

REPORT

GLOBAL YOUTH TOBACCO SURVEY

Prepared by:

Environmental Health Unit
P/ Bag 00269
Gaborone
TEL: 3975351 FAX: 3974354
E-mail: tmaule@gov.bw

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INTRODUCTION

Tobacco use is one of the chief preventable causes of death in the world. The World Health Organization (WHO) attributes some 4 million deaths a year to tobacco, a figure that is expected to rise to 8.4 million deaths a year by 2020 (Internal Journal of Public Health, 2000). By that time 70 % of these deaths will be occurring in developing countries and Botswana is not an exception.

Botswana is a landlocked country lying within the center of the Southern African Plateau. The country has an area of about 582, 000 square kilometers, but two thirds of it lies in the Kgalagadi desert, in the western part. Botswana has a population of approximately 1.7 million (2001 census). It is not a tobacco producing country but rather a consumer of a variety of tobacco products. There is currently no specific data that links the types of the diseases and mortality to use of tobacco. There is also lack of data on consumption rates of tobacco products by various groups and population categories.

To help fulfill this data gap in Botswana and other developing countries WHO through Tobacco Free Initiative (TFI) and the Office on Smoking and Health (OSH) in the Centers for Disease Control and Prevention (CDC) in the USA developed the Global Youth Tobacco Survey in the six WHO regions. Assessing tobacco use by youth through GYTS forms an important part of the global tobacco surveillance system.

The third phase will involve **taking the project to scale:** producing and disseminating resources; strengthening regional capacity to sustain activities; integrating the products and the results of the project into the on going tobacco control work at the national, regional and global levels; transferring technology experience between countries and regions; and strengthening cooperation and collaboration at all levels.

OBJECTIVES OF GYTS

The objective of this survey is two Fold:

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

BACKGROUND

Between 1970 and 1995, WHO adopted 14 resolutions on the need for both national and international tobacco control policies. Four of the 14 resolutions are relevant to the United Nations Foundation for International Partnership (UNFPI) – project – GYTS.

Member states were encouraged to implement comprehensive tobacco control strategies that contain the following:

- Measures to ensure that Non –smokers receive effective protection, to which they are entitled, from involuntary exposure to tobacco smoke.
- Measures to promote abstention from the use of tobacco so as to protect children and young people from becoming addicted.
- The establishment of programs of education and public information on tobacco and health issues, including smoking cessation programs, with active involvement of the health professionals and the media.
- Monitoring of trends in smoking and other forms of tobacco use, tobacco –related disease and effectiveness of national smoking control action.

World Health Organization (WHO) and Center for Disease Control (CDC) developed the Global Youth Tobacco Survey (GYTS) to track tobacco use among youth across countries using a common methodology and core questionnaire. The GYTS surveillance system is intended to enhance the capacity of countries to design, implement, and evaluate tobacco control and prevention programs.

The project is conceived as dynamic and interactive process, where by the activities and products of each phase will be used to inform and guide subsequent activities. The project will consist of three distinct, but overlapping phases. The first phase will focus on hastening the evidence for action: Synthesizing the existing evidence from countries, some of which may participate in subsequent phases, Undertaking new areas of research to support actions; and establishing the research –based evidence for developing future actions.

The second phase will be the activating phase. Country Activating Groups (CAGs), with broad membership, will be formed in each of the participating countries as the coordinating and implementing mechanism at the country level to select and develop the components of a comprehensive country based approach to addressing tobacco use among children and young people. Opportunities to promote the exchange of experiences and issues between countries and global activities will be developed and strengthened.

RATIONALE FOR IMPLEMENTING GYTS IN BOTSWANA.

Botswana is not a tobacco producing country but rather a consumer of a variety of products. It is widely known that tobacco is the most important preventable cause of premature death in many countries. Cigarette smoking is responsible for heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease.

In this country there is no specific data that links the types of the diseases and mortality to use of tobacco. There is also lack of data as to the extent of consumption of tobacco products by various groups and population categories. Global Youth Tobacco Survey, which is school –based, will try to address a student’s population aged between 13 –15 years old. A brief rationale is given for each of the sections included in the GYTS. The rationale is a summary of the importance of collecting data for the content areas, not an item –by- item justification.

Prevalence

Botswana, like many other countries, is not immune to younger people beginning to smoke at a younger age, with the median age of initiation under 15. Despite having laws prohibiting the sale of tobacco products to children under the age of 16, it is evident that children under 16 continue to purchase the products from almost any type of retail establishment all over the country. Starting to smoke at a younger age will increase the risk of death from smoking related causes, and lowers the age at which death is likely to occur. Young people who start smoking in their adolescent years will therefore die from the use of tobacco. The questions in this section will measure smoking experimentation, current smoking patterns, age of initiation, and other tobacco use. Data will be collected on cigarette smoking and use of other tobacco products.

School Curriculum

Schools are an ideal setting in which to provide tobacco use prevention education. School –based tobacco prevention education programs that focus on skills training have proven effective in reducing the onset of smoking. These programs should enable and encourage children and adolescents who have not experimented with tobacco to continue to abstain from any use. For young persons who have experimented with tobacco use, or who are regular tobacco users, School Tobacco Prevention Education Programs may enable them to immediately stop all use. Although there are school health programs in many schools in the country non of them covers tobacco use adequately nor make it a major subject. This section of GYTS will therefore measure student perception of tobacco use prevention and education.

Cessation

Many smokers, including youth, are addicted to nicotine and need assistance in quitting. To comprehensively address tobacco use among youth, the focus must be on both prevention and cessation. As a result of the country and the Ministry of Health’s efforts to assist members of the public, including the youth to quit smoking / tobacco use, there has been an increased demand for cessation programs to be put in place, especially for the youth. This section of the GYTS will attempt to measure cessation among youth.

Environmental Tobacco Smoke (ETS)

As the theme for 2001 World No Tobacco focused on “Second Hand Smoke Kills” to protect families and friends it is of paramount importance to measure exposure to environmental tobacco smoke (ETS), especially to the youth.

Knowledge and Attitudes

Increases in positive attitudes towards tobacco use and decreased agreement with statements about the risks of tobacco use have been related to increases in youth tobacco rates. Questions regarding susceptibility predict the risk of future smoking experimentation, as do those about the number of friends who smoke, attitudes and knowledge about tobacco. Parental involvement, attitudes toward the social benefits of smoking, knowledge and attitudes toward risks of tobacco use, and potential peer pressure to use tobacco are concepts also specifically addressed.

Media and Advertising

Even though the Control of Smoking Act of 1992 prohibits tobacco advertising there are still limitations because of media materials originating from outside the country in the form of magazines and television films. This survey was attempting to measure the exposure of young people to both pro- and anti- tobacco use messages in the mass media.

METHODS

The 2002 Botswana GYTS was a school- based survey, which employed a two-stage cluster sample design to produce nationally representative sample of students in Form 1 – 3 classes.

Sample description

The sampling frame consisted of all 247 Secondary Schools in Botswana, government or private which was sent to the Center for Disease Control for sampling and only fifty- (50) schools were selected from the junior community Secondary schools (Form 1-3) where most of the 13-15 year olds were found. The schools were selected with promotional proportional to enrollment size (PPE). That meant that large schools were more likely to be selected than small schools. The number of schools to select was dependent on both statistical and practical considerations. The second stage was selection of classes on which in each selected school, the number of classes in Forms 1, 2, and 3 and their respective enrollments were listed, and from this list, classes were randomly selected (based on the random start provided by OSH/CDC on the School –Level Form). All students were eligible for the participation in the survey.

The Questionnaire

A committee of relevant stakeholders was constituted to provide assistance and guidance to study. These included the selection of the final questionnaire, selection and training of survey administrator’s e.t.c. Committee members included Health Research Unit, Family Health Division, World Health Organization, UNICEF, Botswana Youth Council, Cancer Association of Botswana, Department of Youth and Culture, the Ministry of Education

(Curriculum Department & Secondary Education –Research Unit) etc. The questionnaire was pre- tested in three schools in Gaborone, Metsimotlhabe and Otse, before it was administered to the schools

Data Collection

The research proposal and letter of permission to carry out the survey were sent to the selected schools to prepare them for the survey. Headmasters were briefed on the objectives of the survey and how it will be administered. Survey procedures were designed to protect the students' privacy by allowing for anonymous and voluntary participation.

Instructions were provided to the Survey Administrators for procedures to be followed prior to, during and after the survey in the classroom. Before the start of the survey a script of instructions for students was read. Each of the ten Survey Administrators was assigned to five schools and each had the responsibility to collect the enrolment data of all the classes in Forms I, II, and III in each school and transmit such information. The administration of the questionnaire, documentation of the class and school participation, and the security of the Answer Sheets were the assigned responsibility of the Survey Administrators.

Two forms were provided for each selected school – the School –Level Form and the Class-room Level Form. The two forms indicated the necessary identification and were the primary data management. The School-Level Form contained the Coordinating Agency, the School name, the sample size, and the School ID (this was supplied by the OSH/CDC). The classes taught and the classes surveyed in the school, as well as the total number of eligible classes, which were filled in by the Survey Administrator. A list of random numbers was supplied by OSH/CDC and appeared just above the Class Tracking information. The Survey Administrator was expected to fill in the Class Tracking information. This contained a grid that was used to catalogue the completion status of each selected class.

The Classroom Level Form also showed the Coordination Agency (Ministry of Health, Botswana), the School name, the sample, the School ID and the Class ID. This information was previously entered by the OSH/CDC. Only one copy of the Classroom Level Form was provided by OSH/CDC. Additional copies were provided by Ministry of Health and each class participating in the selected school was given one. The Survey Administrator entered the number of students who were enrolled in the classes and the number of students who actually participated in the survey. All students in the selected classes were eligible for participation. The Answer Sheet and the Header Sheet were also provided by OSH/CDC. One Answer Sheet was given to each student. Students were not required to write their names on the Answer Sheet, or provide any other kind of identifying information. A Header Sheet was completed for each participating class in each school and showed the School ID (from the School Level Form) and the Class ID (From the Classroom Level Form).

Data was collected in May 13 –24th 2002. The Research Coordinator undertook the responsibility of the final editing and package of the Answer Sheets, the Header Sheets, the Classroom-Level Forms, and the School Level Forms. The answer sheets were checked and enrolment data was reconciled with the number of questionnaires. They were then couriered to the Center for Disease Control, USA, where the data was analyzed.

ANALYSIS

In analysis a weighing factor was applied to each student record to adjust for non-response and the varying probabilities selection. The programs SUDAAN and Epi -info were used to compute rates and 95% confidence intervals for the estimates. A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and reduce bias by compensating for differing patterns of non-response. The weight used for estimation is given:

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

W1= the inverse of 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-level non response- adjustment factor calculated for each school.

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

F4= a post stratification adjustment factor calculated factor by class.

RESULTS

A total of forty- eight (48) schools of the fifty- (50) sampled schools participated in the survey. Out of 2009 sampled students, 1920 responded to the questionnaire. The National School Response rate was 96% and the Student Response Rate was 95.6% while the Overall Response Rate was 91%. The survey was done Nationally therefore the results depict the National response of the school and students in Botswana.

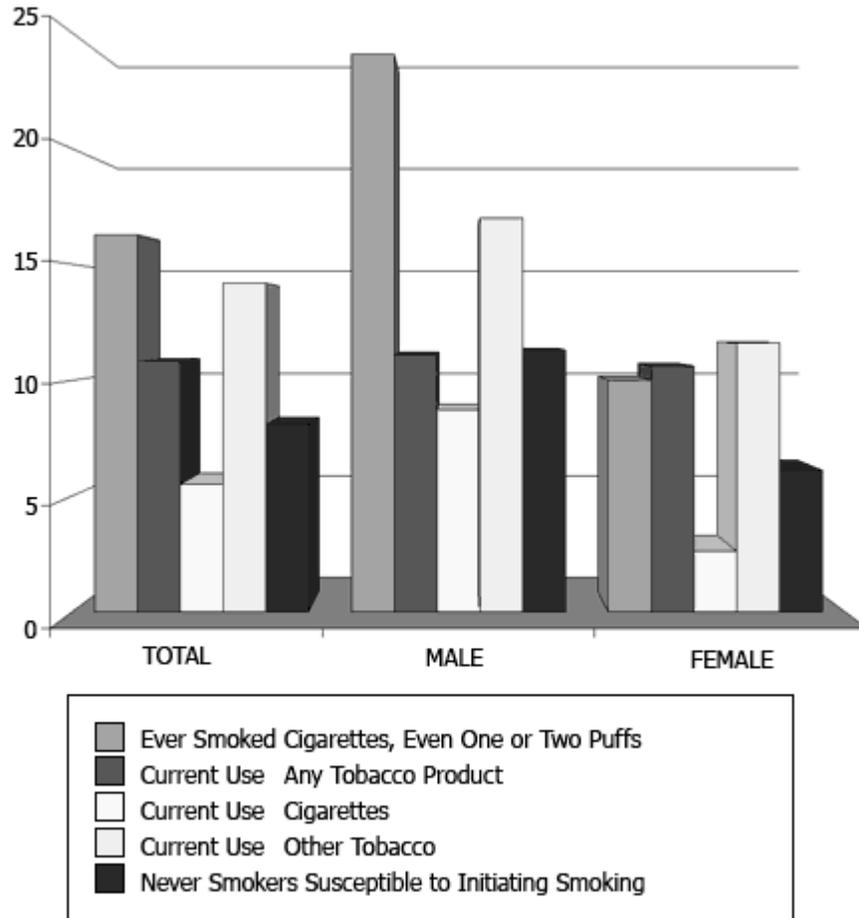
Background Characteristics of students

		n	%
Gender	Male	850	44.4 (1.8 + \ -)
	Female	1060	55.6 (1.8 + \ -)
Class (Form)	1	638	33.5 (10.5 + / -)
	2	759	33.8 (12.7 + / -)
	3	503	32.6 (11.5 + / -)
Age	>11	10	0.6 (0.4 + / -)
	12	10	0.5 (0.5 + / -)
	13	97	5.1 (2.2 + / -)
	14	425	21.5 (4.4 + / -)
	15	562	27.0 (4.6 + / -)
	16	497	27.1 (5.1 + / -)
	17<	306	18.2 (4.9 + / -)

Table 1- background characteristics

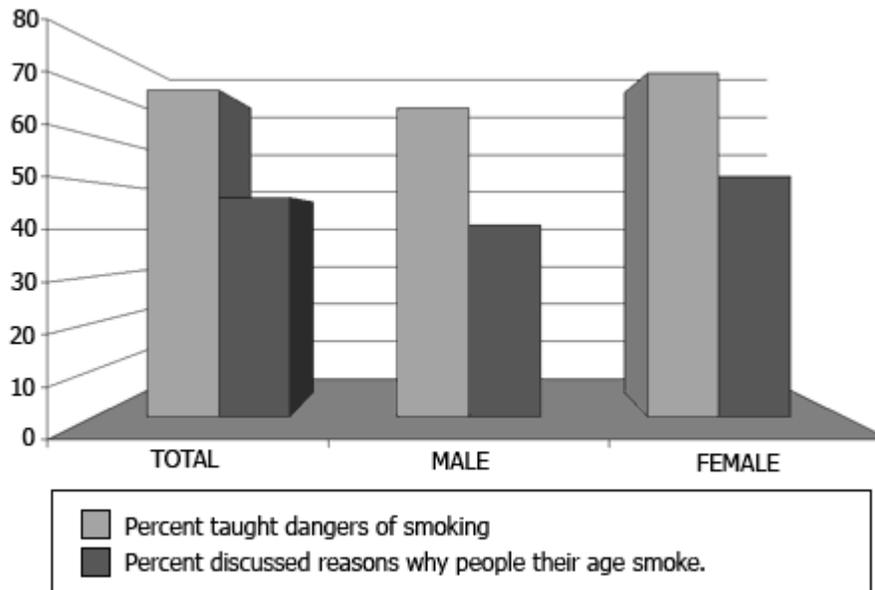
Above 40% male students (44.4%) and about 56% female students (55.6%) participated in the survey. The students were evenly distributed on the classes with no significant difference by class. More than half of the sample students (56.5%) were 13-15year olds while 41.8% were 16years and older as reflected by table 1.

Prevalence



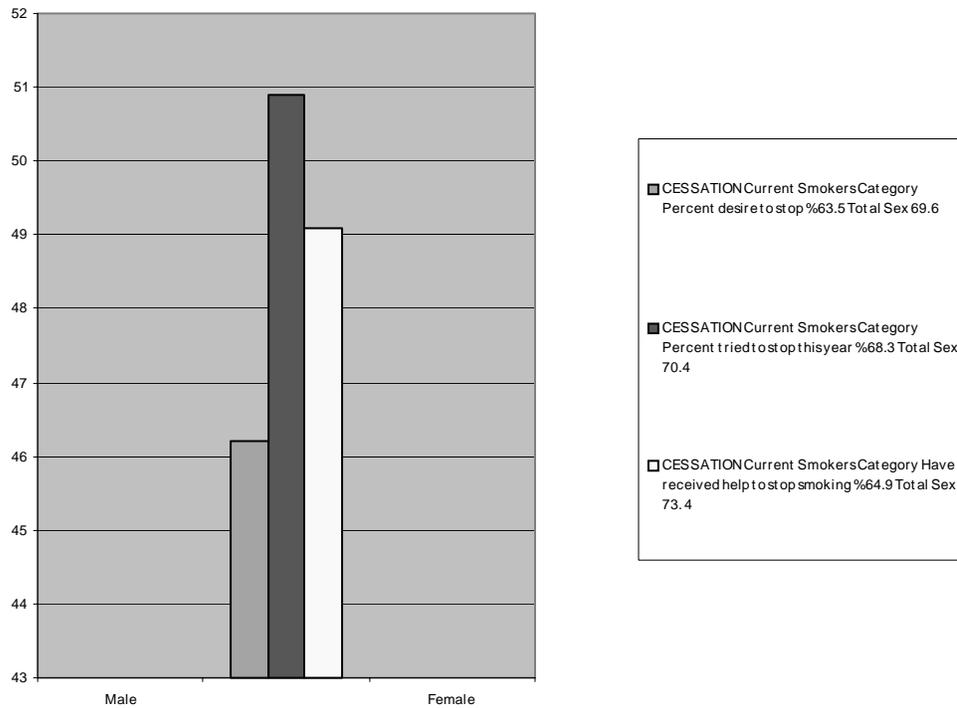
The main categories, which the students were classified with, were never smokers; ever smokers and current smokers. Never smokers are those students who have not admitted, to or have never tried or experimented with cigarette smoking, even one two puffs. Ever smokers are all those students who have admitted to have ever tried or experimented with cigarette smoking. More than one out of 10 of students have ever smoked with ever smoked significantly higher for male than female (table 2). One out of 10 of students have currently used any tobacco product with no significant difference by gender. About 6% of the students currently smoked cigarettes (55.5%) while more than 10% of students (14.2%) currently used other tobacco products with male currently smoking and using other tobacco products significantly higher than females. 8% of the never smokers are susceptible to initiating smoking and male students are more susceptible than females.

Curriculum



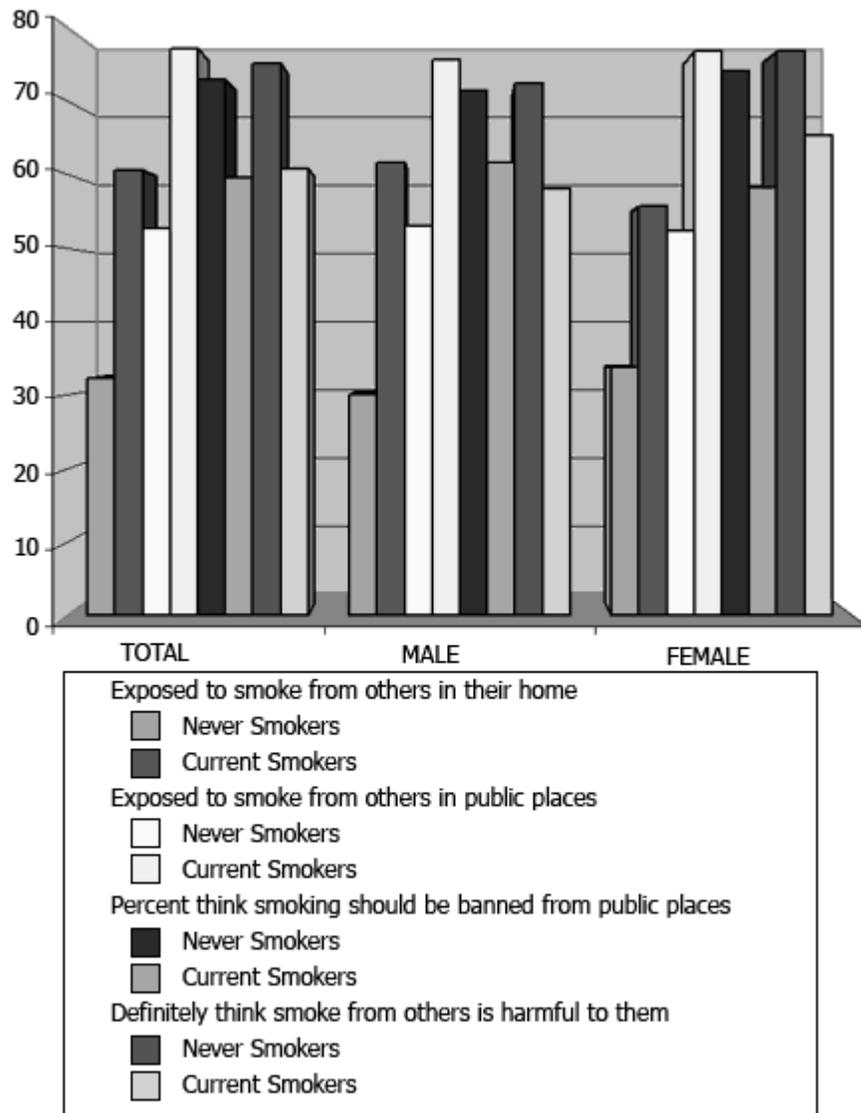
Students were asked several question on what they were taught during the past year and about seven out of ten had been taught about the dangers of smoking (69.8%) with nearly half having discussed reasons why people their age smoke. There were highly significant differences by gender. (Table 3)

CESSATION



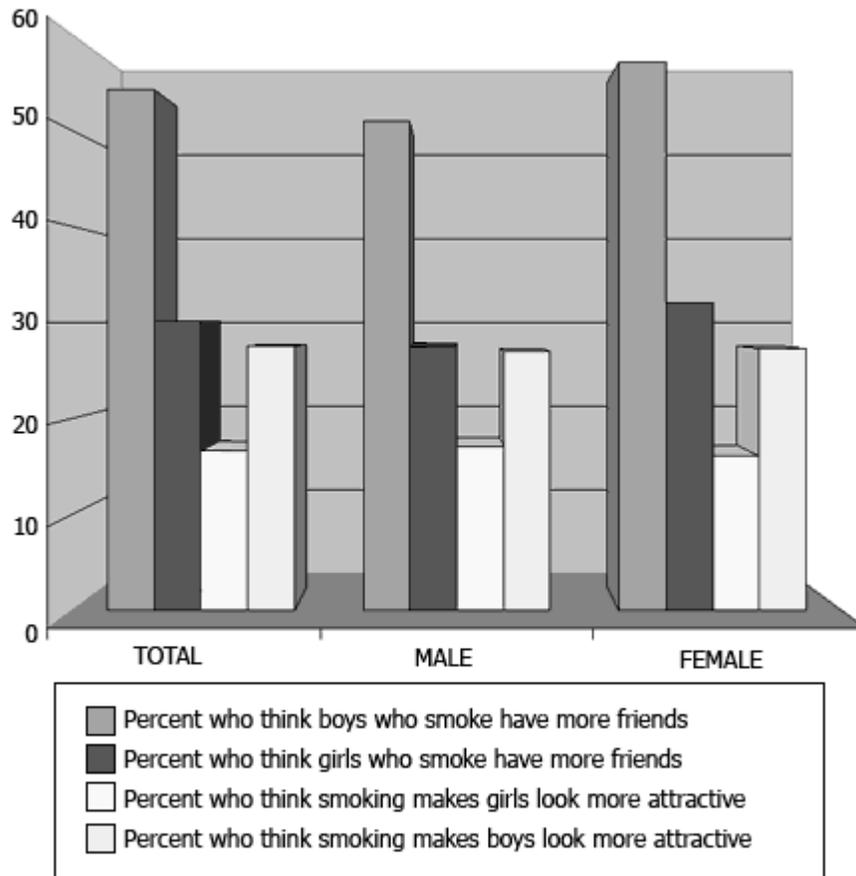
Almost 64% of the current smokers (63.5%) desire to stop while nearly 70% of current smokers (68.3%) tried to stop this year with no significance different by gender (table 4).

Environmental Tobacco Smoke



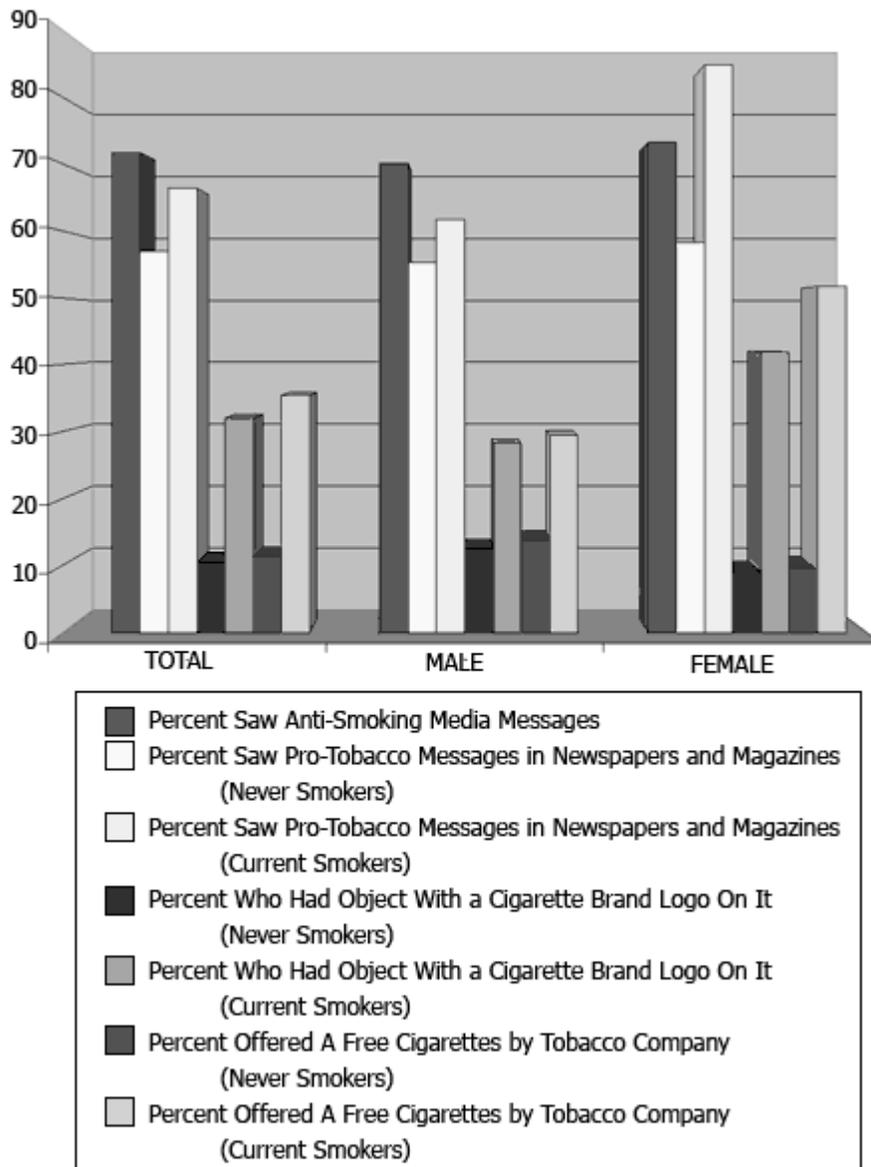
Slightly over three out of ten never smokers were exposed to tobacco smoke from others in their homes (32.2%) while six out of ten current smokers were exposed (table 5). More than 50% of never smokers (52.6%) and more than seven out of ten never smokers (77%) had been exposed to smoke from others in public places. Seven out of ten never smokers (72.8%) think smoking should be banned from public places while almost 60% of current smokers share the same sentiments about banning smoking. Three quarters of the never smokers (75%) and six out of ten current smokers definitely think smoke from others is harmful to them. There were significant differences by gender.

KNOWLEDGE AND ATTITUDES



More than 55% of the never smokers (55.4%) think boys who smokers have got more friends while almost half of current smokers (49.8%) think like that too with significant differences by gender. Three out of 10 in both never smokers and current smokers think girls who smoke have more friends (30.7% and 34.1% respectively). Slightly over one quarter (26.2%) of never smokers and almost 38% current smokers think smoking makes boys look more attractive. Slightly more than 15% of never smokers (15.2%) think smoking makes girls look more attractive while more than 20% of current smokers thought smoking makes girls more attractive with females significantly higher than males (table 6)

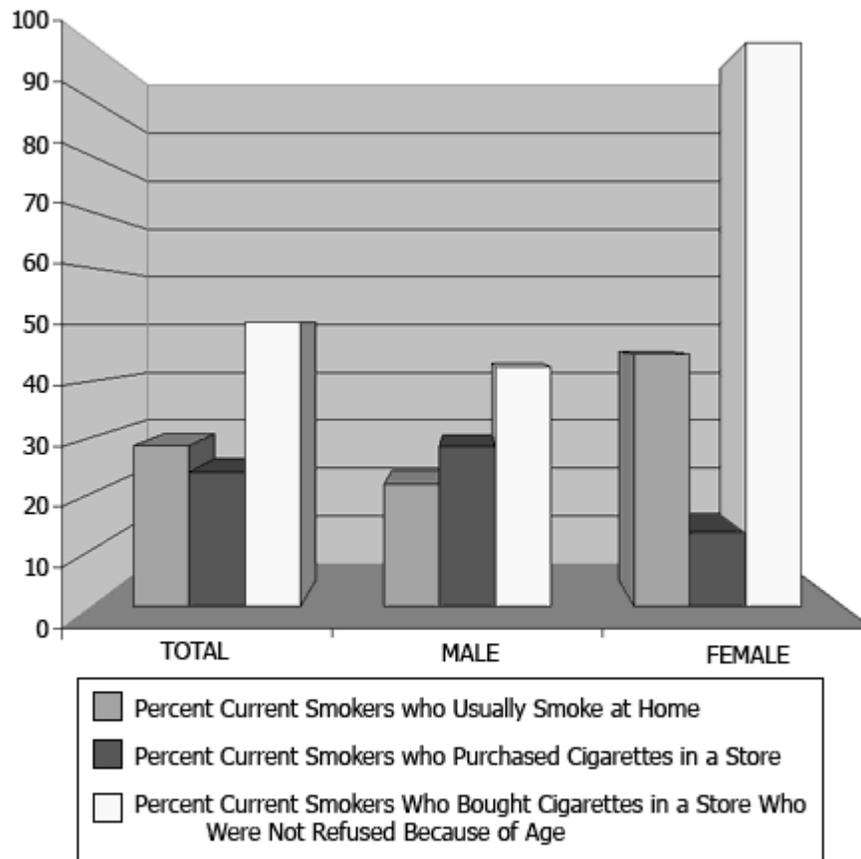
MEDIA AND AVERTISING



Above 70% of students saw anti- smoking media messages with no significant difference by gender (table 6). Almost 60% of the never smokers (57.0%) saw pro –tobacco messages in Newspapers and Magazines while over 60% of current smokers had seen them. One out ten never smokers (10.4%) as compared to three in ten current smokers (32.0%) had objects with a cigarette brand on them. Over 10% of never smokers (11.3%)

and almost 30% of current smokers (35.5%) were offered free cigarettes by a tobacco company. There were no significant differences by gender.

ACCESS AND AVAILABILITY



Almost three out of ten students (28.6%) indicated that they usually smoked their cigarettes at homes and males were significantly higher than males in that as depicted by table 7. There was a clear indication that almost 24% of current smokers purchased their cigarettes in a store and that almost half of the students who bought cigarettes were never refused because of their age, however; only a few students answered this question.

Conclusion

The study shows that indeed youth in this country use tobacco products as 14% currently use any form of tobacco; and 6% currently smoking cigarettes. It shows that almost two in ten students have ever smoked cigarettes and that 8% of the non smokers are likely to initiate smoking, therefore, programs to discourage that have to be set up to address the issue before it the number increases. More than half of the students think boys and girls (30%) who smoke have more friends while others think it makes them attractive. Environmental Tobacco Smoke exposure is quite high since almost four out of ten students live in homes where others smoke in their presence and almost more than half of the students are exposed to smoke in public areas. However, seven in ten students smokers and non-smokers alike think environmental tobacco smoke is harmful to them and think it should be banned from public places.

The study also reveals that students are taught in schools about the dangers of smoking and why students their age smoke. Over six in ten of current smokers want to quit smoking.

Media and advertising seems to be having an impact in the both the initiation and quitting smoking since more than 70% of students had seen anti- smoking messages while almost 60% had seen the pro – cigarette ads in the news papers and magazines. Tobacco companies still have a way of getting through to the youth by providing them with free cigarettes and availing objects with cigarette brand logos.

The already existing cessation programs have to be intensifying to make wide coverage of the youth and also the awareness has to be intensified especially through both the school curriculum and media. Existing laws regulating tobacco products, sales and advertising have to be enforced to protect the health of the youth.