less than 1/4 of the minimum wage	100.0	20.3	2.9	76.9
1/4 to less than 1/2 of the minimum wage	100.0	17.4	3.1	79.6
1/2 to less than 1 minimum wage	100.0	15.7	1.9	82.4
1 to less than 2 minimum wages	100.0	14.2	1.8	83.9
2 minimum wages and more	100.0	11.6	1.7	86.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Occasional refers to less than daily use.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.8 - Percentage distribution of males ≥ 15 years old, by smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage distribution of adult males ≥ 15 years old			
	Total	Smoking status		
		Daily	Occasional [1]	Non-smoker
Male [2]	**100.0**	**18.9**	**2.7**	**78.4**
Age (years)				
15-24	100.0	11.5	3.3	85.2
25-44	100.0	19.6	3.0	77.5
45-64	100.0	26.0	2.1	71.9
65+	100.0	15.8	1.5	82.7
Place of residence				
Urban	100.0	18.0	2.6	79.4
Rural	100.0	23.3	3.0	73.7
Years of schooling				
None or less than 1 year	100.0	29.3	3.1	67.6
1 to 3 years	100.0	26.6	2.0	71.4
4 to 7 years	100.0	23.1	3.1	73.8
8 to 10 years	100.0	14.4	2.9	82.7
11 years or more	100.0	12.4	2.2	85.5
Color or race				
White	100.0	17.1	2.4	80.6
Non-white	100.0	20.6	3.0	76.5
Monthly household income per capita [3]				
None or less than 1/4 of the minimum wage	100.0	26.6	3.2	70.2
1/4 to less than 1/2 of the minimum wage	100.0	21.9	3.9	74.3
1/2 to less than 1 minimum wage	100.0	19.6	2.6	77.8
1 to less than 2 minimum wages	100.0	18.4	2.4	79.2
2 minimum wages and more	100.0	13.8	2.1	84.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Occasional refers to less than daily use.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.9 - Percentage distribution of females ≥ 15 years old, by smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage distribution of adult females ≥ 15 years old			
	Total	Smoking status		
		Daily	Occasional [1]	Non-smoker
Female[2]	**100.0**	**11.5**	**1.6**	**86.9**
Age (years)				
15-24	100.0	5.1	1.3	93.6
25-44	100.0	12.6	1.8	85.5
45-64	100.0	16.3	1.7	82.0
65+	100.0	8.3	1.0	90.7
Place of residence				
Urban	100.0	11.5	1.6	86.9
Rural	100.0	11.9	1.5	86.5
Years of schooling				
None or less than 1 year	100.0	17.0	1.7	81.3
1 to 3 years	100.0	16.3	1.6	82.1
4 to 7 years	100.0	13.0	1.5	85.6
8 to 10 years	100.0	10.7	1.8	87.5
11 years or more	100.0	8.2	1.5	90.3
Color or race				
White	100.0	10.3	1.3	88.4
Non-white	100.0	12.9	1.9	85.3
Monthly household income per capita[3]				
None or less than 1/4 of the minimum wage	100.0	15.0	2.5	82.5
1/4 to less than 1/2 of the minimum wage	100.0	13.3	2.4	84.4
1/2 to less than 1 minimum wage	100.0	12.0	1.3	86.7
1 to less than 2 minimum wages	100.0	10.3	1.3	88.3
2 minimum wages and more	100.0	9.6	1.3	89.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Occasional refers to less than daily use.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.10 - Percentage distribution of daily cigarette smokers ≥ 15 years old, by average number of cigarettes smoked per day and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage distribution of daily cigarette smokers ≥ 15 years					
	Total	Average number of cigarettes smoked per day [1]				
		Less than 5	5 to 9	10 to 14	15 to 24	25 or more
Overall[2]	**100.0**	**16.2**	**19.3**	**20.8**	**33.9**	**9.8**
Age (years)						
15-24	100.0	17.3	22.8	22.8	29.9	7.2
25-44	100.0	15.5	18.9	20.4	35.2	10.0
45-64	100.0	15.0	18.2	20.1	35.3	11.4
65+	100.0	24.4	20.7	22.5	26.2	6.2
Place of residence						
Urban	100.0	15.2	17.8	20.6	36.1	10.3
Rural	100.0	20.9	25.8	21.6	24.1	7.6
Years of schooling						
None or less than a year	100.0	25.1	21.5	23.0	22.7	7.7
1 to 3 years	100.0	16.3	22.9	22.5	27.4	10.9
4 to 7 years	100.0	15.7	18.1	18.1	37.8	10.3
8 to 10 years	100.0	14.1	16.6	22.1	37.0	10.1
11 years or more	100.0	12.0	18.7	20.3	38.8	10.1
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	100.0	23.5	23.4	21.0	25.3	6.7
1/4 to less than 1/2 of the minimum wage	100.0	18.2	22.1	23.7	26.7	9.3
1/2 to less than 1 minimum wage	100.0	16.9	18.8	23.6	31.5	9.2
1 to less than 2 minimum wages	100.0	14.8	18.3	17.9	39.7	9.3
2 minimum wages and more	100.0	10.2	17.1	18.5	40.8	13.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Cigarettes include manufactured, hand-rolled, and kreteks.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.11 - Percentage distribution of daily male cigarette smokers ≥ 15 years old, by average number of cigarettes smoked per day and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage distribution of daily male cigarette smokers ≥ 15 years					
	Total	Average number of cigarettes smoked per day [1]				
		Less than 5	5 to 9	10 to 14	15 to 24	25 or more
Male[2]	**100.0**	**14.8**	**17.8**	**20.1**	**35.6**	**11.7**
Age (years)						
15-24	100.0	15.9	21.2	23.7	29.5	9.7
25-44	100.0	13.6	17.5	19.3	38.3	11.2
45-64	100.0	14.3	15.9	19.2	36.9	13.8
65+	100.0	21.3	21.0	21.5	27.6	8.6
Place of residence						
Urban	100.0	14.2	15.8	19.6	38.2	12.2
Rural	100.0	17.1	25.1	22.1	25.9	9.9
Years of schooling						
None or less than a year	100.0	23.4	20.5	24.2	22.1	9.8
1 to 3 years	100.0	11.6	23.4	21.7	30.3	13.1
4 to 7 years	100.0	15.0	17.1	16.4	39.9	11.6
8 to 10 years	100.0	12.5	15.1	21.2	38.8	12.4
11 years or more	100.0	11.3	14.2	20.0	42.5	12.1
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	100.0	20.8	22.1	22.5	27.3	7.4
None or less than 1/4 of the minimum wage	100.0	16.5	22.5	24.3	25.6	11.2
1/2 to less than 1 minimum wage	100.0	15.6	18.3	22.5	32.8	10.8
1 to less than 2 minimum wages	100.0	14.2	16.0	15.5	43.7	10.7
2 minimum wages and more	100.0	9.2	12.2	18.4	42.7	17.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Cigarettes include manufactured, hand-rolled, and kreteks.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.12 - Percentage distribution of daily female cigarette smokers ≥ 15 years old, by average number of cigarettes smoked per day and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage distribution of daily female cigarette smokers ≥ 15 years					
	Total	Average number of cigarettes smoked per day[1]				
		Less than 5	5 to 9	10 to 14	15 to 24	25 or more
Female[2]	**100.0**	**18.3**	**21.7**	**21.8**	**31.2**	**7.0**
Age (years)						
15-24	100.0	20.7	26.8	20.6	30.6	1.2
25-44	100.0	18.1	21.0	21.9	30.8	8.2
45-64	100.0	16.0	21.5	21.4	33.2	8.0
65+	100.0	29.5	20.2	24.3	23.9	2.1
Place of residence	**100.0**					
Urban	100.0	16.5	20.7	22.0	33.1	7.7
Rural	100.0	29.6	27.5	20.5	19.9	2.5
Years of schooling	**100.0**					
None or less than a year	100.0	28.4	23.4	20.7	23.8	3.7
1 to 3 years	100.0	23.6	22.3	23.7	22.9	7.4
4 to 7 years	100.0	17.0	20.0	21.0	34.1	7.9
8 to 10 years	100.0	16.2	18.6	23.4	34.8	7.0
11 years or more	100.0	12.8	24.2	20.8	34.5	7.7
Monthly household income per capita[3]	**100.0**					
None or less than 1/4 of the minimum wage	100.0	27.8	25.5	18.7	22.4	5.6
None or less than 1/4 of the minimum wage	100.0	20.8	21.5	22.8	28.4	6.5
1/2 to less than 1 minimum wage	100.0	18.8	19.6	25.4	29.5	6.7
1 to less than 2 minimum wages	100.0	15.8	22.1	21.9	33.1	7.0
2 minimum wages and more	100.0	11.5	23.7	18.7	38.1	7.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
(1) Cigarettes include manufactured, hand-rolled, and kreteks.
(2) Includes individuals with undetermined years of schooling and/or monthly household income.
(3) Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.13 - Percentage distribution of daily cigarette smokers ≥ 15 years old, by Geographical Region, gender and average number of cigarettes smoked per day. GATS Brazil, 2008.

Average number of cigarettes smoked per day [1]	Percentage distribution of daily cigarette smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 5	16.2	20.9	20.5	15,0	12.0	13.9
5 to 9	19.3	25.4	22.0	18,0	16.2	19.5
10 to 14	20.8	22.5	24.3	19.1	19.8	19.4
15 to 24	33.9	26.4	24.8	37.8	40.1	34.4
25 or more	9.8	4.8	8.5	10.1	12,0	12.8
Male	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 5	14.8	20.1	16.3	14.6	11.2	13.7
5 to 9	17.8	24.5	21.6	16,0	13.8	15.9
10 to 14	20.1	20.3	25.3	17.6	18.2	18.9
15 to 24	35.6	29.5	26.1	40.7	41,0	35.5
25 or more	11.7	5.5	10.7	11.1	15.8	15.9
Female	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 5	18.3	22.4	28.2	15.6	13.1	14.2
5 to 9	21.7	26.8	22.6	20.9	19.3	25.3
10 to 14	21.8	26.4	22.4	21.1	21.7	20.2
15 to 24	31.2	20.7	22.4	33.7	38.9	32.6
25 or more	7.0	3.6	4.5	8.6	6.9	7.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Cigarettes include manufactured, hand-rolled, and kreteks.

Table 5.14 - Percentage distribution of ever daily smokers 20 to 34 years old, by Geographical Region, gender, place of residence and age at smoking initiation. GATS Brazil, 2008.

Age at smoking initiation (Years)	Percentage distribution of ever daily smokers 20 to 34 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Under 15	19.6	13.2	23.7	18.5	16.7	25.0
15 -16	26.4	25.9	27.5	24.8	29.5	25.2
17 -19	31.9	33.0	27.3	35.8	31.0	27.1
20+	22.1	27.9	21.5	20.9	22.8	22.7
Gender						
Male	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	18.0	11.6	22.7	17.0	14.1	23.1
15 -16	27.1	26.8	28.6	24.7	30.4	27.5
17 -19	34.1	35.6	28.2	39.3	31.8	29.9
20+	20.9	26.0	20.5	19.0	23.7	19.5
Female	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	21.9	17.0	25.6	20.4	20.3	27.8
15 -16	25.4	23.9	25.7	25.0	28.1	21.8
17 -19	28.7	26.7	25.7	31.1	30.0	23.0
20+	23.9	32.4	23.0	23.5	21.6	27.5
Place of residence						
Urban	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	18.9	13.5	22.2	17.8	16.9	25.6
15 -16	26.2	27.5	26.4	24.3	30.6	25.1
17 -19	32.3	32.7	28.1	36.3	29.9	26.0
20+	22.6	26.3	23.3	21.5	22.6	23.3
Rural	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	22.8	11.8	27.4	25.8	15.7	18.8
15 -16	27.8	20.0	30.2	30.2	23.9	26.9
17 -19	29.8	34.2	25.3	29.4	36.5	37.8
20+	19.6	34.1	17.1	14.5	23.8	16.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 5.15 - Percentage of current tobacco users ≥ 15 years old, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults who are current tobacco users [1] ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**17.5**	**17.2**	**17.8**	**16.9**	**19.0**	**16.9**
Gender						
Male	22.0	22.5	23.7	20.8	22.5	22.0
Female	13.3	11.9	12.4	13.5	15.9	12.2
Age (years)						
15-24	10.7	10.5	9.5	10.8	12.6	12.3
25-44	18.4	18.1	17.2	18.2	21.6	18.0
45-64	23.1	21.9	25.5	22.4	23.0	20.6
65+	14.5	22.0	23.1	9.4	13.0	13.2
Place of residence						
Urban	16.8	16.2	16.1	16.7	18.8	16.7
Rural	21.1	21.0	22.4	19.7	20.4	18.3
Years of schooling						
None or less than a year	27.4	30.3	32.2	20.4	24.1	23.6
1 to 3 years	23.9	24.4	23.1	24.1	24.1	25.4
4 to 7 years	20.4	21.0	17.3	20.7	23.2	23.5
8 to 10 years	14.9	13.7	13.2	15.0	18.8	13.1
11 years or more	11.9	8.4	8.1	13.5	14.0	10.1
Monthly household income per capita[3]						
None or less than 1/4 minimum wage	23.5	25.8	22.0	25.3	27.4	24.0
1/4 to less than 1/2 minimum wage	21.0	18.9	19.6	22.3	25.6	21.9
1/2 to less than 1 minimum wage	17.9	17.1	16.7	17.2	22.9	17.7
1 to less than 2 minimum wages	16.5	16.0	16.1	16.1	17.8	16.9
2 minimum wages and more	13.4	9,0	11.0	14.7	13.0	11.8

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes daily and occasional (less than daily) smokers or smokeless users.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.16 - Percentage of current smokers ≥ 15 years old, among tobacco users[1], by Geographical Region and socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of current smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**97.5**	**96.9**	**95.1**	**98.3**	**100.0**	**97.4**
Gender						
Male	97.2	96.4	95.3	97.9	99.9	96.6
Female	98.0	97.8	94.8	98.8	100.0	98.9
Age (years)						
15-24	99.7	99.6	100.0	100.0	100.0	97.3
25-44	98.9	98.1	98.4	99.0	100.0	98.1
45-64	97.7	98.1	95.4	98.0	100.0	98.8
65+	86.5	81.8	79.5	90.8	99.4	88.0
Place of residence						
Urban	98.2	97.6	97.3	98.3	99.9	97.8
Rural	94.4	95.0	90.7	98.4	100.0	95.2
Years of schooling						
None or less than a year	91.9	93.7	89.7	93.0	99.4	95.1
1 to 3 years	96.1	92.5	96.7	95.0	100.0	95.6
4 to 7 years	99.0	99.4	97.9	99.3	100.0	98.6
8 to 10 years	99.5	100.0	99.6	99.6	100.0	96.7
11 years or more	99.1	98.1	98.3	99.1	100.0	99.0
Monthly household income per capita[3]						
None or less than 1/4 minimum wage	97.0	97.7	95.9	98.4	100.0	97.1
1/4 to less than 1/2 minimum wage	97.1	97.9	95.3	98.2	100.0	97.5
1/2 to less than 1 minimum wage	97.9	95.8	95.6	98.7	100.	98.6
1 to less than 2 minimum wages	96.8	98.7	91.7	97.2	99.8	96.2
2 minimum wages and more	98.9	97.6	97.4	99.0	100.0	97.6

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes daily and occasional (less than daily) smokers or smokelss users.

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.17 - Percentage distribution of daily cigarette smokers ≥ 15 years old, by Geographical Region, selected socio-demographic characteristics and time to first smoke upon waking. GATS Brazil, 2008.

Time to first smoke upon waking	Percentage distribution of daily cigarette smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	21.0	10.3	19.4	23.0	22.5	20.7
6 to 30 minutes	39.3	33.4	38.6	40.1	39.9	41.0
31 to 60 minutes	14.1	18.1	15.7	13.6	12.4	11.8
60 minutes or more	25.6	38.3	26.4	23.4	25.1	26.6
Gender						
Male	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	20.5	9.2	20.4	21.1	23.2	22.4
6 to 30 minutes	42.5	35.8	42.1	44.0	43.3	40.3
31 to 60 minutes	14.0	18.6	14.9	13.5	12.9	11.2
60 minutes or more	23.0	36.4	22.6	21.5	20.6	26.1
Female	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	21.7	12.2	17.6	25.7	21.5	18.0
6 to 30 minutes	34.4	28.9	32.5	34.5	35.5	41.9
31 to 60 minutes	14.3	17.2	16.9	13.7	11.9	12.7
60 minutes or more	29.6	41.8	32.9	26.1	31.1	27.3
Age (years)						
15-24	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	13.2	4.0	12.3	11.7	21.1	14.9
6 to 30 minutes	35.7	40.0	36.4	33.0	40.2	34.3
31 to 60 minutes	14.3	22.5	15.1	14.4	9.5	14.4
60 minutes or more	36.8	33.4	36.2	40.9	29.2	36.4
25-44	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	20.4	10.8	18.7	23.1	19.8	20.8
6 to 30 minutes	38.3	31.5	38.1	38.3	40.7	40.3
31 to 60 minutes	14.2	16.0	15.9	13.5	14.2	10.7
60 minutes or more	27.1	41.7	27.3	25.1	25.2	28.1
45-64	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	23.8	9.4	21.4	26.5	25.6	21.9
6 to 30 minutes	41.7	35.0	39.7	43.7	39.6	46.8
31 to 60 minutes	13.8	20.2	16.3	12.7	11.3	12.5
60 minutes or more	20.6	35.4	22.6	17.0	23.5	18.7
65+	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	23.2	22.2	22.7	21.9	25.5	27.1
6 to 30 minutes	38.7	25.6	39.2	42.9	36.9	32.6
31 to 60 minutes	14.5	13.8	13.1	18.1	12.5	9.6
60 minutes or more	23.6	38.4	25.0	17.1	25.0	30.7
Place of Residence						
Urban	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	21.2	10.1	20.0	23.0	22.0	20.6
6 to 30 minutes	38.4	34.0	36.4	39.0	40.2	40.0
31 to 60 minutes	14.3	17.1	16.5	13.8	12.8	12.4
60 minutes or more	26.0	38.7	27.1	24.2	25.0	27.0
Rural	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	19.8	10.8	18.1	23.3	24.5	21.4
6 to 30 minutes	43.3	31.5	43.1	52.4	38.9	47.6
31 to 60 minutes	13.1	20.7	14.0	10.6	10.9	7.6
60 minutes or more	23.8	37.1	24.8	13.6	25.7	23.3

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 5.18 - Percentage distribution of daily cigarette smokers ≥ 15 years old, by Geographical Region, years of schooling, household income and time to first smoke upon waking. GATS Brazil, 2008.

Time to first smoke upon waking	Percentage distribution of daily cigarette smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Years of schooling						
None or less than 1 year	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	23.3	9.0	23.2	30.5	18.7	24.9
6 to 30 minutes	39.4	37.3	40.3	41.1	32.7	38.4
31 to 60 minutes	13.9	15.8	14.9	9.5	15.7	15.2
60 minutes or more	23.4	37.9	21.6	18.9	32.9	21.5
1 to 3 years	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	23.2	4.7	19.4	30.2	24.8	24.3
6 to 30 minutes	43.0	44.5	42.6	40.1	47.4	47.8
31 to 60 minutes	12.9	14.8	14.7	12.8	9.1	10.9
60 minutes or more	20.9	36.0	23.3	16.9	18.7	17.0
4 to 7 years	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	21.2	13.0	13.7	24.8	22.6	24.1
6 to 30 minutes	41.8	31.8	38.1	44.2	44.7	40.1
31 to 60 minutes	13.1	19.0	16.6	11.9	10.9	11.5
60 minutes or more	23.9	36.2	31.6	19.2	21.8	24.3
8 to 10 years	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	21.1	15.7	18.5	23.2	21.1	17.6
6 to 30 minutes	36.5	26.0	34.9	38.2	36.7	37.0
31 to 60 minutes	14.5	18.4	16.8	12.8	16.6	10.5
60 minutes or more	27.9	39.9	29.8	25.9	25.6	34.9
11 years or more	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	17.8	7.1	21.1	16.6	23.6	11.0
6 to 30 minutes	36.1	24.9	31.7	37.3	35.4	42.2
31 to 60 minutes	15.4	21.6	16.2	16.5	11.5	11.4
60 minutes or more	30.8	46.4	31.0	29.6	29.4	35.5
Monthly household income per capita [1]						
None or less than 1/4 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	22.0	12.0	21.8	29.7	16.3	19.9
6 to 30 minutes	38.4	45.8	37.5	38.8	35.0	39.6
31 to 60 minutes	14.0	14.7	15.9	9.5	11.7	13.7
60 minutes or more	25.7	27.6	24.8	22.0	37.0	26.8
1/4 to less than 1/2 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	20.5	7.1	16.6	27.4	24.4	22.5
6 to 30 minutes	42.7	37.4	45.0	40.6	41.1	48.6
31 to 60 minutes	12.2	14.0	13.5	12.3	8.1	9.6
60 minutes or more	24.6	41.5	24.9	19.7	26.4	19.2
1/2 to less than 1 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	20.5	10.5	18.1	23.0	21.8	21.2
6 to 30 minutes	39.4	23.8	36.7	41.8	44.1	39.1
31 to 60 minutes	14.8	27.8	16.4	11.7	16.1	10.1
60 minutes or more	25.3	37.8	28.8	23.5	18,0	29.5
1 to less than 2 minimum wages	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	22.9	12.5	20.2	24.2	24.4	22.3
6 to 30 minutes	37.6	32.4	35.7	38.2	38.0	40.7
31 to 60 minutes	14.8	14.1	17.8	15.2	12.1	13.6
60 minutes or more	24.8	41.0	26.4	22.4	25.5	23.4
2 minimum wages and more	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Up to 5 minutes	18.5	14.8	26.2	18.1	17.6	15.3
6 to 30 minutes	38.3	30.5	30.6	40.0	39.3	32.3
31 to 60 minutes	14.9	12.6	14.0	16.0	11.8	15.0
60 minutes or more	28.3	42.1	29.1	25.8	31.4	37.4

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Excludes tenants, domestic workers or relatives of domestic workers

Table 5.19 Percentage distribution of current smokers ≥ 15 years old, by Geographical Region, selected socio-demographic characteristics and level of nicotine dependence. GATS Brazil, 2008.

Level of nicotine dependence	Percentage distribution of current smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	81.0	92.0	85.9	78.6	76.7	78.7
High	19.0	8.0	14.1	21.5	23.3	21.3
Gender						
Male	100.0	100.0	100.0	100.0	100.0	100.0
Low	79.9	93.2	83.7	78.4	73.5	75.7
High	20.1	6.8	16.3	21.6	26.5	24.3
Female	100.0	100.0	100.0	100.0	100.0	100.0
Low	82.7	89.9	89.9	78.8	80.9	83.5
High	17.3	10.1	10.1	21.2	19.1	16.5
Age (years)						
15-24	100.0	100.0	100.0	100.0	100.0	100.0
Low	86.9	97.3	87.1	88.7	78.5	84.4
High	13.1	2.7	12.9	11.3	21.5	15.6
25 or more	100.0	100.0	100.0	100.0	100.0	100.0
Low	80.2	91.1	85.7	77.1	76.5	77.7
High	19.9	8.9	14.3	22.9	23.5	22.3
Place of residence						
Urban	100.0	100.0	100.0	100.0	100.0	100.0
Low	79.9	91.3	84.1	78.2	76.2	78.5
High	20.1	8.7	15.9	21.8	23.8	21.5
Rural	100.0	100.0	100.0	100.0	100.0	100.0
Low	86.0	94.0	89.5	81.9	79.0	79.8
High	14.0	6.0	10.5	18.1	21.0	20.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 5.20 Percentage distribution of current smokers ≥ 15 years old, by Geographical Region, years of schooling, household income and level of nicotine dependence. GATS Brazil, 2008.

Level of nicotine dependence	Percentage distribution of current smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Years of schooling						
None or less than 1 year	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	86.2	97.6	87.3	80.2	85.7	83.4
High	13.8	2.4	12.7	19.9	14.3	16.6
1-3	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	80.5	94.5	86.0	75.2	75.0	76.1
High	19.5	5.5	14.0	24.8	25.0	23.9
4-7	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	79.5	87.3	88.2	76.6	75.9	74.9
High	20.5	12.8	11.8	23.4	24.1	25.1
8-10	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	78.3	87.7	85.7	74.6	77.3	80.2
High	21.7	12.3	14.3	25.4	22.7	19.8
11 years or more	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	81.3	95.7	76.4	83.2	74.7	82.6
High	18.7	4.3	23.6	16.8	25.3	17.4
Monthly household income per capita[1]						
None or less than 1/4 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	85.0	91.7	88.2	75.0	80.9	86.9
High	15.0	8.3	11.8	25.0	19.1	13.1
1/4 to less than 1/2 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	83.1	94.9	89.8	75.5	75.1	77.7
High	16.9	5.1	10.2	24.5	24.9	22.3
1/2 to less than 1 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	82.4	82.3	85.4	81.9	77.7	77.5
High	17.6	7.7	14.6	18.1	22.3	22.5
1 to less than 2 minimum wages	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	79.6	78.8	81.5	80.0	75.8	76.7
High	20.4	11.2	18.5	20.0	24.2	23.3
2 minimum wages and more	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Low	76.9	87.9	73.0	76.0	79.0	81.1
High	23.1	12.1	27.0	24.0	21.0	18.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.21 - Number of adults ≥ 15 years old, by smoking status and state. GATS Brazil, 2008.

States	Adults ≥ 15 years old						
	Total	Smoking status					
		Current smoker			Non-smoker		
		Total	Daily	Occasional	Total	Former smoker	Never smoker
	Absolute numbers (1 000)						
Brazil	**142 999**	**24 552**	**21 539**	**3 013**	**118 446**	**25 987**	**92 460**
Rondônia	1 091	163	152	11	929	192	737
Acre	458	101	81	20	357	90	267
Amazonas	2 277	317	242	75	1 959	322	1 638
Roraima	281	50	41	10	230	37	194
Pará	5 058	902	714	189	4 156	1 062	3 094
Amapá	425	59	35	25	365	42	323
Tocantins	926	174	146	28	753	193	559
Maranhão	4 324	702	579	123	3 621	767	2 854
Piauí	2 310	458	410	48	1 852	407	1 446
Ceará	6 197	1 200	966	235	4 997	1 209	3 787
Rio Grande do Norte	2 316	392	330	62	1 924	516	1 408
Paraíba	2 807	568	497	71	2 239	492	1 747
Pernambuco	6 335	1 117	943	175	5 218	1 182	4 036
Alagoas	2 191	347	314	33	1 845	325	1 520
Sergipe	1 474	194	178	16	1 281	251	1 030
Bahia	10 684	1 651	1 379	272	9 034	1 896	7 138
Minas Gerais	15 270	2 683	2 393	290	12 586	3 000	9 587
Espírito Santo	2 618	467	396	71	2 151	392	1 759
Rio de Janeiro	12 506	1 906	1 701	205	10 600	1 948	8 652
São Paulo	31 911	5 344	4 852	492	26 567	5 577	20 990
Paraná	8 059	1 483	1 332	151	6 576	1 427	5 149
Santa Catarina	4 735	809	746	63	3 925	950	2 975
Rio Grande do Sul	8 477	1 759	1 597	161	6 718	1 680	5 038
Mato Grosso do Sul	1 748	324	307	17	1 424	341	1 082
Mato Grosso	2 240	383	336	47	1 857	409	1 448
Goiás	4 377	744	654	90	3 633	914	2 719
Distrito Federal	1 903	254	221	33	1 649	366	1 282
	Relative numbers (%)						
Brazil	**100.0**	**17.2**	**15.1**	**2.1**	**82.8**	**18.2**	**64.7**
Rondônia	100.0	14.9	13.9	1,0	85.1	17.6	67.5
Acre	100.0	22.1	17.7	4.4	77.9	19.7	58.3
Amazonas	100.0	13.9	10.6	3.3	86.1	14.1	71.9
Roraima	100.0	17.9	14.5	3.5	82.1	13.1	69.0
Pará	100.0	17.8	14.1	3.7	82.2	21.0	61.2
Amapá	100.0	14.0	8.2	5.8	86.0	10.0	76.0
Tocantins	100.0	18.7	15.7	3.0	81.3	20.9	60.4
Maranhão	100.0	16.2	13.4	2.9	83.8	17.7	66.0
Piauí	100.0	19.8	17.7	2.1	80.2	17.6	62.6
Ceará	100.0	19.4	15.6	3.8	80.6	19.5	61.1
Rio Grande do Norte	100.0	16.9	14.2	2.7	83.1	22.3	60.8
Paraíba	100.0	20.2	17.7	2.5	79.8	17.5	62.2
Pernambuco	100.0	17.6	14.9	2.8	82.4	18.7	63.7
Alagoas	100.0	15.8	14.3	1.5	84.2	14.8	69.4
Sergipe	100.0	13.1	12.1	1.1	86.9	17.0	69.9
Bahia	100.0	15.4	12.9	2.5	84.6	17.7	66.8
Minas Gerais	100.0	17.6	15.7	1.9	82.4	19.6	62.8
Espírito Santo	100.0	17.8	15.1	2.7	82.2	15.0	67.2
Rio de Janeiro	100.0	15.2	13.6	1.6	84.8	15.6	69.2
São Paulo	100.0	16.7	15.2	1.5	83.3	17.5	65.8
Paraná	100.0	18.4	16.5	1.9	81.6	17.7	63.9
Santa Catarina	100.0	17.1	15.8	1.3	82.9	20.1	62.8
Rio Grande do Sul	100.0	20.7	18.8	1.9	79.3	19.8	59.4
Mato Grosso do Sul	100.0	18.5	17.6	1.0	81.5	19.5	61.9
Mato Grosso	100.0	17.1	15.0	2.1	82.9	18.2	64.6
Goiás	100.0	17.0	14.9	2.1	83.0	20.9	62.1
Distrito Federal	100.0	13.4	11.6	1.8	86.6	19.2	67.4

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 5.22 - Number of adults ≥ 15 years old, by gender, smoking status and state. GATS Brazil, 2008.

States	Adults ≥ 15 years old, by gender					
	Male			Female		
	Total	Smoking status		Total	Smoking status	
		Current smoker	Non-smoker		Current smoker	Non-smoker
	Absolute numbers (1 000)					
Brazil	**68 538**	**14 789**	**53 749**	**74 461**	**9 764**	**64 698**
Rondônia	548	95	453	543	68	475
Acre	224	64	160	234	37	197
Amazonas	1 112	206	907	1 164	112	1 053
Roraima	141	35	107	139	16	124
Pará	2 503	602	1 901	2 555	300	2 255
Amapá	212	34	177	213	25	188
Tocantins	469	108	361	457	65	392
Maranhão	2 132	506	1 626	2 191	196	1 995
Piauí	1 119	317	802	1 191	141	1 050
Ceará	2 943	686	2 258	3 254	515	2 739
Rio Grande do Norte	1 121	231	890	1 195	161	1 034
Paraíba	1 338	349	989	1 469	219	1 250
Pernambuco	2 976	717	2 258	3 359	400	2 959
Alagoas	1 053	209	844	1 138	137	1 001
Sergipe	685	128	557	789	65	724
Bahia	5 181	1 102	4 079	5 503	549	4 954
Minas Gerais	7 324	1 608	5 716	7 946	1 076	6 870
Espírito Santo	1 262	296	966	1 356	171	1 185
Rio de Janeiro	5 770	1 095	4 675	6 736	811	5 925
São Paulo	15 196	3 036	12 160	16 715	2 308	14 407
Paraná	3 859	849	3 010	4 200	634	3 566
Santa Catarina	2 307	448	1 858	2 428	361	2 067
Rio Grande do Sul	4 072	1 001	3 071	4 405	757	3 647
Mato Grosso do Sul	848	210	638	900	114	786
Mato Grosso	1 132	258	874	1 108	126	982
Goiás	2 134	462	1 672	2 243	283	1 960
Distrito Federal	874	137	738	1 029	117	911
	Relative numbers (%)					
Brazil	**100.0**	**21.6**	**78.4**	**100.0**	**13.1**	**86.9**
Rondônia	100.0	17.3	82.7	100.0	12.5	87.5
Acre	100.0	28.6	71.4	100.0	15.7	84.3
Amazonas	100.0	18.5	81.5	100.0	9.6	90.4
Roraima	100.0	24.6	75.4	100.0	11.2	88.8
Pará	100.0	24.0	76.0	100.0	11.8	88.2
Amapá	100.0	16.2	83.8	100.0	11.8	88.2
Tocantins	100.0	23.1	76.9	100.0	14.3	85.7
Maranhão	100.0	23.7	76.3	100.0	9.0	91.0
Piauí	100.0	28.3	71.7	100.0	11.8	88.2
Ceará	100.0	23.3	76.7	100.0	15.8	84.2
Rio Grande do Norte	100.0	20.6	79.4	100.0	13.4	86.6
Paraíba	100.0	26.1	73.9	100.0	14.9	85.1
Pernambuco	100.0	24.1	75.9	100.0	11.9	88.1
Alagoas	100.0	19.9	80.1	100.0	12.1	87.9
Sergipe	100.0	18.8	81.2	100.0	8.2	91.8
Bahia	100.0	21.3	78.7	100.0	10.0	90.0
Minas Gerais	100.0	21.9	78.1	100.0	13.5	86.5
Espírito Santo	100.0	23.4	76.6	100.0	12.6	87.4
Rio de Janeiro	100.0	19.0	81.0	100.0	12.0	88.0
São Paulo	100.0	20.0	80.0	100.0	13.8	86.2
Paraná	100.0	22.0	78.0	100.0	15.1	84.9
Santa Catarina	100.0	19.4	80.6	100.0	14.9	85.1
Rio Grande do Sul	100.0	24.6	75.4	100.0	17.2	82.8
Mato Grosso do Sul	100.0	24.7	75.3	100.0	12.7	87.3
Mato Grosso	100.0	22.8	77.2	100.0	11.3	88.7
Goiás	100.0	21.6	78.4	100.0	12.6	87.4
Distrito Federal	100.0	15.6	84.4	100.0	11.4	88.6

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 5.23 - Percentage of former daily smokers, among adults and among ever daily smokers ≥ 15 years old, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of former daily smokers					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
	Among adults ≥ 15 years old					
Overall[1]	**14.1**	**12.3**	**14,0**	**13.9**	**15.2**	**15.2**
Gender						
Male	17.2	15.1	15.9	17.4	19.5	18.9
Female	11.2	9.5	12.3	10.7	11.3	11.7
Age (years)						
15-24	2.1	2.0	1.5	2.1	3.8	1.9
25-44	9.4	9.1	9.5	9.0	10.2	10.3
45-64	24.5	25.0	26.6	23.2	24.0	26.9
65+	31.4	30.9	34.0	29.1	31.4	36.9
Place of residence						
Urban	13.9	11.7	13.6	13.8	15.3	14.9
Rural	15.0	14.3	15.2	14.3	14.7	17.2
Years of schooling						
None or less than a year	25.8	26.5	25.4	25.4	27.9	26.6
1 to 3 years	20.1	18.0	19.3	19.3	23.1	23.9
4 to 7 years	15.0	12.4	12.1	16.7	15.4	17.3
8 to 10 years	10.5	8.4	8.1	11.2	13.4	10.2
11 years or more	10.0	6.8	8.7	10.4	11.8	10.7
Monthly household income per capita[2]						
None or less than 1/4 minimum wage	12.1	8.2	11.8	13.4	15.8	13.1
1/4 to less than 1/2 minimum wage	12.7	13.0	12.3	11.8	14.9	15.3
1/2 to less than 1 minimum wage	13.8	11.8	14.6	13.2	14.2	15.6
1 to less than 2 minimum wages	15.0	13.9	17.0	14.6	14.4	15.6
2 minimum wages and more	15.0	12.5	15.9	14.5	16.9	13.8
	Among ever daily smokers ≥ 15 years old [3]					
Overall [1]	**46.9**	**45.1**	**47.5**	**46.8**	**45.9**	**49.4**
Gender						
Male	46.4	43.7	43.8	47.3	48.0	48.6
Female	47.7	47.4	52.7	46.0	43.0	50.6
Age (years)						
15-24	19.0	18.6	16.5	18,0	25.9	15.5
25-44	35.8	36.8	38.2	34.7	33.4	37.9
45-64	52.9	55.0	53.0	52.0	52.0	58.0
65+	71.8	64.0	65.3	77.4	71.5	76.0
Place of residence						
Urban	47.5	45.4	49.1	47.0	46.6	49.1
Rural	44.2	44.1	43.8	44.2	42.8	51.3
Years of schooling						
None or less than a year	51.3	50.1	47.3	57.4	55.2	54.8
1 to 3 years	47.4	44.7	47.6	46.3	49.3	50.1
4 to 7 years	44.3	39.9	44.9	46.0	41.2	43.6
8 to 10 years	43.9	43.1	42.6	44.6	42.7	47.2
11 years or more	48.3	49.2	55.6	45.5	48.0	54.4
Monthly household income per capita [2]						
None or less than 1/4 minimum wage	36.0	27.4	36.9	36.7	37.5	36.1
1/4 to less than 1/2 minimum wage	40.6	43.2	42.8	37.0	38.0	43.1
1/2 to less than 1 minimum wage	45.7	43.9	50.9	44.6	39.3	48.2
1 to less than 2 minimum wages	50.1	49.2	54.6	49.8	46.2	50.9
2 minimum wages and more	54.8	66.3	61.6	51.2	59.0	56.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes individuals with undetermined years of schooling and/or monthly household income.
[2] Excludes tenants, domestic workers or relatives of domestic workers.
[3] Quit ratio

Table 5.24 - Percentage distribution of former daily smokers ≥ 15 years old, by Geographical Region, selected socio-demographic characteristics and time since quitting smoking. GATS Brazil, 2008.

Time since quitting smoking	Percentage distribution of former daily smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	7.9	6.0	6.6	8.2	10.0	7.4
1 to less than 5 years	16.9	21.6	19.5	15.0	17.0	13.5
5 to less than 10 years	18.0	19.0	18.3	17.7	16.7	20.0
10 years or more	57.3	53.4	55.6	59.1	56.3	59.1
Gender						
Male	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	7.6	6.1	7.6	7.2	10.0	6.0
1 to less than 5 years	15.9	21.8	19.0	13.5	16.8	12.9
5 to less than 10 years	16.3	18.4	17.2	15.8	14.4	18.8
10 years or more	60.1	53.7	56.1	63.6	58.7	62.2
Female	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	8.2	6.0	5.5	9.6	10.1	9.6
1 to less than 5 years	18.2	21.3	20.1	17.3	17.3	14.5
5 to less than 10 years	20.3	19.9	19.5	20.6	20.3	21.7
10 years or more	53.3	52.9	54.9	52.4	52.3	54.3
Age (years)						
25-44	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	11.9	7.9	13.1	13.0	10.1	9.9
1 to less than 5 years	25.3	31.0	28.2	23.9	23.4	21.1
5 to less than 10 years	24.8	29.9	20.2	24.3	27.6	31.7
10 years or more	38.0	31.2	38.5	38.8	38.9	37.4
45-64	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	6.5	4.5	4.0	6.5	11.6	6.1
1 to less than 5 years	12.3	16.9	15.2	10.7	10.6	10.8
5 to less than 10 years	18.7	16.3	21.5	18.5	15.8	17.8
10 years or more	62.5	62.3	59.2	64.2	62.0	65.3
Place of residence						
Urban	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	7.9	6.1	6.8	7.9	10.3	7.3
1 to less than 5 years	16.1	22.6	17.7	14.9	16.5	13.2
5 to less than 10 years	18.0	19.8	18.4	17.6	16.9	19.8
10 years or more	58.0	51.6	57.1	59.6	56.3	59.7
Rural	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	7.8	6.0	6.3	11.1	8.7	8.3
1 to less than 5 years	20.7	18.6	24,0	16.5	19.6	15.4
5 to less than 10 years	17.9	16.5	18.0	19.5	15.6	20.8
10 years or more	53.6	58.9	51.7	52.8	56.1	55.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 5.25 Percentage distribution of former daily smokers ≥ 15 years old, by Geographical Region, year of schooling and time since quitting smoking. GATS Brazil, 2008.

Time since quitting smoking	Percentage distribution of former daily smokers ≥ 15 years old					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Years of schooling						
None or less than 1 year	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	4.8	3.2	4.1	4.8	6.5	7.8
1 to less than 5 years	15.6	16.6	17.4	15.8	9.9	9.7
5 to less than 10 years	15.4	15.0	18.6	12.3	11.2	12.6
10 years or more	64.3	65.2	59.9	67.0	72.3	69.8
1 to 3 years	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	6.3	7.5	7.4	2.8	10.9	7.2
1 to less than 5 years	16.7	21.5	23.9	12.3	12.5	9.6
5 to less than 10 years	15.8	13.4	17.8	15.2	13.7	16.1
10 years or more	61.1	57.5	50.9	69.8	62.9	67.1
4 to 7 years	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	9.6	8.6	11.5	8.7	10.9	7.7
1 to less than 5 years	14.6	21.8	17.8	10.9	16.9	17.6
5 to less than 10 years	19.8	24.0	17.8	20.6	17.8	21.4
10 years or more	56.0	45.5	52.9	59.8	54.3	53.3
8 to 10 years	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	10.0	4.9	5.5	12.3	12.6	2.7
1 to less than 5 years	21.7	31.4	31.1	19.0	18.6	16.2
5 to less than 10 years	16.9	21.3	14.8	14.1	18.8	31.6
10 years or more	51.5	42.3	48.6	54.6	50.0	49.5
11 years and more	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	8.2	6.4	5.5	8.9	8.8	9.5
1 to less than 5 years	17.5	21.1	14.2	17.6	21.6	12.8
5 to less than 10 years	20.0	21.7	20.9	20.2	17.8	20.2
10 years or more	54.3	50.8	59.4	53.3	51.9	57.5
Monthly household income per capita[1]						
None or less than 1/4 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	12.1	8.8	11.5	8.0	24.7	18.4
1 to less than 5 years	28.3	37.8	29.2	31.0	12.5	21.7
5 to less than 10 years	19.0	20.7	18.3	17.4	21.7	27.8
10 years or more	40.6	32.7	41.0	43.6	41.1	32.2
1/4 to less than 1/2 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	7.2	5.5	5.4	7.2	15.2	9.7
1 to less than 5 years	20.9	25.6	22.7	19.7	15.7	14.4
5 to less than 10 years	20.2	17.0	22.1	20.6	12.1	24.1
10 years or more	51.7	51.9	49.9	52.5	57.1	51.9
1/2 to less than 1 minimum wage	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	9.2	7.0	8.2	10.5	10.2	7.3
1 to less than 5 years	17.5	21.0	18.2	15.8	21.5	13.7
5 to less than 10 years	18.5	19.2	17.9	16.5	23.1	21.7
10 years or more	54.7	52.8	55.7	57.2	45.1	57.3
1 to less than 2 minimum wages	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	6.3	2.8	4.1	7.2	8.2	3.7
1 to less than 5 years	16.1	16.9	16.2	15.2	18.7	15.1
5 to less than 10 years	16.9	20.3	15.1	17.2	14.8	22.4
10 years or more	60.7	60.0	64.7	60.4	58.2	58.8
2 minimum wages and more	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1 year	7.3	11.4	4.0	6.8	8.7	9.7
1 to less than 5 years	11.6	19.4	11.9	11.5	11.4	9.0
5 to less than 10 years	16.8	17.2	17.7	18.0	15.5	9.9
10 years or more	64.4	52.1	66.4	63.7	74.4	71.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Excludes tenants, domestic workers or relatives of domestic workers.

Table 5.26 Percentage of former smokers among ever smokers ≥ 15 years old [1], by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of former smokers among ever smokers ≥ 15 years old [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**51.4**	**52.3**	**51.5**	**51.2**	**50.0**	**54.3**
Gender						
Male	49.8	49.4	46.7	50.9	51.3	51.9
Female	53.7	56.8	58.3	51.7	48.3	57.9
Age (years)						
15-24	31.8	31.3	30.8	29.2	37.7	34.9
25-44	42.5	46.1	44.6	41.5	38.7	44.8
45-64	56.3	60.9	56.3	55.4	54.8	60.8
65+	73.9	69.5	67.1	79.3	73.9	78.4
Place of residence						
Urban	52.1	52.3	53.7	51.4	50.7	54.3
Rural	48.1	52.3	46.3	48.8	47,0	55.0
Years of schooling						
None or less than 1 year	54,0	54.1	49.8	60.3	57.6	57.1
1 to 3 years	52.2	55.3	52.2	50.3	52.9	54.5
4 to 7 years	48.7	47.6	48.8	49.9	45.4	49.9
8 to 10 years	48.2	47.3	48.5	48.7	45.6	52.8
11 years or more	54.1	57.5	61.1	51.1	53.6	59.3
Monthly household income per capita[3]						
None or less than 1/4 minimum wage	40.4	35.5	41.3	40.4	40.0	41.5
1/4 to less than 1/2 minimum wage	45.2	53.3	46.2	41.3	41.1	48.2
1/2 to less than 1 minimum wage	50.3	50.2	54.0	49.4	44.2	53.3
1 to less than 2 minimum wages	54.5	55.9	59.4	53.8	50.8	55.0
2 minimum wages and more	58.8	66.2	65.6	55.7	61.6	61.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Cessation index
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 6.1 - Percentage of current smokers and former smokers who have been abstinent for less than 12 months ≥ 15 years old who made a quit attempt in the past 12 months, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographics characteristics	Percentage of adults ≥ 15 years old who made a quit attempt in the past 12 months[1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**45.6**	**47.8**	**45.5**	**45.1**	**45.1**	**48.4**
Gender						
Male	43.0	44.6	41.4	43.0	43.8	46.1
Female	49.5	53.7	52.8	47.9	46.7	52.1
Age (years)						
15-24	48.0	50.5	50.2	46.6	42.8	55.2
25-44	46.6	49.7	46.6	45.8	46.9	48.0
45-64	44.3	44.8	45.2	43.2	45.5	45.3
65+	41.5	41.3	36.0	48.5	37.6	47.7
Place of residence						
Urban	46.1	47.9	46.9	45.1	45.9	49.0
Rural	43.5	47.7	42.4	45.2	41.5	44.5
Years of schooling						
None or less than 1 year	41.1	40.3	38.5	47.0	38.4	48.7
1 to 3 years	44.2	46.5	48.6	40.9	41.1	42.0
4 to 7 years	49.4	55.6	49.4	48.3	48.1	52.2
8 to 10 years	46.5	42.7	49.1	45.0	47.7	49.0
11 years or more	44.5	51.6	47.6	43.4	43.3	46.3
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	48.0	43.1	42.7	57.6	55.9	62.1
1/4 to less than 1/2 of the minimum wage	46.0	48.3	45.2	46.0	48.0	43.3
1/2 to less than 1 minimum wage	48.0	48.4	47.1	46.5	49.0	56.0
1 to less than 2 minimum wages	42.1	51.8	44.3	40.7	41.1	41.9
2 minimum wages and more	44.4	49.7	51.4	43.9	41.5	45.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Among current smokers and former smokers who have been abstinent for less than 12 months.

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers

Table 6.2 - Percentage of current smokers and former smokers who have been abstinent for less than 12 months ≥ 15 years old who visited a HCP* in the past 12 months, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographics characteristics	Percentage of adults ≥ 15 years old who visited a HCP* [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**58.8**	**47.4**	**52.4**	**63.7**	**61.7**	**57.5**
Gender						
Male	50.1	41.9	44.5	55.2	52.6	46.7
Female	71.7	57.4	66.3	75.3	73.9	74.9
Age (years)						
15-24	48.4	42.7	41.9	53.5	51.2	46.3
25-44	57.3	47.8	49.9	62.3	60.1	58.6
45-64	64.2	50.7	58.7	68.6	66.8	60.3
65+	61.8	43.5	56.8	67.0	67.7	67.6
Place of residence						
Urban	60.7	48.7	55.4	64.4	62.7	59.2
Rural	49.8	43.6	45.9	56.6	57.4	45.7
Years of schooling						
None or less than 1 year	53.1	41.7	48.2	63.6	67.1	55.4
1 to 3 years	55.6	47.2	51.2	62.4	57.5	50.4
4 to 7 years	57.9	49.1	49.9	63.5	58.4	57.4
8 to 10 years	59.6	47.2	56.7	62.5	64.3	44.7
11 years or more	64.7	51.4	65.3	65.2	63.7	71.8
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	50.0	42.5	44.1	64.2	58.4	57.3
1/4 to less than 1/2 of the minimum wage	56.5	45.0	53.4	63.1	56.4	62.0
1/2 to less than 1 minimum wage	57.4	45.7	50.7	62.6	61.9	54.0
1 to less than 2 minimum wages	59.4	55.0	58.0	60.5	62.7	49.9
2 minimum wages and more	66.7	53.7	71.5	68.2	61.9	67.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Among current smokers and former smokers who have been abstinent for less than 12 months.

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers

Table 6.3 - Percentage of current smokers and former smokers who have been abstinent for less than 12 months, and who visited a HCP* during the past 12 months ≥ 15 years old who were asked by HCP if was a smoker, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographics characteristics	Percentage of adults ≥ 15 years old asked by HCP* if was a smoker[1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**71.0**	**62.1**	**64.7**	**73.7**	**73.6**	**75.8**
Gender						
Male	70.2	61.1	65.7	71.4	75.1	75.2
Female	71.8	63.3	63.4	75.9	72.1	76.3
Age (years)						
15-24	54.9	54.6	45.6	57.2	58.9	61.3
25-44	70.2	57.8	62.2	74.6	71.6	74.2
45-64	74.6	68.1	69.1	75.8	78.8	79.6
65+	81.6	81.2	78.1	83.2	80.5	94.8
Place of residence						
Urban	71.5	60.4	65.3	74.1	73.4	74.8
Rural	67.8	67.4	63.0	67.9	74.6	84.0
Years of schooling						
None or less than 1 year	71.0	74.0	67.5	75.7	74.3	70.0
1 to 3 years	70.7	63.0	62.7	73.3	79.1	83.2
4 to 7 years	70.8	55.7	60.4	74.4	74.9	78.0
8 to 10 years	68.3	54.5	63.9	71.8	68.5	65.6
11 years or more	73.2	67.4	69.3	73.9	73.7	76.4
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	68.1	66.7	61.5	79.3	69.6	71.5
1/4 to less than 1/2 of the minimum wage	68.2	59.7	65.4	69.7	75.2	74.7
1/2 to less than 1 minimum wage	69.6	61.4	61.3	74.6	67.3	79.6
1 to less than 2 minimum wages	69.8	62.3	67.6	68.0	77.0	71.1
2 minimum wages and more	78.2	57.8	76.5	79.9	76.5	77.8

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
* HCP = health care provider
[1] Among current smokers and former smokers who have been abstinent for less than 12 months.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers

Table 6.4 - Percentage of current smokers and former smokers who have been abstinent for less than 12 months, and who visited a HCP* during the past 12 months ≥ 15 years old who were advised to quit by HCP, by Geographical Region and select socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographics characteristics	Percentage of adults advised to quit by HCP* [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**57.1**	**49.9**	**52.0**	**59.5**	**59.3**	**58.8**
Gender						
Male	55.7	48.0	50.9	57.7	59.5	57.9
Female	58.5	52.5	53.3	61.2	59.1	59.7
Age (years)						
15-24	35.1	46.6	21.7	34.7	46.7	40.6
25-44	54.7	42.8	50.6	57.9	56.3	53.0
45-64	64.4	58.5	59.4	66.5	66.2	66.7
65+	67.3	68.3	63.7	69.5	61.3	90.6
Place of residence						
Urban	57.3	47.7	52.3	59.5	59.2	58.8
Rural	55.8	57.4	51.3	59.8	59.6	58.8
Years of schooling						
None or less than 1 year	58.9	59.2	55.8	59.4	68.2	63.2
1 to 3 years	59.1	56.4	53.0	63.4	64.1	55.0
4 to 7 years	59.5	44.9	49.6	64.2	61.6	62.7
8 to 10 years	52.0	39.5	51.8	53.0	54.4	45.5
11 years or more	55.9	52.3	47.9	57.8	55.8	58.5
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	54.1	58.3	49.9	60.5	56.0	50.5
1/4 to less than 1/2 of the minimum wage	56.6	51.6	54.9	56.3	67.1	55.2
1/2 to less than 1 minimum wage	55.8	48.2	48.2	60.9	53.7	61.2
1 to less than 2 minimum wages	54.9	46.5	50.7	54.7	59.9	56.8
2 minimum wages and more	63.2	38.2	62.4	64.9	61.2	64.4

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
* HCP = health care provider
[1] Among current smokers and former smokers who have been abstinent for less than 12 months.
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 6.5 - Percentage of current smokers and former smokers ≥ 15 years old who made a quit attempt in past 12 months, by cessation method for their last quit attempt and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥ 15 years old asked by HCP* if was a smoker [1]	
	Pharmacotherapy [2]	Counseling/Advice[3]
Overall[4]	**6.7**	**15.2**
Gender		
Male	5.5	13.7
Female	8.3	17.1
Age (years)		
15-24	2.5	7.1
25-44	6.9	13.7
45-64	8.3	20.0
65+	6.9	18.3
Place of residence		
Urban	7.4	15.3
Rural	3.5	14.5
Years of schooling		
None or less than 1 year	3.7	15.7
1 to 3 years	3.6	18.4
4 to 7 years	5.4	15.1
8 to 10 years	7.7	14.5
11 years or more	11.3	13.5
Monthly household income per capita[4] [5]		
None or less than 1/4 of the minimum wage	2.6	13.5
1/4 to less than 1/2 of the minimum wage	3.9	15.7
1/2 to less than 1 minimum wage	5.8	16.5
1 to less than 2 minimum wages	7.0	13.8
2 minimum wages and more	14.0	15.0

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] 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.

[2] Pharmacotherapy includes nicotine replacement therapy and prescription medications.

[3] Includes counseling at a cessation clinic and a telephone quitline/helpline.

[4] Includes individuals with undetermined years of schooling and/or monthly household income.

[5] Excludes tenants, domestic workers or relatives of domestic workers

Table 7.1 - Number of adults who work indoors and are exposed to tobacco smoke at work, among adults and among non-smokers ≥ 15 years old, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Adults ≥15 years old who work indoors and are exposed to tobacco smoke at work [1] (1000 persons)					
	Brazil	Geographical Regions				
		North	Northeast	Southeasr	South	Midwest
			Among adults ≥ 15 years old			
Overall [2]	**11 567**	**537**	**2 158**	**6 215**	**1 817**	**840**
Gender						
Male	6 650	330	1 208	3 609	1 010	494
Female	4 917	207	951	2 606	807	346
Age (years)						
15-24	2 212	118	454	1 076	377	187
25-44	6 126	264	1 208	3 235	951	469
45-64	2 958	148	451	1 735	455	169
65+	271	6	46	170	34	15
Place of residence						
Urban	10 898	483	1 892	6 034	1 680	808
Rural	669	53	267	181	137	32
Years of schooling						
None or less than 1 year	409	18	167	156	23	45
1 to 3 years	592	41	190	261	65	35
4 to 7 years	2 804	111	528	1 557	392	217
8 to 10 years	2 255	130	419	1 073	419	214
11 years or more	5 481	234	852	3 149	918	328
Monthly household income per capita [3]						
None or less than 1/4 of the minimum wage	262	29	150	56	17	10
1/4 to less than 1/2 of the minimum wage	1 137	71	530	343	103	91
1/2 to less than 1 minimum wage	2 812	195	598	1 395	396	228
1 to less than 2 minimum wages	3 915	126	575	2 225	712	277
2 minimum wages and more	3 009	89	257	1 912	547	204
			Among non-smokers ≥15 years old			
Non-smokers [2] [4]	**9 119**	**444**	**1 712**	**4 890**	**1 420**	**653**
Gender						
Male	5 082	265	912	2 751	790	364
Female	4 037	179	801	2 139	630	289
Age (years)						
15-24	1 884	108	399	915	307	154
25-44	4 853	212	951	2 582	762	345
45-64	2 138	117	319	1 246	317	139
65+	244	6	42	147	34	15
Place of residence						
Urban	8 599	400	1 516	4 747	1 314	622
Rural	520	43	197	143	106	31
Years of schooling						
None or less than 1 year	288	15	122	108	15	29
1 to 3 years	398	26	131	174	47	20
4 to 7 years	2 008	84	397	1 105	274	148
8 to 10 years	1 713	108	312	816	298	179
11 years or more	4 701	208	751	2 680	787	276
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	186	18	116	37	9	6
1/4 to less than 1/2 of the minimum wage	881	61	396	279	84	60
1/2 to less than 1 minimum wage	2 182	155	481	1 093	272	181
1 to less than 2 minimum wages	3 124	99	454	1 770	580	222
2 minimum wages and more	2 409	88	224	1 490	444	163

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

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

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

[4] Includes former and never smokers.

Table 7.2 - Percentage of adults who work indoors and are exposed to tobacco smoke at work, among adults and among non-smokers ≥ 15 years old, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
	Among adults ≥15 years old					
Overall [2]	**24.4**	**19.7**	**23.7**	**26.0**	**22.1**	**24.5**
Gender						
Male	28.5	23.4	27.8	30.1	26.0	28.5
Female	20.4	15.7	19.9	21.8	18.6	20.4
Age (years)						
15-24	22.7	19.4	23.1	23.0	20.9	26.6
25-44	24.4	17.5	24.3	26.1	21.8	24.5
45-64	25.2	26.3	22.1	26.9	23.3	22.2
65+	33.9	14.3	33.1	38.8	27.0	28.3
Place of residence						
Urban	24.3	19.5	22.8	26.1	21.8	24.5
Rural	26.3	21.3	32.0	23.0	25.1	24.6
Years of schooling						
None or less than 1 year	28.5	25.1	34.9	26.5	16.3	29.1
1 to 3 years	28.8	29.2	32.9	28.3	24.4	23.9
4 to 7 years	32.9	26.2	30.2	36.3	28.1	32.6
8 to 10 years	27.2	24.7	28.1	26.5	25.9	34.8
11 years or more	20.3	15.1	17.7	22.4	19.1	17.8
Monthly household income per capita [3]						
None or less than 1/4 of the minimum wage	28.6	31.8	29.5	26.3	26.4	24.3
1/4 to less than 1/2 of the minimum wage	27.2	19.6	28.4	26.0	29.1	31.8
1/2 to less than 1 minimum wage	25.7	23.9	22.6	28.3	23.2	27,0
1 to less than 2 minimum wages	25.8	16.5	25.2	27.9	23.0	25.1
2 minimum wages and more	21.2	14.8	16.3	23.4	19.6	19.3
	Among non-smokers ≥15 years old					
Non-smokers [2] [4]	**22.8**	**18.8**	**21.6**	**24.5**	**20.8**	**22.5**
Gender						
Male	26.5	22.7	25.3	28.2	24.6	25.8
Female	19.4	15.0	18.5	21.0	17.3	19.3
Age (years)						
15-24	21.5	19.3	21.8	22.1	19.0	25.4
25-44	22.9	16.4	21.9	24.8	21.3	21.4
45-64	23.1	25,0	19.5	24.9	20.8	21.8
65+	33.5	14.3	35.3	36.8	29.2	30.4
Place of residence						
Urban	22.7	18.7	21.0	24.6	20.6	22.3
Rural	24.1	19.6	27.5	22.9	22.1	26.5
Years of schooling						
None or less than 1 year	27.4	25.5	35.3	24.4	16.0	25.3
1 to 3 years	26.2	24.3	28.1	26.7	24.3	19.8
4 to 7 years	30.8	25.2	27.7	34.7	25.5	29.9
8 to 10 years	25.1	24.3	25.1	24.4	23.4	33.8
11 years or more	19.6	14.7	16.9	21.8	18.8	16.6
Monthly household income per capita [3]						
None or less than 1/4 of the minimum wage [4]	27.8	27.3	27.5	36.0	18.2	19.3
1/4 to less than 1/2 of the minimum wage	26.1	21.1	25.2	26.9	32.7	27.2
1/2 to less than 1 minimum wage	24.1	22.3	20.7	27.3	20.3	26.0
1 to less than 2 minimum wages	24.1	14.9	22.9	26.2	22.1	23.4
2 minimum wages and more	19.7	15.7	15.8	21.5	18.6	17.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

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

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

[4] Includes former and never smokers.

Table 7.3 - Percentage of adults ≥ 15 years old who were exposed to tobacco smoke in health care facilities, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who were exposed to tobacco smoke in health care facilities [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**4.0**	**2.9**	**4.0**	**4.6**	**2.6**	**4.6**
Gender						
Male	3.0	2.1	2.9	3.6	1.8	3.0
Female	5.0	3.8	5.0	5.6	3.3	6.1
Age (years)						
15-24	3.2	2.6	3.2	3.4	2.3	4.3
25-44	4.3	3.3	4.7	4.8	2.5	4.2
45-64	4.7	2.8	4.2	5.5	3.3	5.8
65+	3.0	2.4	2.5	3.8	1.6	3.6
Place of residence						
Urban	4.4	3.3	4.8	4.8	2.9	4.7
Rural	2.0	1.5	1.7	3.0	1.2	3.6
Years of schooling						
None or less than 1 year	3.3	2.5	2.7	4.9	1.9	4.3
1 to 3 years	3.6	1.4	3.1	4.3	3.4	5.9
4 to 7 years	3.9	2.0	3.7	4.8	2.4	3.9
8 to 10 years	4.1	2.9	4.3	4.9	1.7	5.1
11 years or more	4.4	4.4	5.3	4.4	3.1	4.5
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	3.9	2.5	2.7	7.5	5.5	4.4
1/4 to less than 1/2 of the minimum wage	4.1	2.5	4.2	4.7	2.4	5.6
1/2 to less than 1 minimum wage	4.2	2.3	4.0	5.2	2.4	5.0
1 to less than 2 minimum wages	3.7	3.5	4.4	4.0	2.1	4.6
2 minimum wages and more	4.1	4.0	5.2	4.4	2.7	3.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 7.4 - Percentage of adults ≥ 15 years old who were exposed to tobacco smoke in restaurants, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who were exposed to tobacco smoke in restaurants [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**9.9**	**6.0**	**7.2**	**12.3**	**11.0**	**6.5**
Gender						
Male	10.8	6.2	8.4	13.2	12.0	6.9
Female	9.0	5.8	6.1	11.5	10.0	6.2
Age (years)						
15-24	11.1	6.4	8.0	14.8	11.9	7.7
25-44	12.1	6.2	9.5	15.0	14.1	7.6
45-64	8.0	6.7	4.9	9.8	9.2	5.5
65+	3.4	0.6	1.7	4.7	3.4	2.1
Place of residence						
Urban	11.0	7.0	9.0	12.9	12.2	7.0
Rural	3.4	2.2	2.1	5.2	5.3	3.1
Years of schooling						
None or less than 1 year	2.0	1.2	1.9	1.9	3.0	2.1
1 to 3 years	2.3	2.6	2.0	2.4	3.1	1.6
4 to 7 years	5.5	2.9	4.4	6.8	5.7	3.6
8 to 10 years	8.4	6.1	5.9	10.2	9.0	5.9
11 years or more	18.4	11.5	17.1	20.5	19.3	11.7
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	2.9	1.7	2.6	4.4	3.4	2.0
1/4 to less than 1/2 of the minimum wage	3.6	2.1	3.6	4.3	4.3	2.0
1/2 to less than 1 minimum wage	6.3	5.4	6.3	7.2	5.6	3.8
1 to less than 2 minimum wages	9.6	6.3	9.8	10.4	9.9	5.6
2 minimum wages and more	22.2	17.7	23.7	23.7	20.7	15.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 7.5 - Percentage of adults ≥ 15 years old who were exposed to tobacco smoke in public transportation, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who were exposed to tobacco smoke in public transportation [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**4.5**	**4.4**	**5.6**	**5.3**	**1.2**	**2.6**
Gender						
Male	4.1	3.4	5.4	4.9	1.2	1.8
Female	4.8	5.4	5.8	5.6	1.2	3.4
Age (years)						
15-24	5.2	5.8	6.3	6.0	1.5	3.2
25-44	5.1	4.3	6.6	5.9	1.3	3.1
45-64	3.8	3.4	4.4	4.7	1.0	1.8
65+	2.6	3.1	3.2	3.0	0.6	1.3
Place of residence						
Urban	4.6	4.3	5.7	5.5	1.2	2.7
Rural	3.7	4.9	5.4	2.0	1.0	2.0
Years of schooling						
None or less than 1 year	3.6	2.0	4.2	4.3	1.2	2.0
1 to 3 years	3.8	5.1	4.7	4.0	0.9	2.0
4 to 7 years	3.9	4.6	5.4	4.2	1.2	2.1
8 to 10 years	5.0	5.4	6.3	5.8	1.4	3.9
11 years or more	5.0	4.1	6.9	6.0	1.1	2.7
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	4.4	4.7	5.2	3.3	1.9	3.4
1/4 to less than 1/2 of the minimum wage	5.6	5.9	6.1	6.0	2.6	3.1
1/2 to less than 1 minimum wage	4.9	3.6	6.3	5.9	0.9	3.0
1 to less than 2 minimum wages	4.3	4.3	5.3	5.3	1.1	3.0
2 minimum wages and more	3.3	3.0	3.8	4.3	1.1	1.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 7.6 - Percentage of adults ≥ 15 years old who were exposed to tobacco smoke in government buildings or offices, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who were exposed to tobacco smoke in government buildings and offices [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**3.6**	**3.2**	**3.4**	**3.8**	**3.5**	**3.8**
Gender						
Male	3.7	3.1	3.4	4.0	3.5	4.2
Female	3.5	3.3	3.4	3.5	3.5	3.4
Age (years)						
15-24	3.7	4.3	3.8	3.5	3.6	3.7
25-44	4.2	3.0	4.2	4.4	4.1	4.3
45-64	3.5	3.0	2.7	4.0	3.2	3.7
65+	1.5	1.1	1.0	1.5	2.1	2.3
Place of residence						
Urban	4.0	3.6	4.0	4.0	3.9	4.2
Rural	1.6	1.8	1.8	1.0	1.8	0.7
Years of schooling						
None or less than 1 year	1.6	1.4	1.1	2.1	2.4	1.5
1 to 3 years	1.6	1.4	2.4	0.9	1.0	2.5
4 to 7 years	2.0	2.9	1.9	1.9	1.5	3.1
8 to 10 years	3.3	3.2	3.9	3.3	2.0	3.3
11 years or more	6.1	5.0	6.8	6.0	6.6	5.6
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	2.0	2.1	1.7	2.6	3.0	2.2
1/4 to less than 1/2 of the minimum wage	3.0	2.5	3.0	3.1	2.3	3.8
1/2 to less than 1 minimum wage	2.5	2.5	2.9	2.4	1.6	3.4
1 to less than 2 minimum wages	3.3	4.3	4.2	3.2	2.8	3.0
2 minimum wages and more	6.4	5.4	8.7	6.1	6.5	5.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] In the past 30 days
[2] Includes individuals with undetermined years of schooling and/or monthly household income.
[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 7.7 - Percentage of non-smokers ≥ 15 years old who were exposed to tobacco smoke in health care facilities, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of non-smokers ≥15 years old who were exposed to tobacco smoke in health care facilities [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**4.1**	**3.0**	**4.1**	**4.8**	**2.5**	**4.7**
Gender						
Male	3.1	2.3	3.0	3.7	1.6	2.9
Female	5.0	3.6	4.9	5.6	3.3	6.1
Age (years)						
15-24	3.3	2.7	3.4	3.5	2.4	4.2
25-44	4.2	3.2	4.7	4.8	2.3	4.4
45-64	5.1	2.9	4.3	6.2	3.2	6.2
65+	3.3	2.5	3.1	4.0	1.9	3.1
Place of residence						
Urban	4.5	3.3	4.8	4.9	2.8	4.8
Rural	2.1	1.6	1.8	3.2	1.0	3.9
Years of schooling						
None or less than 1 year	3.6	3.2	2.8	4.8	2.5	4.5
1 to 3 years	3.7	1.4	3.8	4.2	3.4	4.9
4 to 7 years	3.9	2.0	3.7	5.1	2.0	4.3
8 to 10 years	4.0	2.2	4.0	4.9	1.7	5.4
11 years or more	4.5	4.6	5.3	4.6	3.2	4.5
Monthly household income per capita [3]						
None or less than 1/4 of th e minimum wage	4.0	3.1	2.9	7.6	3.8	5.6
1/4 to less than 1/2 of the minimum wage	4.3	2.3	4.5	4.8	2.9	6.1
1/2 to less than 1 minimum wage	4.1	2.1	4.1	4.9	2.0	4.9
1 to less than 2 minimum wages	3.9	3.5	4.2	4.3	2.2	4.6
2 minimum wages and more	4.3	4.4	5.1	4.7	2.9	3.8

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers..

Table 7.8 - Percentage of non-smokers ≥ 15 years old who were exposed to tobacco smoke in restaurants, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of non-smokers ≥15 years old who were exposed to tobacco smoke in restaurants [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**10.1**	**6.4**	**7.3**	**12.6**	**11.5**	**6.8**
Gender						
Male	11.3	6.9	8.9	13.8	12.5	7.5
Female	9.1	6.0	6.0	11.5	10.7	6.1
Age (years)						
15-24	10.9	6.8	7.8	14.4	11.8	7.6
25-44	12.6	6.7	9.7	15.5	15.1	8.0
45-64	8.4	7.0	5.0	10.3	9.8	5.9
65+	3.5	0.8	1.5	4.9	3.8	1.9
Place of residence						
Urban	11.3	7.4	9.1	13.1	12.7	7.3
Rural	3.4	2.2	2.0	5.5	5.5	2.8
Years of schooling						
None or less than 1 year	2.1	1.4	1.8	2.1	3.7	2.3
1 to 3 years	2.4	1.9	2.3	2.9	2.6	1.4
4 to 7 years	5.2	2.6	3.7	6.8	5.4	3.6
8 to 10 years	8.3	6.5	5.8	10.3	8.8	5.7
11 years or more	18.2	11.7	16.4	20.3	20.0	11.7
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	2.8	1.6	2.5	4.8	3.3	0.5
1/4 to less than 1/2 of the minimum wage	3.5	2.2	3.6	3.8	4.8	2.0
1/2 to less than 1 minimum wage	6.3	5.5	6.3	7.2	5.4	3.4
1 to less than 2 minimum wages	9.8	6.9	9.8	10.7	9.7	5.7
2 minimum wages and more	22.3	18.1	22.9	23.7	21.7	15.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers..

Table 7.9 - Percentage of non-smokers ≥ 15 years old who were exposed to tobacco smoke in public transportation, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of non-smokers ≥15 years old who were exposed to tobacco smoke in public transportation [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**4.8**	**4.8**	**6.1**	**5.6**	**1.3**	**2.9**
Gender						
Male	4.5	3.6	6.1	5.2	1.2	1.9
Female	5.1	5.8	6.1	5.9	1.4	3.8
Age (years)						
15-24	5.4	6.3	6.4	6.1	1.6	3.6
25-44	5.5	4.5	7.2	6.4	1.4	3.4
45-64	4.2	3.9	4.9	5.0	1.2	2.2
65+	2.6	3.3	3.0	3.2	0.7	1.1
Place of residence						
Urban	5.0	4.7	6.2	5.8	1.3	3.0
Rural	3.9	5.1	5.6	2.3	1.0	2.0
Years of schooling						
None or less than 1 year	3.9	2.2	4.7	4.4	1.6	2.3
1 to 3 years	4.1	6.2	5.1	4.2	0.7	2.3
4 to 7 years	4.3	5.1	5.9	4.4	1.4	2.4
8 to 10 years	5.5	6.0	6.6	6.3	1.5	4.4
11 years or more	5.2	4.0	7.0	6.3	1.2	2.8
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	4.9	5.0	5.9	2.9	2.4	4.5
1/4 to less than 1/2 of the minimum wage	6.1	6.5	6.5	6.7	2.9	3.7
1/2 to less than 1 minimum wage	5.2	3.9	6.6	6.1	1.0	3.3
1 to less than 2 minimum wages	4.6	5.1	5.8	5.5	1.1	3.4
2 minimum wages and more	3.6	2.9	4.0	4.8	1.3	1.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 7.10 - Percentage of non-smokers ≥ 15 years old who were exposed to tobacco smoke in government buildings or offices, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of non-smokers ≥15 years old who were exposed to tobacco smoke in government buildings or offices [1]					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**3.7**	**3.6**	**3.7**	**3.8**	**3.8**	**3.7**
Gender						
Male	4.0	3.7	4.0	4.0	3.9	4.1
Female	3.6	3.5	3.5	3.6	3.7	3.4
Age (years)						
15-24	3.7	4.7	4.0	3.5	3.8	2.8
25-44	4.4	3.4	4.6	4.5	4.4	4.7
45-64	3.7	3.2	3.2	4.0	3.6	3.7
65+	1.4	0.8	0.8	1.4	2.4	2.0
Place of residence						
Urban	4.1	3.9	4.3	4.0	4.2	4.1
Rural	1.8	2.3	2.1	1.0	1.9	0.9
Years of schooling						
None or less than 1 year	1.7	1.3	1.3	2.0	3.1	1.5
1 to 3 years	1.7	1.9	3.0	0.7	0.8	2.2
4 to 7 years	2.0	2.9	2.1	1.9	1.7	2.2
8 to 10 years	3.2	3.6	3.9	3.0	2.2	3.7
11 years or more	6.2	5.3	6.8	6.0	6.7	5.5
Monthly household income per capita [3]						
None or less than 1/4 of the minimum wage	2.2	2.8	1.9	2.9	2.9	1.7
1/4 to less than 1/2 of the minimum wage	3.2	2.8	3.3	3.1	2.7	3.9
1/2 to less than 1 minimum wage	2.5	2.4	3.2	2.2	1.5	2.8
1 to less than 2 minimum wages	3.4	4.8	4.3	3.1	3.1	3.1
2 minimum wages and more	6.6	5.7	9.2	6.2	6.9	5.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] In the past 30 days

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers.

Table 7.11 - Percentage of adults who work indoors and are exposed to tobacco smoke at work, among adults and among non-smokers ≥ 15 years old, by state. GATS Brazil, 2008.

States	Percentage of adults ≥15 years old who work indoors and are exposed to tobacco smoke at work [1]	
	Overall	Non-smokers
Brazil	24.4	22.8
Rondônia	20.1	17.8
Acre	26.7	26.2
Amazonas	21.5	21.3
Roraima	13.8	10.8
Pará	18.9	18.3
Amapá	9.5	7.2
Tocantins	21.7	20.1
Maranhão	19.6	17.1
Piauí	24.9	24.5
Ceará	23.8	21.2
Rio Grande do Norte	30.6	28.9
Paraíba	22.9	20.2
Pernambuco	23.9	21.4
Alagoas	20.9	20.1
Sergipe	29.2	26.6
Bahia	22.8	20.9
Minas Gerais	28.1	27.2
Espírito Santo	19.5	19.0
Rio de Janeiro	26.9	25.6
São Paulo	25.2	23.4
Paraná	23.0	22.4
Santa Catarina	15.1	13.6
Rio Grande do Sul	25.6	23.9
Mato Grosso do Sul	25.7	24.4
Mato Grosso	23.8	24.0
Goiás	26.3	22.9
Distrito Federal	20.5	19.2

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

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

Table 8.1 - Percentage of adults ≥ 15 years old who noticed anti-cigarette smoking information during the last 30 days, by Geographical Region, selected socio-demographic characteristics and mean of communication. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who noticed anti-cigarette smoking information during the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall [1]	**73.1**	**63.5**	**70.2**	**74.9**	**78.2**	**72.8**
Newspapers or magazines	39.4	31.9	32.3	43.1	44.5	40.3
TV or radio	67.0	57.8	65.5	67.9	71.9	66.7
Other [2]	30.8	22.5	25.9	32.9	36.5	33.1
Gender						
Male	72.6	63.5	69.3	74.0	79.2	71.7
Newspapers or magazines	39.7	32.7	32.3	43.9	45.0	38.5
TV or radio	66.9	58.0	65.3	67.2	73.6	66.2
Other [2]	29.8	21.5	24.7	32.2	35.1	32.0
Female	73.6	63.5	71.0	75.7	77.2	73.8
Newspapers or magazines	39.1	31.2	32.4	42.4	44.0	41.9
TV or radio	67.1	57.7	65.7	68.5	70.4	67.1
Other [2]	31.7	23.6	27.1	33.5	37.7	34.1
Age (years)						
15-24	72.9	63.5	72.1	74.3	77.4	71.2
Newspapers or magazines	38.8	30.6	33.6	43.2	42.7	39.6
TV or radio	65.2	57.2	65.6	65.8	69.2	63.0
Other [2]	32.8	25.8	29.6	34.1	38.0	37.0
25+	73.2	63.5	69.5	75.1	78.4	73.3
Newspapers or magazines	39.6	32.5	31.9	43.1	45.0	40.5
TV or radio	67.5	58.1	65.5	68.4	72.7	67.8
Other [2]	30.2	21.3	24.6	32.6	36.0	31.9
Place of r esidence						
Urban	74.9	68.4	73.0	75.6	79.4	74.0
Newspapers or magazines	42.3	35.9	36.8	44.3	47.8	42.0
TV or radio	68.3	62.1	67.5	68.3	72.6	67.7
Other [2]	33.0	26.2	29.6	33.6	38.9	34.8
Rural	63.2	45.1	62.3	66.3	72.3	64.0
Newspapers or magazines	23.1	17.1	19.8	27.5	28.8	27.6
TV or radio	59.9	41.9	60.0	61.7	68.7	58.8
Other [2]	18.4	9.0	15.4	24.1	24.6	20.6
Years of schooling						
None or less than a year	58.3	47.6	55.4	62.9	66.0	61.6
Newspapers or magazines	19.2	18.5	13.9	23.9	29.5	22.7
TV or radio	56.0	45.7	54.1	59.4	62.9	58.1
Other [2]	14.0	10.0	9.8	18.7	21.5	18.0
1 to 3 years	65.4	51.1	65.0	67.3	71.4	63.6
Newspapers or magazines	26.3	17.6	23.7	29.5	30.2	26.8
TV or radio	62.1	48.4	61.7	63.8	67.9	60.7
Other [2]	20.6	8.8	18.8	23.1	27.1	18.6
4 to 7 years	72.1	61.5	71.0	73.2	76.0	72.0
Newspapers or magazines	34.3	28.7	29.5	36.7	38.1	36.3
TV or radio	67.4	55.9	67.2	67.6	72.2	67.9
Other [2]	28.0	19.0	25.2	29.6	31.4	31.1
8 to 10 years	76.1	66.8	75.5	76.7	80.0	75.8
Newspapers or magazines	42.3	34.5	37.1	44.8	45.3	44.9
TV or radio	69.4	61.8	70.6	68.6	73.9	68.9
Other [2]	34.1	24.6	32.1	35.0	37.0	38.7
11 years or more	79.0	74.0	79.3	78.6	82.5	77.6
Newspapers or magazines	51.4	43.7	49.7	52.2	54.9	49.5
TV or radio	70.2	65.1	70.8	69.9	73.2	68.8
Other [2]	39.1	33.9	38.1	38.3	44.9	39.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes individuals with undetermined years of schooling and/or monthly household income.
[2] Includes billboards, posters and brochures.

Table 8.2 - Percentage of adults ≥ 15 years old who noticed anti-cigarette smoking information during the last 30 days, by Geographical Region, selected socio-demographic characteristics and mean of communication (television and radio). GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who noticed anti-cigarette smoking information during the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[1]						
TV	63.9	55.2	62.6	64.8	68.1	64.2
Radio	30.3	20.6	29.4	30.5	36.4	29.5
Gender						
Male						
TV	63.6	55.3	62.2	63.9	69.5	63.9
Radio	30.6	20.8	30.5	30.0	38.1	29.6
Female						
TV	64.2	55.2	62.9	65.5	66.9	64.5
Radio	30.0	20.4	28.4	31.0	34.8	29.3
Age (years)						
15-24						
TV	63,0	56.3	63.3	63.4	66.4	60.5
Radio	24.3	15.9	24.9	24.5	27.7	24.0
25 or more						
TV	64.2	54.8	62.3	65.1	68.6	65.3
Radio	32.1	22.4	31.0	32.1	38.7	31.1
Place of residence						
Urban						
TV	65.5	60.6	65.3	65.3	69.1	65.6
Radio	30.0	20.9	27.8	30.8	35.6	29.4
Rural						
TV	55.0	34.9	55.0	58.1	63.8	53.5
Radio	31.7	19.4	33.8	26.5	40.2	30.2
Years of schooling						
None or less than 1 year						
TV	52.0	41.6	50.0	56.2	58.2	52.7
Radio	29.0	20.1	29.2	28.1	38.1	29.0
1-3						
TV	57.8	41.9	57.5	60.5	62.0	57.9
Radio	31.4	19.0	31.5	30.8	40.7	31.5
4-7						
TV	64.0	52.8	64.5	63.9	67.7	65.9
Radio	31.9	20.4	30.2	32.3	39.1	31.3
8-10						
TV	67.0	60.8	68.1	66.3	70.6	66.8
Radio	30.2	21.5	29.3	30.2	35.7	29.6
11 years or more						
TV	67.6	64.0	68.8	66.8	70.3	66.7
Radio	29.3	20.9	27.9	30.0	33.3	27.6

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes individuals with undetermined years of schooling

Table 8.3 - Percentage of current smokers[1] ≥ 15 years old who noticed anti-cigarette smoking information during the last 30 days, by Geographical Region, mean of communication and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of current smokers [1] ≥15 years old who noticed anti-cigarette smoking information during the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**72.7**	**59.3**	**69.8**	**74.7**	**77.5**	**74.6**
Newspapers or magazines	36.2	25.0	26.9	41.1	42.6	38.6
TV or radio	67.7	55.7	66.6	68.4	71.8	70.6
Other [3]	27.5	17.4	21.6	29.7	34.1	32.9
Gender						
Male	71.3	59.0	68.8	72.8	77.8	71.9
Newspapers or magazines	35.1	26.6	25.3	40.7	42.1	36.7
TV or radio	66.8	54.8	65.0	67.6	72.9	68.6
Other [3]	26.0	17.9	21.3	28.6	30.3	29.8
Female	74.9	59.9	71.7	77.2	77.0	79.1
Newspapers or magazines	37.7	22.2	29.6	41.6	43.3	41.8
TV or radio	69.2	57.4	69.3	69.7	70.3	74.0
Other [3]	29.8	16.4	22.0	31.1	38.9	38.0
Age (years)						
15-24	71.1	63.0	72.2	69.3	76.9	72.8
Newspapers or magazines	33.9	22.4	26.8	36.8	44.0	35.4
TV or radio	64.6	57.6	64.6	63.2	70.2	67.5
Other [3]	29.0	21.4	27.9	26.7	33.8	42.7
25+	73.0	58.6	69.4	75.5	77.5	75.0
Newspapers or magazines	36.5	25.6	26.9	41.7	42.4	39.2
TV or radio	68.2	55.4	66.9	69.3	72.0	71.2
Other [3]	27.3	16.5	20.5	30.1	34.1	30.9
Residence						
Urban	75.0	64.5	73.2	76.2	78.3	75.7
Newspapers or magazines	39.7	28.6	32.2	42.6	45.6	40.8
TV or radio	69.4	61.0	69.2	69.6	71.3	71.5
Other [3]	30.5	20.3	26.1	30.7	37.9	34.9
Rural	62.1	44.5	62.7	58.3	73.9	67.3
Newspapers or magazines	19.9	14.7	15.5	24.5	29.3	23.7
TV or radio	60.2	40.5	61.0	55.4	73.9	64.7
Other [3]	14.2	8.9	12.0	18.4	17.2	18.9
Years of schooling						
None or less than a year	59.2	41.7	59.3	61.8	66.3	65.5
Newspapers or magazines	17.5	13.7	14.3	23.0	25.0	22.2
TV or radio	56.3	39.1	57.8	56.5	61.3	61.9
Other [3]	13.8	7.9	10.9	16.6	23.9	24.7
1 to 3 years	65.8	50.1	66.6	64.9	72.9	72.3
Newspapers or magazines	23.5	14.4	21.2	23.9	28.2	33.4
TV or radio	63.5	48.9	63.7	62.7	71.2	69.2
Other [3]	18.1	9.0	18.7	16.8	24.3	20.1
4 to 7 years	73.8	61.2	76.5	72.8	78.0	73.8
Newspapers or magazines	35.6	27.1	29.6	38.0	39.1	39.0
TV or radio	69.4	58.7	74.6	65.9	74.2	72.0
Other [3]	28.1	20.0	26.2	28.5	31.0	31.2
8 to 10 years	73.8	73.8	79.4	80.9	79.5	76.7
Newspapers or magazines	35.6	34.9	42.3	45.2	46.0	40.7
TV or radio	69.4	71.0	73.5	75.4	75.1	69.0
Other [3]	28.1	23.0	29.0	30.9	37.3	39.9
11 years or more	79.6	75.8	79.1	79.4	80.8	82.1
Newspapers or magazines	51.3	37.6	46.9	51.9	56.0	51.0
TV or radio	71.2	64.7	70.3	71.8	70.0	76.2
Other [3]	38.4	28.0	36.6	37.6	42.6	44.8

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes daily and occasional (less than daily) smokers.
[2] Includes individuals with undetermined years of schooling
[3] Includes billboards or posters and brochures.

Table 8.4 - Percentage of non-smokers[1] ≥ 15 years old who noticed anti-cigarette smoking information during the last 30 days, by Geographical Region, mean of communication and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of non-smokers[1] ≥15 years old who noticed anti-cigarette smoking information during the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall [2]	**73.2**	**64.3**	**70.3**	**74.9**	**78.3**	**72.4**
Newspapers or magazines	40.1	33.3	33.5	43.5	44.9	40.6
TV or radio	66.9	58.2	65.3	67.8	72.0	65.9
Other [3]	31.5	23.6	26.8	33.6	37.0	33.1
Gender						
Male	72.9	64.7	69.5	74.3	79.6	71.7
Newspapers or magazines	40.9	34.4	34.4	44.8	45.9	39.0
TV or radio	66.9	58.8	65.4	67.1	73.8	65.6
Other [3]	30.8	22.5	25.7	33.2	36.5	32.5
Female	73.4	64,0	70.8	75.5	77.2	73.1
Newspapers or magazines	39.3	32.5	32.8	42.5	44.1	41.9
TV or radio	66.8	57.7	65.2	68.3	70.4	66.1
Other [3]	32.0	24.5	27.7	33.9	37.4	33.6
Age (years)						
15-24	73.1	63.6	72.1	74.9	78.6	72.9
Newspapers or magazines	39.4	31.5	34.3	44.0	45.6	40.8
TV or radio	65.3	57.1	65.7	66.1	72.8	67.0
Other [3]	33.2	26.3	29.8	35.0	36.5	32.1
25+	73.2	64.6	69.5	75.0	79.6	71.7
Newspapers or magazines	40.3	34.1	33.1	43.4	45.9	39.0
TV or radio	67.4	58.7	65.1	68.2	73.8	65.6
Other [3]	30.9	22.5	25.6	33.1	36.5	32.5
Place of residence						
Urban	74.9	69.1	72.9	75.4	79.7	73.7
Newspapers or magazines	42.8	37.3	37.6	44.7	48.3	42.2
TV or radio	68.1	62.3	67.1	68.1	72.9	67.0
Other [3]	33.5	27.3	30.3	34.2	39.2	34.7
Rural	63.4	45.3	62.2	68.2	71.9	63.3
Newspapers or magazines	23.9	17.7	20.9	28.2	28.7	28.4
TV or radio	59.8	42.2	59.7	63.3	67.3	57.5
Other [3]	19.5	9.0	16.4	25.4	26.5	21.0
Years of schooling						
None or less than a year	58.0	50.0	53.8	63.1	65.9	60.4
Newspapers or magazines	19.8	20.5	13.8	24.2	30.9	22.9
TV or radio	55.9	48.3	52.5	60.1	63.4	57.0
Other [3]	14.1	10.9	9.3	19.2	20.7	16.1
1 to 3 years	65.2	51.4	64.5	68.0	70.9	60.8
Newspapers or magazines	27.2	18.6	24.4	31.2	30.8	24.6
TV or radio	61.6	48.2	61.1	64.1	66.9	57.9
Other [3]	21.3	8.7	18.8	25.0	28.0	18.2
4 to 7 years	71.7	61.6	69.8	73.3	75.4	71.4
Newspapers or magazines	34.0	29.1	29.5	36.3	37.8	35.5
TV or radio	66.9	55.2	65.7	68.1	71.7	66.7
Other [3]	28.0	18.7	25.0	29.8	31.6	31.1
8 to 10 years	75.5	65.7	74.9	76.0	80.1	75.7
Newspapers or magazines	42.0	34.5	36.4	44.7	45.1	45.5
TV or radio	68.6	60.3	70.1	67.4	73.6	68.9
Other [3]	34.5	24.8	32.5	35.7	36.9	38.5
11 years or more	78.9	73.9	79.3	78.5	82.8	77.1
Newspapers or magazines	51.4	44.2	50.0	52.3	54.7	49.4
TV or radio	70.1	65.1	70.9	69.6	73.7	68.0
Other [3]	39.2	34.5	38.2	38.4	45.2	39.3

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes former and never smokers.
[2] Includes individuals with undetermined years of schooling
[3] Includes billboards or posters and brochures.

Table 8.5 - Percentage of current smokers[1] ≥ 15 years old who noticed health warnings on cigarette packages label during the last 30 days, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of current smokers[1] ≥15 years old who noticed health warnings on cigarette packages label during the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**87.7**	**81.0**	**81.6**	**92.1**	**88.6**	**88.8**
Gender						
Male	87.7	83.2	82.4	92.0	88.0	88.0
Female	87.7	76.9	80.3	92.2	89.3	90.2
Age (years)						
15-24	92.0	83.3	90.8	94.2	93.4	91.9
25-44	90.5	87.5	85.4	93.8	91.1	90.4
45-64	87.2	77.4	81.8	91.3	87.8	86.9
65+	66.5	50.3	56.3	79.4	69.2	79.5
Place of residence						
Urban	90.4	86.2	87.5	93.1	88.6	90.1
Rural	75.0	65.8	69.2	81.2	88.5	79.6
Years of schooling						
None or less than 1 year	70.3	61.3	67.6	77.0	75.3	79.0
1 to 3 years	81.6	81.1	80.2	84.5	79.0	80.0
4 to 7 years	91.3	82.4	89.7	94.1	89.8	92.0
8 to 10 years	93.4	94.3	91.9	94.9	91.1	94.0
11 years or more	94.5	93.2	94.5	95.1	93.5	92.7
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	79.5	72.7	74.6	90.9	90.1	81.1
1/4 to less than 1/2 of the minimum wage	83.5	78.3	81.9	87.6	83.4	83.2
1/2 to less than 1 minimum wage	87.9	79.6	85.1	90.0	90.0	89.9
1 to less than 2 minimum wages	90.0	88.5	81.9	93.2	88.8	91.8
2 minimum wages and more	94.3	89.7	93.1	95.7	91.1	93.5

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes daily and occasional (less than daily) smoker.
[2] Includes individuals with undetermined years of scho oling and/or monthly household income.
[3] Exclude tenants, domestic workers or relatives of domestic workers.

Table 8.6 - Percentage of current smokers[1] ≥ 15 years old who considered quitting because of the health warning on cigarette packages label during the last 30 days, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of current smokers[1] ≥15 years old considered quitting because of the warning label on cigarette packages during the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[2]	**65.0**	**59.6**	**64.0**	**66.7**	**63.9**	**66.1**
Gender						
Male	63.5	58.5	63.2	65.4	61.3	63.9
Female	67.2	61.5	65.4	68.5	67.4	69.8
Age (years)						
15-24	68.0	56.9	72.9	67.9	68.8	61.3
25-44	68.5	66.5	68.1	69.4	67.7	69.2
45-64	63.6	55.8	64.1	65.0	60.6	66.0
65+	46.6	37.6	38.3	55.8	48.9	58.3
Place of residence						
Urban	67.0	63.6	70.1	67.2	63.6	67.2
Rural	55.7	47.8	51.0	62.1	65.5	58.9
Years of schooling						
None or less than 1 year	51.9	45.9	50.7	57.1	54.6	50.5
1 to 3 years	61.3	61.0	61.4	64.8	53.3	59.6
4 to 7 years	69.5	61.4	74.8	68.0	69.3	70.5
8 to 10 years	68.5	68.1	72.8	69.1	62.2	71.8
11 years or more	67.9	66.4	72.3	67.2	66.5	70.1
Monthly household income per capita[3]						
None or less than 1/4 of the minimum wage	61.3	56.5	57.0	69.5	74.3	61.1
1/4 to less than 1/2 of the minimum wage	61.9	53.4	63.6	64.7	58.4	57.9
1/2 to less than 1 minimum wage	65.8	58.0	69.0	65.3	65.7	66.2
1 to less than 2 minimum wages	67.9	69.6	66.4	69.0	65.2	70.0
2 minimum wages and more	65.4	62.6	66.6	66.4	59.3	72.3

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes daily and occasional (less than daily) smoker

[2] Includes individuals with undetermined years of schooling and/or monthly household income.

[3] Excludes tenants, domestic workers or relatives of domestic workers

Table 8.7 - Percentage of adults ≥ 15 years old who noticed cigarette marketing during the last 30 days, by selected demographic characteristics, smoking status and type of cigarette marketing. GATS Brazil, 2008.

Type of cigarette marketing	Percentage of adults ≥15 years old who noticed cigarette marketing during the last 30 days						
	Total	Socio-demographic characteristics					
		Gender		Age (years)		Residence	
		Male	Female	15-24	25+	Urban	Rural
Overall	**40.9**	**45.7**	**36.6**	**48.6**	**38.6**	**43.5**	**26.5**
Advertisements	38.0	41.8	34.5	45.5	35.7	40.4	24.6
In sales points	30.4	33.9	27.1	35.0	29.0	32.2	20.1
In Brazilian films	8.6	9.0	8.1	10.1	8.1	9.1	5.5
In foreign films	11.3	12.5	10.3	14.7	10.3	12.3	5.8
On the Internet	4.7	5.0	4.4	9.2	3.3	5.3	1.1
Sports sponsorship	6.1	8.8	3.7	7.0	5.8	6.7	2.7
Promotions	3.4	4.1	2.8	4.7	3.0	3.6	2.1
Free samples	0.7	0.8	0.5	0.7	0.7	0.7	0.4
Sale prices	0.9	1.2	0.7	1.2	0.8	1.0	0.7
Free gifts/discounts on other products	0.9	1.0	0.8	1.4	0.7	1.0	0.2
Clothing/item with brand name or logo	1.8	2.1	1.4	2.7	1.5	1.9	1.1
Current smokers [1]	**45.5**	**47.2**	**42.8**	**51.1**	**44.5**	**49.0**	**29.5**
Advertisements	42.0	43.0	40.5	48.0	41.0	45.3	27.2
In sales points	36.7	38.2	34.5	41.0	36.0	39.8	22.7
In Brazilian films	8.6	8.1	9.3	9.9	8.3	9.2	5.7
In foreign films	10.2	10.6	9.5	15.0	9.4	11.3	5.0
On the Internet	3.2	3.0	3.4	7.1	2.5	3.7	0.7
Sports sponsorship	5.9	7.4	3.6	7.4	5.6	6.6	2.8
Promotions	5.0	5.6	4.2	7.3	4.6	5.6	2.7
Free samples	1.2	1.4	0.9	1.2	1.2	1.3	0.7
Sale prices	1.3	1.6	0.9	1.8	1.3	1.4	1.0
Free gifts/discounts on other products	1.8	1.8	1.7	3.6	1.5	2.1	0.1
Clothing/item with brand name or logo	2.0	2.3	1.5	2.6	1.8	2.2	1.0
Non-smokers [2]	**40.0**	**45.3**	**35.6**	**48.3**	**37.3**	**42.4**	**25.8**
Advertisements	37.2	41.4	33.6	45.2	34.5	39.4	24.0
In sales points	29.1	32.8	26.0	34.2	27.4	30.7	19.4
In Brazilian films	8.6	9.3	8.0	10.1	8.0	9.1	5.4
In foreign films	11.6	13.0	10.4	14.6	10.5	12.5	5.9
On the Internet	5.0	5.5	4.6	9.4	3.5	5.6	1.2
Sports sponsorship	6.2	9.1	3.7	6.9	5.9	6.7	2.7
Promotions	3.1	3.6	2.6	4.4	2.6	3.3	2.0
Free samples	0.6	0.7	0.5	0.7	0.5	0.6	0.4
Sale prices	0.8	1.0	0.7	1.1	0.7	0.9	0.6
Free gifts/discounts on other products	0.7	0.8	0.7	1.1	0.6	0.8	0.3
Clothing/item with brand name or logo	1.7	2.1	1.4	2.7	1.4	1.8	1.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes daily and occasional (less than daily) smokers.
[2] Includes former and never smokers.

Table 8.8 - Percentage of adults ≥ 15 years old who noticed cigarette marketing during the last 30 days, by Geographical Region, smoking status and cigarette marketing. GATS Brazil, 2008.

Type of cigarette marketing	Percentage of adults ≥15 years old who noticed cigarette marketing dur ing the last 30 days					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall	**40.9**	**28.6**	**35.2**	**45.5**	**44.1**	**41.1**
Advertisements	38.0	25.8	32.3	42.7	40.9	37.5
Sports sponsorship	6.1	4.5	5.1	6.6	6.9	6.7
Promotions	3.4	2.3	2.8	3.6	4.5	3.6
Current smokers [1]	**45.5**	**28.1**	**38.2**	**51.4**	**49.6**	**45.3**
Advertisements	42.0	24.4	35.2	48.4	45.3	40.5
Sports sponsorship	5.9	4.3	4.2	7.3	5.3	7.0
Cigarette Promotions	5.0	3.2	3.5	5.1	7.7	6.1
Non-smokers[2]	**40.0**	**28.7**	**34.6**	**44.3**	**42.8**	**40.2**
Advertisements	37.2	26.1	31.7	41.6	39.9	36.9
Sports sponsorship	6.2	4.6	5.3	6.5	7.3	6.6
Promotions	3.1	2.1	2.6	3.3	3.8	3.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes daily and occasional (less than daily) smokers.

[2] Includes former and never smokers.

Table 8.9 - Percentage of adults ≥ 15 years old who noticed anti-cigarette smoking information during the last 30 days, by mean of communication and state. GATS Brazil, 2008.

States	Percentage of adults ≥15 years old who noticed anti-cigarette smoking information during the last 30 days			
	Overall	Mean of communication		
		Newspapers or magazines	TV or radio	Other [1]
Brazil	**73.1**	**39.4**	**67.0**	**30.8**
Rondônia	68.3	38.9	63.5	17.6
Acre	62.4	29.1	59.3	26.7
Amazonas	64.6	38.3	58.8	28.2
Roraima	65.4	35.0	54.5	17.6
Pará	59.4	26.7	53.9	19.5
Amapá	83.5	43.7	75.0	30.7
Tocantins	68.1	31.9	62.2	26.5
Maranhão	62.4	23.0	57.9	16.8
Piauí	63.4	29.7	58.7	18.5
Ceará	72.8	32.2	67.6	29.8
Rio Grande do Norte	77.5	36.4	72.9	27.7
Paraíba	77.3	32.0	72.9	30.2
Pernambuco	72.4	36.1	67.5	29.9
Alagoas	60.3	26.1	57.8	16.5
Sergipe	71.3	40.7	66.9	29.3
Bahia	70.4	33.9	65.5	26.6
Minas Gerais	75.4	41.8	67.5	34.4
Espírito Santo	76.4	42.6	69.8	32.9
Rio de Janeiro	74.7	45.1	67.6	33.4
São Paulo	74.6	43.0	68.0	32.0
Paraná	74.6	43.2	68.0	35.4
Santa Catarina	81.1	47.5	74.9	40.8
Rio Grande do Sul	79.9	44.0	74.0	35.0
Mato Grosso do Sul	79.8	42.3	74.4	41.2
Mato Grosso	62.8	37.5	57.4	24.9
Goiás	73.0	37.3	67.7	29.9
Distrito Federal	77.7	48.6	68.2	42.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes billboards or posters and brochures.

Table 8.10 - Percentage of current smokers[1] ≥ 15 years old who noticed health warnings on cigarette packages label and considered quitting because of the health warning on cigarette packages label during the last 30 days, by state. GATS Brazil, 2008.

States	Percentage of current smokers[1] ≥ 15 years old who...	
	...noticed health warnings on cigarette packages label[2]	...considered quitting because of the warning label on cigarette packages[2]
Brazil	**87.7**	**65.0**
Rondônia	85.8	75.0
Acre	74.1	45.2
Amazonas	75.7	50.2
Roraima	95.0	91.7
Pará	82.4	60.0
Amapá	84.6	51.5
Tocantins	77.6	61.7
Maranhão	80.9	61.8
Piauí	88.4	65.8
Ceará	87.7	70.6
Rio Grande do Norte	90.3	73.8
Paraíba	84.8	68.8
Pernambuco	84.2	66.1
Alagoas	58.1	45.8
Sergipe	79.8	64.7
Bahia	75.8	57.9
Minas Gerais	92.4	72.0
Espírito Santo	76.8	61.5
Rio de Janeiro	90.2	59.5
São Paulo	94.0	67.1
Paraná	83.6	57.4
Santa Catarina	84.9	61.2
Rio Grande do Sul	94.4	70.6
Mato Grosso do Sul	91.5	64.1
Mato Grosso	81.6	57.0
Goiás	90.6	68.8
Distrito Federal	90.8	74.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes daily and occasional (less than daily) smoker

[2] During the last 30 days

Table 9.1 - Average cigarette expenditure per month among manufactured cigarette daily smokers ≥ 15 years old, by Geographical Region and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Average cigarette expenditure per month among manufactured cigarette smokers ≥15 years old (R$)					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[1]	**55.50**	**41.58**	**46.39**	**58.97**	**58.88**	**60.27**
Gender						
Male	59.73	43.85	49.61	63.95	65.55	62.69
Female	49.29	37.28	40.66	51.97	50.86	56.50
Age (years)						
15-24	48.95	39.06	40.84	51.70	50.53	61.91
25-44	54.32	42.97	49.51	56.68	55.92	58.01
45-64	61.25	40.60	46.96	65.06	69.33	67.85
65+	44.41	39.85	38.06	50.39	43.27	33.84
Place of residence						
Urban	57.08	42.34	48.95	59.57	60.65	62.43
Rural	42.10	37.90	35.43	46.44	49.42	40.09
Years of schooling						
None or less than 1 year	41.58	32.19	40.06	47.39	36.10	45.89
1 to 3 years	46.86	36.05	39.58	53.39	50.42	41.49
4 to 7 years	54.05	47.62	46.86	56.70	52.12	64.84
8 to 10 years	57.52	43.72	48.16	54.43	71.36	68.38
11 years or more	64.38	41.73	59.09	67.17	63.97	63.52

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes individuals with undetermined years of schooling

Table 10.1 - Percentage of adults ≥ 15 years old who believe that smoking causes serious illness, by Geographical Region, smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who believe that smoking causes serious illness					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[1]	**96.1**	**96.3**	**96.3**	**96.4**	**95.3**	**94.8**
Gender						
Male	95.9	96.1	95.7	96.4	95.2	94.9
Female	96.3	96.4	96.9	96.5	95.4	94.8
Age (years)						
15-24	97.0	97.9	97.5	97.0	95.8	95.6
25-44	97.0	96.6	97.5	97.2	96.1	96.0
45-64	95.6	95.5	95.6	96.1	95.4	93.5
65+	92.1	90.5	89.9	93.6	91.8	91.8
Place of residence						
Urban	96.4	96.9	97.1	96.4	95.7	95.2
Rural	94.2	93.8	94.0	96.3	93.4	91.9
Years of schooling						
None or less than 1 year	91.0	90.3	90.2	93.1	89.7	90.2
1 to 3 years	94.6	92.5	95.3	96.4	89.4	94.6
4 to 7 years	96.3	97.2	97.3	96.0	95.5	94.8
8 to 10 years	97.0	97.6	98.1	96.6	96.9	95.8
11 years or more	97.5	98.5	99.0	97.2	96.8	95.8
Current smokers[1] [2]	**93,0**	**93.6**	**92.9**	**93.9**	**90.6**	**93.2**
Gender						
Male	93.0	93.1	92.1	94.6	90.2	92.7
Female	93.1	94.6	94.3	92.9	91.1	94.1
Age (years)						
15-24	94.9	95.1	95.8	94.2	94.2	97.1
25-44	95.1	93.6	95.1	95.9	93.8	95.0
45-64	92.3	94.7	92.6	93.1	89.3	91.2
65+	81.5	86.7	82.5	83.8	72.9	80.8
Place of residence						
Urban	93.4	94.8	94.3	93.7	90.8	94.0
Rural	91.1	90.3	90.1	95.9	89.9	87.3
Years of schooling						
None or less than 1 year	88.3	88.8	87.9	90.1	87.1	86.5
1 to 3 years	91.5	86.5	91.4	97.2	78.8	94.5
4 to 7 years	94.6	95.9	96.7	94.6	92,0	93.5
8 to 10 years	94.7	98.7	95.6	93.5	95.3	94.3
11 years or more	93.9	98.0	98.1	93.1	91.6	95.5
Non-smokers [1] [3]	**96.7**	**96.8**	**97.0**	**96.9**	**96.4**	**95.2**
Gender						
Male	96.7	96.9	96.7	96.8	96.7	95.5
Female	96.8	96.7	97.2	97.1	96.2	94.9
Age (years)						
15-24	97.2	98.3	97.7	97.3	96.1	95.4
25-44	97.4	97.3	98.0	97.5	96.7	96.2
45-64	96.6	95.7	96.5	96.9	97.3	94.1
65+	93.6	91.3	91.7	94.5	94.6	93.2
Place of residence						
Urban	97.0	97.3	97.6	97.0	96.9	95.5
Rural	95.1	94.8	95.1	96.4	94.3	92.9
Years of schooling						
None or less than 1 year	91.9	90.9	91.2	93.8	90.5	91.3
1 to 3 years	95.5	94.3	96.4	96.1	92.8	94.6
4 to 7 years	96.7	97.6	97.5	96.4	96.5	95.2
8 to 10 years	97.4	97.5	98.4	97.1	97.2	96.0
11 years or more	98.0	98.5	99.1	97.9	97.7	95.8

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes individuals with undetermined years of schooling

[2] Includes daily and occasional (less than daily) smokers.

[3] Includes former and never smokers.

Table 10.2 - Percentage of adults ≥ 15 years old who believe that smoking causes stroke, by Geographical Region, smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who believe that smoking causes stroke					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[1]	**73.1**	**66.7**	**75.5**	**73.2**	**73.1**	**70.0**
Gender						
Male	74.3	68.3	76.9	74.1	74.4	71.3
Female	72.0	65.1	74.2	72.4	71.9	68.8
Age (years)						
15-24	69.1	62.4	72.5	68.2	69,0	67.0
25-44	74.7	66.4	77.9	74.8	74.7	71.7
45-64	76.1	72.3	77.5	76.2	76.1	73.2
65+	68.4	67.2	69.4	69.1	68.2	60.6
Place of residence						
Urban	73.9	68.5	76.8	73.6	74.4	70.9
Rural	68.6	59.6	71.8	68.6	67.1	63.3
Years of schooling						
None or less than 1 year	66.9	59.7	68.6	66.8	68.4	61.9
1 to 3 years	70.6	62.4	74.1	72.7	63.4	66.4
4 to 7 years	71.8	62.9	76.1	71.3	69.8	71.5
8 to 10 years	71.9	66.1	75.9	70.4	73.7	70.3
11 years or more	77.4	74.4	80.4	77,0	78.4	72.2
Current smokers[1] [2]	**70.1**	**61.6**	**74.6**	**70.6**	**66.4**	**67.9**
Gender						
Male	69.3	59.7	73.8	69.8	64.9	68.8
Female	71.4	65.2	76,0	71.7	68.2	66.5
Age (years)						
15-24	62.3	55.5	65.9	63.6	57.4	61.2
25-44	73.7	63.8	78.7	74.2	70.8	71.4
45-64	71.7	61.8	76.4	71.0	69.3	71.5
65+	58.3	61.6	66.2	57.5	45.6	43.3
Place of residence						
Urban	70.9	62.3	76.3	70.7	67.8	70.1
Rural	66.7	59.7	71.0	69.1	60.0	53.1
Years of schooling						
None or less than 1 year	63.6	55.1	68.6	58.5	58.4	57.2
1 to 3 years	67.1	51.5	72.5	73.3	50,0	63.7
4 to 7 years	71.1	64.0	79.6	69.7	66.4	71.7
8 to 10 years	70.5	66.7	74.5	69.8	71.1	65.8
11 years or more	74.9	71.8	83.6	74.1	72.2	73.5
Non-smokers [1] [3]	**73.7**	**67.7**	**75.7**	**73.7**	**74.7**	**70.4**
Gender						
Male	75.6	70.7	77.9	75.2	77.2	72.0
Female	72.1	65.1	73.9	72.5	72.6	69.1
Age (years)						
15-24	69.9	63.2	73.2	68.8	70.7	67.8
25-44	74.9	66.9	77.7	74.9	75.8	71.8
45-64	77.3	75.2	77.8	77.7	78.1	73.7
65+	69.9	68.5	70.2	70.2	71.6	62.9
Place of residence						
Urban	74.5	69.7	76.9	74.1	75.9	71.1
Rural	69.1	59.6	72,0	68.5	68.9	65.5
Years of schooling						
None or less than 1 year	68,0	61.6	68.6	68.8	71.6	63.3
1 to 3 years	71.6	65.7	74.5	72.5	67.7	67.3
4 to 7 years	72.0	62.6	75.4	71.8	70.8	71.5
8 to 10 years	72.1	66,0	76.2	70.5	74.3	71.0
11 years or more	77.7	74.7	80.1	77.4	79.4	72.1

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes individuals with undetermined years of schooling
[2] Includes daily and occasional (less than daily) smokers.
[3] Includes former and never smokers.

Table 10.3 - Percentage of adults ≥ 15 years old who believe that smoking causes heart attack, by Geographical Region, smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who believe that smoking causes heart attack					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall[1]	**85.6**	**82.9**	**88.0**	**85.6**	**83.7**	**84.0**
Gender						
Male	85.7	83.1	87.9	85.9	83.6	83.6
Female	85.6	82.6	88.1	85.4	83.8	84.3
Age (years)						
15-24	84.9	82.7	89.0	83.1	83.2	83.1
25-44	87.8	84.5	90.1	88.2	85.4	85.7
45-64	86.1	83.1	87.8	86.3	84.3	84.8
65+	78.0	73.2	77.8	79.3	77.5	75.5
Place of residence						
Urban	86.4	84.7	89.7	85.7	85.2	85.0
Rural	81.3	76.1	83.3	84.9	76.6	76.0
Years of schooling						
None or less than 1 year	76.1	71.4	77.4	74.9	77.0	76.4
1 to 3 years	82.4	75.8	85.7	84.9	72.7	80.0
4 to 7 years	85.2	82.2	89.8	84.6	80.5	84.3
8 to 10 years	86.6	85.5	91.1	84.7	86.3	85.8
11 years or more	89.4	89.1	93.2	88.7	88.4	86.1
Current smokers[1] [2]	**81.5**	**76.4**	**83.6**	**83.5**	**75.8**	**79.5**
Gender						
Male	81.1	75.3	82.0	84.1	76,0	78.0
Female	82.0	78.4	86.5	82.6	75.6	81.9
Age (years)						
15-24	80.5	79.9	83.9	80.8	75.4	77.7
25-44	85.4	81.2	87.2	87.8	80.7	81.9
45-64	81.0	70.8	83.9	82.6	75.4	80.6
65+	63.8	60.5	70.1	63.9	51.4	61.9
Place of residence						
Urban	82.5	79.0	86.1	83.2	77.6	81.4
Rural	76.5	69.0	78.3	86.1	67.8	66.7
Years of schooling						
None or less than 1 year	72.0	61.6	75.5	72.2	65.8	65.9
1 to 3 years	78.4	66.0	80.7	87.2	60.4	74.0
4 to 7 years	83.1	80.9	88.8	83.1	76.5	83.5
8 to 10 years	84.5	87.0	89.1	83.3	82.2	82.0
11 years or more	85.6	87.8	93.2	85.7	79.9	84.1
Non-smokers[1] [3]	**86.5**	**84.2**	**88.9**	**86.0**	**85.6**	**84.8**
Gender						
Male	87.0	85.3	89.6	86.3	85.9	85.1
Female	86.1	83.2	88.3	85.8	85.3	84.6
Age (years)						
15-24	85.4	83.0	89.5	83.3	84.4	83.9
25-44	88.4	85.2	90.7	88.3	86.7	86.6
45-64	87.5	86.5	89.0	87.3	87.0	85.9
65+	80.1	76.0	79.7	80.7	81.4	77.3
Place of residence						
Urban	87.2	85.7	90.3	86.1	87,0	85.8
Rural	82.6	77.9	84.6	84.6	78.8	78.0
Years of schooling						
None or less than 1 year	77.5	75.3	78.2	75.5	80.6	79.4
1 to 3 years	83.6	78.8	87.1	84.2	76.7	81.9
4 to 7 years	85.8	82.5	90.0	85.0	81.8	84.5
8 to 10 years	86.9	85.2	91.4	84.9	87.3	86.3
11 years or more	89.9	89.2	93.2	89.2	89.8	86.3

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes individuals with undetermined years of schooling

[2] Includes daily and occasional (less than daily) smokers.

[3] Includes former and never smokers.

Table 10.4 - Percentage of adults ≥ 15 years old who believe that smoking causes lung cancer, by Geographical Region, smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Socio-demographic characteristics	Percentage of adults ≥15 years old who believe that smoking causes lung cancer					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall [1]	**94.7**	**95.0**	**94.9**	**95.1**	**93.7**	**93.6**
Gender						
Male	94.5	94.9	94.4	95.1	93.2	93.3
Female	94.9	95.0	95.4	95.1	94.2	93.8
Age (years)						
15-24	96.0	97.0	96.7	96.2	94.4	94.5
25-44	96.1	95.9	96.7	96.4	95.2	94.8
45-64	94.0	94.4	94.1	94.3	93.3	92.8
65+	88.3	83.4	85.7	90.4	88.3	88.3
Place of residence						
Urban	95.2	95.7	96,0	95.1	94.3	94.2
Rural	92.1	92.1	91.9	94.6	90.8	89.0
Years of schooling						
None or less than 1 year	87.2	86.1	87.0	88.3	85.8	87.6
1 to 3 years	92,0	91.1	93.1	93.2	86.4	91.8
4 to 7 years	94.8	95.5	96.3	94.5	93.5	93.7
8 to 10 years	96.2	96.9	97.7	95.7	95.5	95.1
11 years or more	96.9	98.4	98.4	96.7	96.1	94.9
Current smokers [1] [2]	**90.6**	**91.0**	**90.6**	**91.8**	**87.4**	**91.1**
Gender						
Male	90.8	91.6	89.8	92.9	86.8	90.2
Female	90.4	89.9	92.1	90.2	88.3	92.5
Age (years)						
15-24	93.5	92.2	93.5	94.2	92.3	94.8
25-44	93.8	93.1	93.1	94.9	92.4	93.5
45-64	89.6	92.3	90.7	90.2	84.8	89.7
65+	73.2	70.5	78.2	73.4	62.7	72.3
Place of residence						
Urban	91.2	92.9	92.2	91.5	87.9	92.3
Rural	88.0	85.6	87.2	94.2	85.6	83.0
Years of schooling						
None or less than 1 year	83.4	81.9	84.6	83.1	78.2	83.2
1 to 3 years	87.5	84.9	88.1	93,0	72.4	90.2
4 to 7 years	92.4	94.1	94.9	92.2	89,0	91.8
8 to 10 years	93.9	96.7	95,0	92.9	94.3	93.1
11 years or more	92.9	98.0	96.9	92.4	89.7	94.5
Non-smokers [1] [3]	**95.6**	**95.8**	**95.8**	**95.7**	**95.2**	**94.1**
Gender						
Male	95.5	95.8	95.8	95.6	95.0	94.2
Female	95.6	95.7	95.9	95.8	95.3	94.0
Age (years)						
15-24	96.3	97.6	97.0	96.4	94.7	94.4
25-44	96.7	96.5	97.4	96.7	96.0	95.1
45-64	95.3	95.0	95.2	95.5	95.8	93.6
65+	90.5	86.2	87.5	92.0	92.2	90.4
Place of residence						
Urban	96.0	96.3	96.7	95.8	95.8	94.6
Rural	93.2	93.8	93.1	94.7	92.1	90.3
Years of schooling						
None or less than 1 year	88.6	87.8	88.1	89.6	88.2	88.9
1 to 3 years	93.3	93,0	94.6	93.3	90.8	92.3
4 to 7 years	95.5	95.8	96.6	95,0	94.9	94.3
8 to 10 years	96.6	96.9	98.1	96.2	95.8	95.4
11 years or more	97.5	98.4	98.6	97.4	97.1	94.9

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes individuals with undetermined years of schooling.
[2] Includes daily and occasional (less than daily) smokers.
[3] Includes former and never smokers.

Table 10.5 - Percentage of adults ≥ 15 years old who believe that breathing other people's smoke causes serious illness in non-smokers, by Geographical Region, smoking status and selected socio-demographic characteristics. GATS Brazil, 2008.

Smoking status and and socio-demographic characteristics	Percentage of adults ≥15 years old who believe that breathing other people's smoke could cause serious illnesses in non-smokers					
	Brazil	Geographical Regions				
		North	Northeast	Southeast	South	Midwest
Overall [1]	**91.4**	**91.2**	**91.6**	**91.6**	**90.8**	**90.6**
Gender						
Male	90.8	90.4	91.2	90.9	90.4	90.0
Female	91.9	91.9	91.9	92.2	91.3	91.2
Age (years)						
15-24	92.6	93,0	92.4	93.3	91.0	92.2
25-44	92.9	91.4	93.9	92.7	92.2	92.7
45-64	90.8	91.4	91.1	90.8	90.9	88.1
65+	84.6	82.2	81.3	86.4	85.8	84.4
Place of residence						
Urban	92.1	92.2	93.2	91.8	91.5	91.5
Rural	87.4	87.4	86.9	89.0	87.8	84.1
Years of schooling						
None or less than 1 year	83.0	82.5	82.5	83.6	84.1	82.4
1 to 3 years	88.1	85.6	88.5	90.0	83.3	88.8
4 to 7 years	91.2	91.6	92.5	90.9	89.8	90.4
8 to 10 years	92.9	92.6	94.9	92.1	92.8	92.3
11 years or more	94.2	95.6	96.6	93.5	93.5	92.7
Current smokers[1] [2]	**86.3**	**86.1**	**86.6**	**86.9**	**84.4**	**85.9**
Gender						
Male	85.2	84.4	85.6	85.9	83.2	84.5
Female	87.9	89.4	88.2	88.3	85.9	88.1
Age (years)						
15-24	87.7	85.7	87.1	90.9	80.4	90.2
25-44	89.4	88.3	90.8	89.1	88.5	90.0
45-64	85.1	87.2	86.2	84.9	84.5	81.3
65+	72.1	70.1	72.5	74.8	68.3	69.2
Place of residence						
Urban	86.9	87.1	89.4	86.6	84.3	86.1
Rural	83.5	83.3	80.6	89.8	84.6	84.3
Years of schooling						
None or less than 1 year	79.2	79.3	80.0	78.1	80.8	73.7
1 to 3 years	83.8	77.3	83.1	89.6	73.1	87.2
4 to 7 years	87.8	87,0	90.1	88,0	84.8	87.5
8 to 10 years	89.7	94.7	94.9	87.3	89.2	85.9
11 years or more	88.1	94.9	93.1	86.8	86.2	90.5
Non-smokers[1] [3]	**92.4**	**92.2**	**92.6**	**92.5**	**92.4**	**91.6**
Gender						
Male	92.3	92.1	92.8	92.2	92.4	91.5
Female	92.5	92.2	92.4	92.9	92.3	91.6
Age (years)						
15-24	93.2	93.8	93.0	93.6	92.6	92.4
25-44	93.6	92.1	94.6	93.5	93.2	93.3
45-64	92.4	92.5	92.7	92.5	92.9	89.9
65+	86.5	84.9	83.4	87.5	88.4	86.3
Place of residence						
Urban	93.1	93.1	93.9	92.8	93.1	92.6
Rural	88.3	88.5	88.6	88.9	88.6	84.0
Years of schooling						
None or less than 1 year	84.3	83.8	83.6	84.9	85.1	84.9
1 to 3 years	89.4	88.1	90.0	90.1	86.6	89.4
4 to 7 years	92.1	92.8	93.0	91.7	91.4	91.3
8 to 10 years	93.5	92.3	94.9	92.9	93.7	93.3
11 years or more	95.0	95.6	96.9	94.5	94.7	93.0

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

[1] Includes individuals with undetermined years of schooling.

[2] Includes daily and occasional (less than daily) smokers.

[3] Includes former and never smokers.

Table 10.6 - Percentage of adults ≥ 15 years old who believe that smoking causes serious illness, stroke, heart attack or lung cancer, by state. GATS Brazil, 2008.

States	Percentage of adults ≥15 years old who believe that smoking causes serious illness, stroke, heart attack or lung cancer			
	Serious illnesses	Stroke	Heart attack	Lung cancer
Brazil	**96.1**	**73.1**	**85.6**	**94.7**
Rondônia	95.5	73.0	85.5	93.5
Acre	97.9	65.4	81.3	97.3
Amazonas	95.3	74.0	85.2	94.9
Roraima	98.3	74.5	88.2	97.2
Pará	96.4	61.0	80.8	94.8
Amapá	98.1	75.8	83.1	97.5
Tocantins	96.4	66.1	84.4	94.7
Maranhão	95.7	74.5	87.8	94.7
Piauí	95.7	69.4	85,0	94.3
Ceará	97,0	74.8	87.1	95.1
Rio Grande do Norte	96.6	76.1	89,0	95.0
Paraíba	98.2	81.5	92.9	96.7
Pernambuco	95.9	75.6	88.3	94.8
Alagoas	93.3	75.6	84.1	92.3
Sergipe	95.8	73.1	87.6	94.0
Bahia	96.5	76.2	88.4	95.3
Minas Gerais	96.7	70.6	87.3	95.1
Espírito Santo	96.5	70.2	87.1	94.5
Rio de Janeiro	96.3	74.8	84.2	94.7
São Paulo	96.4	74.1	85.2	95.3
Paraná	94.2	70.7	83.4	92.8
Santa Catarina	94.9	71.2	82.6	93.2
Rio Grande do Sul	96.6	76.5	84.6	94.8
Mato Grosso do Sul	95.8	69.1	83.7	93.9
Mato Grosso	89.2	66.7	77.8	88.0
Goiás	97.9	71.7	86.7	96.6
Distrito Federal	93.7	70.9	85.1	93.0

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.

Table 10.7 - Percentage of adults ≥ 15 years old who believe that breathing other people's smoke causes serious illness in non smokers, by smoking status and state. GATS Brazil, 2008.

States	Percentage of adults ≥ 15 years old who believe that breathing other people's smoke causes serious illness in non-smokers		
	Overall	Smoking status	
		Smokers	Non-smokers[1]
Brazil	**91.4**	**86.3**	**92.4**
Rondônia	90.4	85.4	91.3
Acre	92.1	88.5	93.1
Amazonas	91.0	81.3	92.6
Roraima	90.2	83.6	91.6
Pará	91.5	87.5	92.4
Amapá	88.9	97.4	87.5
Tocantins	91.3	83.9	93.1
Maranhão	89.4	84.7	90.3
Piauí	89.2	80.9	91.2
Ceará	93.5	89.0	94.6
Rio Grande do Norte	93.9	85.5	95.6
Paraíba	94.6	92.4	95.1
Pernambuco	91.8	87.9	92.7
Alagoas	86.4	80.0	87.6
Sergipe	88.6	80.9	89.7
Bahia	91.8	86.5	92.8
Minas Gerais	91.5	88.3	92.2
Espírito Santo	90.7	84.4	92.1
Rio de Janeiro	91.5	86.3	92.5
São Paulo	91.7	86.6	92.8
Paraná	90.2	80.8	92.3
Santa Catarina	91.3	79.7	93.7
Rio Grande do Sul	91.2	89.5	91.7
Mato Grosso do Sul	90.1	81.6	92.0
Mato Grosso	83.4	78.7	84.4
Goiás	94.3	91.1	95,0
Distrito Federal	91.0	86.7	91.7

Source: IBGE, Diretoria de Pesquisas, Coordenação de Trabalho e Rendimento, Pesquisa Nacional por Amostra de Domicílios 2008.
[1] Includes former and never smokers.

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ANNEXES

Annex 1 Federal tobacco legislation in force in Brazil

I) PROTECTION AGAINST THE RISKS OF EXPOSURE TO SECONDHAND TOBACCO SMOKE POLLUTION

Interministerial Ordinance Nº. 3.257 (September 22nd, 1988)

It recommends restrictive measures for smoking in workplaces.

Law Nº. 9.294 (July 15th, 1996)

It prohibits the use of cigarettes, cigars, pipes, or any other smoked tobacco product in public or private collective facilities, such as offices, hospitals, classrooms, libraries, workplaces, and movie theaters.

It allows smoking in smoking areas, i.e., areas assigned specially to tobacco, properly insulated and ventilated conveniently.

Executive Order Nº. 2.018 (October 1st, 1996)

It regulates Law Nº. 9.294/96, defining the concepts of "collective place" and "area properly isolated and assigned only to tobacco."

Law Nº. 10.167 (December 27th, 2000)

Amendment to Law No. 9.294/96, prohibiting the use of tobacco products in aircraft and other vehicles of collective transportation.

Interministerial Ordinance Nº. 1.498 (August 22nd, 2002)

It recommends health care and educational institutions to implement programs of tobacco smoke-free environments.

Ordinance of the Ministry of Health Nº. 300 (February 9th, 2006)

It establishes the "Ministry of Health Without Tobacco", in order to develop and implement educational activities designed to raise the awareness of employees and visitors of the institution in relation about the damages caused by tobacco use.

It prohibits smoking in all offices of the Ministry of Health, both the ones in the Federal District and the ones in the states and municipalities.

It revokes the Ordinance Nº. 2.818/GM (May 28th, 1998).

Ordinance of the *Agência Nacional de Vigilância Sanitária* Nº. 527 (September 22nd, 2006)

It establishes a working group aiming to propose a technical regulation on "exclusive smoking rooms."

Ordinance of the *Agência Nacional de Vigilância Sanitária* Nº. 528 (September 22nd, 2006)

It establishes a working group to implement the "Smoke-Free Environments" program, which aims at training health surveillance professionals to monitor the legislation in force.

II) RESTRICTION OF THE ACCESS TO TOBACCO PRODUCTS

Executive Order Nº. 637 (June 25th, 1998)

It determines that the advertisement of cigarettes in the country, including its sale display, be available only on packets, bags or other types of receptacle containing twenty units of cigarettes.

Law Nº. 10.167 (December 27th, 2000)

Amendment to Law No. 9.294/96, prohibiting the sale by mail, the distribution of samples or tokens and the marketing of tobacco products in educational and health care institutions.

Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 15 (September 17th, 2003)

It prohibits the sale of tobacco products on the Internet.

Law Nº. 10.702 (July 14th, 2003)

Amendment to Law Nº. 9.294/96, which prohibits the sale in agencies or entities of the Government Administration.

III) PROTECTION TO YOUNG PEOPLE

Law Nº. 8.069 (July 13th, 1990) - Children and Adolescents Bylaw.

It prohibits the sale, supply or delivery, to children or adolescents, of products whose components may cause physical or psychological dependence.

Law Nº. 10.167 (December 27th, 2000)

Amendment to Law Nº. 9.294/96, prohibiting children and adolescents from participation in the

advertisement of tobacco products.

Ordinance of the Ministry of Labor and Employment Nº. 06 (February 5th, 2001)

It prohibits the employment of children aged under 18 in tobacco farming, processing or anufacturing.

Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 304 (September 7th, 2002)

It prohibits the production, importation, marketing, advertising and distribution of food in the same form of cigarettes, cigars, *cigarillos*, or any other tobacco product.

It prohibits the use of food packages that simulate the packaging of cigarettes or that uses brand names belonging to products derived from tobacco.

Law Nº. 10.702 (July 14th, 2003)

Amendment to Law Nº. 9.294/96, prohibiting the selling of tobacco products to people aged under 18.

IV) TREATMENT AND SUPPORT TO SMOKERS

Ordinance of the Ministry of Health Nº. 1.035 (May 31st, 2004)

It expands the access to smoking approach and treatment in the network of primary care and medium complexity of the *Sistema Único de Saúde.*

Ordinance of Department of Health Care/MH Nº. 442 (August 13th, 2004)

It approves the Plan for Implementation of the Smoking Approach and Treatment in the SUS and the Clinical Protocol and Therapeutic Guidelines - Nicotine Dependence.

V) ADVERTISING AND SPONSORSHIP OF TOBACCO PRODUCTS

Constitution of the Federative Republic of Brazil (October 5th, 1988)

It determines that the advertising of tobacco will be subject to legal restrictions and will bear warning about the dangers of smoking.

Law Nº. 8.078 (September 11th, 1990) - Customer Protection and Defense Code.

It prohibits misleading and unfair advertising.

Interministerial Ordinance Nº. 477 (March 24th, 1995)

It recommends that television stations avoid broadcasting images in which celebrities appear smoking in public.

It recommends that the bodies integrating the *Sistema Único de Saúde* refuse the sponsorship, collaboration, support or promotion of public health campaigns by the tobacco industry.

Law Nº. 10.167 (December 27th, 2000)

Amendment to Law Nº. 9.294/96, restricting the advertising of tobacco products to the display of posters, billboards and posters inside sales outlets, banning it, therefore, in magazines, newspapers, television, radio and billboards.

It prohibits advertising by electronic media, including the Internet, the advertising indirectly contracted, also called merchandising and advertising in stadiums, tracks, stages or similar sites.

It prohibits sponsorship to national sporting events and cultural activities.

Resolution of the Agência Nacional de Vigilância Sanitária Nº. 15 (September 17th, 2003)

It defines the concepts of "advertisement of tobacco products" and "inner part of the outlet."

Law Nº. 10.702 (July 14th, 2003)

Amendment to Law Nº. 9.294/96, banning sponsorship of international sporting events by cigarette brands as of September 30th, 2005.

It determines the publication of warnings about the dangers of smoking in the opening, in the ending and during the broadcasting of international sporting events, in fifteen-minute breaks.

It authorizes the Ministry of Health to fix advertisements with warnings about the dangers of smoking in the location of the event.

Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 199 (July 24th, 2003)

It regulates Law Nº. 10.702/03 on the warning sentences of the Ministry of Health exposed during the broadcast of international sporting and cultural events in the country.

VI) POPULATION AWARENESS ACTIONS

Law Nº. 7.488 (July 11th, 1986)

It creates the Combat to Tobacco National Day and determines its celebration on August 29th, throughout the country.

Interministerial Ordinance Nº. 3.257 (September 22nd, 1988)

It grants certificates of merit to the companies that stand out in campaigns for tobacco control.

Provisional Measure Nº. 2.190-34 (August 23rd, 2001)

Amendment to Law Nº 9.294/96, determining that advertising materials and packages of tobacco products, except those destined for exportation, include warnings with pictures illustrating their meaning.

Interministerial Ordinance Nº. 1.498 (August 22, 2002)

It grants certificates of merit to health and educational institutions that stand out in campaigns for tobacco control.

Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 335 (September 21st, 2003)

It revokes the ANVISA's Resolutions Nº. 104/01 and 14/03.

It provides for the insertion of new warnings with pictures on the packages and on the marketing material of tobacco products.

It determines the printing of the following sentence on the packages of tobacco products:

"Sale prohibited to people under 18 years old - Law 8.069/1990 and Law 10.702/2003", banning the use of sentences such as "Adults only" and "Product for people over 18 years old."

Amendment to ANVISA' s Resolution Nº. 46/01 ANVISA, determining the printing of the following information on cigarette packages: "This product contains over 4,700 toxic substances and nicotine which causes physical or psychological dependence. There are no safe yields for consumption of these substances."

Interministerial Ordinance Nº. 1.034 (May 31st, 2004)

It establishes a working group within the Department of Distance Learning, in order to promote the inclusion of the topic "tobacco control" in the didactic resources of distance learning, promoted by the "TV Escola" (School TV) program.

Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 10 (July 15th, 2007)

It replaces the logo and the phone number of the Stop Smoking Hotline, printed on advertisements and

packages of tobacco products, by the logo and phone number of the Health Hotline (0800-61-1997).

VII) CONTROL AND INSPECTION OF TOBACCO PRODUCTS

Executive Order Nº. 2.876 (December 14th, 1998)

It determines that cigarettes, when exported to South America and Central America, including the Caribbean, are subject to the exportation tax at the rate of 150%. Subsequently, there was an increase in such rate for the raw materials used in cigarette manufacturing.

Law Nº. 9.782 (January 26th, 1999)

It defines the *Agência Nacional de Vigilância Sanitária*.

It creates the *Agência Nacional de Vigilância Sanitária* (ANVISA), responsible for regulating, controlling and inspecting cigarettes, *cigarillos*, cigars and any other smoked product, derived from tobacco or not.

Law Nº. 10.167 (December 27th, 2000)

Amendment to Law No. 9.294/96, defining the cost of the fine to be imposed in case of noncompliance and the competent bodies to inspect the enforcement of the law.

Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 46 (March 28th, 2001)

It establishes the maximum allowed yields of tar, nicotine and carbon monoxide present in the primary smoke from cigarettes marketed in the country to up to 10 mg/cig, 1mg/cig and 10 mg/cig.

It prohibits the use, on packages or advertising material, of descriptors, such as classes, ultra-low yields, low yields, mild, light, soft, smooth, moderate yields, high yields, and others that may lead consumers to a misinterpretation regarding the yields contained in cigarettes.

Normative Instruction of the Internal Revenue Service Nº. 95 (November 28th, 2001)

It establishes different standards for the control labels that cigarettes are subject to.

It determines that the exportation of cigarettes should be made by the industrial plant directly to the importer abroad and that the labels of dubious legitimacy will undergo a more rigorous examination.

Law Nº. 10.637 (December 30th, 2002)

It increases the cost of penalties regarding the labels that are not in compliance with the rules established by the Internal Revenue Service.

Normative Instruction of the Internal Revenue Service Nº. 396 (November 6th, 2004)

It approves the Program that generates Special Statement of Tax Information on taxation of cigarettes (DIF - Cigarettes). This program allows the Internal Revenue to have a greater control of the established companies and those in ongoing establishment in the country, with regard to registration, distribution, exportation and importation of cigarettes, as well as tax collection.

Law Nº. 11.488 (July 15th, 2007)

It obliges cigarette manufacturers to install production metering equipment, allowing the control and tracking of the products throughout the country and enabling the legitimate identification of the product's origin, repressing the illegal production and importation, as well as the marketing of counterfeits.

RDC Resolution of the *Agência Nacional de Vigilância Sanitária* Nº. 90 (December 27th, 2007)

It revokes ANVISA's Resolution Nº. 346/03.

It provides for the registration of the cadastral data of smoked tobacco products.

VIII) FRAMEWORK CONVENTION ON TOBACCO CONTROL

Executive Order (August 1st, 2003)

It creates the National Commission for Implementation of the Framework Convention for the Control of

Tobacco and its Protocols.

The National Commission is composed of the Ministries of Health, Foreign Affairs, Agriculture, Livestock and Supply; Finance, Justice, Labor and Employment; Education; Development, Industry and Foreign Trade; Land Development, Communications, Environment, Civil House; Science and Technology; Planning and Budget, the National Anti-Drug Secretariat, and the Special Secretariat of Policies for Women.

Executive Order Nº. 1.012 (October 28th, 2005)

It approves the text of the Framework Convention on Tobacco Use Control, signed by Brazil, on June 16th, 2003.

Executive Order Nº. 5.658 (January 2nd, 2006)

It promulgates the Framework Convention on Tobacco Control, adopted by the countries which are members of the World Health Organization on May 21st, 2003 and signed by Brazil on June 16th, 2003.

IX) FINANCING THE CULTURE OF TOBACCO

Central Bank of Brazil's Resolution Nº. 2.833 (April 25th, 2001)

It determines that it is prohibited to grant a public credit related to the production of tobacco, in the scope of the PRONAF*, in partnership or association with the tobacco industry.

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* *PRONAF - National Program for Strengthening Family Agriculture, established by the Central Bank of Brazil's resolution No. 2.191 (August 24th, 1995) destined for the financial support to agricultural activities, by direct employment of family labor.*

X) TAX ON TOBACCO PRODUCTS

Executive Order Nº. 6.006 (December 28th, 2006)

It establishes the rates of incidence of the Tax on Industrialized Products (IPI) on cigarettes.

Executive Order Nº. 6.072 (April 3rd, 2007)

It establishes the rates of the Tax on Industrialized Products (IPI) on cigarettes.

Instruction of the Internal Revenue Service Nº. 753 (July 10th, 2007)

It regulates the Executive Order Nº. 6.072/07, increasing the IPI costs on cigarettes.

XI) FINANCING FOR TOBACCO CONTROL ACTIONS IN THE SUS

Ordinance of the Ministry of Health Nº. 2.084 (December 26th, 2005)

It establishes the mechanisms and responsibilities for Pharmaceutical Assistance financing in Primary Care and other provisions.

Ordinance of the Ministry of Health Nº. 2.608 (December 28th, 2005)

It defines the financial resources of the Health Surveillance Financial Ceiling, to encourage the structuring of actions of Surveillance and Prevention of Disease Control and Non-transmitted Damages, including the encouragement of tobacco-free environments, by the State and Municipal Health Secretariats of the capitals.

XII) PUBLIC HEALTH POLICIES

Ordinance of the Ministry of Health Nº. 2.439 (December 8th, 2005)

It establishes the National Policy of Oncology Care.

Ordinance of the Ministry of Health Nº. 399 (February 22nd, 2006)

It divulges the 2006 Pact for Health - Consolidation of the SUS and approves the Operational Guidelines of the Pact.

Ordinance of the Ministry of Health Nº. 687 (March 30th, 2006)

It approves the Health Promotion Policy.

Annex 2 Sampling Plan

Selection registers

1st stage: territorial base containing the administrative division in force in 2000, with information about population size obtained by the 2000 Demographic Census.

2nd stage: geographical operational base containing the census tract network in force in 2000, with information about the population size and number of household units obtained in the 2000 Demographic Census.

3rd stage: roll of household units prepared during the listing operation, which consists in orderly catalog all residential and non-residential units existing in the area of the census tracts selected for the survey. This operation is updated yearly, preserving the prefixed sampling fractions. In addition to this update, to trade the growth of the municipalities included in the sample, a complementary register was created, comprised of the household units existing in housing estates, buildings and subnormal agglomerates with 30 or more housing units, which may have appeared in these municipalities after the 2000 Demographic Census.

4th stage: list of residents 15 years of age or older created at the household interview.

Sample size

Sample size was suggested through a calculation based on simple random sampling (SRS), so as to define the levels of accuracy, measured by the coefficient of variation(CV), which would be obtained for the proportion estimates in several geographical levels.

The sampling plan that was adopted in the survey was not a simple random sampling of individuals, and, for that reason, a correction was made in the values of the variation coefficients, considering the design effects (DEFF). This measure, DEFF, indicates how much the sampling plan per conglomerates is less efficient (higher CV) than the simple random sampling. The factors that interfere with the DEFF value are the number of households/individuals selected in each census tract and the intraclass correlation coefficient, which measures the level of homogeneity in the census tracts regarding the variable of interest.

As there is no information about the behavior of the variable of interest in order to calculate the DEFF, its value was determined by considering studies about other variables that probably had a greater conglomeration effect. In order to determine the DEFF value, the selection of the household sub sample and the average size of the individual sample per census tract were taken into account.

The formula utilized was: $CV\left(\hat{P}\right)=\frac{\sqrt{DEFF\,\frac{N-n}{N-1}\cdot\frac{P\cdot Q}{n}}}{P}$, where:

CV is the coefficient of variation of the proportion estimated;

n is the size of the individual sample;

N is the total number of individuals;

P is the interest proportion;

Q = - P ;

$DEFF=1+\left(\overline{n}-1\right)\cdot\rho$ is the design effect;

$\overline{n}$ is the average size of the individual sample per census tract and

ρ is the intraclass correlation coefficient.

The expected sample size considered for the GATS Brazil was 40,000 adults, which represents approximately the selection of one household for every three households of the NHSS sample, considering a 20% non response rate (which includes empty or ruined households, refusal and incomplete interviews). It is important to emphasize that, before an interview was classified as incomplete, there were three attempts to complete the questionnaire.

The expected average size of households sample per census tract was 5 households, considering the selection in all the sectors of the NHSS sample. With this sample size, the DEFF value obtained was 1.5. Table A.1 presents the expected coefficients of variation for several magnitudes of proportions of interest, at several geographical levels, considering the total sample size proposed and the selection of the household sub sample for the GATS Brazil.

After the analysis of the coefficients of variation, it is expected that it will be possible to estimate, with quality, the proportion of people with rare characteristics (higher than 0.01) nationwide, both in the urban and rural areas, and at the geographical regions level, rates higher than 0.10 in the urban and rural areas. Besides these geographical levels, it is also expected to be possible to estimate with acceptable accuracy (CV up to 15%) some smaller rates, higher than 0.15, at the State level, total and urban area levels.

Table A.2 shows the number of households, household status and NHSS and GATS Brazil response rates.

Table A.1 Sample size, estimated interviews and estimated coefficient of variation (CV) based on the expected proportion to be estimated, by Geographical Region and states.

Geographical Regions/ States	Population 2006 (Projection)	Households in the sample			Estimated CV (%)						
		NHSS	GATS Brazil		Proportion to be estimated						
		2006	Selection	Interviews	0.01	0.02	0.03	0.04	0.05	0.1	0.15
Brazil	**187 227 792**	**145 547**	**50 000**	**40 000**	**6.1**	**4.3**	**3.5**	**3.0**	**2.7**	**1.8**	**1.5**
North Region	**15 080 183**	**17 048**	**5 857**	**4 685**	**17.8**	**12.5**	**10.2**	**8.8**	**7.8**	**5.4**	**4.3**
Rondônia	1 567 196	2 178	748	599	49.8	35.0	28.5	24.5	21.8	15.0	11.9
Acre	663 656	1 335	459	367	63.6	44.7	36.3	31.3	27.9	19.2	15.2
Amazonas	3 351 077	2 900	996	797	43.2	30.4	24.7	21.3	18.9	13.0	10.3
Roraima	405 448	712	245	196	87.1	61.3	49.8	42.9	38.2	26.3	20.8
Pará	7 136 219	7 051	2 422	1 938	27.7	19.5	15.8	13.6	12.1	8.3	6.6
Amapá	619 434	897	308	247	77.6	54.6	44.3	38.2	34.0	23.4	18.6
Tocantins	1 337 153	1 975	678	543	52.3	36.8	29.9	25.7	22.9	15.8	12.5
Northeast Region	**51 713 072**	**43 496**	**14 942**	**11 954**	**11.1**	**7.8**	**6.4**	**5.5**	**4.9**	**3.4**	**2.7**
Maranhão	6 198 860	2 200	756	605	49.6	34.9	28.3	24.4	21.7	14.9	11.9
Piauí	3 041 474	1 865	641	513	53.8	37.9	30.8	26.5	23.6	16.2	12.9
Ceará	8 238 204	8 402	2 886	2 309	25.4	17.8	14.5	12.5	11.1	7.6	6.1
Rio Grande do Norte	3 050 935	2 170	745	596	49.9	35.1	28.5	24.6	21.9	15.0	11.9
Paraíba	3 628 035	2 546	875	700	46.1	32.4	26.3	22.7	20.2	13.9	11.0
Pernambuco	8 518 304	9 007	3 094	2 475	24.5	17.2	14.0	12.1	10.7	7.4	5.9
Alagoas	3 056 781	1 964	675	540	52.4	36.9	30.0	25.8	23.0	15.8	12.5
Sergipe	2 006 549	2 038	700	560	51.5	36.2	29.4	25.3	22.6	15.5	12.3
Bahia	13 973 930	13 304	4 570	3 656	20.2	14.2	11.5	9.9	8.8	6.1	4.8
Southeast Region	**79 753 141**	**45 483**	**15 625**	**12 500**	**10.9**	**7.7**	**6.2**	**5.4**	**4.8**	**3.3**	**2.6**
Minas Gerais	19 522 017	13 747	4 723	3 778	19.8	13.9	11.3	9.8	8.7	6.0	4.7
Espírito Santo	3 474 146	2 853	980	784	43.5	30.6	24.9	21.4	19.1	13.1	10.4
Rio de Janeiro	15 593 160	11 516	3 956	3 165	21.7	15.2	12.4	10.7	9.5	6.5	5.2
São Paulo	41 163 818	17 367	5 966	4 773	17.6	12.4	10.1	8.7	7.7	5.3	4.2
South Region	**27 368 019**	**23 190**	**7 966**	**6 373**	**15.3**	**10.7**	**8.7**	**7.5**	**6.7**	**4.6**	**3.7**
Paraná	10 409 517	7 231	2 484	1 987	27.3	19.2	15.6	13.5	12.0	8.2	6.5
Santa Catarina	5 974 442	3 915	1 345	1 076	37.1	26.1	21.2	18.3	16.3	11.2	8.9
Rio Grande do Sul	10 984 060	12 044	4 137	3 310	21.2	14.9	12.1	10.4	9.3	6.4	5.1
Midwest Region	**13 313 377**	**16 330**	**5 610**	**4 488**	**18.2**	**12.8**	**10.4**	**9.0**	**8.0**	**5.5**	**4.4**
Mato Grosso do Sul	2 303 888	2 705	929	743	44.7	31.4	25.5	22.0	19.6	13.5	10.7
Mato Grosso	2 866 474	3 151	1 082	866	41.4	29.1	23.7	20.4	18.1	12.5	9.9
Goiás	5 750 297	6 639	2 281	1 825	28.5	20.1	16.3	14.0	12.5	8.6	6.8
Distrito Federal	2 392 718	3 835	1 317	1 054	37.5	26.4	21.4	18.5	16.4	11.3	9.0

Note: Calculation of the coefficient of variation considering simple random sample and the effect of sampling plan equal to 1.5

Table A.2 Absolute number of households, percentage distribution of household status, response rate and selected individuals, by Geographical Region and place of residence. NHSS 2008 and GATS Brazil 2008

	Brazil	Geographical Regions					Place of residence	
		North	Northeast	Southeast	South	Midwest	Urban	Rural
NHSS								
Household Units	150 591	17 875	45 172	46 718	23 830	16 996	125 382	25 209
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Occupied Unit	82.4	82.3	82.3	81.8	83.2	83.1	84.8	70.4
Interviewed	78.4	77.2	79.1	77.6	79.7	78.8	80.4	68.7
Closed	2.1	3.3	1.9	2.0	1.2	3.1	2.3	1.2
Refusal	1.4	1.3	1.1	1.9	1.4	1.0	1.7	0.2
Other	0.4	0.5	0.2	0.4	0.9	0.2	0.4	0.3
Vacant Unit	15.8	14.1	16.3	16.6	15.0	15.2	13.4	27.7
Inexistent Unit	1.8	3.5	1.4	1.5	1.8	1.6	1.8	1.9
Response rate[1]	95.2	93.7	96.1	94.8	95.8	94.8	94.8	97.6
Individuals	391 868	51 760	125 321	114 023	57 495	43 269	330 322	61 546
GATS Brazil								
Household Units	51 011	6 067	15 290	15 824	8 065	5 765	42 425	8 586
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Occupied Unit	82.3	82.3	82.4	81.4	82.9	83.2	84.8	69.7
Interviewed	77.3	75.8	78.2	76.1	78.7	77.6	79.4	66.9
Non-interviewed	0.8	0.9	0.9	0.9	0.5	0.8	0.8	0.9
Closed	2.2	3.5	1.9	2.2	1.2	3.4	2.4	1.2
Refusal	1.5	1.6	1.2	1.9	1.5	1.2	1.7	0.3
Other	0.4	0.6	0.2	0.4	0.9	0.2	0.4	0.3
Vacant Unit	15.9	14.0	16.3	17.0	15.3	15.0	13.4	28.3
Inexistent Unit	1.8	3.6	1.3	1.6	1.9	1.8	1.8	2.0
Response rate[2]	95.0	93.1	96.0	94.6	95.6	94.3	94.6	97.3
Individuals	39 847	4 652	12 096	12 183	6 392	4 524	34 024	5 823
Interviewed	98.9	98.8	98.9	98.9	99.3	98.9	99.0	98.7
Non-Interviewed	1.1	1.2	1.1	1.1	0.7	1.1	1.0	1.3

Source: IBGE NHSS 2008 and GATS Brazil 2008.
[1] Percentage of individuals interviewed in NHSS (78.4) among total occupied household units (82.4)
[2] Percentage of individuals interviewed in GATS Brazil (77.3) among total occupied household units (82.3)

Expansion factors

The expansion factors or sampling weights for the GATS Brazil were calculated in three stages, considering: the selection probability; the adjustments for non-responses and the adjustments for calibration of the totals estimated by the NHSS estimates.

The calculation stages of the sampling weights were:

a) Basic sampling weight

The basic sampling weight is defined as the inverse of the selection probability and was calculated as follows:

- household selection probability for the GATS Brazil, given that the household was selected for the NHSS

$$p^{d}_{hijk} = \frac{n^{T}_{hij}}{n_{hij}}$$

where,

h is the NHSS selection stratum indicator;

i is the municipality indicator;

j is the census tract indicator;

k is the household indicator;

n^{T}_{hij} is the number of households selected for the GATS Brazil sample in census tract j, municipality i, stratum h and

n_{hij} is the number of households selected for the NHSS sample in census tract j, municipality i and stratum h.

- individual selection probability for the GATS Brazil, given that the household was selected for the NHSS

$$p^{p}_{hijk} = \frac{1}{O_{hijk}} \cdot \frac{n^{T}_{hij}}{n_{hij}}$$

where,

O_{hijk} is the number of individuals 15 years of age or older in the household k, census tract j, municipality i and stratum h.

- household selection probability for the NHSS

p_{hijk}

this probability is constant in each post-stratum g of the NHSS (Metropolitan Region and the Rest of the State; Rural and Urban and the combination of these two subdivisions in the state of Pará).

- individual selection probability for the GATS Brazil

$$p^{p*}_{hijk} = \frac{1}{O_{hijk}} \cdot \frac{n^{T}_{hij}}{n_{hij}} \cdot p_{hijk}$$

- basic sampling weight of the individual selected for the GATS Brazil

$$w^{p}_{hijk} = \frac{1}{p^{p*}_{hijk}} = O_{hijk} \cdot \frac{n_{hij}}{n^{T}_{hij}} \cdot \frac{1}{p_{hijk}}$$

b) Sampling weight with adjustment for non-response

In order to compensate for the losses of interviews due to non response in the GATS Brazil (closed household, refusal of the residents to answer the interviewer and refusal of the selected person to answer the GATS Brazil questionnaire) the basic sampling weight was adjusted as follows:

- sampling weight with adjustment for non-response by the individual selected for the GATS Brazil

$$w^{p*}_{hijk} = O_{hijk} \cdot \frac{n_{hij}}{n^{T}_{hij}} \cdot \frac{r^{T}_{hij} + na^{T}_{hij}}{r^{T}_{hij}} \cdot \frac{1}{p_{hijk}}$$

where,

r^{T}_{hij} is the number of households selected for the GATS Brazil sample in census tract j, municipality i and stratum h with conducted interview and

na^{T}_{hij} is the number of households selected for the GATS Brazil sample in census tract j, municipality i and stratum h without interview conducted due to non-response (closed household, refusal of the residents to answer the interviewer, any other reason in occupied households and refusal of the selected adult).

c) Final sampling weight

It was observed that, in the GATS Brazil, the non-response was slightly different by gender. Due to this, the estimates of individuals aged 15 years or older deriving from the GATS Brazil were adjusted by gender to the NHSS estimates.

The NHSS estimates consider the final weight of this survey, which is adjusted so that the estimated total number of individuals in the post-strata be equal to the population estimates made by the IBGE's Social Indicators Population Coordination. The post-strata are the previously mentioned ones.

The adjustment in the GATS Brazil weight was also made in each of these NHSS post-strata, and the final expression of the sampling size for the people selected is given by

$$w_{hijk}^{gs} = O_{hijk} \cdot \frac{n_{hij}}{n_{hij}^{T}} \cdot \frac{r_{hij}^{T} + na_{hij}^{T}}{r_{hij}^{T}} \cdot \frac{1}{p_{hijk}} \cdot \frac{\hat{Y}_{gs}}{\hat{Y}_{gs}^{T}}$$

where,

w_{hijk}^{gs} is the final sampling weight of the person selected in household k, census tract j, municipality i, stratum h, gender s and post-stratum g;

$\frac{\hat{Y}_{gs}}{\hat{Y}_{gs}^{T}}$ is the adjustment factor of the weight of the individuals of the gender s of post-stratum h selected;

$\hat{Y}_{gs} = \sum_{hijk} \frac{1}{p_{hijk}} \cdot f_g \cdot y_{hijk}^{s} \cdot I_{hijk}^{g}$ is the estimated total number of adults aged 15 years and older of the gender s of post-stratum g deriving from the NHSS;

$f_g = \frac{T_g}{\hat{T}_g}$ is the adjustment factor of the NHSS sampling weight in post-stratum g;

T_g is the population estimate in post-stratum for 2008*;

$\hat{T}_g = \sum_{hijk} \frac{1}{p_{hijk}} \cdot y_{hijk} \cdot I_{hijk}^{g}$ is the total estimate of adults in post-stratum g, deriving from the NHSS, using the inverse of the probability of selection for this survey as weight.

y_{hijk} is the total number of individuals in household k, census tract j, municipality i, and stratum h;

y_{hijk}^{s} is the total number of individuals of gender s in household k, census tract j, municipality i, and stratum h;

$$I_{hijk}^{g} = \begin{cases} 1 & \textit{if household k, census tract j, municipality i, and stratum h belong to post} - \textit{stratum g} \\ 0 & \textit{otherwise} \end{cases}$$

$\hat{Y}_{gs}^{T} = \sum_{hijk} w_{hijk}^{p^*} \cdot I_{hijk}^{s} \cdot I_{hijk}^{g}$ is the estimated total number of adults aged 15 years and older of the gender s of post-stratum g deriving from the GATS Brazil, using the sampling weight adjusted to the lack of answer;

$$I_{hijk}^{s} = \begin{cases} 1 & \textit{if individual selected in household k, censustract j, municipality i, stratum h is of gender s} \\ 0 & \textit{otherwise} \end{cases}$$

* *PROJEÇÃO da população do Brasil por sexo e idade 1980-2050: revisão 2008. Rio de Janeiro: IBGE, 2008. Disponível em:<http://www.ibge.gov.br/home/estatistica/populacao/projecao_da_populacao/2008/default.shtm>*

Annex 3 Sampling Error Estimates

The accuracy of the estimates produced with the data from the GATS Brazil was expressed in relative terms, by utilizing the coefficient of variation. These coefficients of variation were estimated by utilizing the Primary Conglomerate Method*, with the help of the SUDAAN (Survey Data Analysis) software. The formula to estimator of the variance of the estimator of the total of a variable X is:

$$\hat{v}(\hat{x}) = \sum_{h} \frac{m_h}{m_h - 1} \sum_{u} \left(\hat{Z}_{hu} - \frac{\hat{Z}_h}{m_h} \right)^2$$ where,

u is the indicator of the primary sampling unit (PSU). In the strata in which the municipalities are self-representative, the PSU is the census tract, in the others, the PSU is the municipality.

m_h is the number of PSUs selected in stratum h;

x_{hijk} is the value of the variable X for the person selected in household k, census tract j, municipality i, and stratum h;

$$\hat{Z}_{hu} = \sum_{ijkgs} w^{gs}_{hijk} \cdot \left(x_{hijk} - \frac{\hat{X}^{gs}_h}{\hat{Y}^{T}_{gs}} \right);$$

$$\hat{Z}_h = \sum_{u} \hat{Z}_{hu} \text{ and}$$

$$\hat{X}^{gs}_h = \sum_{ijk} w^{gs}_{hijk} \cdot x_{hijk} \cdot I^{g}_{hijk} \cdot I^{s}_{hijk}$$

And the estimator of the coefficient of variation for the estimates of the total is given by:

$$CV(\hat{X}) = \frac{\sqrt{\hat{V}(\hat{X})}}{\hat{X}}$$

The CV was estimated for each cell of the tables with the GATS Brazil estimates, and the average of these CVs was 7.8%, indicating good accuracy as far as estimates are concerned. Table A.3 contains a distribution of the average of the coefficients of variation per value range.

* *Ultimate cluster. Details at Hansen et al (1953) Sample Survey Methods and Theory or at Pessoa DGC & Silva PLN (1988) Análise de dados amostrais complexos. São Paulo; Associação Brasileira de Estatística.*

Table A.3 shows that over 85% of the estimates were obtained with accuracy within the expectations, that is, with a variation coefficient of up to 15%. Moreover, less than 3% of the estimates have low accuracy, due to their referring to rarer characteristics, which, therefore, are more difficult to be obtained in the sample.

Table A.3 Absolute number and percentage distribution of estimates, and average of the estimated coefficient of variation (CV), by ranges of values of the coefficient of variation. GATS Brazil, 2008.

CV value ranges	Number of estimates	Percentage of estimates	Average of the CVs (%)
Total	8 575	100.0	7.8
Up to 5%	4 173	48.7	2.2
More than 5% to 15%	3 217	37.5	9.1
More than 15% to 30%	9 500	11.1	20.4
More than 30% to 50%	204	2.4	37.0
More than 50%	31	0.4	58.8

For this survey, an assessment of the quality of the tabulate plan was made. This assessment was carried out with the aid of the Table Quality Index* – or TQI – program, which evaluates the quality of each table as well as the global quality of the set of tables, through factors calculated from the accuracy of their estimates. The result of this assessment is a grade that ranges from 0 to 10, the higher the grade, the better the accuracy of the estimates.

Table A.4 shows the indicators for sampling errors based on selected estimators used in the analysis.

* *Albieri S, Silva AN. Índice de Qualidade de Tabelas: Avaliação de um plano tabular de pesquisas por amostragem em função da precisão das estimativas.[documento interno] Rio de Janeiro: IBGE, Coordenação de Métodos e Qualidade, 2001.*

Table A.4 Indicators for sampling errors by selected estimators.

Estimator	Type of Estimator	Estimate	95% CI* Lower Limit	95% CI* Upper Limit	Standard Error	Coefficient of Variation	Unweighted Sample Size	Weighted Population Size	Design Effect
Current smokers of any tobacco product	Proportion	0.172	0.167	0.177	0.002	0.014	39 425	142 998 657	1.683
Current smokers of any tobacco product - male	Proportion	0.216	0.208	0.223	0.004	0.018	18 039	68 537 553	1.613
Current smokers of any tobacco product - female	Proportion	0.131	0.125	0.137	0.003	0.022	21 386	74 461 104	1.551
Current smokers of any tobacco product - urban area	Proportion	0.166	0.161	0.171	0.003	0.016	33 68	121 280 999	1.688
Current smokers of any tobacco product - rural area	Proportion	0.204	0.191	0.217	0.007	0.033	5 745	21 717 658	1.559
Daily smokers	Proportion	0.151	0.146	0.155	0.002	0.016	39 425	142 998 657	1.725
Current cigarette smokers	Proportion	0.171	0.166	0.176	0.002	0.014	39 425	142 998 657	1.694
Current manufactured cigarette smokers	Proportion	0.144	0.140	0.149	0.002	0.016	39 425	142 998 657	1.709
Current hand-rolled cigarette smokers	Proportion	0.051	0.048	0.054	0.002	0.033	39 425	142 998 657	2.336
Current users of smokeless tobacco	Proportion	0.004	0.004	0.005	0.000	0.091	39 425	142 998 657	1.432
Heaviness of smoking index (high+elevated nicotine dependence among daily tobacco smokers)	Proportion	0.190	0.177	0.202	0.006	0.033	5 838	20 732 606	1.530
Former daily smokers	Proportion	0.141	0.137	0.145	0.002	0.015	39 425	142 998 657	1.523
Smoking cessation index (former smoker/ever smoker)	Proportion	0.514	0.504	0.525	0.005	0.010	14 42	50 539 088	1.614
Adults who made a quit attempt or visited a doctor or health care provider provider in the past 12 months before then interview date, among the population who smoked or had quit in the past 12 months	Proportion	0.456	0.443	0.470	0.007	0.015	7 583	26 605 359	1.481

*CI: confidence interval

Table A.4 Indicators for sampling errors by selected estimators. (cont.)

Estimator	Type of Estimator	Estimate	95% CI* Lower Limit	95% CI* Upper Limit	Standard Error	Coefficient of Variation	Unweighted Sample Size	Weighted Population Size	Design Effect
Adults who were asked if they smoked or advised to quit smoking by a doctor or health care provider, among people who smoked or had quit smoking for less than 12 months	Proportion	0.571	0.553	0.588	0.009	0.016	4 468	15 638 707	1.465
Adults who were exposed to tobacco smoke at work	Proportion	0.244	0.234	0.254	0.005	0.021	13 172	47 447 093	1.959
Adults who were exposed to tobacco smoke in health care facilities	Proportion	0.040	0.038	0.043	0.001	0.030	39 001	141 305 862	1.505
Adults who were exposed to tobacco smoke in restaurants	Proportion	0.099	0.094	0.103	0.002	0.022	39 038	141 484 759	2.046
Adults who were exposed to tobacco smoke in public transportation	Proportion	0.045	0.042	0.048	0.002	0.036	39 168	142 386 021	2.337
Adults who were exposed to tobacco smoke in government buildings or offices	Proportion	0.036	0.034	0.038	0.001	0.034	38 466	139 274 985	1.691
Adults who noticed anti-cigarette smoking information - overall	Proportion	0.731	0.723	0.739	0.004	0.006	39 425	142 998 657	3.564
Adults who noticed anti-cigarette smoking information on TV	Proportion	0.639	0.631	0.648	0.004	0.007	39 425	142 998 657	3.263
Adults who noticed anti-cigarette smoking information on the radio	Proportion	0.303	0.294	0.311	0.004	0.014	39 425	142 998 657	3.397
Adults who thought about quitting smoking due to pictures or warning labels on cigarette packages	Proportion	0.650	0.635	0.665	0.008	0.012	7 003	24 552 393	1.868
Adults who noticed cigarette advertising - overall	Proportion	0.380	0.371	0.389	0.004	0.012	39 425	142 998 657	3.329
Adults who noticed cigarette advertising in sales points	Proportion	0.304	0.295	0.312	0.004	0.014	39 425	142 998 657	3.513
Adults who noticed cigarette promotion	Proportion	0.034	0.032	0.037	0.001	0.04	39 425	142 998 657	2.217
Monthly tobacco expenditure	Mean	55.533	53.170	57.896	1.204	0.022	4 227	15 000 000	1.737
Adults who believed that smoking could cause serious illnesses	Proportion	0.961	0.958	0.964	0.002	0.002	39 425	142 998 657	2.683
Adults who believed that smoking could cause stroke	Proportion	0.731	0.724	0.738	0.004	0.005	39 425	142 998 657	2.791
Adults who believed that smoking could cause heart attack	Proportion	0.856	0.851	0.862	0.003	0.003	39 425	142 998 657	2.739
Adults who believed that smoking could cause lung cancer	Proportion	0.947	0.944	0.951	0.002	0.002	39 425	142 998 657	2.534
Adults who believed that breathing other people's smoke could cause serious illnesses in non-smokers	Proportion	0.914	0.909	0.918	0.002	0.003	39 425	142 998 657	2.678

*CI: confidence interval

Annex 4 Questionnaire – GATS Brazil

PNAD - IDENTIFICATION AND VISIT RECORD

CENSUS TRACT NUMBER	URBAN/RURAL SITUATION	PNAD ORDER NUMBER	CONTROL NUMBER	SERIAL NUMBER
|__|__|__|__|	|__|	|__|__|__|__|	|__|__|__|__|__|__|__|__|	|__|__|__|

STATE: _____

MUNICIPALITY: _____

TYPE OF INTERVIEW		
01 ☐ Complete	05 ☐ In use condition	09 ☐ Demolished
02 ☐ Closed (nobody home)	06 ☐ Occasional use	10 ☐ Not found
03 ☐ Refusal	07 ☐ Renovation or new construction	11 ☐ Not residential
04 ☐ Other	08 ☐ In ruin	12 ☐ Out of census tract

Household members		Interviewer identification	Supervisor identification
Total	10 years of age or older		
|__|__|	|__|__|	|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|

VISIT RECORD			
Visit Number	Day and month of visit	Time of the visit	
		Beginning	End
1 ☐	|__|__| / |__|__| Day Month	|__|__| / |__|__| Hours Minutes	|__|__| / |__|__| Hours Minutes
2 ☐	|__|__| / |__|__| Day Month	|__|__| / |__|__| Hours Minutes	|__|__| / |__|__| Hours Minutes
3 ☐	|__|__| / |__|__| Day Month	|__|__| / |__|__| Hours Minutes	|__|__| / |__|__| Hours Minutes

PNAD HOUSEHOLD MEMBERS ROSTER

HOUSEHOLD MEMBERS						
Order number	Name	Number in the family	Household condition	Family condition	Gender	Status

[+] [-] [Edit]

Name _____

# of family |__|

Household condition |__|

Family condition |__|

Gender |__|

Data of birth Day |__|__| / |__|__| / |__|__|__|__|
Day Month Year

Notes:
+ : To add a new member
- : To exclude a member
Edit: To edit information

Individual Questionnaire

SECTION A. BACKGROUND CHARACTERISTICS

A1. INT: RECORD GENDER FROM OBSERVATION. ASK IF NECESSARY.

MALE ☐ 1
FEMALE ☐ 2

A2. What is your birth date?

DAY ☐☐ IF DON'T KNOW, ENTER "77"
MONTH: ☐☐ IF DON'T KNOW, ENTER "77"
YEAR: ☐☐☐☐ IF DON'T KNOW, ENTER "7777"

A3. NOT APPLICABLE TO BRAZIL; ONLY INFORMATION ON DATE OF BIRTH.

A4. NOT APPLICABLE TO BRAZIL. EDUCATION WAS ASSESSED BY QUESTIONS PNAD6.1 TO PNAD6.11 BELOW:

PNAD6.1. Do you know how to read and write?

YES ☐ 1 GO TO PNAD6.2
NO ☐ 2 GO TO PNAD6.2

PNAD6.2. Are you attending school?

YES ☐ 1 GO TO PNAD6.3a
NO ☐ 2 GO TO PNAD6.6

PNAD6.3a. What is the school level you are attending?

PRIMARY (ELEMENTARY + JUNIOR HIGH SCHOOL) ☐ 1 GO TO PNAD6.3b
SECONDARY (HIGH SCHOOL) ☐ 2 GO TO PNAD6.5
FASTER EDUCATION FOR YOUTH AND ADULTS – PRIMARY ☐ 3 GO TO PNAD6.4
FASTER EDUCATION FOR YOUTH AND ADULTS – SECONDARY ☐ 4 GO TO PNAD6.4
COLLEGE ☐ 5 GO TO PNAD6.5
ADULT LITERACY CLASS ☐ 6 GO TO PNAD9.1
COLLEGE PREPARATION ☐ 10 GO TO PNAD9.1
GRADUATE SCHOOL (MASTER, PHD, OTHERS) ☐ 11 GO TO PNAD9.1

PNAD6.3b. The number of years for the school level you are attending is:

8 YEARS ☐ 1 GO TO PNAD6.5
9 YEARS ☐ 2 GO TO PNAD6.5

PNAD6.4. Is this school level you are attending classified by grades?

YES ☐ 1 GO TO PNAD6.5
NO ☐ 2 GO TO PNAD9.1

PNAD6.5. What grade are you in?

FIRST ☐ 1 GO TO PNAD9.1
SECOND ☐ 2 GO TO PNAD9.1
THIRD ☐ 3 GO TO PNAD9.1
FOURTH ☐ 4 GO TO PNAD9.1
FIFTH ☐ 5 GO TO PNAD9.1
SIXTH ☐ 6 GO TO PNAD9.1
SEVENTH ☐ 7 GO TO PNAD9.1
EIGHTH ☐ 8 GO TO PNAD9.1
NIGHT ☐ 0 GO TO PNAD9.1

PNAD6.6. Have you attended school in the past?

YES ☐ 1 GO TO PNAD6.7a
NO ☐ 2 GO TO PNAD9.1

PNAD6.7a. What was the highest school level you attended?

ELEMENTARY	☐ 1 GO TO PNAD6.9
JUNIOR HIGH SCHOOL	☐ 2 GO TO PNAD6.8
HIGH SCHOOL	☐ 3 GO TO PNAD6.8
PRIMARY (ELEMENTARY + JUNIOR HIGH SCHOOL)	☐ 4 GO TO PNAD6.7B
SECONDARY (HIGH SCHOOL)	☐ 5 GO TO PNAD6.9
FASTER EDUCATION FOR YOUTH AND ADULTS – PRIMARY	☐ 6 GO TO PNAD6.8
FASTER EDUCATION FOR YOUTH AND ADULTS – SECONDARY	☐ 7 GO TO PNAD6.8
COLLEGE	☐ 8 GO TO PNAD6.9
GRADUATE SCHOOL (MASTER, PHD, OTHERS)	☐ 9 GO TO PNAD6.11
ADULT LITERACY CLASS	☐ 10 GO TO PNAD9.1

PNAD6.7b. The number of years for this school level you attended was:

8 YEARS	☐ 1 GO TO PNAD6.9
9 YEARS	☐ 2 GO TO PNAD6.9

PNAD6.8. Was this school level you attended classified by grades?

YES	☐ 1 GO TO PNAD6.9
NO	☐ 2 GO TO PNAD6.11

PNAD6.9. Did you complete at least the first grade in this school level you attended, with success?

YES	☐ 1 GO TO PNAD6.10
NO	☐ 2 GO TO PNAD6.11

PNAD6.10. What was the last grade you complete with success, in this school level you attended?

FIRST	☐ 1 GO TO PNAD6.11
SECOND	☐ 2 GO TO PNAD6.11
THIRD	☐ 3 GO TO PNAD6.11
FOURTH	☐ 4 GO TO PNAD6.11
FIFTH	☐ 5 GO TO PNAD6.11
SIXTH	☐ 6 GO TO PNAD6.11
SEVENTH	☐ 7 GO TO PNAD6.11
EIGHTH	☐ 8 GO TO PNAD6.11
NIGHT	☐ 0 GO TO PNAD6.11

PNAD6.11. Have you completed this school level you attended?

YES	☐ 1 GO TO PNAD9.1
NO	☐ 2 GO TO PNAD9.1

A5. NOT APPLICABLE TO BRAZIL. WORK STATUS WILL BE ASSESSED BY THE FOLOWING PNAD QUESTIONS:

PNAD9.1. During the week from September 21st to September 27th, 2008 did you work?

YES	☐ 1 GO TO PNAD9.29/77/112
NO	☐ 2 GO TO PNAD9.2

PNAD9.2. During the week from September 21st to September 27th, 2008 did you have a paid work in which you were temporally out due to vacation, leave, voluntary absence, strike, temporary suspension of work contract, bad weather, or any other reason?

YES	☐ 1 GO TO PNAD9.29/77/112
NO	☐ 2 GO TO PNAD9.67

PNAD9.67. During the period from September 28th, 2007 to September 20th, 2008 did you have any work?

YES	☐ 1 GO TO PNAD9.29/77/112
NO	☐ 2 GO TO PNAD9.121

PNAD9.29/77/112. In this work you were:

EMPLOYEE	☐ 1 GO TO PNAD9.32/78
DOMESTIC WORKER	☐ 2 GO TO A6
SELF-EMPLOYED	☐ 3 GO TO A6
EMPLOYER	☐ 4 GO TO A6
UNPAID WORKER A HOUSEHOLD MEMBER	☐ 5 GO TO A6
OTHER UNPAID WORKER	☐ 6 GO TO A6
PRODUCTION WORKER FOR SELF-CONSUMPTION	☐ 7 GO TO A6
CONSTRUCTION WORKER FOR SELF-USE	☐ 8 GO TO A6

PNAD9.32/78 This work was on public or private sector?

PRIVATE ☐ 1 GO TO A6
PUBLIC ☐ 2 GO TO A6

PNAD 9.121. During the week from September 21st to September 27th, 2008 did you take care of the household domestic chores?

YES ☐ 1 GO TO PNAD9.122
NO ☐ 2 GO TO PNAD9.122

PNAD 9.122. During the week from September 21st to September 27th, 2008 were you retired?

YES ☐ 1 GO TO A6
NO ☐ 2 GO TO A6

A6. Please tell me whether this household or any person who lives in the household has the following items:

ITEMS WILL BE ASKED SEPARATELY DURING PNAD CORE QUESTIONNAIRE.

READ EACH ITEM:	YES	NO
a. ELECTRICITY?	☐ 1	☐ 2
b. FLUSH Toilet?	☐ 1	☐ 2
c. FIXED Telephone?	☐ 1	☐ 2
d. CELL TELEPHONE?	☐ 1	☐ 2
e. TELEVISION?	☐ 1	☐ 2
f. RADIO?	☐ 1	☐ 2
g. REFRIGERATOR?	☐ 1	☐ 2
h. WASHING Machine?	☐ 1	☐ 2

A6a. Does any person who lives in this household have a car or motorcycle for personnel use?

CAR ☐ 1
MOTORCYCLE ☐ 2
CAR AND MOTORCYCLE ☐ 3
NO ☐ 4

A9. What is your racial background?

READ EACH ITEM:

WHITE ☐ 1
BLACK ☐ 2
ASIAN ☐ 3
PARDO ☐ 4
INDIAN ☐ 5

GO TO B1.

SECTION B. TOBACCO SMOKING

INTRO: Now I would like to ask you about tobacco products that are smoked including cigarettes, cigars, cigarillos, pipes, clove cigarettes (or Bali cigarettes), Indian cigarettes (or bidis) and narguile (or water pipe). Please do not answer about smokeless tobacco, such as snuffs and chewing tobacco, at this time. Do not consider marijuana.

B1. Currently, do you smoke tobacco?

READ EACH ITEM:

DAILY ☐ 1 GO TO BR1
LESS THAN DAILY ☐ 2 GO TO B2
NOT AT ALL ☐ 3 GO TO B3

B2. In the past, have you smoked tobacco daily?

YES ☐ 1 GO TO BR1
NO ☐ 2 GO TO BR1

B3. In the past, have you smoked tobacco?

INT: IF RESPONDENT HAS DONE BOTH "DAILY" AND "LESS THAN DAILY" IN THE PAST, CHECK "DAILY" AND FOLLOW DAILY ROUTING

READ EACH ITEM:

DAILY	☐ 1 GO TO BR1
LESS THAN DAILY	☐ 2 GO TO BR1
NOT AT ALL	☐ 3 GO TO C1

INTRO: The following question refers to cigarettes only.

BR1. Adding all CIGARETTES you smoked in your entire life, the total amounts to 100 cigarettes or 5 packs?

YES	☐ 1
NO	☐ 2
DO NOT SMOKE/NEVER SMOKED CIGARETTES	☐ 3

IF B1 = 1, GO TO BR2

IF B1 = 2, GO TO BR4

IF B1 = 3, GO TO BR7

[CURRENT DAILY SMOKERS]

INTRO: Now think again about tobacco products that are smoked including cigarettes and also cigars, cigarillos, pipes, clove cigarettes (or Bali cigarettes), Indian cigarettes (or bidis) and narguile (or water pipe). Please do not answer about smokeless tobacco, such as snuffs and chewing tobacco, at this time. Do not consider marijuana.

BR2. How old were you when you started smoking tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/ DON'T REMEMBER, ENTER "99"

IF BR2 = 99, ASK BR3. OTHERWISE GO TO B4.

[174]

BR3. How many years ago did you start smoking tobacco, even once in a while?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO B4

B4. How old were you when you started smoking tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF B4 = 99, ASK B5. OTHERWISE GO TO B6.

B5. How many years ago did you start smoking tobacco daily?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO B6

B6. On average, how many of the following products do you currently smoke each day?

INT: IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER

INT: IF RESPONDENT REPORTS SMOKING THE PRODUCT IN THE PAST 30 DAYS, BUT REPORTED SMOKING LESS THAN 1 (ONE) UNIT PER DAY (EXEMPLE: 1 PER WEEK, 3 PER WEEK, 2 PER MONTH), CHECK "LESS THAN 1 PER DAY BUT MORE THAN 0 PER WEEK OR MONTH".

READ EACH ITEM:	PER DAY	LESS THAN 1 PER DAY BUT MORE THAN 0 PER WEEK OR MONTH	NONE	DON'T KNOW
a. Manufactured cigarettes? Do not include clove (Bali cigarettes) and Indian cigarettes (bidis).	☐☐☐	☐888	☐000	☐777
b. Hand-rolled or straw cigarettes?	☐☐☐	☐888	☐000	☐777
c. Clove or Bali cigarettes?	☐☐☐	☐888	☐000	☐777
d. Bidis or Indian cigarettes?	☐☐☐	☐888	☐000	☐777
e. Pipes full of tobacco?	☐☐☐	☐888	☐000	☐777
f. Cigars or cigarillos?	☐☐☐	☐888	☐000	☐777
g. Narguilé (sessions)?	☐☐☐	☐888	☐000	☐777
h. Any others? Specify:_____	☐☐☐	☐888	☐000	☐777

GO TO B7

B7. How soon after you wake up do you usually have your first smoke?

READ EACH ITEM:

UP TO 5 MINUTES ☐1 GO TO D4
6 TO 30 MINUTES ☐2 GO TO D4
31 TO 60 MINUTES ☐3 GO TO D4
MORE THAN 60 MINUTES ☐4 GO TO D4

[CURRENT LESS THAN DAILY SMOKERS]

INTRO: Now think again about tobacco products that are smoked including cigarettes and also cigars, cigarillos, pipes, clove cigarettes (or Bali cigarettes), Indian cigarettes (or bidis) and narguile (or water pipe). Please do not answer about smokeless tobacco, such as snuffs and chewing tobacco, at this time. Do not consider marijuana.

BR4. During the past 30 days (one month), on how many days did you smoke tobacco?

☐☐ DAYS IF DON'T KNOW/DON´T REMEMBER, ENTER "99"

GO TO BR5

BR5. How old were you when you started smoking tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/DON´T REMEMBER, ENTER "99"

IF BR5 = 99, GO TO BR6.

IF BR5 ≠ 99 AND B2 = 1, GO TO B8

IF BR5 ≠ 99 E B2 = 2, GO TO B10

BR6. How many years ago did you start smoking tobacco, even once in a while?

☐☐ YEARS IF DON'T KNOW/DON´T REMEMBER, ENTER "99"

IF B2 = 1, GO TO B8

IF B2 = 2, GO TO B10

B8. How old were you when you started smoking tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF B8 = 99, ASK B9. OTHERWISE GO TO B10.

B9. How many years ago did you start smoking tobacco daily?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO B10

B10. How many of the following products do you currently smoke per week?

INT: IF RESPONDENT REPORTS IN PACKS OR CARTONS, PROBE TO FIND OUT HOW MANY ARE IN EACH AND CALCULATE TOTAL NUMBER

IF RESPONDENT REPORTS SMOKING THE PRODUCT IN THE PAST 30 DAYS, BUT REPORTED SMOKING LESS THAN 1 (ONE) UNIT PER WEEK (EXEMPLE: 1 PER MONTH, 3 PER MONTH), CHECK "LESS THAN 1 PER DAY BUT MORE THAN 0 PER MONTH".

READ EACH ITEM:	PER WEEK	LESS THAN 1 PER WEEK BUT MORE THAN 0 PER MONTH	NONE	DON'T KNOW
a. Manufactured cigarettes? Do not include clove (Bali cigarettes) and Indian cigarettes (bidis).	☐☐☐	☐ 888	☐ 000	☐ 777
b. Hand-rolled or straw cigarettes?	☐☐☐	☐ 888	☐ 000	☐ 777
c. Clove or Bali cigarettes?	☐☐☐	☐ 888	☐ 000	☐ 777
d. Bidis or Indian cigarettes?	☐☐☐	☐ 888	☐ 000	☐ 777
e. Pipes full of tobacco?	☐☐☐	☐ 888	☐ 000	☐ 777
f. Cigars or cigarillos?	☐☐☐	☐ 888	☐ 000	☐ 777
g. Narguilé (sessions)?	☐☐☐	☐ 888	☐ 000	☐ 777
h. Any others? Specify:_____	☐☐☐	☐ 888	☐ 000	☐ 777

GO TO D4

[FORMER SMOKERS]

INTRO: Now think again about tobacco products that are smoked including cigarettes and also cigars, cigarillos, pipes, clove cigarettes (or Bali cigarettes), Indian cigarettes (or bidis) and narguile (or water pipe). Please do not answer about smokeless tobacco, such as snuffs and chewing tobacco, at this time. Do not consider marijuana.

BR7. How old were you when you started smoking tobacco, even once in a while?

[176] ☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF BR7 = 99, GO TO BR8

IF BR7 ≠ 99 AND B3 = 1, GO TO B11

IF BR7 ≠ 99 AND B3 = 2, GO TO B13

BR8. How many years ago did you start smoking tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF B3 = 1, GO TO B11

IF B3 = 2, GO TO B13

B11. How old were you when you started smoking tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW, ENTER "99"

IF B11 = 99, ASK B12. OTHERWISE GO TO B13.

B12. How many years ago did you start smoking tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW, ENTER "99"

GO TO B13

B13. How long has it been since you stopped smoking?

INT: ONLY INTERESTED IN WHEN RESPONDENT STOPPED SMOKING REGULARLY -- DO NOT INCLUDE RARE INSTANCES OF SMOKING.

CHECK UNIT AND RECORD NUMBER

YEARS ☐ 1 ☐☐☐
MONTHS ☐ 2 ☐☐☐
WEEKS ☐ 3 ☐☐☐
DAYS ☐ 4 ☐☐☐

IF B13 < 1 YEAR (< 12 MONTHS OR < 52 WEEKS OR < 365 DAYS), THEN CONTINUE WITH B14. OTHERWISE GO TO C1.

B14. In the past 12 months, have you visited a doctor or other health care provider?

YES ☐ 1 GO TO B15
NO ☐ 2 GO TO B18

B15. In the past 12 months, how many times did you visit a doctor or health care provider?

READ EACH ITEM:

1 OR 2 ☐ 1 GO TO B16
3 TO 5 ☐ 2 GO TO B16
6 OR MORE ☐ 3 GO TO B16

B16. During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoke tobacco?

YES ☐ 1 GO TO B17
NO ☐ 2 GO TO B18

B17. During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?

YES ☐ 1 GO TO BR9
NO ☐ 2 GO TO B18

BR9. Was any visit to a doctor or health care provider, in which, he/she advised you to quit smoking tobacco, covered by the public health system (SUS)?

YES ☐ 1 GO TO B18
NO ☐ 2 GO TO B18

B18. During the past 12 months, did you use any of the following procedures to try to stop smoking tobacco?

INT: IF RESPONDENT REPORTS "YES" TO ITEMS a, b, c, or d, GO TO BR10. OTHERWISE GO TO THE NEXT ITEM.

READ EACH ITEM:	YES	NO	BR10. Did you receive this counseling or therapy by SUS? YES	NO
a. Counseling by a health professional, including at a smoking cessation clinic?	☐ 1	☐ 2	*IF YES* → ☐ 1	☐ 2
b. Nicotine replacement therapy patch, pastille, spray, inhalator or gum?	☐ 1	☐ 2	*IF YES* → ☐ 1	☐ 2
c. Other prescription medications?	☐ 1	☐ 2	*IF YES* → ☐ 1	☐ 2
d. Homeopathy, Acupuncture?	☐ 1	☐ 2	*IF YES* → ☐ 1	☐ 2
e. Teas, herbs and medicinal plants?	☐ 1	☐ 2		
f. A quit line or a smoking telephone support line	☐ 1	☐ 2		
g. Switching to smokeless tobacco?	☐ 1	☐ 2		
h. Anything else? Specify: _____	☐ 1	☐ 2		

IF RESPONDENT REPORTS "YES" TO ITEM F GO TO BR11. OTHERWISE GO TO C1.

BR11. Where did you get the t line number?

	YES	NO
a. On cigarette or other tobacco products packs	☐ 1	☐ 2
b. From a doctor or health care provider from SUS	☐ 1	☐ 2
c. From a doctor or health care provider from the private sector	☐ 1	☐ 2
d. On internet	☐ 1	☐ 2
e. On radio	☐ 1	☐ 2
f. On television	☐ 1	☐ 2
g. On billboards and posters	☐ 1	☐ 2
h. On flyers	☐ 1	☐ 2
i. In newspapers or in magazines	☐ 1	☐ 2
j. From a friend/family member /acquaintance	☐ 1	☐ 2
l. Somewhere else. Specify: _____	☐ 1	☐ 2

GO TO C1.

SECTION D CESSATION

INTRO: The next questions ask about any attempts to stop smoking that you might have made during the past 12 months. Please think about tobacco smoking.

D4. In the past 12 months, have you visited a doctor or other health care provider?

YES ☐ 1 GO TO D5
NO ☐ 2 GO TO D1

D5. In the past 12 months, how many times did you visit a doctor or health care provider?

READ EACH ITEM:

1 OR 2 ☐ 1 GO TO D6
3 TO 5 ☐ 2 GO TO D6
6 OR MORE ☐ 3 GO TO D6

D6. During any visit to a doctor or health care provider in the past 12 months, were you asked if you smoke tobacco?

YES ☐ 1 GO TO D7
NO ☐ 2 GO TO D1

D7. During any visit to a doctor or health care provider in the past 12 months, were you advised to quit smoking tobacco?

YES ☐ 1 GO TO BR12
NO ☐ 2 GO TO D1

BR12. Was any visit to a doctor or health care provider, in which, he/she advised you to quit smoking tobacco, covered by the public health system (SUS)?

YES ☐ 1 GO TO D1
NO ☐ 2 GO TO D1

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D1. During the past 12 months, have you tried to stop smoking?

YES ☐ 1 GO TO D2
NO ☐ 2 GO TO D8

D2. Thinking about the last time you tried to quit, how long did you stop smoking?

INT: ONLY INTERESTED IN WHEN RESPONDENT STOPPED SMOKING REGULARLY -- DO NOT INCLUDE RARE INSTANCES OF SMOKING

IF LESS THAN ONE DAY (24 HOURS), LEAVE FIELD BLANK AND CHECK THE APPROPRIATE BOX BELOW

CHECK UNIT AND RECORD NUMBER

MONTHS ☐ 1 ☐☐☐
WEEKS ☐ 2 ☐☐☐
DAYS ☐ 3 ☐☐☐
☐ 4 Less than 1 day (24 hours)

GO TO D3

D3. During the past 12 months, did you use any of the following to try to stop smoking tobacco?
INT: IF RESPONDENT REPORTS "YES" TO ITEMS a, b, c, or d, GO TO BR13. OTHERWISE GO TO THE NEXT ITEM.

READ EACH ITEM:	YES	NO	BR13. Did you receive this (counseling, therapy) by SUS? YES	NO
a. Counseling by a health professional, including at a smoking cessation clinic?	☐1	☐2	*IF YES* → ☐1	☐2
b. Nicotine replacement therapy patch, pastille, spray, inhalator or gum?	☐1	☐2	*IF YES* → ☐1	☐2
c. Other prescription medications?	☐1	☐2	*IF YES* → ☐1	☐2
d. Homeopathy, Acupuncture?	☐1	☐2	*IF YES* → ☐1	☐2
e. Teas, herbs and medicinal plants?	☐1	☐2		
f. A quit line or a smoking telephone support line	☐1	☐2		
g. Switching to smokeless tobacco?	☐1	☐2		
h. Anything else? Specify: _____	☐1	☐2		

IF RESPONDENT REPORTS "YES" TO ITEM F GO TO BR14; OTHERWISE GO TO C1.

BR14. Where did you get the quit line number?

	YES	NO
a. On cigarette or other tobacco product packs	☐1	☐2
b. From a doctor or health care provider from SUS	☐1	☐2
c. From a doctor or health care provider from the private sector	☐1	☐2
d. On internet	☐1	☐2
e. On radio	☐1	☐2
f. On television	☐1	☐2
g. On billboards and posters	☐1	☐2
h. On flyers	☐1	☐2
i. In newspapers or in magazines	☐1	☐2
j. From a friend/family member /acquaintance	☐1	☐2
l. Somewhere else? Specify: _____	☐1	☐2

GO TO C1

D8. Which of the following statements best describes your thinking about quitting smoking?

I AM PLANNING TO QUIT WITHIN THE NEXT MONTH	☐1 GO TO C1
I AM THINKING ABOUT QUITTING WITHIN THE NEXT 12 MONTHS	☐2 GO TO C1
I WILL QUIT SOMEDAY, BUT NOT WITHIN THE NEXT 12 MONTHS.	☐3 GO TO C1
I AM NOT INTERESTED IN QUITTING	☐4 GO TO C1

SECTION C. SMOKELESS TOBACCO

INTRO: The next questions are about using smokeless tobacco, such as snuff (rapé), chewing tobacco and any other tobacco product which do not produce smoke. Do not consider cocaine or other drugs.

C1. Currently, do you use chewing tobacco, snuffs or other smokeless tobacco?

READ EACH ITEM:

DAILY	☐1 GO TO BR15
LESS THAN DAILY	☐2 GO TO C2
NOT AT ALL	☐3 GO TO C3

C2. In the past, have you used chewing tobacco, snuffs or other smokeless tobacco daily?

YES	☐1 GO TO BR17
NO	☐2 GO TO BR17

C3. In the past, have you used chewing tobacco, snuffs or other smokeless tobacco:

INTERVIEWER: IF RESPONDENT HAS DONE BOTH "DAILY" AND "LESS THAN DAILY" IN THE PAST, CHECK "DAILY" AND FOLLOW DAILY ROUTING

READ EACH ITEM:

DAILY ☐ 1 GO TO BR19
LESS THAN DAILY ☐ 2 GO TO BR19
NOT AT ALL ☐ 3 GO TO E1

[CURRENT DAILY SMOKELESS TOBACCO USERS]

BR15. How old were you when you started using chewing tobacco, snuffs or other smokeless tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF BR15 = 99, ASK BR16. OTHERWISE GO TO C4.

BR16. How many years ago did you start using chewing tobacco, snuffs or other smokeless tobacco, even once in a while?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO C4

C4. How old were you when you started using chewing tobacco, snuffs or other smokeless tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW, ENTER "99"

IF C4 = 99, ASK C5. OTHERWISE GO TO C6.

C5. How many years ago did you start using chewing tobacco, snuffs or other smokeless tobacco daily?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO C6

C6. On average, how many times a day do you use the following products?

INT: IF RESPONDENT REPORTS USING THE PRODUCT IN THE PAST 30 DAYS, BUT REPORTED USING LESS THAN 1 (ONE) UNIT PER DAY (EXEMPLE: 1 PER WEEK, 3 PER WEEK, 2 PER MONTH), CHECK "LESS THAN 1 PER DAY BUT MORE THAN 0 PER WEEK OR MONTH".

READ EACH ITEM:	TIMES PER DAY	LESS THAN 1 PER DAY BUT MORE THAN 0 PER WEEK OR MONTH	NONE	DON'T KNOW
a. Snuff by nose?	☐☐☐	☐ 888	☐ 000	☐ 777
b. Chewing tobacco?	☐☐☐	☐ 888	☐ 000	☐ 777
c. Snus or snuffs by mouth?	☐☐☐	☐ 888	☐ 000	☐ 777
d. Any others? Specify: _____	☐☐☐	☐ 888	☐ 000	☐ 777

GO TO C7.

C7. How soon after you wake up do you usually use chewing tobacco, snuff or other smokeless tobacco for fist time?

READ EACH ITEM:

UP TO 5 MINUTES ☐ 1 GO TO E1
6 TO 30 MINUTES ☐ 2 GO TO E1
31 TO 60 MINUTES ☐ 3 GO TO E1
MORE THAN 60 MINUTES ☐ 4 GO TO E1

[CURRENT LESS THAN DAILY SMOKELESS TOBACCO USERS]

BR17. How old were you when you started using chewing tobacco, snuff or other smokeless tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF BR17 = 99, GO TO BR18

IF BR17 ≠ 99 AND C2 = 1, GO TO C8

IF BR17 ≠ 99 AND C2 = 2, GO TO C10

BR18. How many years ago did you start using chewing tobacco, snuff or other smokeless tobacco, even once in a while?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF C2 = 1, GO TO C8

IF C2 = 2, GO TO C10

C8. How old were you when you started using chewing tobacco, snuff or other smokeless tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF C8 = 99, ASK C9. OTHERWISE GO TO C10.

C9. How many years ago did you start using chewing tobacco, snuff or other smokeless tobacco daily?

☐☐ YEARS IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO C10

C10. How many times a week do you usually use the following products?

INT: IF RESPONDENT REPORTS USING THE PRODUCT IN THE PAST 30 DAYS, BUT REPORTED USING LESS THAN 1 (ONE) UNIT PER WEEK (EXEMPLE: 1 PER MONTH, 3 PER MONTH), CHECK "LESS THAN 1 PER DAY BUT MORE THAN 0 PER MONTH".

READ EACH ITEM:	TIMES PER DAY	LESS THAN 1 PER WEEK BUT MORE THAN 0 PER MONTH	NONE	DON'T KNOW
a. Snuff by nose?	☐☐☐	☐888	☐000	☐777
b. Chewing tobacco?	☐☐☐	☐888	☐000	☐777
c. Snus or snuffs by mouth?	☐☐☐	☐888	☐000	☐777
d. Any others? Specify: _____	☐☐☐	☐888	☐000	☐777

GO TO E1

[FORMER SMOKELESS TOBACCO USERS]

BR19. How o ld were you when you started using chewing tobacco, snuff or other smokeless tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF BR19 = 99, GO TO BR20

IF BR19 ≠ 99 AND C3 = 1, GO TO C11

IF BR19 ≠ 99 AND C3 = 2, GO TO C13

BR20. How many years ago did you start using chewing tobacco, snuff or other smokeless tobacco, even once in a while?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF C3 = 1, GO TO C11

IF C3 = 2, GO TO C13

C11. How old were you when you started using chewing tobacco, snuff or other smokeless tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

IF C11 = 99, ASK C12. OTHERWISE GO TO C13.

C12. How many years ago did you start using chewing tobacco, snuff or other smokeless tobacco daily?

☐☐ YEARS OLD IF DON'T KNOW/DON'T REMEMBER, ENTER "99"

GO TO C13

C13. How long has it been since you stopped using chewing tobacco, snuff or other smokeless tobacco?

INT: ONLY INTERESTED IN WHEN RESPONDENT STOPPED USING SMOKELESS TOBACCO REGULARLY -- DO NOT INCLUDE RARE INSTANCES OF USING SMOKELESS TOBACCO

CHECK UNIT AND RECORD NUMBER

YEARS	☐1	☐☐☐
MONTHS	☐2	☐☐☐
WEEKS	☐3	☐☐☐
DAYS	☐4	☐☐☐

GO TO E1

SECTION E. SECONDHAND SMOKE

INTRO: Now, I would like to ask you a few questions about smoking in various places.

E1. What is the rule about smoking inside of your home?

READ EACH ITEM:

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SMOKING IS ALLOWED INSIDE OF YOUR HOME	☐1 GO TO E2
SMOKING IS GENERALLY NOT ALLOWED INSIDE OF YOUR HOME BUT THERE ARE EXCEPTIONS	☐2 GO TO E2
SMOKING IS NEVER ALLOWED INSIDE OF YOUR HOME	☐3 GO TO E4
THERE IS NO RULE	☐4 GO TO E3

E2. Inside your home, is smoking allowed in every room?

YES	☐1 GO TO E3
NO	☐2 GO TO E3

E3. How often does anyone smoke inside your home?

READ EACH ITEM:

DAILY	☐1 GO TO E4
WEEKLY	☐2 GO TO E4
MONTHLY	☐3 GO TO E4
LESS THAN MONTHLY	☐4 GO TO E4
NEVER	☐5 GO TO E4

E4. Do you currently work outside of your home?

YES	☐1 GO TO E5
NO/DON'T WORK	☐2 GO TO E9

E5. Do you usually work indoors or outdoors?

INDOORS	☐1 GO TO E7
OUTDOORS	☐2 GO TO E6
BOTH	☐3 GO TO E7

E6. Are there any indoor areas at your work place?

YES	☐1 GO TO E7
NO	☐2 GO TO E9

E7. What is the indoor smoking policy where you work?

READ EACH ITEM: 1-3

SMOKING IS ALLOWED ANYWHERE	☐ 1 GO TO E8
SMOKING IS ALLOWED ONLY IN SOME INDOOR AREAS	☐ 2 GO TO E8
SMOKING IS NOT ALLOWED IN ANY INDOOR AREAS	☐ 3 GO TO E8
THERE IS NO RULE	☐ 4 GO TO E8
DON'T KNOW	☐ 7 GO TO E8

E8. During the past 30 days, did anyone smoke in indoor areas where you work?

YES	☐ 1 GO TO E9
NO	☐ 2 GO TO E9
DON'T KNOW	☐ 7 GO TO E9

E9. During the past 30 days, did you visit any government buildings or government offices?

YES	☐ 1 GO TO E10
NO	☐ 2 GO TO E11
DON'T KNOW	☐ 7 GO TO E11

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

YES	☐ 1 GO TO E11
NO	☐ 2 GO TO E11
DON'T KNOW	☐ 7 GO TO E11

E11. During the past 30 days, did you visit any health care facilities?

YES	☐ 1 GO TO E12
NO	☐ 2 GO TO E13
DON'T KNOW	☐ 7 GO TO E13

E12. Did anyone smoke inside of any health care facilities that you visited in the past 30 days?

YES	☐ 1 GO TO E13
NO	☐ 2 GO TO E13
DON'T KNOW	☐ 7 GO TO E13

E13. During the past 30 days, did you go to any restaurants?

YES	☐ 1 GO TO E14
NO	☐ 2 GO TO E15
DON'T KNOW	☐ 7 GO TO E15

E14. Did anyone smoke inside of any indoor area of restaurants that you visited in the past 30 days?

YES	☐ 1 GO TO E15
NO	☐ 2 GO TO E15
DON'T KNOW	☐ 7 GO TO E15

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

YES	☐ 1 GO TO E16
NO	☐ 2 GO TO E17
DON'T KNOW	☐ 7 GO TO E17

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

YES	☐ 1 GO TO E17
NO	☐ 2 GO TO E17
DON'T KNOW	☐ 7 GO TO E17

E17. Based on what you know or believe, does breathing other people smoke cause serious illness in non-smokers?

YES	☐ 1 GO TO H1
NO	☐ 2 GO TO H1
DON'T KNOW	☐ 7 GO TO H1

SECTION H. KNOWLEDGE, ATTITUDES & PERCEPTIONS

H1. Based on what you know or believe, does smoking tobacco cause serious illness?

YES ☐ 1 GO TO H2
NO ☐ 2 GO TO H3
DON'T KNOW ☐ 7 GO TO H3

H2. Based on what you know or believe, does smoking tobacco cause:

READ EACH ITEM:	YES	NO	DON'T KNOW
a. Stroke?	☐ 1	☐ 2	☐ 7
b. Heart attack?	☐ 1	☐ 2	☐ 7
c. Lung cancer?	☐ 1	☐ 2	☐ 7

GO TO H3

H3. Based on what you know or believe, does using smokeless tobacco (chewing tobacco, snuff or other smokeless tobacco), cause serious illness?

YES ☐ 1
NO ☐ 2
DON'T KNOW ☐ 7

IF B1 = 1 AND [B6a > 00 OR B10a > 00], GO TO F1
IF B1 = 2 AND [B6a > 00 OR B10a > 00], GO TO F1
OTHERWISE, GO TO G1

SECTION F. ECONOMICS – MANUFACTURED CIGARETTES

INTRO: The next few questions are about the last time you purchased cigarettes for yourself.

F1. The last time you bought CIGARETTES for yourself, how many cigarettes did you buy?

[184] INT: RECORD NUMBER AND CHECK UNIT BELOW. IF NEEDED, RECORD DETAILS ABOUT THE UNIT.

UNIT		AMOUNT.	AMOUNT BY UNIT	
CIGARETTES	☐ 1	☐☐☐	GO TO F2	
PACKS	☐ 1	☐☐☐	How many cigarettes were in each pack?	☐☐☐ GO TO F2
CARTONS	☐ 3	☐☐☐	How many cigarettes were in each carton?	☐☐☐ GO TO F2
OTHER: SPECIFY: _____	☐ 4	☐☐☐	How many cigarettes were in each ____?	☐☐☐ GO TO F2
NEVER BOUGHT CIGARETTES	☐ 5	☐☐☐	GO TO G1	

F2. In total, how much money did you pay for this purchase?

☐☐☐, ☐☐ REAIS

GO TO F4

F3. QUESTION NOT APPLICABLE TO BRAZIL

F4. The last time you purchased cigarettes for yourself, where did you buy them?

Bar, tavern, restaurant ☐ 1 GO TO G1
Store, tobacco shop ☐ 2 GO TO G1
Street vendor ☐ 3 GO TO G1
Supermarket, grocery store ☐ 4 GO TO G1
Bakery, snack bar ☐ 5 GO TO G1
Newspaper kiosks/newsstand ☐ 6 GO TO G1
Gas station ☐ 7 GO TO G1
Convenience store ☐ 8 GO TO G1
Duty-free shop ☐ 9 GO TO G1
Internet ☐ 10 GO TO G1
Other ☐ 11 GO TO G1
SPECIFY: _____
DON'T REMEMBER ☐ 12 GO TO G1

SECTION G. MEDIA

INTRO: The next few questions ask about your exposure to cigarette media and advertisements in the last 30 days.

G1. In the last 30 days, have you seen or heard information about the dangers of smoking cigarettes or that encourages quitting in any of the following places:

READ EACH ITEM: AND ANSWER OPTIONS:	YES	NO	DID NOT SEE/ HEAR	DON'T KNOW/ DON'T REMEMBER
a. In newspapers or in magazines?	☐1	☐2	☐6	☐7
b. On television?	☐1	☐2	☐6	☐7
c. On the radio?	☐1	☐2	☐6	☐7
d. On billboards?	☐1	☐2	☐6	☐7
e. On flyers?	☐1	☐2	☐6	☐7
f. Somewhere else? Specify: _____	☐1	☐2		

GO TO G2

G2. In the last 30 days, did you see any health images or warnings labels about the dangers of smoking on cigarette packages?

YES ☐1 GO TO G3
NO ☐2 GO TO G4
DID NOT SEE ANY CIGARETTE PACKAGES ☐3 GO TO G4

G3. In the last 30 days, the health images and warnings labels on cigarette packages led you think about quitting smoking?

YES ☐1
NO ☐2

IF B1 = 3, GO TO G4. OTHERWISE, GO TO BR21

BR21. To what extent images and warnings labels on cigarette package s made you think about quitting smoking?

READ ITEMS 1 TO 4:

MAKE ME THINK ABOUT IT A LITTLE ☐1 GO TO G4
MAKE ME THINK ABOUT IT SOMEWHAT ☐2 GO TO G4
MAKE ME THINK ABOUT IT A LOT ☐3 GO TO G4
I DON'T KNOW ☐7 GO TO G4

G4. In the last 30 days, have you noticed any advertisements or signs promoting cigarettes in the following places:

READ EACH ITEM:	YES	NO	DID NOT SEE/WATCH	DON'T KNOW/ DON'T REMEMBER
a. In cigarettes sales points?	☐1	☐2	☐6	☐7
b. In national movies?	☐1	☐2	☐6	☐7
c. In international movies?	☐1	☐2	☐6	☐7
d. On the internet?	☐1	☐2	☐6	☐7
e. Anywhere else? Specify: _____	☐1	☐2		

GO TO G5

G5. In the last 30 days, have you noticed any sport or sporting event associated with cigarette brands or cigarette companies?

YES ☐1 GO TO G6
NO ☐2 GO TO G6
DID NOT SEE ☐6 GO TO G6
DON'T KNOW ☐7 GO TO G6

G6. In the last 30 days, have you noticed any of the following types of cigarette promotions?

READ EACH ITEM:	YES	NO	DON'T KNOW/ DON'T REMEMBER
a. Free samples of cigarettes?	☐ 1	☐ 2	☐ 7
b. Cigarettes at sale prices?	☐ 1	☐ 2	☐ 7
c. Free gifts or special offers on other products when buying cigarettes?	☐ 1	☐ 2	☐ 7
d. Clothing or other items with a cigarette brand name or logo?	☐ 1	☐ 2	☐ 7
e. Anywhere else? Specify: _____	☐ 1	☐ 2	

GO TO BR22

BR22. In the last 30 days, have you noticed any actor or character smoking ...

READ EACH ITEM AND ANSWER OPTIONS:	YES	NO	DIDN'T WATCH	DON'T KNOW/ DON'T REMEMBER
a. In soap opera or others TV shows?	☐ 1	☐ 2	☐ 6	☐ 7
b. In national movies?	☐ 1	☐ 2	☐ 6	☐ 7
c. In international movies?	☐ 1	☐ 2	☐ 6	☐ 7
d. In a stage play?	☐ 1	☐ 2	☐ 6	☐ 7
e. Anywhere else? Specify: _____	☐ 1	☐ 2		

GO TO BR23

BR23. Based on what you know, cigarette advertisement on television, radio, magazines and newspaper?

READ EACH ITEM:

IS TOTALLY PROHIBITED ☐ 1
IS PARTIALLY PROHIBITED ☐ 2
IS NOT PROHIBITED ☐ 3
DON'T KNOW ☐ 7

END INDIVIDUAL QUESTIONNAIRE

Those are all of the questions I have. Thank you very much for partcipating in this important study.

RECORD ANY NOTES ABOUT INTERVIEW:

Annex 5 CANCEIS

The CANCEIS (CANCER Development Team. CANCEIS version 4.5 User's Guide. Social Survey Methods Division, Statistics Canada, 2007) was developed by the Statistics Canada (STATSCAN) for the criticism and imputing stage of the 2001 Canadian demographic census. The CANCEIS uses for imputing lacking or inconsistent data, values of a donor register similar to the register to be imput, through a logic distance criterion among the registers. The main goal is to use a single donor for each recipient and then to impute the smallest number of variables. The definition of a register depends on this database, which could be a household, an establishment, a person etc. For example, in case of the NHSS fertility items, a register is a person, more specifically a 10-year-old woman or older.

The procedure starts by defining the rules of criticism or inconsistency in Decision Logic Tables (DLTs). The registers that meet all the rules of analysis are separated into one group and will be the possible "donors" of information. In contrast, registers that violate at least one rule are separated into another group and will require imputing to correct the inconsistencies found. The goals of this methodology are:

- Using a single donor register for imputing all inconsistent information in a recipient.
- The imputed register should be as close as possible to the donor in order to obtain a plausible register containing the combination of imputed and not imputed responses.
- Maximum preservation of the collected information, i.e., for a given set of donors and another set of recipients the smallest number of variables should be imputed.
- In a smaller degree of priority, it also considers the physical distance between the registers in the file. The idea is that similar registers should belong to the nearest geographical areas, in which the reality may be more similar.

The search for the donor is performed by scanning the set of "good" registers (which have not violated any criticism rules), from the position of the failed register in the file, up to a maximum limit parameterized by the user. The system does not take as a donor the register with the smallest logical distance (among variables) in relation to what is imputed, but rather takes a set of possible candidates that have a distance considered acceptable, and randomly selects the donor. The size of this set and the value of this distance are parameterized. This search is carried out in stages, i.e., if the donation candidates found in the first stage are not satisfactory, a second stage is initiated and this process continues until the decrease in the value of the logical distance (also parameterized). In other words, the higher the level of the stage, the more distant, physically, the group of neighbors considered for donation will be.

The distance between the register that failed and each register that met the criticism rules is used to identify actions to impute minimal modification. The distance formula of an imputing action (Dfpa) is a weighted function of the distance between the recipient register and the final register (Dfa) and the distance between the final register and the donor (Dap). The first (Dfa) can be considered as a measure of how many variables will be imputed, while the second (Dap) may be considered as a measure of plausibility. The formula is:

$$Dfpa = \alpha\, Dfa + (1 - \alpha)\, Dap \qquad (0.5 < \alpha < 1.0)$$

In this case α is the weighting parameter of the two distances. The higher this parameter is, the more importance is given to the criterion of imputing the smallest number of variables, i.e., the register after the imputing will be more similar to the register that failed. The letters "f", "p" and "a" denote, respectively, failed, plausibility and action.

It should be emphasized that the system ensures that any imputing performed will not generate another inconsistency in another criticism rule. In other words, before a register is considered as a possible candidate for donor of information, their hypothetical imputing is verified along with all other rules in the file of DLTs. In addition to that, the CANCEIS has some other important features such as an incompatibility module

verification among criticism rules, a module for deterministic imputing, editing rules to eliminate undesirable donors (possible but not plausible registers), and a variety of output reports to monitor the process.

CANCEIS in the IBGE

The NIM software, prototype of CANCEIS, has been used successfully for imputing household and family structures in the sample files from the 2000 Demographic Census. It was used specifically because of its feature of dealing with variables among registers (residents in the same household), which is essential in the process of family and household structure determination.

The CANCEIS *per se* was first used by the IBGE, for imputing some categorical variables in the 2006 Agriculture Census, in eight distinct subjects: general data, permanent farming, temporary farming, floriculture, forestry, forestry products, plant extraction and rural industry. The second application is a module of "Youth and Adults Education" from the 2007 NHSS. The good results and its easy implementation in the production process of the research resulted in the choice of using this software for the criticism and imputing of the 2008 NHSS. A criticism and imputing project for the data from the 2010 Demographic Census has already been initiated using CANCEIS, also, there are ongoing implementation tests for this software in other surveys of the institution, such as the Household Budget Survey (HBS).

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Annex 7 Glossary

acupuncture – Branch of the Chinese traditional Medicine and a treatment method named complementary, according to the new terminology of the World Health Organization – WHO. The acupuncture consists in the insertion of needles in defined spots of the body called "acupuncture spots", in order to achieve a therapeutic effect in several conditions.

adults exposed to tobacco smoke – Adults aged 15 years or older, smoker or non-smokers, exposed to tobacco smoke in places such as workplace, for those who worked in enclosed environments, government buildings or offices, health care facilities, restaurants and public transportation in the last 30 days.

age – Age calculated, in complete years, on the reference date of the survey, based on the day, month and year of birth of a person, and on the supposed age of individuals who do not know their date of birth.

age at smoking initiation – Age of a person, in complete years, at the time of the smoked tobacco initiation. The first period when the person used smoked tobacco regularly or occasionally is the one considered.

age when the person started chewing tobacco, inhaling snuff or any other smokeless tobacco product – Age of a person, in complete years, at the time he/she started consuming chewing tobacco, snuff or any other smokeless tobacco product. The first period when the person used smokeless tobacco regularly or occasionally is the one considered.

anti-cigarette information – Messages broadcast by means of communication – newspapers, magazines, television, radio, billboards, posters and informative leaflets – in which a person may have noticed, in the last 30 days, information about the dangers of smoking cigarettes, or felt encouraged to quit smoking.

***bidi*/Indian cigar –** Small cigarette made of tobacco minced into flakes and rolled in the leaves of a typical Asian plant. The "*bidi*" is imported mainly from India and may or may not have flavors (chocolate, strawberry etc.)

chewing tobacco – Tobacco presented in a roll, bar, blade, cube or plate packaged for sale to the public and especially prepared to be chewed.

cigar or *cigarillo* – Cylinder of tobacco leaves handmade or machine-made, usually closed in one of its extremities, which after the removal of the head (closed part of the cigar), is lit on the other extremity and smoked from the opening made by the cut.

cigarette – Rolled tobacco product that emits smoke. The following are considered in this category: manufactured cigarette, kretek and straw or hand-rolled cigarette.

cigarette packages – Set of cigarettes contained in the same package. The standard package in Brazil contains 20 units.

collective household – Household intended to house individuals whose relationship is restricted to abiding by administrative norms.

color or race – Characteristic declared by the individuals based on the following options: white; black; brown (mulatto, *caboclo, cafuzo*, mameluke or mestizo of black with a person of another color or race); or another, including yellow (person of Japanese, Chinese, Korean origin etc.) and indigenous (indigenous or indian person).

counseling by health care professional – Guidance from a health care professional for the patient to quit smoking, also including counseling through specialized clinics or phone assistance hotline. Advice given by neighbors, priests, shepherds etc. is not considered in this category.

current smoker – Person who regularly uses of at least one of the smoked tobacco products, regardless of the time he/she has been smoking. It comprehends daily and occasional smokers.

daily smoker – Person who uses at least one of the smoked tobacco products daily, regardless of the time he/she has been smoking. Short periods of time in which a person did not smoke tobacco due to special situations, such as illness, travels etc., but not due to the decision to definitely quit smoking, are not considered.

domestic dependence – Relationship established between the reference person and the domestic workers and other individuals in the household.

domestic worker – Person who renders domestic service remunerated in cash or benefits, in one or more household units.

drugs to smoking cessation – Drugs used, with medical prescription, in the smoking cessation treatment, without nicotine replacement.

employee – Person who works for an employer (person or corporation), usually obligated to fulfill a work day and receiving, in return, cash remuneration, goods, products or benefits (residence, food, clothes etc.). In this category, individuals who fulfill military mandatory duties as well as priests, church ministers, shepherds, rabbis, friars, nuns and other clergymen were included.

employer – Person who works exploring their own undertaking, with at least one employee.

enclosed environments – Covered environments with sidewalls, having windows or not.

former daily smoker – Person who, in the past made use of at least one smoked tobacco product daily for a period of one month or more.

former occasional smoker – Person who, in the past, made use of at least one smoked tobacco products, but never daily, for a period of three months or more.

former smoker – Person who, in the past, made use of at least one smoked tobacco products occasionally for a period of three months or more, or daily for a period of one month or more.

frequency of tobacco use – Classification of individuals regarding the frequency of tobacco use, smoked or smokeless: daily, occasional or non-smoker.

government building or office – Federal, state, municipali or district building or office, such as: ministries, administrative sections, departments, schools, universities, hospitals etc.

health care – An appointment in a doctor's office or any type of health care unit, be it ambulatory, emergency, first aid etc.

health care facility – Any public or private facility where there is some kind of care, appointment, curative or preventive action, office etc. related to health (medical, odontological, nursing, nutrition, psychology, phonoaudiology etc.).

health care professional – Professional who provides health care/treatment. The following are considered in this category: medical doctors, nurses, psychologists, odontologists, nutritionists, phonoaudiologists, physiotherapists and other health care professionals.

heart attack – infarct or acute myocardial infarction popularly denominated heart attack, it is a process that may lead to death (necrosis) of part of the cardiac muscle, due to lack of adequate intake of nutrients and oxygen.

herbs – Plants that contain bioactive substances with therapeutic, prophylactic or palliative properties. There is a great number of species all around the world, used since prehistoric times in the popular medicine of several peoples.

homeopathy – Therapeutic method whose principle is based on cure by similarity, that is, a substance capable of producing a certain alteration (symptom) in a healthy individual would be capable to cure this alteration, in case of disease, when administered in small doses. The homeopathic treatment consists in administering, to a symptomatic patience, extremely small doses of the agents that would produce the same symptoms in healthy individuals, when exposed to larger quantities. The homeopathic drug is prepared in a process called dynamization, consisting in the dilution and succussion of the substance in a series of steps.

hookah – Type of pipe often used by Hindu, Persian and Turkish individuals, comprised of a pipe bowl, a long tube and a small receptacle containing aromatic water, through which smoke passes before getting to the mouth. For being smoked by one person alone or a group of individuals, being prepared with a special mixture of tobacco, sugar-cane syrup and fruit or seasoning.

household – Place where a person lives, structurally separated and independent, comprising one or more rooms. The separation is characterized when the place where a person lives is limited by walls, fences etc., covered by a roof, allowing the residents to isolate themselves, being responsible for some or all expenses with food or living. The independence is characterized when the place where a person lives has direct access, allowing the residents to come and go without going through the place where other people live. The households were classified into private and collective households.

household monthly income – Sum of the monthly incomes of the residents of a household unit, not including the one of individuals under 10 years old and those whose role in the household unit is tenants, domestic workers or relatives of domestic workers.

household monthly *income per capita* – Sum of the division of the household monthly income by the number of members of the household unit, not including those whose role in the household unit is tenants, domestic workers or relatives of domestic workers.

household place of residence – Classification of the household residence in urban or rural areas, defined by the municipal law in force when the Demographic Census was carried out. The urban situation comprehends the areas corresponding to municipalities (municipal headquarters), boroughs (district headquarters) or to isolated urban areas. The rural situation comprehends all the areas outside these limits. This criterion is also used in the classification of the urban and rural population.

household unit – Private household or housing unit (apartment, room etc.) in a collective household.

interest in quitting smoking – Classification of individuals with respect to their interest in quitting smoking, according to established periods, such as: plans to quit smoking within the next month; plans to quit smoking within the next 12 months; plans to quit smoking someday, but not within the next 12 months; and no plans to quit smoking.

kretek – A tobacco product imported from Southeastern Asia, especially Indonesia, which contains a mixture of tobacco, dried clove and other chemical substances. The kretek is aromatic and its smoke has a sweet smell.

lung cancer – Malign expansion and transformation of the lung tissue.

manufactured cigarette – Product composed of a small dried and minced tobacco portion, rolled in thin paper, manufactured, either equipped with a filter system or not.

means of communication – Means of advertising – newspapers, magazines, television, radio, billboards, posters and informative leaflets – in which a person may have noticed information about the dangers of smoking cigarettes.

minimum wage – Minimum working remuneration, defined by law. For the examination of the incomes following the minimum wage classes, the amount in force during the reference month of the survey, September 2008, is considered (R$415.00 – four hundred and fifteen *reais*).

monthly income – Sum of monthly income deriving from other sources.

monthly income from other sources – Monthly income, from work and the reference month of the survey, normally received from: jubilation, reform or retirement of the Union Insurance Plan or the federal social security institute (*Instituto Nacional do Seguro Social* - INSS), state or municipal, including the FUNRURAL; complementation or supplementation of the retirement paid by insurance companies or deriving from the participation in pension funds; pension from the armed forces; from the Union Insurance Plan or the federal social security institute (*Instituto Nacional do Seguro Social* - INSS), state or municipal, including the FUNRURAL; pension from social assistance accounts, insurance companies or pension funds, in the quality of beneficiary of another person; food, spontaneous or judicial pension; bonus payment for permanence in service; rent, including subleasing and leasing of assets, properties, machines, pieces of equipment, animals etc.; donation or monthly allowance without rendering of services, deriving from individuals not living in the household unit; official educational support programs, such as *bolsa-escola* (school stipend), or social, such as the *renda mínima* (minimum income), *bolsa família* (family stipend), assistance benefit for continuous service rendering (BPC), eradication of child labor program (PETI) and others; partnership; and average monthly income, from the reference month of the survey, deriving from financial application (interest on fixed-income deeds and savings accounts, dividends etc.).

never smoker – Person who never smoked tobacco, but may have tried it; or a person who smoked for less than a month; or occasionally for less than three months.

nicotine – Liquid yellow substance with an unpleasant smell and poisonous, which constitutes the main active element of tobacco.

nicotine replacement – Treatment based on nicotine patch, gum, tablet or spray, aimed to gradually reduce the nicotine levels in the blood until the person does not feel the need to smoke anymore, alleviate the desire to smoke and mitigate the withdrawal symptoms.

non-smoker – Person who, currently, does not use any smoked tobacco product, not even occasionally, even having possibly tried or used in the past. Includes former and never smokers.

norms of sociability – Rules established for the conviviality of individuals who live together without being bound by family ties or domestic dependence.

occasional smoker – Person who uses of at least one of the smoked tobacco products, but not daily, regardless of the time he/she has been smoking.

open environments – Environments with free and total circulation of air, without sidewalls, capable of being covered with large hangars or open side balconies.

pharmacotherapy – Treatment patients with specific medication to quit using smoked tobacco products, capable of being based on nicotine replacement or drug prescription.

phone smoking cessation help service – Phone service that offers counseling for smokers to quit smoking. The most well known service in Brazil is the Health Hotline, of the Ministry of Health, whose contact number is written on cigarette packages.

pipe – Instrument used to smoke composed of a bowl and a holder. The tobacco is placed in the bowl, which is adapted to a tube through which smoke is inhaled by the mouth.

private household - Household destined to house a person or a group of individuals whose relationship is dictated by family ties, domestic dependence or even sociability norms.

procedures to quit smoking – Methods utilized by individuals to quit smoking in the last 12 months, classified as: counseling by health professional, including smoking cessation clinics, nicotine replacement with patches, tablets, sprays, inhalers or chewing gum; other drugs with medical prescription; homeopathy or acupuncture; teas, herbs or medicinal plants; phone help service; exchange for another tobacco product that does not emit smoke; or other form.

public space – Space inside the urban territory, which is of common use and belongs to everyone.

publicity – Message that, through words, images, music, audiovisual resources and/or luminous effects, intends to communicate to the public the qualities of a certain product or service, as well as the benefits such product or service offer to their prospective consumers. The publicity the survey refers to may have taken place in the form of advertisement or announcement in cigarette sales points, foreign or Brazilian movies and on the internet; in sporting events associated with cigarette brands or companies; or even via promotions, such as: offer of free cigarette samples, cigarettes on sale, offer of souvenirs or discounts in products when purchasing cigarettes and clothes and other items associated with cigarette brands.

reference date – Date established for the calculation of age and the investigation of work characteristics. It corresponds to the last day of the reference week, which, for the survey conducted in 2008, was September 27th, 2008.

reference month – Month established for the income investigation. For the survey conducted in 2008, it was September 2008.

reference week – Week scheduled for the investigation of the working characteristics. For the survey conducted in 2008, it was the week from September 21st to 27th, 2008.

resident population – Individuals who have household units (private household or housing unit in collective households) as their usual place of residence and were present on the day of the interview or temporarily absent for a period shorter than 12 months from that date.

sales points – Place of purchase of tobacco products. The following are considered in this category: bars, taverns or restaurants; stores or tobacco shops; street vendors; supermarkets, markets or grocery stores; bakeries or snack bars; newsstands; gas stations; convenience stores; duty free shops, the internet etc.

self-employed – Person who works exploring his own undertaking, alone or with a partner, without employees and having or not having the help of non-remunerated worker.

smoked tobacco product – Tobacco product that emits smoke. The following are included in this category: manufactured cigarette, straw or hand-rolled cigarette, kretek, *bidi*/Indian, cigar or *cigarillo*, pipe and hookah.

smoked tobacco use status – Classification of the smoker by his/her situation concerning smoked tobacco: smoker and non-smoker.

smoked tobacco user – Person who uses any smoked tobacco product.

smokeless tobacco product – Tobacco product that does not emit smoke. The following are considered in this category: snuff and chewing tobacco.

smokeless tobacco user – Person who uses any smokeless tobacco product.

snuff – Tobacco product presented as powder, moistened, placed between the gum and the upper lip and kept there for a period of time that may vary from a few minutes to several hours. The most commonly found form is the snuff in portions, prepackaged in little tea sacks, sold in little plastic cans, but the product can also be found without prepackage. In this case, the user gets a "pinch" and places it directly in contact with the gum.

snuff – Tobacco product presented in powder or grains especially prepared to be inhaled.

sporting event – Event related to any sportive category associated, live or through any type of media, with cigarette brands or companies.

straw or hand-rolled cigarette – A product composed, basically, of a tobacco portion (in threads or rolled), involved in corn straw (straw cigarette, *paieiro*, *palheiro*) or paper (licked). The straw or hand-rolled cigarette is generally prepared manually, but it can also be found in packages.

stroke – Cerebrovascular accident. Popularly denominated cerebral stroke, it is characterized by rapid loss of neurologic function due to the obstruction or disruption of the cerebral blood vessels.

tea – Infusion of leaves or fruit of a variety of popularly used plants, generally prepared with hot water. Each variety of plant acquires a defined flavor.

time a person quitted smoking – Time elapsed from the day a person stopped using any smoked tobacco product to the day of the interview, the special occasions in which a person smoked not being considered.

time interval until the first use of tobacco of the day – Time a user of smoked or smokeless tobacco takes to use any tobacco product for the first time after waking up.

tobacco – Common name given to the plants of the genus *Nicotiana*, especially the *Nicotiana tabacum*, originally from South America, from which the substance called nicotine is extracted.

tobacco smoke – Portion of steam resulting from a product that contains tobacco aflame.

tobacco shop – Store where cigarettes, cigars, pipes, tobacco and objects used by smokers are sold.

tobacco use status – Classification of the smoker by his/her situation concerning tobacco use (smoked and/or smoke less): tobacco user and non-tobacco user.

tobacco use – Systematic consumption of products made of tobacco leaves which, generally, cause chemical and psychological dependence due to the nicotine.

tobacco user – Person who uses any tobacco product(s).

warning messages or images about the damages tobacco products can cause – Warnings, which, by law, must be presented by all tobacco products produced and distributed in Brazil. Some imported products may not contain them.

work – The exercise of: a) occupation remunerated in cash, products, goods or benefits (housing, food, clothes etc.) for the production of goods and services; b) occupation remunerated in cash or benefits (housing, food, clothes etc.) for domestic services; c) occupation without remuneration for the production of goods and services, developed during at least one hour of the week: to help a member of the household unit who works as an employee in the production of primary

assets (agriculture, silviculture, cattle breeding, vegetal or mineral extraction, hunting, fishing and fish breeding activities) self-employed or employer; to help religious, charitable or co-operativism institutions; or as an apprentice or intern; d) occupation performed for at least one hour of the week in the production of assets, in the field of the agriculture, silviculture, cattle breeding, vegetal extraction, fishing and fish breeding activities, destined for the nourishment of at least one member of the household unit; or in the construction of buildings, privative roads, wells and other improvements, except for the works destined solely to renovation for own use of at least one member of the household unit.

working monthly income – Monthly income in cash and value, real or estimated, of the income in products or goods of the fields of agriculture, silviculture, cattle breeding, vegetal extraction, fishing and fish breeding, deriving from the main work, secondary work and other works a person could have in the reference week of the survey, except for the value of the self-consumption production. For the domestic employees and workers – gross monthly remuneration (income earned without excluding the family salary and the discounts corresponding to the payments of social security, income tax, faults etc., and not including the thirteenth, fourteenth, fifteenth bonus salary etc. and the participation in the profits paid by the undertaking to the employees) they normally have the right to after working an entire month or, when the income is variable, average monthly remuneration from the reference month of the survey. The share of remuneration received as benefits (housing; food; clothes; restaurant, supermarket or transportation tickets; etc.) is not included in the calculation of the working income. In the group "without working income" only the domestic employees and workers who receive only benefits under the guise of working income are included. For employers and self-employed individuals – the monthly amount (gross income minus the expenses with the undertaking, such as payment of employees, raw material, electricity, telephone etc.) normally earned or, when the income is variable, the average monthly amount, from the reference month of the survey. For individuals who are licensed by social security institutes – gross monthly income normally earned as benefits (support for illness, working accidents etc.) from the reference month of the research.

years of schooling – Classification established based on the highest grade and level or degree a person studied, considering the last grade concluded with approval. Each grade concluded with approval corresponds to a year of schooling. The count of the years of schooling starts: in 1 year of schooling, from the first grade of elementary school concluded with approval; in 5 years of schooling, from the first grade of grammar school concluded with approval; in 9 years of schooling, from the first grade of high school concluded with approval; in 12 years of schooling, from the first grade of college concluded with approval. The individuals who did not declare the grade and the level or degree, or who declared incomplete information that does not enable their classification, are gathered in a group of undetermined or undeclared years of schooling.

Global Adult Tobacco Survey (GATS)

Fact Sheet Brazil 2008

GATS Objectives

The Global Adult Tobacco Survey (GATS) is the global standard for systematically monitoring adult tobacco use (smoked or smokeless tobacco) and tracking key tobacco control indicators. In Brazil the GATS was known as the Special Survey on Tobacco Use in Brazil (PETab), and was conducted as a special supplement of the 2008 National Household Sample Survey, (PNAD), among persons aged 15 and over. The PNAD aims to provide basic information / data for the study of Brazilian socioeconomic development.

GATS is a nationally representative survey, using a consistent and standard protocol across countries including Brazil. 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. The WHO has developed MPOWER, a technical assistance package of six evidence-based policies that include:

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Monitor tobacco use and 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, and sponsorship
Raise taxes on tobacco.

GATS Methodology

GATS uses a global standardized methodology. It includes information on respondents' background characteristics, tobacco use (smoking and smokeless), cessation, secondhand smoke, economics, media, and knowledge, attitudes and perceptions towards tobacco use. In Brazil, GATS was conducted in 2008 as a household survey of persons age 15 and over by the Brazilian Institute of Geography and Statistics (IBGE), in collaboration with the GATS National Committee and Brazilian partners. The sample design for Brazil is a multi-stage stratified sample with a total of 51,011 households, which is a subsample of one-third of the total households included in the National Household Sample Survey (PNAD). One individual was randomly chosen from each selected household to participate in the survey. Survey information was collected using handheld devices. The Brazil sample design will provide nationally representative estimates for urban-rural areas stratified by gender, in addition to five regional estimates. The household response rate was 95.0%, the person response rate was 98.9% and the overall response rate was 94.0%. There were a total of 39,425 completed interviews.

GATS Highlights

Tobacco Use

- In Brazil 21.6% of men, 13.1% of women, and 17.2% overall (24.6 million adults) currently smoke tobacco.

Cessation

- 5 in 10 current smokers plan to or are thinking about quitting.

Second-hand Smoke

- 11.6 million adults (24.4% of adults) are exposed to tobacco smoke at the workplace.

Media

- 67.0% of adults noticed anti-cigarette smoking information on the television or radio.
- 3 in 10 adults have noticed cigarette marketing where cigarettes are sold.
- 2 in 10 adults have noticed cigarette marketing (other than where cigarettes are sold) or sporting event sponsorship.

Knowledge, Attitudes and Perceptions

- 96.1% of adults believe smoking causes serious illness.

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INCA Instituto Nacional de Câncer | IBGE Instituto Brasileiro de Geografia e Estatística | ANVISA Agência Nacional de Vigilância Sanitária | Organização Pan-Americana da Saúde | CDC Tobacco Control | GTSS Global Tobacco Surveillance System | mpower

March 2010–UPDATED

Global Adult Tobacco Survey (GATS)

Fact Sheet Brazil 2008

Tobacco Use

TOBACCO SMOKERS	OVERALL(%)	MEN(%)	WOMEN(%)
Current tobacco smokers	17.2	21.6	13.1
Current tobacco smokers (urban)	16.6	20.6	13.1
Current tobacco smokers (rural)	20.4	26.3	13.5
Daily tobacco smokers	15.1	18.9	11.5
Current cigarette smokers[1]	17.1	21.5	13.0
Daily cigarette smokers[1]	14.5	18.3	11.0
Former daily tobacco smokers[2] (among all adults)	14.1	17.2	11.2
Former daily tobacco smokers[2] (among ever daily smokers)	46.9	46.4	47.7
SMOKELESS TOBACCO USERS	OVERALL(%)	MEN(%)	WOMEN(%)
Current smokeless tobacco users	0.4	0.6	0.3
TOBACCO USERS (SMOKED AND/OR SMOKELESS)	OVERALL(%)	MEN(%)	WOMEN(%)
Current tobacco users	17.5	22.0	13.3

Cessation

	OVERALL(%)	MEN(%)	WOMEN(%)
Smokers who made a quit attempt in past 12 months[3]	45.6	43.0	49.5
Current smokers who plan to or are thinking about quitting	52.1	49.2	57.1
Smokers advised to quit by a health care provider in past 12 months[3,4]	57.1	55.7	58.5

Second-hand Smoke

	OVERALL(%)	MEN(%)	WOMEN(%)
Adults exposed to tobacco smoke at the workplace[5,†]	24.4	28.5	20.4
Adults exposed to tobacco smoke in the home	27.9	28.9	27.0
Adults exposed to tobacco smoke in restaurants	9.9	10.8	9.0

Economics

	R$
Average price of a pack of manufactured cigarettes	2.56

	OVERALL(%)
Price of 100 packs of manufactured cigarettes as a percentage of per capita Gross Domestic Product (GDP)	1.7
Smokers whose last cigarette purchase was from a street vendor	2.4

Media

TOBACCO INDUSTRY ADVERTISING	OVERALL(%)	CURRENT SMOKERS(%)	NON-SMOKERS(%)
Adults who noticed cigarette marketing where cigarettes are sold[†]	31.3	38.2	29.9
Adults who noticed any cigarette advertisements/ promotions (other than where cigarettes are sold) or sporting event sponsorship[†]	21.3	20.1	21.5
COUNTER ADVERTISING	OVERALL(%)	MEN(%)	WOMEN(%)
Current smokers who thought about quitting because of a warning label[†]	65.0	63.5	67.2
	OVERALL(%)	CURRENT SMOKERS(%)	NON-SMOKERS(%)
Adults who noticed anti-cigarette smoking information on the television or radio[†]	67.0	67.7	66.9
Adults who noticed anti-cigarette smoking information in any media	73.1	72.7	73.2

Knowledge, Attitudes and Perceptions

	OVERALL(%)	CURRENT SMOKERS(%)	NON-SMOKERS(%)
Adults who believe smoking causes serious illness	96.1	93.0	96.7
Adults who believe exposure to tobacco smoke causes serious illness in nonsmokers	91.4	86.3	92.4
	OVERALL(%)	CURRENT SMOKELESS USERS(%)	NON-USERS (%)
Adults who believe smokeless tobacco use causes serious illness	68.2	51.9	68.3

[1] Includes manufactured cigarettes and hand-rolled cigarettes. [2] Current non-smokers. [3] Includes current smokers and those who quit in past 12 months. [4] Among those who visited a health care provider in past 12 months. [5] Among those who work outside of the home who usually work indoors or both indoors and outdoors. [†] During the past 30 days.

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

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