

# **Grenada – Global Youth Tobacco Survey (GYTS)**

## **Introduction**

Tobacco use is one of the main preventable causes of death resulting from chronic non-communicable diseases (CNCD) in the world. According to the World Health Organization (WHO), tobacco accounts for about four (4) million deaths each year. This figure is expected to increase to 8.4 million deaths a year by 2020 with 70% in developing countries (1).

## **Efforts to address tobacco use**

Initiation of tobacco use, in general, occurs before 18 years of age. However, information on tobacco prevention and control in young people is not readily available. As a result of this worldwide dearth of information, the World Health Organization (WHO) and Centres for Disease Control and Prevention (CDC) started the development of a Global Youth Tobacco Survey (GYTS) in 1998. The GYTS is a global surveillance project of tobacco use among young people in such a way that would allow for cross-country comparisons. The project, the Global Youth Tobacco Survey (GYTS), uses a common methodology and protocol for collecting data on tobacco use among young people aged 13 to 15 across all countries. GYTS was intended to enhance the capacity of countries to monitor tobacco use among youth, and to guide the implementation and evaluation of tobacco prevention and control programmes and policies. Grenada agreed to participate in this global survey.

## **Tobacco use in Grenada**

Non-communicable diseases, such as cancer and cardiovascular disease are the leading cause of death in Grenada. Tobacco use causes more than one-third of all deaths from cancer and heart disease in Latin America and the Caribbean (PAHO, unpublished data, 2001). In Grenada it is difficult to determine the impact of tobacco since there is no existing data on the prevalence of tobacco use in the adult population. Some information on the apparent per capita consumption among persons 15 years and older between 1984 and 1988 seems to indicate little change with consumption moving from 450 to 495 cigarettes per year. Also the morbidity or mortality

attributed to tobacco is not known. One should note, however, that chronic non-communicable diseases, such as cancer and cardiovascular disease are the leading cause of death in Grenada and those deaths due to cancers are increasing. Age at initiation of smoking is an important risk factor in developing cancer. The younger a person is when he or she starts smoking, the greater the risk of developing lung cancer. Risk of lung cancer increases approximately in proportion to the duration of smoking and the amount of tar in cigarettes (3).

## **Objectives**

The objective of this survey is:

- To document and monitor prevalence of tobacco use including cigarettes smoking, and current use of smokeless tobacco, cigars or pipes.
- To better understand and assess students' attitude, knowledge and behaviour related to tobacco use and its health impact, including: cessation, environmental tobacco smoke (ETS), media and advertising, minors access and school curriculum.

The GYTS will attempt to address the following issues:

- Determine the level of tobacco use
- Estimate age of initiation of cigarette use
- Estimate levels of susceptibility to become cigarette smokers
- Exposure to tobacco advertising
- Attitude and beliefs regarding tobacco use
- The existence of prevention programmes in schools and students' opinion regarding such interventions.

## METHODS

### *Sampling*

The Global Youth Tobacco Survey is a school-based survey. It utilized a two-stage cluster sample design to select a nationally representative sample of students aged 13 to 15 years. A review of the ages of students in the different grades and forms was conducted to find out which classes corresponded to the population targeted, the number of classes and the size of each class. It was discovered that 13 to 15 year olds were in grades 6, 7 and 8 in the primary schools and in forms 1 to 4 in the secondary schools. There were therefore two sampling frames one for the primary schools and one for the secondary schools.

All primary schools containing grades 6, 7 and 8 were included and a two-stage sample design was used to produce a representative sample of grades 6, 7 and 8. The first stage sampling consisted of selecting schools with probability proportional to their enrolment size. The second sampling stage comprised the random selection of classes from the schools selected in the first stage. All students in a selected class were eligible to participate in the survey. A similar procedure was conducted among those secondary schools with forms 1 to 4 and a representative sample of forms 1 to 4 selected. All students in selected classes in both primary and secondary schools were eligible to participate in the survey. A weighting system was utilized to reduce bias resulting from different patterns of non-response.

### *Questionnaire development*

The questionnaire consisted of 70 questions: 52 questions from the Global Youth Tobacco Survey and 18 additional questions formulated locally to take into account local cultural norms. The questionnaire was pre-tested and adjusted as necessary.

### **Data Collection**

To facilitate the process of data collection a meeting was held with the Permanent Secretary, Ministry of Education (MOE) to inform him of the GYTS, to gain entrance into the schools, seek their endorsement and support and to have a liaison in the MOE. The Drug Avoidance Officer was assigned to perform that

role. This meeting facilitated the participation of MOE staff. The first task was to obtain school data from the statistics department. Letters were then sent to the principals of the all schools informing them of the GYTS and inviting them to participate and inquiring about enrolment data. All schools agreed to participate. The school data was sent to CDC who provided technical support in the selection of the sample. The schools were then contacted informing them of the classes selected and the date for which the exercise was planned. Copies of parents' notification were sent to each principal for distribution to the parents of students in the classes selected.

A one-day training workshop was conducted with the survey administrators. The questionnaire was discussed and questions clarified.

The survey procedure used aimed at protecting the privacy of students by allowing voluntary and anonymous participation. The questionnaires were self-administered in a classroom setting between June and July 2000. Persons conducting the questionnaire were mainly health personnel and included Nurses, Environmental Health Officers, Health Promotion Officers and persons from the Epidemiology Unit. Personnel from the Drug Avoidance Unit also participated.

## Data Analysis

Technical support in sampling and data analysis was provided by Centers for Disease Control and Prevention. Data analysis was done with Epi Info and SUDAAN.

## RESULTS

### Response rate

The school response rate was 92.5%, comprising all 15 of the secondary schools and 22 of the 25 primary schools. The students' response rate was 79.2%, 1376 from a total of 1858 sampled from the primary schools and 2052 from a total of 2470 from the secondary schools. The overall response rate was 73.3% with the primary schools contributing 65.17% and the secondary schools 83.08%. A total of 3428 students completed questionnaires. See Table 1.

**Table 1. Response rates**

	Secondary			Primary			Combined total		
	# Sampled	# participated	Response rate	# sampled	# participated	Response rate	# sampled	# participated	Response rate
Schools	15	15	100%	25	22	88%	40	37	92.5%
Students	2470	2052	83.08%	1858	1376	74.6%	4328	3428	79.2%
Overall			83.08%			65.17%			73.3%

### Demographics

The demographic data collected was limited to age, sex and grade or form. 1770 respondents were girls and 1342 boys. The participants ranged from 11 and under years to 17 and over. Class level went from grade 6 in the primary schools to form 4 in the secondary schools. Form 2 had the most students in the age group targeted (Tables 2a and 2b).

**Table 2a: Age by Sex**

Age	Male	Female	Unknown	Total	Weighted age dis.
< 11	123	204	39	366	11.6%
12	231	299	59	589	18.0%
13	306	370	24	700	21.5%
14	239	332	22	593	18.1%
15	199	296	19	514	14.9%
16	142	163	17	322	9.9%
17	102	106	9	217	6.0%
unknown			127	127	
Total	1342	1770	316	3428	

**Table 2b: Age by Grade**

Age	Grade 6	Grade 7	Grade 8	Form 1	Form 2	Form 3	Form 4	unknown	Total
≤ 11	253	22	23	14	8	10	7		366
12	223	176	15	120	12	6	9		589
13	81	204	34	179	182	5	2		700
14	22	56	81	128	151	133	12		593
15	8	19	79	13	134	142	107		514
16	9	4	33	0	27	134	104		322
17	8	1	5	3	10	43	142		217
unknown								127	127
Total	604	482	270	457	524	473	383	127	3428

## Prevalence

Almost 28% of students reported having experimented with cigarette smoking. This comprised 34% males and 20.9% females. In general there is an increasing trend in experimentation as class level increased (Table 3a). Another type of tobacco product used is hemp. Sixteen percent indicated that they have used it with males (21.3%) twice as likely to have used it as compared to females (10%). Hemp use in grade 8 is higher than average (Table 3a).

Table 3b reveals that current use of any tobacco product is 16.4%. Almost 9% reported using cigarettes currently while 11% reported using other tobacco products. Less than 1% reported smoking cigarettes frequently.

**Table 3a: Percent of students who use tobacco**

Category	Ever Smoked Cigarettes, Even One or Two puffs ESMOKER	Ever Smoked hemp	Ever Smokers Initiating Smoking cigarettes before age 10
Total	27.8 ± 2.8	16.0 ± 2.1	33.9 ± 4.7
Sex			
Male	34.0 ± 4.1	21.3 ± 3.6	34.0
Female	20.9 ± 3.3	10.3 ± 1.7	31.5
Class			
Grade 6	19.1 ± 4.7	17.4 ± 3.7	48.7 ± 15.5
Grade 7	24.8 ± 7.2	14.4 ± 2.7	26.9 ± 8.5
Grade 8	34.9 ± 8.8	25.2 ± 8.0	32.5 ± 10.9
Form 1	23.5 ± 7.4	11.8 ± 3.7	28.9 ± 12.4
Form 2	22.3 ± 4.7	9.9 ± 3.1	38.5 ± 5.6
Form 3	33.8 ± 5.9	15.6 ± 4.5	27.0 ± 6.4
Form 4	42.4 ± 6.4	19.5 ± 5.0	32.9 ± 4.4

**Table 3b: Percent of students who currently use tobacco**

Category	Current Use			
	Any Tobacco product CTOB	Cigarettes CSMOKER	Other Tobacco products OTOB	Frequent Cigarette Smoking FSMOKER
Total	16.4 ± 1.8	8.6 ± 1.3	10.8 ± 2.8	0.7 ± 0.5
Sex				
Male	17.9 ± 2.3	9.7 ± 2.2	11.4 ± 2.1	0.4 ± 0.5
Female	13.8 ± 2.1	6.8 ± 1.7	9.3 ± 1.7	0.6 ± 0.6
Class				
Grade 6	14.6 ± 3.8	5.5 ± 2.7	11.5 ± 3.0	0.4 ± 0.4
Grade 7	19.7 ± 3.8	14.0 ± 3.2	10.4 ± 3.7	0.6 ± 0.7
Grade 8	24.0 ± 8.9	13.0 ± 7.0	17.6 ± 7.3	0.6 ± 0.9
Form 1	14.3 ± 2.8	8.1 ± 2.8	7.7 ± 3.6	0.4 ± 0.8
Form 2	12.1 ± 3.4	5.7 ± 1.8	8.4 ± 3.3	0.7 ± 1.0
Form 3	16.7 ± 3.8	7.3 ± 3.5	12.2 ± 3.1	1.6 ± 1.9
Form 4	16.1 ± 3.5	8.5 ± 3.4	10.0 ± 2.2	0.4 ± 0.7

## Knowledge and Attitude

In Table 4a it is seen that about 30% of females who don't smoke and 35% of those who do, think that males who smoke have more friends. This opinion is shared by 25% of males who don't smoke and 24% of those who do. According to Table 4b, 10% of males and 6% of females who don't smoke think that smoking makes boys look more attractive while among those who smoke 13% of males and 22% females think the same. The table also indicates that among those who don't smoke 9% of males and 5% of females hold the view that girls who smoke are more attractive. Ten percent of current male smokers and 19% of current female smokers agree.

**Table 4a: Knowledge and Attitudes**

Category	Think boys who smoke have more friends		Think girls who smoke have more friends	
	Never Smokers	Current Smokers	Never Smokers	Current Smokers
Total	27.7 ± 3.1	28.1 ± 6.1	17.7 ± 2.8	18.5 ± 5.3
Sex				
Male	25.2 ± 4.6	23.5 ± 8.4	16.9 ± 4.1	14.7 ± 6.1
Female	29.7 ± 3.6	34.5 ± 7.5	18.5 ± 3.0	19.7 ± 9.0
Class				
Grade 6	32.2 ± 10.2	*	20.3 ± 7.5	*
Grade 7	24.8 ± 6.9	19.7 ± 14.1	21.4 ± 6.2	12.9 ± 10.2
Grade 8	34.0 ± 8.9	*	25.9 ± 10.7	*
Form 1	26.1 ± 6.7	*	17.3 ± 4.3	23.1 ± 15.0
Form 2	25.6 ± 7.5	*	14.5 ± 4.6	*
Form 3	29.2 ± 6.2	*	17.6 ± 5.4	24.4 ± 12.2
Form 4	21.1 ± 6.1	*	6.4 ± 4.2	*

**Table 4b: Knowledge and Attitudes**

Category	Think smoking makes boys look more attractive		Think smoking makes girls more attractive	
	Never Smokers CORE24A	Current Smokers CORE24B	Never Smokers CORE25A	Current Smokers CORE25B
Total	7.8 ± 1.5	17.4 ± 5.5	6.9 ± 1.0	14.6 ± 4.6
Sex				
Male	10.2 ± 2.9	12.5 ± 6.6	8.6 ± 2.2	9.8 ± 4.8
Female	5.8 ± 1.6	21.7 ± 9.6	5.1 ± 1.3	19.2 ± 9.3
Class				
Grade 6	13.5 ± 4.2	*	12.8 ± 2.5	*
Grade 7	10.1 ± 3.5	26.6 ± 15.3	10.0 ± 4.0	18.7 ± 8.7
Grade 8	14.2 ± 7.5	*	10.6 ± 4.6	*
Form 1	4.3 ± 2.2	16.7 ± 12.6	4.6 ± 2.5	25.4 ± 15.2
Form 2	3.9 ± 1.5	*	3.5 ± 1.3	*
Form 3	4.3 ± 2.3	14.5 ± 17.3	2.2 ± 1.7	*
Form 4	1.3 ± 1.3	*	0.9 ± 1.0	*

### Access and availability

Table 5 shows that, among current smokers, 32% and 49% of male and female students respectively usually smoke at home. Five percent of males and 7% of females usually smoke at school, while 17.3% of males and 17.7% of females reported smoking at a friend's house. Five percent of both males and females engage in this activity at social events. For 13% of males and 24.6% of females, the usual occasion is while drinking alcohol.

18.2% bought cigarettes in a store. More than half of current smokers who bought their cigarettes from the store were not refused because to their age (see Table 5b).

**Table 5a: Access and availability**

Category	Percent Current Smokers who usually Smoke at Home	Percent Current Smokers who usually Smoke at school	Percent Current Smokers who usually Smoke at a friend's house	Percent Current Smokers who usually Smoke at social events	Percent Current Smokers who are more likely to smoke when they use alcohol
Total	40.2 ± 8.3	6.9 ± 4.5	17.5 ± 5.9	5.0 ± 2.7	18.8 ± 7.7
Sex					
Male	32.0 ± 8.9	5.2 ± 6.2	17.3 ± 8.5	5.3 ± 4.0	13.1 ± 9.7
Female	49.1 ± 12.0	7.4 ± 6.4	17.7 ± 7.8	5.2 ± 3.8	24.6 ± 12.6

**Table 5b: Access and availability**

Category	Percent Current Smokers who Purchased Cigarettes in a Store	Percent Current Smokers Who Brought Cigarettes in a Store Who Were Not Refused Because of Their Age
Total	18.2 ± 4.7	58.4 ± 11.0
Sex		
Male	15.6 ± 7.4	52.4 ± 13.4
Female	20.2 ± 8.6	69.2 ± 14.7

### Environmental tobacco smoke

Twenty three percent non-smokers and almost 60% current smokers are exposed to environmental tobacco smoke (ETS) in their homes. 67.8% of “never smokers” report that their parents don’t smoke compared with 41.9% of current smokers whose parents don’t smoke. 48% non-smokers and 77% current smokers are exposed to ETS in public places (Table 6a). 74% non-smokers and 61% smokers think that smoking should be banned from public places. 79% never smokers and 68% smokers think that passive smoking is harmful to their health.

**Table 6a: Exposure to Environmental Tobacco Smoke**

Category	Exposed to smoke from others in their home		Exposed to smoke from others in public places	
	Never Smokers CORE33A	Current Smokers CORE33B	Never Smokers CORE34A	Current Smokers CORE34B
Total	23.2 ± 1.6	59.8 ± 6.6	48.4 ± 2.4	77.4 ± 7.8
Sex				
Male	25.0 ± 3.0	58.4 ± 11.2	45.7 ± 3.4	75.4 ± 9.0
Female	21.4 ± 2.2	58.3 ± 10.4	50.0 ± 3.4	79.8 ± 7.5
Grade 7	26.6 ± 5.6	71.1 ± 13.8	42.9 ± 4.4	85.7 ± 13.8
Grade 7	27.6 ± 5.5	72.7 ± 12.7	42.6 ± 4.7	77.5 ± 13.6
Grade 8	27.5 ± 3.8	44.9 ± 22.0	41.9 ± 8.1	58.2 ± 24.4
Form 1	20.1 ± 2.6	59.2 ± 18.6	48.7 ± 5.3	80.2 ± 15.8
Form 2	20.5 ± 3.5	50.1 ± 21.5	50.6 ± 5.7	61.4 ± 19.6
Form3	20.1 ± 3.9	51.0 ± 13.9	60.0 ± 3.4	83.0 ± 7.9
Form 4	18.5 ± 3.2	51.6 ± 23.5	56.2 ± 5.3	88.8 ± 10.6

**Table 6b: Attitude towards Environmental Tobacco Smoke**

Category	Percent think smoking should be banned from public places		Definitely think smoke form others is harmful to them	
	Never Smokers CORE35A	Current Smokers CORE35B	Never Smokers CORE27A	Current Smokers CORE27B
Total	73.7 ± 2.5	61.2 ± 6.9	78.7 ± 3.2	67.6 ± 6.8
Sex				
Male	70.1 ± 5.0	59.8 ± 9.0	73.4 ± 5.4	66.5 ± 10.9
Female	76.5 ± 2.9	60.1 ± 9.4	82.9 ± 3.2	67.3 ± 9.0
Class				
Grade 6	63.3 ± 7.1	51.9 ± 24.3	71.4 ± 8.7	47.8 ± 18.4
Grade 7	57.8 ± 9.9	60.0 ± 11.7	66.0 ± 5.5	56.9 ± 18.3
Grade 8	45.4 ± 10.4	50.9 ± 13.1	42.8 ± 11.8	58.8 ± 21.9
Form 1	81.9 ± 4.3	68.4 ± 15.2	84.9 ± 4.7	87.6 ± 10.3
Form 2	85.2 ± 3.7	71.3 ± 22.9	90.8 ± 2.6	67.6 ± 9.8
Form 3	88.7 ± 4.9	61.9 ± 15.4	93.1 ± 3.5	66.5 ± 17.6
Form 4	89.3 ± 5.9	69.5 ± 19.5	94.8 ± 2.9	81.9 ± 17.2

## Cessation

Seventy-two percent (72%) of those who smoke (80% males and 62% females) expressed that they would like to quit smoking. 72% males and 70% females tried to stop smoking as seen in table 7.

**Table 7: Cessation**

Category	Current Smokers	
	Percent desire to stop CORE36A	Percent tired to stop this year CORE37A
Total	72.1 ± 9.1	69.8 ± 7.9
Sex		
Male	80.3 ± 13.2	72.1 ± 9.5
Female	63.2 ± 14.8	70.2 ± 10.2
Grade 6	52.3 ± 18.3	62.1 ± 32.1
Grade 7	90.6 ± 8.7	73.6 ± 17.9
Grade 8	77.3 ± 30.4	79.4 ± 23.1
Form 1	85.4 ± 22.4	79.5 ± 16.4
Form 2	62.2 ± 32.6	66.3 ± 9.5
Form 3	38.5 ± 22.9	56.1 ± 21.5
Form 4	79.8 ± 19.4	78.2 ± 19.0

## Media Advertising

According to table 8, about 73% saw anti-smoking media messages. Pro-tobacco messages in newspapers and magazines were seen by 54% non-smokers and 68% smokers. Twelve and 30% of non-smokers and current smokers respectively have an object with a cigarette brand logo on it and 9% non-smokers and 28% smokers were offered free cigarettes.

**Table 8: Media and advertising**

Category	Percent Saw Anti-Smoking Media Messages 100-CORE42CC	Percent Saw Pro-Tobacco Messages in Newspapers and Magazines		Percent Who Had Object With a Cigarette Brand Logo On it		Percent Offered "Free" Cigarettes by a Tobacco Company	
		Never Smokers 100-CORE48A	Current Smokers 100-CORE48B	Never Smokers CORE45A	Current Smokers CORE45B	Never Smokers CORE50A	Current Smokers CORE50B
Total	72.8 ± 1.9	53.9 ± 2.0	67.6 ± 7.0	12.3 ± 1.4	29.7 ± 8.5	9.4 ± 1.4	27.9 ± 6.7
Sex							
Male	70.1 ± 3.1	55.5 ± 3.3	64.4 ± 7.4	16.0 ± 2.2	31.2 ± 12.2	13.9 ± 3.1	28.0 ± 9.6
Female	75.5 ± 2.6	52.2 ± 3.1	69.6 ± 11.1	9.0 ± 1.8	28.6 ± 10.3	5.8 ± 1.2	26.6 ± 10.9
Grade 6	62.4 ± 6.3	57.9 ± 4.8	*	10.8 ± 3.2	*	9.8 ± 4.1	*
Grade 7	60.9 ± 6.6	53.7 ± 7.4	75.6 ± 12.2	13.2 ± 3.8	37.3 ± 11.9	11.4 ± 3.4	33.3 ± 21.9
Grade 8	62.1 ± 6.0	59.9 ± 9.3	*	12.5 ± 5.3	*	12.7 ± 6.6	*
Form 1	75.4 ± 4.5	51.9 ± 5.3	*	9.7 ± 2.7	17.2 ± 18.8	6.5 ± 1.6	24.0 ± 14.3
Form 2	78.0 ± 4.4	49.6 ± 5.9	*	14.2 ± 3.8	*	8.5 ± 2.2	*
Form 3	87.1 ± 4.2	52.3 ± 6.5	71.4 ± 16.6	12.9 ± 4.1	35.5 ± 12.0	9.2 ± 3.8	*
Form 4	84.5 ± 3.6	55.1 ± 5.2	*	11.4 ± 3.2	*	6.5 ± 2.3	*

## School Curriculum

Table 9 shows that 50.9% of students reported being taught the dangers of smoking while 37% discussed in their class the reasons why people smoke.

**Table 9: School Curriculum**

Category	Percent taught dangers of smoking CORE51A	Percent discussed why people their age smoke CORE52A
Total	50.9 ± 3.2	36.5 ± 3.0
Sex		
Male	52.8 ± 4.6	36.3 ± 4.4
Female	50.1 ± 4.3	36.2 ± 4.1
Grade 6	52.6 ± 10.3	39.8 ± 11.5
Grade 7	52.9 ± 3.7	35.4 ± 5.3
Grade 8	48.5 ± 7.7	42.6 ± 6.8
Form 1	41.3 ± 6.9	27.8 ± 7.5
Form 2	55.8 ± 10.6	37.0 ± 7.0
Form 3	53.9 ± 10.0	39.0 ± 7.9
Form 4	51.9 ± 5.7	35.9 ± 5.8

## **DISCUSSION**

### **Prevalence**

Tobacco use among youths is decreasing in the developed countries due to increased pressure against big tobacco companies. However it is increasing in developing countries with deadly results. In order therefore to prepare for any increased attack by tobacco companies to entice more persons into using tobacco, one should know the current situation. One of the goals of this survey was to find out not only the number of persons who have tried at least one puff of cigarette in the past but also how many current smokers there are, and among those, the number who are addicted. To the question “Have you ever smoked cigarettes in the past even if it was only one or two puffs?” 34.4% males and 20.9% females indicated that they have. In determining current usage (which is defined as having smoked in the last 30 days) an affirmative response was reduced by about 2/3. Thus there seems to be a fair amount of experimentation with cigarettes. However boys are definitely more likely to try smoking than girls. The degree of experimentation increases with grade or form. Current use of other tobacco products (11%) is slightly greater than that of smoking cigarettes (9%). Further studies may be needed to elucidate the other tobacco products that are being used. Table 3a shows that one of the other types of tobacco used is hemp. Among those who use hemp there is also a significant difference between the number of males and females. The proportion of frequent smokers is very small (0.4 and 0.6% for males and females respectively). However the problem should not be ignored because eleven percent of those who never smoked seem to be susceptible to do so in the future. It should also be noted that one third of students were exposed to cigarettes before age 10. Early initiation could result in longer exposure and possible greater number and severity of complications.

### **Access**

Most students who smoke do so at home (Table 4). Also current smokers are more likely to do so when drinking alcohol or using another drug. A friend’s house is also a usual place to smoke. At social events and at school are among the least popular places or times to smoke.

Only 18% said that they bought their cigarettes from a store. Cigarettes are sold everywhere, by the packets in supermarkets or large shops and by the packets or singles in small shops and from individuals. Whereas 58% said that they were not refused because of their age, there are no laws prohibiting the sale of cigarettes to anyone. In fact parents and other adults usually send children to purchase their cigarettes or tobacco.

### **Knowledge and Attitudes**

A similar percentage (28%) of both nonsmokers and current smokers think that boys who smoke have more friends. The proportion of those who think that girls who smoke have more friends is also similar for smokers and nonsmokers (18.5 and 17.7 respectively). While there is no difference of opinion between smokers and nonsmokers regarding the number of friends that boys or girls who smoke have, it should be noted that more persons think that boys who smoke have more friends than girls who smoke. This may indicate that it is more culturally acceptable for boys to smoke than for girls.

With regards to the notion that smoking makes boys or girls more attractive, there is a significant difference of opinion between the smokers and the nonsmokers. This notion is more popular among current smokers than those who don't smoke. The difference is more pronounced regarding boys.

### **Attitude towards quitting**

Although the proportion of students who smoke is not very large, it should be noted, however, that 72% would like to stop smoking. In fact 70% have tried to stop. Those responsible for tobacco control in schools should pay attention to this fact and should consider a cessation program for students.

### **Environmental Tobacco Smoke**

Exposure to tobacco smoke at home may be an important influencing factor in determining initiation of smoking among students. Sixty percent of current smokers are exposed to tobacco smoke at home while only 23% of never smokers are exposed at home (Table 8). There is therefore a significant difference between never smokers and current smokers regarding the

proportion of persons exposed at home. There is however increased exposure in public places when compared to that at home. It is noticed that twice as many never smokers are exposed in public places when compared to the home 48.4% and 23.2% respectively. More current smokers are exposed in public places also.

In Table 9 both never smoker and current smokers think that smoking is harmful to health and should be banned from public places. There is still a significant difference in the strength of their opinions with never smokers being more forceful in both cases. Some may express the view that their bodies belong to them and they can do what they please with regards to their bodies. However they should also realize that their freedom should not violate someone else right to breathe clean air that is not contaminated by tobacco smoke.

### **Media and advertising**

Media and advertising plays an important role in influencing behaviour in general. Although a large proportion of students are exposed to anti-tobacco messages exposure to pro-tobacco influence is still relatively high. It is difficult to control pro-tobacco messages in newspapers and magazines that are brought into the country, however anti-tobacco media messages although fairly high can be increased further.

### **School Curriculum**

Since smoking initiation generally occurs before 18 years every effort must be made to ensure that everyone is aware of the dangers of smoking. The classroom seems to be a very good place to impart such information. The survey shows that only half of the students are taught the dangers of tobacco use.

### **Limitations**

The student response rate especially for the primary schools was lower than expected. This was due partly to the existing situation when the survey was conducted. Industrial unrest among teachers led to the discontinuation of classes for some time resulting in the conduction of the survey during end of term examination. We therefore had to fit into the already planned exam schedule. Absenteeism was high. Students who did not have exams on a particular day or time

were absent and therefore did not participate in the survey. Survey administrators, being full time employees, could not always easily fit into the available schedule. The classroom setting allowed some degree of communication among students. Not all questions were answered in some cases. Unknown sex and or age represented 9.2% of participants. The number of current smokers was relatively small resulting in the analysis not always being sufficiently powerful.

## **Conclusions and Recommendations**

Twenty-eight percent of students have experimented with cigarettes. Of the 16% who currently uses some form of tobacco, 9% smoke cigarettes while 11% use other tobacco products. Presently tobacco products are easily accessible. They are sold in shops and supermarkets and even singly anywhere in the country. There are no laws preventing children from purchasing tobacco products. In fact, parents sometime send their children to purchase tobacco products for them. Therefore, as an initial step, laws should be put in place to prevent easy access of tobacco products to children by restricting the sale of tobacco to specific tobacco shops with a license. Also children should be prevented from purchasing tobacco products or from even going into places licensed to sell tobacco products.

Although not a very large proportion, some students think that someone who smokes looks more attractive and definitely has more friends. Since 11% of those who never smoked are likely to do so within the next year, health personnel and anti-tobacco activists should employ strategies to counter this perception and so reduce the number of persons who would be tempted to experiment with cigarettes.

Environmental tobacco smoke (ETS) exposure is relatively high. Thirty percent of respondents have at least one parent who smokes and are therefore exposed to ETS at home. More than 50% are exposed to ETS in public places. Cabinet has given the Ministry of Health the authority to put up no smoking signs at government buildings, but there are currently no laws prohibiting smoking in public places. Seventy percent of students think that exposure to ETS is harmful to their health and that smoking should be banned from public places. Legislation is definitely needed to prevent non-smokers from being exposed to the cancerous and irritating chemicals found in cigarette smoke.