The Global Youth Tobacco Survey Project
Preliminary findings from data collected in Costa Rica in 1999

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Introduction

This paper contains the main findings from the WHO/CDC Global Youth Tobacco Survey Project (GYTS), carried out on young students from 7th, 8th and 9th grades of schools in September-October 1999. The survey was administered by the Research Unit of the National Institute on Alcoholism and Drug Dependence (I.A.F.A.).

GYTS is an international surveillance project that generates comparisons of tobacco use between countries with the aim to enhance the capacity of countries to monitor tobacco use and to evaluate preventive programs.

The present report introduces tobacco prevalence, age of onset, minor's access to tobacco, exposure to advertising, smoking cessation, environmental tobacco use and school curriculum. The knowledge and attitudes section will be analyzed in the near future and presented in a separate document.

GYTS project has a tremendous impact not only in Costa Rica but also in Latin American as a whole. This is true because of the extent of young people in the area, the relative weakness of tobacco regulations, where they exists, the poorly developed and disseminated tobacco

messages, the low cigarette prices and the lack of monitoring tobacco use in practically every country of Latin America. Targeting young people with preventive programs against tobacco use, will help to prevent the life-long dependence on nicotine that is associated with several diseases and to reduce the severe economic and social impact related to illness and premature death.

Methods

Sampling procedures

The sampling frame included 7th, 8th and 9th graders from regular schools in 1999. Two-stage cluster sample design was used to produce a representative sample of those students. Schools were selected with probability proportional to school enrollment size.

A systematic equal probability sampling of classes from each participating school in the survey was the second stage sampling and all students in the selected classes were eligible to participate in the study.

As in many other countries, in Costa Rica the overall response rate for the GYTS was very high. The response rate of the 62 selected schools was 100% and the student's response rate was 90.4% from the 5114 students selected. A weighting factor was applied to each student record to adjust for non-responses and for the varying probabilities of selection

Data gathering

A self-administered core questionnaire containing 57 multiple-choice questions and 14 further questions to meet local needs was administered. Permission procedures and the protection of student's privacy were possible by anonymous and voluntary participation. Student's responses were registered directly on an answer sheet that could be scanned by a computer.

Data was collected by 20 surveyors from the National Institute on Alcoholism and Drug Dependence. The fieldwork was done from September 16 to October 22, 1999.

As can be see in (Table 1) most of the students have 15 years of age or less and most of them are in the first years of middle schools.

Table 1
Sociodemographic characteristics of 7th, 8th and 9th graders
Costa Rica, 1999

Variable	Frequency	Weighted percent
SEX		
Male	2472	48.1
Female	2126	51.9
Missing	25	
AGE		
11 years	15	0.4
12 years	158	3.8
13 years	1198	28.8
14 years	1412	29.2
15 years	1229	25.4
16 years	423	9.0
17 years	160	3.5
Missing	28	
GRADE		
7th year	1898	47.8
8th year	1567	29.0
9th year	1138	23.2
Missing	20	

Results

Prevalence

Students who had ever smoked cigarettes represent a 46.4% of the sample. Interestingly this percentage prevalence is higher than the one found in the general population four years earlier[1] and higher if compared with other studies in costarican youth[2].

As showed in (Table 2), girls were more likely than boys to have ever smoked cigarettes, being a current smoker and even a frequent current smoker. Although, differences are not statistically significant. Non published studies in Costa Rica have revealed similar tendencies in middle

schools students. This is a matter of especial concern because the transformations observed in this pattern is being showing up in only few years. Table 2 also shows some aspects of interest: ever smoking increases with grade and age, current smoking significantly increases with age, over one third of 16+ year olds are current smokers, which is considered very high, and 8,4% of youth age 12 are current smokers, which reveals very high early smoking. The fact that 10.5% of 16+ year olds are current frequent smokers seems to indicate dependence in this group.

Current cigarette smoking (i.e. had smoked one or more days during the 30 days preceding the survey) and current frequent smoking (i.e. had smoked cigarettes on 20 or more days of the past 30 days) increases with student's grade and age.

Table 2
Weighed percents and confidence intervals of students who use tobacco, according to sex, grade and age.
Costa Rica, 1999

VARIABLE	EVER SMOKER	95% CI	CURRENT SMOKER	95% CI	CURRENT FREQUENT SMOKER	95% CI
SEX						
Male	44.1	3.5	19.1	2.9	2.5	1.1
Female	48.6	3.5	20.0	2.8	4.0	2.1
GRADE						
7th	40.5	3.7	17.3	2.9	2.2	1.0
8th	48.7	4.4	20.1	3.8	3.2	1.7
9th	55.4	5.5	23.7	3.8	5.4	2.8
AGE						
12	27.6	6.5	8.4	4.0	0	0
13	32.7	4.3	11.8	2.5	0.7	0.6
14	46.5	3.6	19.4	2.2	2.7	1.6
15	55.4	4.1	22.9	3.4	3.8	1.9
16+	65.7	4.5	35.1	4.9	10.5	3.8

On the other hand, the percentage of students who consider themselves daily smokers was 5.4% (4.9% boys and 5.6% girls) and this opinion increases with grade and age.

Age of onset

10.4% of ever smokers smoked cigarettes before age 10. Girls were more likely than boys to initiate smoking before 10 years of age (13% and 7.2% respectively).

Minor´s Access

Current smokers were asked where they usually smoke. Both girls and boys who smoked did it when they were in the company of friends

(53%), and possibly within social events context (i.e. parties, social meetings). Few used to smoke at home or at school.

For over one third of current smokers, the most likely means of accessing tobacco cigarettes was to purchase them in a store, followed by those who borrowed them from someone else (29%). From those who try to buy cigarettes during the past 30 days, two thirds were not rejected when purchasing because they were under age. Also, the percentage of all students that knew places that sell single or loose cigarettes was very high (84.4%).

Smoking Cessation

Over two thirds of current smokers strongly indicated that they wanted to stop smoking now, and 71% indicates that in the past year they try to quit smoking. The desire of quiting smoking increases with grade and especially with age and was similar for girls and boys. This situation has happened in most of the countries where GYTS has been administered[3]. Nearly 19% of smokers have unsuccessfully tried to stop smoking four or more times and nearly one half have tried it 1 to 3 times.

Media and advertising

A quarter of both girls and boys had not seen anti-smoking media messages during the 30 days preceding the survey, and one third indicates they have seen a lot of this messages. On the other hand, 50% of the students saw actors smoking while watching TV, videos or movies and nearly one half hear about cigarette brand names while listening to the radio. Exposure to heavy cigarette promotion on TV, videos and movies,

and advertisement on billboards and posters increases with grade and age. More girls than boys have ever gone to a concert sponsored by a cigarette brand at least once (23.5% and 18.6% respectively) and similar situation exists in relation to having possessions, like t-shirts, pens, etc., with a cigarette brand logo on it (15% and 11.2% respectively).

Environmental tobacco use

One third of students lived in a home where others smoked, and one in five students reported been in the presence of someone else who smoke at home three or more days during the past seven days. It is a matter of concern that one third of boys and girls have been exposed to people's smoking in places other than their home. The percentage of exposure increases with age and grade not only at home but in other places.

School curriculum

Nearly four in ten students reported having been taught in school about the dangers of cigarette smoking and this experiences decreases with grade and age. Over one third of all girls and boys have indicated two main aspects taught by teachers in relation with the dangers of tobacco smoking: the reasons why people their age smoke and some specific effects of smoking tobacco, like makes the teeth yellow, causes wrinkles, etc.

Conclusions

Youth cigarette use in Costa Rica is very high. The study reveal the highest prevalence percentages found in one decade which is of concern considering that three out of five young people who experiment with cigarettes will become dependent.

A recent research report[4] have mentioned that in most countries boys are more likely than girls to use tobacco. In Costa Rica data indicates no differences according to gender. This is an extremely point of concern which requires more research and shows the success of the tobacco industry in making smoking fashionable for a sensitive target, such as women. It is well known that adolescents are particular susceptible to cigarette advertising[5].

Despite recent tobacco control and regulatory legislation, costarican youngsters are highly expose to aggressive cigarette advertisement. Promoting the banning of tobacco advertisement should be one of the main national efforts, as well as providing more developed and widespread disseminated anti-tobacco messages.

The fact that only a little bit more than one third of the students have been taught in school about dangers of smoking, suggests the need for a more active and determinant role of the formal educational system, especially in affecting the higher grades in school, as this research point out. Interestingly, this is consistent with the life skills programs developed in Costa Rica since 1999 which focuses on 7th grade students.

However, there are some positive aspects that must be commented. Data from the survey shows that exposure of young people to environmental tobacco smoking is high, but they are, on the other hand, expressing their desire to stay away from that exposure. The majority of the students would no accept a cigarette offered from a friend, and actually

think that smoking is harmful to their health as well as a second hand smoke. Most of them think that a smoker around non-smokers should ask permission, and in those who smoke, health improving is one of the main reason to stop smoking.

One aspect of interest, and closely related with specific intervention possibilities, is the fact that most of current smokers desire to stop. This could lead actions coordinated by IAFA and the Ministry of Education in the whole educational system as part of the life skills training programs which began in 1999 with 7th grade students and will cover 8th and 9th graders in 2001 and 2002.

References

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