







# Global Youth Tobacco Survey

# (GYTS)

Barbados 2007 A Comparative Report for 1999-2007

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#### **Executive Summary**

The findings from the Global Youth Tobacco Survey (GYTS) indicated that during 1999-2007, the percentage of students aged 13-15 years who reported current cigarette smoking increased from 10.8% in 1999 to 11.6% in 2007. During this period, the percentage of students in this age group who were never smokers, but stated that they were likely to initiate smoking also increased from 18.2% in 1999 to 20.4% in 2007. Similarly, students who were users of tobacco products other than cigarettes <sup>1</sup> increased by 15.2% from 9% in 1999 to 24.2% in 2007.

The findings also show that the proportion of students who were exposed to smoking in public places significantly increased between 2002 and 2007(51.3% and 59.6%) and for the period 1999 to 2007 (51.3% and 59.6%).

For the period 1999 to 2007 more than two thirds of students considered smoke from others to be harmful. Furthermore, the percentage of these students increased by 6.4% (63.7% and 70.1%).

Also during this period, approximately three out of four students were in favour of banning smoking in public places (79.4% and 74.8%). Despite their showing a strong disapproval to smoking in public places, it may be difficult to attribute this disapproval to educational classes in schools since only one third of students reported being taught about the dangers of smoking in any class (32% and 33.3%).

Between 1999 and 2007, there was a decrease of 12.5% among students who saw any anti-smoking messages in the month prior to being surveyed (77.2% and 64.7%). During this period there was also a 21% decrease in advertisements or promotions for cigarettes on billboards (69.3% and 48.2%) and 27.3% decrease in advertisements or promotions for cigarettes in newspapers or magazines (69.1% and 41.8%).

<sup>&</sup>lt;sup>1</sup> such as smoked products including cigars and fanta (A form of wild tobacco not clinically tested for levels of nicotine, which is legal but not generally sold in stores) and smokeless products including chewing tobacco and snuff

#### A summary of the findings of 2007 showed:

#### 1. Prevalence

- i. 32.4% had ever smoked cigarettes (Boys= 40.2%, Girls= 25.3%)
- ii. 28.6% currently use any tobacco product (Boys= 34.5%, Girls= 23.2%)
- iii. 11.6% currently smoke cigarettes (Boys=14.3%, Girls= 9.3%)
- iv. 24.2% currently use other tobacco products (Boys=30.2%, Girls=18.7%)

#### 2. Knowledge and Attitudes

- i. 40.5% think boys and 22.1% think girls who smoke have more friends
- ii. 11.0% think boys and 7.0% girls who smoke are more attractive

#### 3. Access and Availability

- i. 36.3% usually smoke at home
- ii. 19.6% buy cigarettes in a store
- iii. 55.6% who bought cigarettes in a store were NOT refused purchase because of their age <sup>2</sup>

#### 4. Environmental and Tobacco Smoke

- i. 25.9% live in homes where others smoke in their presence
- ii. 25.6% have one or more parents who smoke
- iii. 8.4% have most or all friends who smoke
- iv. 59.6% are around others who smoke in places outside their home
- v. 74.8% think smoking should be banned from public places
- vi. 70.1% think smoke from others is harmful to them

#### 5. Cessation- Current Smokers

- i. 54.7% want to stop smoking
- ii. 57.2% tried to stop smoking during the past year

<sup>&</sup>lt;sup>2</sup> Less than 35 participants

iii. 59.6% have ever received help to stop smoking

#### 6. Media and Advertising

- i. 64.7% saw anti-smoking media messages, in the past 30 days
- ii. 48.2% saw pro-cigarette ads on billboards, in the past 30 days
- iii. 41.8% saw pro-cigarette ads in newspapers or magazines, in the past 30 days
- iv. 15.7% owned an object with a cigarette brand logo
- v. 10.9% were offered free cigarettes by a tobacco company representative

#### 7. School

- i. 33.3% had been taught in class during the past year about the dangers of smoking
- ii. 30.0% had been taught in class during the past year the effects of tobacco use
- iii. 19.0% had discussed in class during the past year reasons why people their age smoke

#### 2. Introduction

Barbados, the most easterly of the Caribbean islands, is situated 74.53 miles east of the Windward Islands and 285.7 miles north-west of Venezuela. It is four and a half hours from New York, five hours from Toronto, and eight hours from London by air. The island is small (166 sq miles) and relatively flat with the highest point reaching 1,104 ft.

Barbados has the demographic profile of a developed country. The 2007 United Nations Development Programme (UNDP) Human Development Index (HDI) which is based on life expectancy, literacy, education, and standards of living for countries worldwide, places Barbados 31<sup>st</sup> out of more than 150 countries surveyed.

The resident population reached 274 thousand persons in December 2006, of whom 48.3 percent were male and 51.7 percent were female. The dependent population comprised approximately 22.5 percent of the population under 15 years and 8.5 percent over 65 years. The elderly population (persons 60 years and over) is projected to comprise more than 17 percent of the population by the year 2010.

Barbadians of African descent make up 92 percent of the population. Those of European decent account for 4 percent, those of mixed descent 3 percent, while those of Indian and Asian decent make up the final percent of the population.

Barbados' education system is modeled after the British system. It produces one of the highest standards of education in the English-speaking Caribbean, with a literacy rate of 99.7 percent. Primary and Secondary education is compulsory until age 16. In 2006, there were: 62 public and 30 private primary schools with a total of 27,997 pupils.

Of particular concern to the government of Barbados is the threat of Chronic Non-Communicable Diseases (CNCDs) to the health of Barbadians. Sir George Alleyne Chancellor of the University of the West Indies and Director Emeritus of PAHO/WHO linked the spread of CNDs in part to the use of tobacco (Barbados Advocate Newspaper, October, 21, 2008 pg 3). Tobacco use is one of the major preventable causes of premature death and disease in the World (Chaloupka, J. 2000). The World Health (WHO) attributes approximately 5 million deaths per year

to tobacco use, a number expected to exceed 8 million per year by 2030 (WHO FCTC 2008).

Of particular concern to the work of drug agencies in Barbados is the impact of tobacco use on the country's young population. Tobacco use during adolescence increases the likelihood of continued use as an adult and the risk of developing a tobacco-related illness as a result of continued use (US DH&HS, 1994).

Addressing tobacco use among young people is essential for prevention efforts. It involves being aware, on the one hand, of the magnitude of the problem of tobacco consumption among young people and its characteristics, and, on the other hand, acquiring more in depth knowledge of the underlying causes of risk and consumption in this group. Therefore, we need greater insight into this group's problems and to monitor its behaviour over time.

# **2.1** World Health Organisation Framework Convention on Tobacco Control (FCTC)

The WHO FCTC is the world's first public health treaty on tobacco control. The WHO FCTC encourages countries to develop and implement action plans to include public policies, such as bans on direct and indirect tobacco advertising, tobacco tax and price increases, promoting smoke—free public places and placing health warning labels on tobacco packaging. The WHO FCTC also calls on countries to establish surveillance programmes to examine "the magnitude, patterns, determinants, and consequences of tobacco consumption and exposure to tobacco smoke (WHO FCTC 2008).

#### 2.2 Current status of tobacco control in Barbados

There has been some attempt by the government of Barbados to address the impact of tobacco smoking on health via the recent imposition of new taxes on cigarette retailers. From July 13, 2008 the excise tax payable on manufactured tobacco was increased by 100 percent. It was further announced that the Customs Regulations would also, with immediate effect, be amended by removing the duty–free allowance currently granted to people entering Barbados through the air and sea

ports with manufactured tobacco. The increases in taxes are expected to yield \$1.5 million<sup>3</sup>.

#### 2.3 Global Tobacco Surveillance

In 1998, the World Health Organisation (WHO), the US Centre for Disease Control and Prevention (CDC), and the Canadian Public Health Association developed the Global Tobacco Surveillance System (GTSS) to assist WHO Member States in establishing continuous tobacco control surveillance and monitoring (GTSS 2005; Warren C., Jones N., Eriksen M., & Asma S. 2006). The GTSS includes the collection of data through three (3) surveys: the Global Youth Tobacco Survey (GYTS) for youth, and the Global School Personnel Survey, and the Global Health Professions Student Survey for adults.

#### 2.4 Global Youth Tobacco Survey

The GYTS is a school-based quantitative survey that collects data on students aged 13-15 years using a standardised methodology for constructing the sample frame, selecting schools and classes, and processing data. All rounds of GYTS were implemented using similar methodology. The GYTS provides systematic global surveillance of youth tobacco use. Countries can use GYTS data to enhance their capacity to monitor tobacco use among youth, guide development, implementation, and evaluation of their national tobacco prevention and control programme, and allow comparison of tobacco-related data at the national, regional and global levels.

Since 1999, the survey has been completed by approximately 2 million students in 151 countries (CDC 2000-2007). In 1999, 1,644 students completed GYTS, 1654 in 2002 and 1,499 in 2007. In 1999 the student response rate was 91%, 86% in 2002 and 83.2% in 2007. The overall response rate for school and students was 91% in 1999, 86% in 2002 and 79.4% in 2007. The lower school and student response rate for 2007 is a reflection of the lower student participation in that year. A key goal of GYTS is for countries to repeat the survey every 4 years. This report summarizes results from GYTS conducted in Barbados in 1999, 2002 and 2007.

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<sup>&</sup>lt;sup>3</sup> One US dollar = 2 Barbados dollars.

#### 3. Methodology

The Barbados GYTS was a school-based survey of students in forms 2, 3 and 4 conducted in 2007. The sample was drawn from a population of 22 public secondary schools in Barbados and 21 of those schools participated in the Survey. The small number of private secondary schools and the relatively small population size has resulted in a generally low response from these schools (only 2 schools previously participated in these surveys). Private secondary schools were therefore excluded from the survey.

Student participation was voluntary and anonymous. The questionnaire used was self-administered questionnaire and consisted of closed-ended questions. The Barbados GYTS includes data on prevalence of cigarette and other tobacco use as well as information on five determinants of tobacco use: access/availability and price, environmental tobacco smoke exposure (ETS), cessation, media and advertising, and school curriculum.

Prior to the collection of data, formal training sessions were conducted with field officers and supervisors. These officers were supervised by the Barbados research coordinator for GYTS.

#### 3.1 Sampling

A two-stage cluster sample design was used to produce representative data for Barbados. At the first stage, schools were selected with probability proportional to enrollment size. At the second stage, classes were randomly selected and all students in selected classes on the day that the survey was administered were eligible to participate. The GYTS sample design produced representative, independent, cross-sectional estimates for each site. Data in this paper are limited to students aged 13-15 years.

A total of 1,499 students were drawn from a population of 11,492 students in the 2<sup>rd</sup>, 3rd and 4<sup>th</sup> forms (see table 1). However, only the data from 1055 students was included in the analysis as some persons did not meet the age criteria for inclusion in the study, whilst others did not complete all of the items on their questionnaire. The final sample

comprised of 540 males and 515 females, of whom 450 were 13 years old, whilst 392 were 14 years old and 213 were 15 years old (see table 2).

**Table 1** Student Population of forms 2-4, and Gender, Barbados

Form	Males	Females	Total
Second	1,694	1,873	3,567
Third	1,800	2,045	3,845
Fourth	2,013	2,067	4,080
Total	5,507	5,985	11,492

Source: Ministry of Education December 17, 2007

<u>Table 2</u>
GYTS Sample: Reported by Gender and Age (13-15)

		13 years old	14 years old	15 years
				old
Male	47.2%	42.5%	48.1%	54.8%
n	540	200	208	132
Female	52.8%	57.5%	51.9%	45.2%
n	515	250	184	81
Total n	1,055	450	392	213

#### 3.2 Weighting

A weighting<sup>4</sup> factor was applied to each student record to adjust for non- response (by school, class and student) and probability of selection at the school and class level

W= W1\*W2\*f1\*f2\*f3\*f4

W1= the inverse of the probability of selecting the school

W2= the inverse of the probability of selecting the classroom within the school

F1= a school-level non-response adjustment factor calculated by school size category (small, medium, large).

F2= a class adjustment factor calculated by school

<sup>&</sup>lt;sup>4</sup> A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non response. The weight used for estimation is given by:

(CDC 2000-2007). A final adjustment sums the weights by form and sex to the population of school children in the selected forms in each school<sup>5</sup> (CDC 2000-2007).

#### 3.3 Indicators

This report describes changes between 1999 and 2007 with respect to several important tobacco-use indicators, including lifetime cigarette smoking, <sup>6</sup> and current cigarette smoking. Based on a response of "1 or more days to the question, "During the past 30 days (1 month), on how many days did you smoke cigarettes?", statistical differences were determined by comparing 95% confidence intervals; non-overlapping confidence intervals were considered statistically significant. Results are based on at least 35 respondents for each denominator.

#### 3.4 Data Analysis

The SUDAN and EPI-INFO, software package for statistical analysis of correlated data was used to compute standard errors of the estimates and produced 95% confidence intervals which are shown as lower and upper bounds. Differences in proportions were considered statistically significant at the p<.05 level.

#### 4. Results

#### 4.1 Students Who Smoked Before Age 10

In 2007, 32.0% of those who ever smoked cigarettes did so before age 10, with no significant difference between boys (33.1%) and girls (29.3%). In 1999, the overall prevalence of lifetime cigarette smoking was 25.0%. This increased to 32% by 2007, although this increase was not statistically significant.

#### 4.2 Students Who Have Ever Smoked

In 2007, 32.4% of students reported having ever smoked cigarettes, with even 1 or 2 puffs (See Figure 1). There have been no significant changes in lifetime cigarette

F3= a student –level non response adjustment factor calculated by class

<sup>&</sup>lt;sup>5</sup> The weighted results can be used to make important inferences concerning tobacco use risk behaviours of students in Barbados in Forms 2, 3 and 4.

<sup>&</sup>lt;sup>6</sup> Based on a response to the question "Have you ever tried or experimented with cigarette smoking, even one or two puffs?"

smoking between 1999 and 2007. Although there were no significant differences between boys and girls in 1999 and 2002, girls (25.3%) were significantly less likely than boys (40.2%) to have ever smoked cigarettes in 2007.

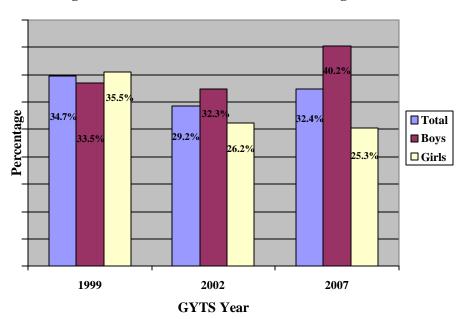


Figure 1: Students Who Have Ever Smoked Cigarettes

#### 4.3 Current Smokers

Current cigarette smokers were defined as those students who smoked on one or more days in the month prior to being surveyed. In 2007, 11.6% of students were current cigarette smokers, with no significant difference by gender and no significant changes between 1999 and 2007.

Smokers

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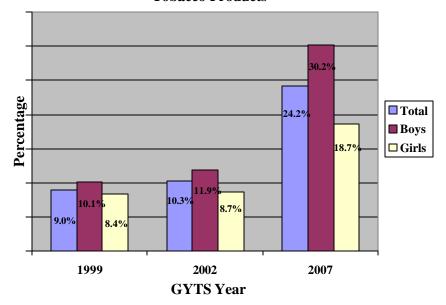
**GYTS Year** 

Figure 2: Students Who are Current Cigarette
Smokers

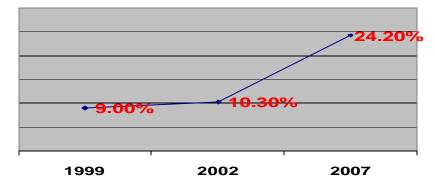
#### **4.4 Current Users of Other Tobacco Products**

In 2007, 24.2% of students were users of tobacco products other than cigarettes, including cigars and fanta, and smokeless products such as: chewing tobacco, snuff, and dip. Boys (30.2%) were significantly more likely than girls (18.7%) to have used tobacco products other than cigarettes. Between 1999 and 2002, there was no significant change in use of other tobacco products, however, between 2002 and 2007 use of other tobacco products more than doubled (10.3% and 24.2%, respectively). This increase of 15.2% from 1999 to 2007 was statistically significant. See figure 4 for comparison.

Figure 3: Students Who are Current Users of Other Tobacco Products



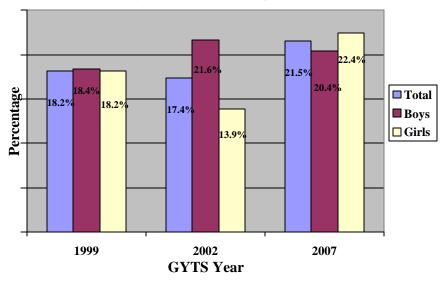
**Figure 4: Comparison – Current Users of Other Tobacco Products** 



#### 4.5 Students Who Never Smoked

In 2007, the reported prevalence of students who had never smoked but were likely to initiate smoking in the next year was 21.5%, with a significant difference by gender, where more girls were likely to initiate smoking than boys. The proportion of students who were apt to initiate smoking in the next year did not change significantly over the period 1999 to 2007.

Figure 5: Students Who Have Never Been Smokers but are Likely to Initiate Smoking in the Next Year

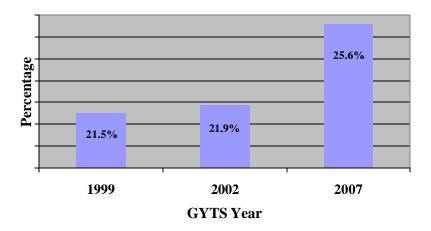


#### **4.6 Factors that Influence Prevalence**

#### 4.7 Students Who Have One or More Parents Who Smoke

As shown in figure 6, the percentage of students with one or more parents who smoke was 25.6% in 2007. This represented an increase of 4.1% for the period 1999 to 2007. This increase was statistically significant.

Figure 6: Students who Have One or More Parents who Smoke



#### 4.8 Students Living in Homes Where Others Smoke

In 2007 the percentage of students who live in homes where others smoke was 25.9%. Whilst there was a decrease (4.1%) among such students for the period 1999 to 2002 (22.5% and 18.4%), there was an increase of 7.5% between 2002 and 2007 (18.4% and 25.9%). For the period 1999 to 2007 there was an increase of 3.4% (22.5% and 25.9%) which was not statistically significant.

#### 4.9 Students Exposed to Smoking in Public Places

As shown in figure 7, 59.6% of students were exposed to smoke in public places in 2007. The proportion of students who were exposed to smoke in public places did not change significantly between 1999 and 2002. However, the proportion of students who were exposed to smoking in public places significantly increased between 2002 and 2007 (51.3% and 59.6%) and for the period 1999 to 2007 (51.3% and 59.6%).

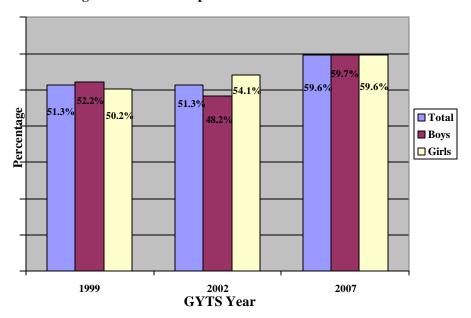


Figure 7: Students Exposed to Smoke in Public Places

#### 5. Smoking is Harmful

Approximately 7 out of 10 students (70.1%) were of the opinion that smoke from others is harmful. There was a 3.7% decrease among these students for the period 1999 to 2002 (63.7% and 60%), and an increase of 7.1% between 2002 and 2007 (60% and 70.1%). For the period 1999 to 2007, the percentage of students who consider smoke from others to be harmful increased by 6.4% (63.7% and 70.1%). This increase of 6.4% was not statistically significant.

#### 5.1 Students in Favour of Banning Smoking in Public Places

In 2007 approximately 3 out of 4 students (74.8%) were in favour of banning smoking in public places. Although there was a decrease of 4.6% for the period 1999 to 2007 (79.4% and 74.8%), the percentage of students in favour of banning smoking in public places remained relatively constant (Figure 8).

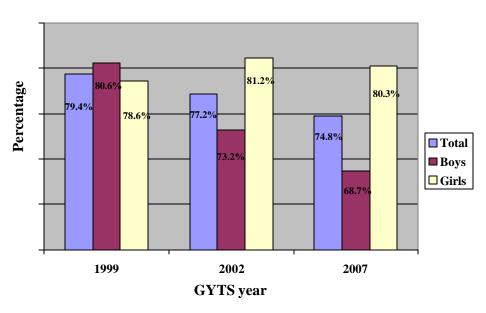


Figure 8: Students in Favour of Banning Smoking in Public Places

#### 5.2 Students Who Want to Stop Smoking

In 2007, 54.7% of students who were current smokers wanted to stop smoking at the time of the survey which represented a slight decrease over the students who expressed

the desire to stop smoking in 2002 (54.8%). For the period 1999 to 2007 there was an increase of 11.3% among such students  $(43.4\% \text{ and } 54.7\%)^7$ .

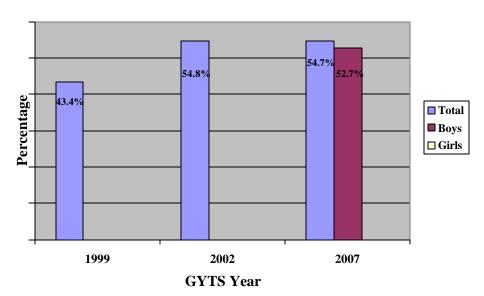


Figure 9: Students Who are Current Smokers and Want to Stop Smoking Now

#### 5.3 Students Who Feel Like Having a Cigarette First Thing in the Morning

In 2007, 6.7% of students reported always feeling like having a cigarette first thing in the morning. For the period 1999 to 2002 there was a decrease of 2.2% in this group of smokers (6.2 % to 4%). However, there was a subsequent increase of 3.7% for the period 2002 to 2007 (3% to 6.7%). Additionally, for the period 1999 to 2007 there was a similar proportion of students desiring a cigarette first thing in the morning (6.2% and 6.7%).

#### 6. Knowledge and Attitudes

#### **6.1 Taught About the Dangers of Smoking in Any Class**

In 2007, 33.3% of students were taught about the dangers of smoking in any class. From these classes 32% and 41.45 were taught in 1999 and 2002 respectively. However, the proportion of students who were taught between 2002 and 2007 decreased by 8.1 %

<sup>&</sup>lt;sup>7</sup> Gender differences not estimated due to less than 35 participants

(41.4% and 33.3%). The percentages of those who were taught between 1999 and 2007 were similar.

#### 6.2 Students Who Think Boys Who Smoke Have More Friends

Approximately 4 out of 10 students (40.5%) in 2007 were of the opinion that boys who smoke have more friends. For the period 1999 to 2002 there was an overall increase in this regard of 6.8% (26.35 and 33.1%), with the increase among girls (27.5% and 37.1%) being significant. Similarly, there was also an overall increase (7.4%) between 2002 and 2007. However, in this instance it was the difference among boys that was significant (28.4% and 38.3%). Finally, it should be noted that there was a statistically significant overall increase of 14% (26.3% and 40.5%) between 1999 and 2007. Likewise, there was also a statically significant increase among boys.

1999 2002 2007 GYTS Year

Figure 10: Students who think that Boys who Smoke have More Friends

#### 6.3 Students Who Think Girls Who Smoke Would Have More Friends

The percentage of students who think girls who smoke have more friends was similar to that reported in 1999 and 2002 (15.4% and 16.4%). However, for the period 2002 to 2007 there was a 5.7% increase in such students (16.4% and 22.1%). This increase was statistically significant. However, there were no significant increases by gender. For the period 1999 to 2007 there was also a significant increase among students who think

girls who smoke have more friends (15.4% and 22.1%). This increase was significant among girls (14.6% and 24.5%).

1999 2002 2007

GYTS Year

Figure 11: Students Who Think that Girls Who Smoke have More Friends

#### **6.4 Students Who Saw Anti-Smoking Messages**

Figure 12 indicates that in 2007, 64.7% of students reported seeing anti-smoking media messages in the month prior to being surveyed. For the period 1999 to 2002 the percentage of these students was similar (77.2% and 77.6%). There was however a decrease of 12.9% for the period 2002 to 2007 (77.6 and 64.7%) and a similar decrease (12.5%) for the period 1999 to 2007 (77.2% and 64.7%).

**■** Total 78.1% 78.8% 77.2% 77.6% Percentage ■ Bovs 75.6° 55.19 64.7% □ Girls 64.0% 1999 2002 2007 **GYTS Year** 

Figure 12: Students Who Saw Anti-Smoking Media Messages in the Past Month

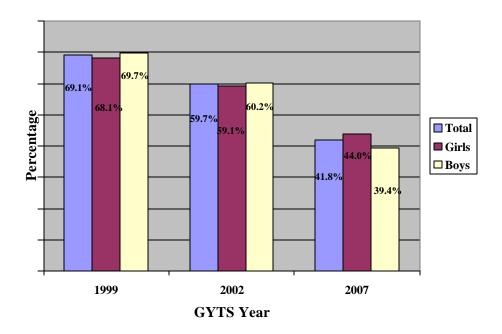
#### 6.5 Students Who Saw Anti-Smoking Messages on Billboards

Less than half of the students (48.2%) in 2007 reported seeing advertisements or promotions for cigarettes on billboards in the month prior to the survey. For the period 1999 to 2002 there was a decrease of 9.1% (69.3% and 60.2%) and whilst there was a 12% decrease for the period 2002 to 2007 (60.2% and 48.2%). For the period 1999 to 2007 there was also a decrease of 21% (69.3% and 48.2%).

# 6.6 Students Who Saw Advertisements Promoting Cigarettes in Magazines or Newspapers

In 2007, 41.8% of students reported viewing advertisements or promotions for cigarettes in newspapers or magazines in the month prior to the survey. The proportion of such students decreased by 10% and 17.9% respectively for the periods 1999 to 2002 (69.1% and 59.7%) and 2002 to 2007 (59.7% and 41.8%). For the period 1999 to 2007 there was an overall decrease of 27.3% (69.1% and 41.8%), as well as within the boys and girls.

Figure 13: Students Who Saw Advertisements or Promotions for Cigarettes in Newspapers or Magazines in the Past Month



#### **6.7 Students Offered a Free Cigarette**

In 2007, 10.9% of students reported ever being offered a "free" cigarette by a cigarette company representative. For the period 1999 to 2002 there was an increase of 2.4% of such students (7.3% to 9.7%); whilst, for the period 2002 to 2007 the proportion of students being offered these cigarettes was similar (9.7% and 10.9%).

#### **6.8 Students Wearing Cigarette Logos**

The percentage of students owning an object, including a tshirt, pen or bag with a cigarette logo on it in 2007 was 15.7%. More boys possessed these objects that girls (19.4% and 12.3%). For the period 1999 to 2007 the proportion of students did not change significantly.

7. Discussion

The findings in this report are subject to at least three limitations. Firstly, the sample

surveyed was limited to youths attending school, and is therefore not representative of

all Barbadian youth aged 13-15 years. Secondly, the findings apply only to youth who

were in school on the day that the survey was administered and hence completed the

survey. However, student response was high (83%), suggesting that bias attributed to

absence or non-response was limited. Finally, data are based on the self-reports of

students, who may have under or over-reported their tobacco use or that of their parents.

The extent of this bias cannot be determined; however, responses to tobacco-related

questions on surveys similar to GYTS have shown good test-retest reliability (MacNeil,

A. & Raw, M. 1997).

The findings of GYTS for the period 1999-2007 indicate that despite our efforts at

tobacco control, some of the main indicators in tobacco use remained stable over the

years; including: lifetime smoking, early initiation of smoking, current cigarette

smoking and susceptibility to become a smoker. How ever, there has been a significant

increase in the use of other tobacco products.

The impact on health from exposure to second hand smoke (SHS) for these students has

resulted in almost 3 out of 4 students in favour of banning smoking in public places.

Recent studies on the economic impact of SHS suggest that the direct and indirect costs

to society from second hand smoke are significant<sup>8</sup>. From the data, it was shown that

there has been an increase in students' exposure to SHS from parents and public places.

The limited exposure by students to programmes which focus on the dangers of

smoking is of concern. Only a third of these students were reported being taught such

classes. The data also showed that boys who smoke were more likely to have more

friends than girls who smoke. Educational classes on the dangers of smoking therefore

should reflect a wider approach to health education within the school population.

However these programmes should not be pursued in isolation from other programmes

which target adults, particularly parents.

<sup>8</sup> Cost to Maryland: \$597 million

The seriousness of approaches to addressing tobacco consumption takes on added importance, where it was shown that there has been an increase in students who were current smokers and wanted to stop now. This brings into question not only the approaches to enhance education and prevention but also the availability of treatment for addiction to tobacco smoking.

Although there has also been a decrease in students reporting viewing anti-smoking media messages and advertisements or promotions for cigarettes on billboards more emphasis should be given to providing counter messages to those of the tobacco industry. Such counter messages should include the use of posters which have achieved some success in deterring tobacco use and nationally televised plays and skits on the dangers of tobacco use.

Recent attempts by government to reduce and deter tobacco consumption through fiscal measures have been laudable. However there is still concern as to the high exposure of the country's youth to second hand smoke in public places, the low participation of these young people to educational programmes in schools and the absence of regulatory controls governing the advertising of tobacco products in Barbados.

#### 8. Conclusion

Comprehensive tobacco-control programmes are the most effective means to reduce tobacco use (Chaloupka, J. 2000). Such programmes include demand-reduction measures (primarily those that increase the price of tobacco) and other interventions such as: restrictions of smoking in public and work places, a complete ban on advertising and promotion by tobacco companies, dissemination of information on the health consequences of smoking through various media including prominent warning labels on cigarette packets and counter-marketing campaigns and the development and implementation of school-based educational programmes in combination with community-based activities.

The tailoring of these programmes to the needs of 13-15 year old Barbadians is critically important if these programmes are to be successful in eliminating tobacco use among young people. However, programmes addressing issues relating to tobacco use

must be seen within a wider human, social and economic context of the Barbadian society. A clear government policy is therefore needed to articulate and respond to the social fall out of the loss of productivity through illness and death caused by tobacco smoking and the treatment of the chronic tobacco user.

The success of interventions to eliminate tobacco is also dependent on greater commitment from government to provide the necessary legislative framework which addresses tobacco use in a serious way. This legislative framework should speak to the banning of tobacco smoking in public places, the compulsory labeling of tobacco products, enforced regulations governing the advertising of tobacco products and the conduct and delivery of intervention programmes in schools. Barbados has signed and ratified the WHO Framework Convention on Tobacco Control (FCTC) in 2005 which addresses, in a holistic manner, issues relating to tobacco use.

However, responding to the peculiar problems associated with use can be challenging due to the absence of a central coordinating agency. Currently, there are two agencies which conduct programmes related to tobacco use, the Ministry of Health and the National Council on Substance Abuse (NCSA), under the aegis of the Ministry of Home Affairs. In this context, Barbados should continue to work with international organisations such as the Pan American Health Organisation (PAHO) and the Centre of Disease Control (CDC) to identify interventions that work and the subsequent implementation and conduction of these programmes based on the Barbadian experience.

#### 9. Recommendations

- 1. An integrated approach to health education in schools with specific focus on tobacco use.
- 2. An evaluation of current methods used to eliminate tobacco use
- 3. An integrated approach to treatment for the chronic tobacco user
- 4. Legislative support to ban smoking in public places
- 5. Greater enforcement of regulations governing advertising of tobacco products
- 6. The development of interventions in the community, particularly those targeting parents.
- 7. Continued partnerships with international agencies to secure funding for intervention programmes.
- 8. Increased use of counter-advertising messages to those of the tobacco industry.
- 9. Further research on the social and economic costs of tobacco use

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## **APPENDIX**

# PAHO CORE QUESTIONS GLOBAL YOUTH TOBACCO SURVEY (GYTS) 2007

#### **INSTRUCTIONS**

- Please read each question carefully before answering it.
- Choose the answer that best describes what you believe and feel to be correct.
- Choose only **one** answer for each question.
- On the answer sheet, locate the circle that corresponds to your answer and fill it in completely with the pencil that was provided to you.
- Correctly fill in the bubbles:
  - ? Like this: ?
- If you have to change your answer, don't worry; just erase it completely, without leaving marks.
- Remember, each question only has one answer.

#### Example:

Questionnaire

- 24. Do you believe that fish live in water?
  - a. Definitely yes
  - b. Probably yes
  - c. Probably not
  - d. Definitely not

24. B C D E F G H

#### THE NEXT 11 QUESTIONS ASK ABOUT YOUR USE OF TOBACCO.

- 1. Have you ever tried or experimented with cigarette smoking, even one or two puffs?
  - a. Yes
  - b. No
- 2. How old were you when you first tried a cigarette?
  - a. I have never smoked cigarettes
  - b. 7 years old or younger
  - c. 8 or 9 years old
  - d. 10 or 11 years old
  - e. 12 or 13 years old
  - f. 14 or 15 years old
  - g. 16 years old or older
- 3. During the past 30 days (one month), on how many days did you smoke cigarettes?
  - a. 0 days
  - b. 1 or 2 days
  - c. 3 to 5 days
  - d. 6 to 9 days
  - e. 10 to 19 days
  - f. 20 to 29 days
  - g. All 30 days
- 4. During the past 30 days (one month), on the days you smoked, how many cigarettes did you usually smoke?
  - a. I did not smoke cigarettes during the past 30 days (one month)
  - b. Less than 1 cigarette per day
  - c. 1 cigarette per day
  - d. 2 to 5 cigarettes per day
  - e. 6 to 10 cigarettes per day
  - f. 11 to 20 cigarettes per day
  - g. More than 20 cigarettes per day
- 5. During the past 30 days (one month), how did you usually get your own cigarettes? (SELECT ONLY ONE RESPONSE)
  - a. I did not smoke cigarettes during the past 30 days (one month)
  - b. I bought them in a store, shop or from a street vendor
  - c. I bought them from a vending machine
  - d. I gave someone else money to buy them for me
  - e. I borrowed them from someone else
  - f. I stole them
  - g. An older person gave them to me
  - h. I got them some other way

- 6. During the past 30 days (one month), what brand of cigarettes did you usually smoke? (SELECT ONLY ONE RESPONSE)
  - a. I did not smoke cigarettes during the past 30 days
  - b. No usual brand
  - c. Benson and Hedges
  - d. Embassy
  - e. Three Fives
  - f. Pall Mall
  - g. Menthol
  - h. Other
- 7. During the past 30 days (one month), did anyone ever refuse to sell you cigarettes because of your age?
  - a. I did not try to buy cigarettes during the past 30 days (one month)
  - b. Yes, someone refused to sell me cigarettes because of my age
  - c. No, my age did not keep me from buying cigarettes
- 8. During the past 30 days (one month), did you see any signs stating that adolescents are not allowed to buy any tobacco products?
  - a. Yes
  - b. No
- 9. During the past 30 days (one month), did you use any form of smoked tobacco products other than cigarettes (e.g. cigars, fanta)?
  - a. Yes
  - b. No
- 10. During the past 30 days (one month), did you use any form of smokeless tobacco products (e.g. chewing tobacco, snuff, dip)?
  - a. Yes
  - b. No
- 11. Where do you usually smoke? (SELECT ONLY ONE RESPONSE)
  - a. I have never smoked cigarettes
  - b. At home
  - c. At school
  - d. At work
  - e. At friends' houses
  - f. At social events
  - g. In public spaces (e.g. parks, shopping centres, street corners)
  - h. other
- 12. Do you ever have a cigarette or feel like having a cigarette first thing in the morning?
  - a. I have never smoked cigarettes
  - b. I no longer smoke cigarettes
  - c. No, I don't have or feel like having a cigarette first thing in the morning
  - d. Yes, I sometimes have or feel like having a cigarette first thing in the morning
  - e. Yes, I always have or feel like having a cigarette first thing in the

#### morning

### THE NEXT 17 QUESTIONS ASK ABOUT YOUR KNOWLEDGE AND ATTITUDES TOWARD TOBACCO.

13.Do	your	parents	smoke?

- a. None
- b. Both
- c. Father only
- d. Mother only
- e. I don't know

#### 14. If one of your best friends offered you a cigarette, would you smoke it?

- a. Definitely not
- b. Probably not
- c. Probably yes
- d. Definitely yes

## 15. Has anyone in your family discussed the harmful effects of smoking with you?

- a. Yes
- b. No

## 16.At any time during the next 12 months do you think you will smoke a cigarette?

- a. Definitely not
- b. Probably not
- c. Probably yes
- d. Definitely yes

#### 17. Do you think you will be smoking cigarettes 5 years from now?

- a. Definitely not
- b. Probably not
- c. Probably yes
- d. Definitely yes

## 18. Once someone has started smoking, do you think it would be difficult to quit?

- a. Definitely not
- b. Probably not
- c. Probably yes
- d. Definitely yes

#### 19. Do you think boys who smoke cigarettes have more or less friends?

- a. More friends
- b. Less friends
- c. No difference from non-smokers

#### 20. Do you think girls who smoke cigarettes have more or less friends?

- a. More friends
- b. Less friends
- c. No difference from non-smokers

## 21. Does smoking cigarettes help people feel more or less comfortable at celebrations, parties, or in other social gatherings?

- a. More comfortable
- b. Less comfortable
- c. No difference from non-smokers

#### 22. Do you think smoking cigarettes makes boys look more or less attractive?

- a. More attractive
- b. Less attractive
- c. No difference from non-smokers

#### 23. Do you think smoking cigarettes makes girls look more or less attractive?

- a. More attractive
- b. Less attractive
- c. No difference from non-smokers

#### 24. Do you think that smoking cigarettes makes you gain or lose weight?

- a. Gain weight
- b. Lose weight
- c. No difference

#### 25. Do you think cigarette smoking is harmful to your health?

- a. Definitely not
- b. Probably not
- c. Probably yes
- d. Definitely yes

#### 26. Do any of your closest friends smoke cigarettes?

- a. None of them
- b. Some of them
- c. Most of them
- d. All of them

## 27. When you see a man smoking what do you think of him? (SELECT ONLY ONE RESPONSE)

- a. Lacks confidence
- b. Stupid
- c. Loser
- d. Successful
- e. Intelligent
- f. Macho

## 28. When you see a woman smoking, what do you think of her? (SELECT ONLY ONE RESPONSE)

- a. Lacks confidence
- b. Stupid
- c. Loser
- d. Successful
- e. Intelligent
- f. Sophisticated

c. d.	Probably yes Definitely yes
THE NEXT 4 PEOPLE'S SM	QUESTIONS ASK ABOUT YOUR EXPOSURE TO OTHE IOKING.
30.Do you	think the smoke from other people's cigarettes is harmful to you?
a.	Definitely not
b.	Probably not
c.	Probably yes
d.	Definitely yes
31.During	the past 7 days, on how many days have people smoked in you
home, ir	n your presence?
a.	0
b.	1 to 2
c.	3 to 4
d.	5 to 6
e.	7
32.During	the past 7 days, on how many days have people smoked in you
presenc	e, in places other than in your home?
a.	0
b.	1 to 2
c.	
d.	5 to 6
e.	7
restaura	u in favor of banning smoking in public places (such as ants, in buses, streetcars, and trains, in schools, on playgrounds, ad sports arenas, in discos)?
a.	Yes
b.	No
THE NEXT ( STOPPING SM	6 QUESTIONS ASK ABOUT YOUR ATTITUDES TOWAR MOKING.
34.Do you	want to stop smoking now?
a.	I have never smoked cigarettes
b.	I do not smoke now
b. c.	I do not smoke now Yes
c. d.	Yes

29. Do you think it is safe to smoke for only a year or two as long as you quit

after that? a.

b.

Definitely not Probably not

I did not smoke during the past year

b.

- c. Yes
- d. No

#### 36. How long ago did you stop smoking?

- a. I have never smoked cigarettes
- b. I have not stopped smoking
- c. 1-3 months
- d. 4-11 months
- e. One year
- f. 2 years
- g. 3 years or longer

## 37. What was the main reason you decided to stop smoking? (SELECT ONE RESPONSE ONLY)

- a. I have never smoked cigarettes
- b. I have not stopped smoking
- c. To improve my health
- d. To save money
- e. Because my family does not like it
- f. Because my friends don't like it
- g. Other

#### 38. Do you think you would be able to stop smoking if you wanted to?

- a. I have never smoked cigarettes
- b. I have already stopped smoking cigarettes
- c. Yes
- d. No

## 39. Have you ever received help or advice to help you stop smoking? (SELECT ONLY ONE RESPONSE)

- a. I have never smoked cigarettes
- b. Yes, from a program or professional
- c. Yes, from a friend
- d. Yes, from a family member
- e. Yes, from both programs or professionals and from friends or family members
- f. No

## THE NEXT 9 QUESTIONS ASK ABOUT YOUR KNOWLEDGE OF MEDIA MESSAGES ABOUT SMOKING.

- 40. During the past 30 days (one month), have you read any health warnings messages on cigarette packages?
  - a. Yes
  - b. No
- 41. During the past 30 days (one month), have you seen any health warning pictures on cigarette packages?
  - a. Yes
  - b. No
- 42. During the past 30 days (one month), how many anti-smoking messages

have yo	ou heard on the radio?
a.	A lot
b.	Some
c.	None
_	the past 30 days (one month), how many anti-smoking messages
have yo	ou seen in Newspapers and Magazines?
a.	A lot
b.	Some
c.	None
	you go to sports events, fairs, concerts, community events, or social
gatheri	ngs, how often do you see anti-smoking messages?
a.	I never go to sports events, fairs, concerts, community events, or
	social gatherings
b.	A lot
c.	Sometimes
d.	Never
45. When smokin	you watch TV, videos, or movies, how often do you see actors g?
a.	I never watch TV, videos, or movies
b.	A lot
c.	Sometimes
d.	Never
<u> </u>	have something (t-shirt, pen, backpack, etc.) with a cigarette brand
logo on	
a.	Yes
b.	No
	the past 30 days (one month), when you watched sports events or rograms on TV how often did you see cigarette brand names?  I never watch TV
b.	A lot
c.	Sometimes
d.	Never
cigaret	the past 30 days (one month), how many advertisements for tes and/or other tobacco products have you seen at points of sale s kiosks, convenient stores, etc.)?
a.	A lot
b.	A few
c.	None
	the past 30 days (one month), how many anti-smoking media
messag etc.)?	es have you seen at points of sale (such as kiosks, convenient stores,
a.	A lot
b.	A few

c.

None

44	
cigarett	es have you seen on billboards?
a.	A lot
b.	A few
c.	None
51. During	the past 30 days (one month), how many advertisements
promoti	ons for cigarettes have you seen in newspapers or magazines?
a.	A lot
b.	A few
c.	None
52. When y	ou go to sports events, fairs, concerts, or community events, l
-	you see advertisements for cigarettes?
a.	I never attend sports events, fairs, concerts, or community events
b.	A lot
c.	Sometimes
d.	Never
53. Has a (c	igarette representative) ever offered you a free cigarette?
a.	Yes
b.	No
0.	110
BOUT SMO	4 QUESTIONS ASK ABOUT WHAT YOU WERE TAUG KING IN SCHOOL. this school year were you taught in any of your classes about
BOUT SMO 54.During dangers	KING IN SCHOOL.  this school year, were you taught in any of your classes about of smoking?
54. During dangers a.	KING IN SCHOOL.  this school year, were you taught in any of your classes about of smoking?  Yes
BOUT SMO 54.During dangers	this school year, were you taught in any of your classes about of smoking? Yes No
54. During dangers a.	KING IN SCHOOL.  this school year, were you taught in any of your classes about of smoking?  Yes
54. During dangers a. b. c. 55. During	this school year, were you taught in any of your classes about of smoking? Yes No Not sure this school year, did you read in your school texts or books ab
54. During dangers a. b. c. 55. During	this school year, were you taught in any of your classes about of smoking? Yes No Not sure
54. During dangers a. b. c. 55. During	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab th effects of smoking? Yes
54. During dangers a. b. c. 55. During the heal	this school year, were you taught in any of your classes about of smoking? Yes No Not sure this school year, did you read in your school texts or books ab th effects of smoking?
54. During dangers a. b. c. 55. During the heal a.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab th effects of smoking? Yes
54. During dangers a. b. c. 55. During the heal a. b. c.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab th effects of smoking? Yes No
54. During dangers a. b. c. 55. During the heal a. b. c.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab th effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas
54. During dangers a. b. c. 55. During the heal a. b. c.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab th effects of smoking? Yes No I don't have school texts or books
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why peo	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab theffects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas ople your age smoke?
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why peca.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab theffects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas ople your age smoke? Yes
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why pec a. b. c.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab the effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas ople your age smoke? Yes No Not sure
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why pec a. b. c. 57. During	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books ab the effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas ople your age smoke? Yes No No Not sure  this school year, were you taught in any of your classes about
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why peo a. b. c. 57. During effects	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books about effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas ople your age smoke? Yes No Not sure  this school year, were you taught in any of your classes about of smoking like it makes your teeth yellow, causes wrinkles.
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why pec a. b. c. 57. During effects on makes y	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books about effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reasople your age smoke? Yes No Not sure  this school year, were you taught in any of your classes about of smoking like it makes your teeth yellow, causes wrinkles, you smell bad?
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why pec a. b. c. 57. During effects on makes y a.	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books about effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reas pople your age smoke? Yes No No Not sure  this school year, were you taught in any of your classes about of smoking like it makes your teeth yellow, causes wrinkles, you smell bad? Yes
54. During dangers a. b. c. 55. During the heal a. b. c. 56. During why pec a. b. c. 57. During effects on makes y	this school year, were you taught in any of your classes about of smoking? Yes No Not sure  this school year, did you read in your school texts or books about effects of smoking? Yes No I don't have school texts or books  this school year, did you discuss in any of your classes the reasople your age smoke? Yes No Not sure  this school year, were you taught in any of your classes about of smoking like it makes your teeth yellow, causes wrinkles, you smell bad?

58.	How	long ago	did vou	last	discuss	smoking	and	health	as r	oart o	f a	lesson	?
		10115 450		1000	WID C CADD		***	110011	•••	, ·			•

- a. Never
- b. This term
- c. Last term
- d. 2 terms ago
- e. 3 terms ago
- f. More than a year ago

## 59. During the school year did year participate in the Health and Family Life Education Programme?

- A) Yes
- B) No

## THE LAST 3 QUESTIONS ASK FOR SOME BACKGROUND INFORMATION ABOUT YOURSELF.

#### 60. How old are you?

- a. 11 years old or younger
- b. 12 years old
- c. 13 years old
- d. 14 years old
- e. 15 years old
- f. 16 years old
- g. 17 years old or older

#### 61. What is your sex?

- a. Male
- b. Female

#### 62. In what form are you?

- a. Form 2
- b. Form 3
- c. Form 4

Table 1: Access to, and Availability of, Tobacco Products among Students by Sex and Year of Global Youth Tobacco Survey

	1999			2002			2007		
Access	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)	Total % (95% CI)	Boys % (95% CI)	Girls % (95 % CI)
Current smokers who usually buy their cigarettes in a store were not refused purchase because of age	*	*	*	*	*	*	*	*	*
Ever offered a "free" cigarette by a cigarette company representative	7.3 (5.7-9.2)	8.0 (5.8-10.9)	6.9 (4.9-9.6)	9.7 (7.9-11.7)	13.5 (9.8-18.4)	5.9 (4.4-7.9)	10.9 (9.0-13.2)	13.7 (11.4-16.4)	8.5 (6.0-11.9)
Ever smoked cigarettes	34.7 (28.4-41.7)	33.5 (27.8-39.7)	35.5 (27.9-43.9)	29.2 (26.9-31.6)	32.3 (27.8-37.0)	26.2 (23.7-28.8)	32.4 (28.3-36.9)	40.2 (34.8-45.8)	25.3 (19.7-31.9)
Ever smokers, first smoked cigarettes before age 10	25.0 (20.7-30.0)	27.0 (19.9-35.6)	24.2 (19.4-29.7)	26.4 (22.7-30.5)	31.7 (24.1-40.5)	20.4 (13.6-29.5)	32.0 (26.1-38.5)	33.1 (25.1-42.2)	29.3 (21.8-38.1)
Current cigarette smoker	10.8 (7.1-16.0)	9.2 (5.7-14.3)	11.9 (7.8-17.6)	7.0 (5.6-8.7)	7.6 (5.5-10.4)	6.4 (4.3-9.4)	11.6 (8.9-15.0)	14.3 (10.4-19.3)	9.3 (6.4-13.2)
Current user of other tobacco products	9.0 (6.8-11.7)	10.1 (7.1-14.1)	8.4 (5.9-11.8)	10.3 (7.8-13.4)	11.9 (8.2-16.8)	8.7 (6.8-11.0)	24.2 (21.3-27.3)	30.2 (26.1-34.6)	18.7 (15.6-22.1)
Never smokers, likely to initiate smoking in next year	18.2 (15.2-21.6)	18.4 (13.8-24.0)	18.2 (14.2-23.1)	17.4 (15.3-19.7)	21.6 (17.9-25.8)	13.9 (10.7-18.0)	21.5 (18.0-25.5)	20.4 (15.7-26.0)	22.4 (17.4-28.2)

Table 2: Exposure to Smoke among Students by Sex and Year of Global Youth Tobacco Survey

	1999			2002				2007			
Exposure to Smoke	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)
One or more parents who smoke	21.5 (18.9-24.3)	19.1 (16.9-21.6)	23.0 (19.2-27.3)		21.9 (18.8-25.3)	22.2 (18.4-26.5)	21.6 (18.4-25.1)		25.6 (22.6-28.8)	27.9 (24.0-32.1)	23.5 (19.7-27.8)
All or most best friends smoke	6.7 (4.1-10.6)	7.1 (4.5-11.1)	6.4 (3.4-11.8)		6.8 (5.3-8.6)	7.0 (4.8-10.0)	6.6 (4.4-9.8)		8.4 (6.7-10.6)	9.4 (6.5-13.5)	7.4 (5.8-9.4)
Exposed to smoke in public places	51.3 (47.0-55.5)	52.2 (49.0-55.5)	50.2 (43.0-57.5)		51.3 (48.2-54.4)	48.2 (43.4-53.1)	54.1 (49.5-58.6)		59.6 (56.3-62.7)	59.7 (55.0-64.5)	59.6 (54.5-64.5)
In favour of banning smoking in public places	79.4 (76.4-82.1)	80.6 (78.1-82.8)	78.6 (74.3-82.3)		77.2 (71.6-82.0)	73.2 (65.0-80.1)	81.2 (77.2-84.6)		74.8 (70.3-78.8)	68.7 (63.5-73.4)	80.3 (74.6-85.0)
Live in homes where others smoke	22.5 (17.7-28.2)	20.9 (17.2-25.1)	23.5 (17.0-31.5)		18.4 (11.9-27.4)	14.4 (7.0-27.3)	23.6 (14.6-35.8)		25.9 (23.2-28.9)	25.9 (21.1-31.1)	26.0 (22.2-30.2)
Think smoke from others is harmful to the m	63.7 (59.0-68.0)	61.4 (54.6-67.8)	65.2 (58.9-70.9)		60.0 (57.2-62.7)	56.2 (52.6-59.8)	63.4 (57.6-68.8)		70.1 (66.5-73.5)	63.8 (59.1-68.3)	75.5 (70.7-79.7)

Table 3: Knowledge and Attitudes towards Smoking by Sex and Year of Global Youth Tobacco Survey

	1999			2002				2007			
Knowledge & Attitudes	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)
Think boys who smoke have more frie nds	26.3 (23.2-29.6)	24.5 (19.1-30.8)	27.5 (24.3-31.0)		33.1 (29.2-37.3)	28.4 (26.2-30.7)	37.1 (29.5-45.5)		40.5 (36.7-44.4)	38.3 (33.6-43.2)	42.2 (37.7-46.8)
Think girls who smoke have more friends	15.4 (11.9-19.6)	16.1 (11.7-21.6)	14.6 (10.8-19.5)		16.4 (14.3-18.7)	14.4 (11.5-17.9)	17.9 (14.3-22.2)		22.1 (19.8-24.6)	19.5 (16.3-23.2)	24.5 (21.1-28.1)
Think boys who smoke are more attractive	5.0 (3.9-6.4)	6.5 (4.1-10.0)	3.8 (2.5-5.6)		7.2 (5.8-8.8)	9.3 (6.7-12.8)	5.4 (3.4-8.5)		11.0 (8.7-13.8)	13.3 (9.8-17.8)	8.8 (6.4-12.1)
Think girls who smile are more attractive	3.8 (2.8-5.0)	4.4 (2.9-6.8)	3.2 (2.2-4.6)		5.1 (3.9-6.6)	5.6 (3.8-8.0)	4.4 (3.1-6.4)		7.0 (5.4-9.0)	7.7 (5.5-10.8)	6.5 (4.4-9.4)

<sup>\*</sup> Less than 35 participants

Table 4: Exposure to Media/Advertising among Students by Sex and Year of Global Youth Tobacco Survey

	1999			2002				2007			
Media/ Advertising	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)
During the past month saw any antismoking media messages	77.2 (74.5-79.6)	75.6 (71.6-79.2)	78.1 (74.1-81.7)		77.6 (73.6-81.1)	76.3 (71.7-80.3)	78.8 (74.6-82.4)		64.7 (60.8-68.3)	65.1 (59.7-70.2)	64.0 (58.6-69.0)
During the past month saw any pro cigarette ads on billboards	69.3 (65.2-73.1)	72.2 (67.8-76.3)	67.4 (61.6-72.8)		60.0 (57.2-62.7)	60.2 (54.8-65.3)	59.7 (55.1-64.1)		48.2 (44.7-51.6)	49.5 (44.4-54.6)	46.9 (42.1-51.7)
During the past month saw any advertise-ments or promotions for cigarettes in newspapers or magazines	69.1 (64.7-73.2)	68.1 (62.0-73.7)	69.7 (64.1-74.8)		59.7 (55.8-63.5)	59.1 (53.9-64.2)	60.2 (55.1-65.2)		41.8 (38.7-45.1)	44.0 (39.3-48.8)	39.4 (34.7-44.4)
Have an object with a cigarette logo on it	14.7 (12.5-17.3)	13.4 (10.8-16.5)	15.3 (11.0-20.8)		15.6 (12.8-18.9)	20.3 (15.7-25.8)	11.2 (8.6-14.5)		15.7 (13.2-18.6)	19.4 (15.7-23.8)	12.3 (8.9-16.7)

Table 5: Exposure to Education about the Dangers of Smoking at School by Sex and Year of Global Youth Tobacco Survey

School	1999			2002				2007			
	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)
During this school year, were taught in any classes about the dangers of smoking	32.0 (23.4-42.2)	30.3 (26.3-34.5)	33.2 (20.3-49.3)		41.4 (37.5-45.4)	40.7 (35.2-46.5)	42.0 (36.5-47.6)		33.3 (29.8-37.0)	37.7 (32.2-43.6)	29.3 (25.2-33.7)

Table 6: Cessation among students by Sex and Year of Global Youth Tobacco Survey

	1999		,	2002				2007			
Cessation	Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)		Total % (95% CI)	Boys % (95% CI)	Girls % (95% CI)
Current Smokers who want to stop smoking now	43.4 (27.9-60.3)	*	*		54.8 (31.9-75.8)	*	*		54.7 (39.3-69.3)	52.7 (36.7-68.2)	*
Current Smokers who always feel like having a cigarette first thing in the morning	6.2 (3.2-11.7)	*	4.0 (1.2-12.4)		3.0 (0.4-19.4)	*	*		6.7 (2.3-17.9)	9.0 (2.5-27.1)	*