

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