

global youth tobacco survey

Country reports

The World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC), Atlanta, developed the Global Youth Tobacco Survey to track tobacco use among youth across countries using a common methodology and core questionnaire. Information from the Survey is compiled within the participating country by a Research Coordinator nominated by the Ministry of Health, and technically reviewed by WHO and CDC. The content has not otherwise been edited by WHO or CDC.

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**World Health
Organization**

Regional Office for the Eastern Mediterranean



Report on the Results of the Global Youth Tobacco Survey in Kuwait Kuwait 2001

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1-INTRODUCTION

Tobacco smoking has been implicated as an important factor that causes lots of dangerous diseases (e.g.; Atherosclerosis, heart diseases, cerebrovascular, intrauterine growth retardation, cancer in different body organs...etc). Furthermore, low birth weight and infant mortality (approximately 10%) have been attributed to tobacco use during pregnancy. Cigarette smoking also contributes to cancers of pancreas, kidney, and cervix (1,2)

Tobacco smoking is considered to be the chief preventable cause of death in USA (1). The outcome of WHO reports is frightening, as it was found out that there are 4 million deaths annually due to tobacco use and this figure is expected to rise to 10 million deaths a year by 2030. By that time 70% of these deaths will be occurring in the developing countries. Tobacco use is responsible for more than one of every five deaths in the United States (3).

Studies in the developed countries show that most people begin using tobacco before the age of 18 years (4, 5). Recent trends indicate an earlier age of initiation and rising smoking prevalence rate among children and Adolescents. If these patterns continue, tobacco use will result in the death of 250 million of people who are children and adolescents today, many of them in the developing countries (6).

However, many children and adolescents do not understand the nature of tobacco addiction, and are unaware of, or underestimate, the important health consequences of tobacco use (1) In one study which considered smoking as an addiction reported that 75% of teenagers who smoke have made at least one unsuccessful effort to quit (7).

Therefore, youths are considered as the target population of tobacco companies. Besides, as there is no data about the prevalence of tobacco consumption among this young age group, WHO (World Health Organization), in 1998 through Tobacco Free Initiative (TFI), in collaboration with the US CDC (Centers for Disease Control and Prevention), through the Office on Smoking and Health (OSH) has initiated a global surveillance project of tobacco use among young people (Global Youth Tobacco Survey (GYTS)) in consultation with countries in the six WHO regions.

The GYTS is a school-based tobacco specific survey which focuses on adolescents aged 13-15 (grades 8-10). It assesses student' attitudes, knowledge and behaviors related to tobacco use and exposure to environmental tobacco smoke (ETS) as well as youth exposure to prevention curriculum in school, community programs, and media messages aimed at preventing and reducing youth tobacco use. School surveys are useful tools in gathering data, as they are relatively inexpensive, easy to administer, tend to report reliable results, and refusals are significantly lower than that of household surveys.

Objectives of the GYTS

The GYTS is a school-based tobacco specific survey that focuses on students' age 13-15 years. The objectives of this survey are:

- To document and monitor the prevalence of tobacco-use including: cigarette smoking, and current use of smokeless tobacco, cigars or pipes.
- To obtain an improved understanding of and to assess learners' attitudes, knowledge and behaviors related to tobacco-use and its health impact, including: cessation, environmental tobacco smoke (ETS), media and advertising, young people's access, and school curriculum.
- To provide information to guide programming and advocacy work addressing youth tobacco use. .
- To better understand and assess student' 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.

The GYTS will attempt addressing 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 identify key intervening variables, such as attitudes and beliefs on behavioral norms with regard to tobacco use among young people which can be used in prevention programs assess the extent to which major prevention programs are reaching school-bases populations and establish the subjective opinions of those populations and establish the subjective opinions of those populations regarding such interventions.

Content of the GYTS

The GYTS addresses the following issues:

- Level of tobacco-use
- Age at initiation of cigarette use
- Levels of susceptibility to become cigarette smokers
- Exposure to tobacco advertising
- Identifying key intervening variables, such as attitudes and beliefs on behavioral norms with regards to tobacco-use which can be used in prevention programmers.

2-METHODS

Kuwait is divided into 5 governorates, we have carried out the survey in 3 governorates: Al-Assema, Hawalli, and Al-Ahmadi. These 3 governorates represent 61% of Kuwaiti population.

A-SAMPLING:

- The 2001 Kuwaiti GYTS is a cross sectional school-based survey which employed a two-stage cluster sample design to produce representative sample of students in grades: 4th from intermediate school, 1st, and 2nd grades from high school, in the three Governorates: Al-Assema, Hawalli, and Al-Ahmadi. These represent students' 13-15 year age group.

Data about schools (governmental only) were obtained from Kuwait Ministry of Education. This data along with the number of students in the age group from 13-15 year of age in each school in the 3 governorates were sent to CDC.

-First stage: School selection:

Schools were selected from the above mentioned 3 governorates with probability proportional to school enrollment size, the outcome has appointed 25 selected schools from each governorate, with a total number 75 schools.

-Second stage: Class selection:

With a random start, this stage consisted of systematic equal probability sampling of classes from each school that was selected in the first stage and participated in the survey. In each selected school, all 4th intermediate, 1st, and 2nd secondary grades were included in the sampling frame. And all students in the selected classes were eligible to participate in the survey.

A weighting factor was applied to each student record to adjust for non-response and for the varying probabilities of selection.

B-Data collection:

Survey procedures were designed to protect the students' privacy by allowing for anonymous and voluntary participation. The self-administered questionnaire was administered in the classroom. Student recorded their responses directly on an answer sheet that could be scanned by a computer. The questionnaire contained 56 core multiple-choice questions, in addition to 22 others (Total of 78 multiple-choice questions).

- Kuwait is divided into 5 governorates, the survey was carried out in only 3 of them: Al-Assema, Hawalli, and Al-Ahmadi. These 3 governorates represent 61% of Kuwaiti population.
- A team that consists of: 1 survey administrator (Physician Epidemiologist, MBBCH, MPH), 25 school social workers, and 4 Public Health Nurses, was appointed for Each governorate.
- Two separate training workshop sessions have been held: one for the school social workers, and the second for the Public workers.

Analysis

For the analysis, a weighting factor was applied to each student record to adjust for non-response and the varying probabilities of selection. The programs SUDAAN and Epi-Info were used to compute rates and 95% Confidence Intervals for the estimates. A weight was 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: $W=W1*W2*f1*f2*f3*f4$

Where,

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-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 by form

Weighting, Variance Estimation, & Statistical Testing

School, classroom and students data were weighted to produce total population estimates. The weighting factor reflects the probability of selection, non-response, and post-stratification (gender & form). Variances were estimated using the general linear variance estimators. This method of computing variances takes into account the complex nature of the design and the classroom effect. It also accounts for sampling with the probability proportional to measure size. SUDAAN was used to compute standard errors for the estimates

A percent and its estimated standard error may be used to construct confidence intervals (C.I.) about the percent.

The C.I. is expressed as a range (upper and lower) around the percent. The C.I. range contains the average value of the percent, which would result if all possible samples were produced. The 95% C.I. suggests that if 100 samples were drawn and C.I.s were calculated for each, then the average value of the percent would be contained in 95 of the 100 C.I.s

Statistical Testing

The test of statistical significance is done by comparing the 95% C.I. for two percentages. If the C.I.s do not overlap then the percentages are significantly different.

- E.g. In the table on prevalence, 30.1% males and 21.5% females had ever tried smoking. The 95% C.I. for each percent is calculated by multiplying the standard error (SE) by 1.96, giving 6.9 & 4.0 for males and females respectively.
- Therefore the lower and upper bounds for the two percentages are Males 30.1% = [23.2,37.0] & Females 21.5% = [17.5,25.5]
- Statistical difference is determined by comparing the upper bound, for the smaller % and the lower bound, for the larger %
- if the two ranges do not overlap, then the two %s are statistically (significantly) different at the 95% C.I.
- If the two ranges overlap, then there is no statistical (significant) difference between the two %s, at the 95% C.I. In this example, the percentages 30.1 [23.2, 37.0] and 21.5 [17.5, 25.5] overlap, therefore there is no significant difference in students who have ever smoked, between male and female students.

3-RESULTS:

For the 2001 Kuwait GYTS: A total of 6330 questionnaires were completed in 75 schools, in the three governorates (Al-Ahmadi, Al-Assema, and Hawalli).

In Al-Ahmadi Governorate, twenty-five schools and 2266 students were sampled, but 2137 questionnaires were completed (The school response rate 100%, and the student response rate 94.31%).

In Al-Assema governorate, twenty five schools and 2229 students were sampled, but 2161 questionnaires were completed (The school response rate 100%, and the student response rate 96.95%)

In Hawalli governorate, twenty-five schools and 2185 students were sampled, but 2032 questionnaires were completed (The school response rate 100%, and the student response rate 93%).

With 75 schools (The overall school response rate 100%, and the overall student response rate 94.76%).

Epi Info was used to compute 95% confidence intervals for the estimates.

	Number of schools		Number of students		Response rate		
	Sample	Participated	Selected	Participated	School	Student	Overall
Al-Ahmadi	25	25	2266	2137	100%	94.31%	94.31%
Al-Assema	25	25	2229	2161	100%	96.95%	96.95%
Hawalli	25	25	2185	2032	100%	93%	93%
Total	75	75	6680	6330	100%	94.76%	94.76%

Prevalence

Percentage of students who used tobacco

Table 1: Percent of students who use tobacco, Kuwait - Total GYTS, 2001

	Ever Smoked Cigarettes, Even One or Two Puffs	Current Use Category			Never Smokers B Susceptible to Initiating Smoking
		Any Tobacco products	Cigarettes	Other Tobacco Product	
Total	28.8 (± 3.1)	27.0 (± 2.5)	14.9 (± 2.4)	20.4 (± 1.9)	20.0 (± 1.6)
Sex					
Male	37.6 (± 3.5)	33.3 (± 2.8)	21.1 (± 2.7)	24.1 (± 2.3)	23.3 (± 2.6)
Female	17.6 (± 2.8)	18.4 (± 2.1)	6.7 (± 1.5)	15.3 (± 1.9)	17.6 (± 2.2)
Al-Ahmadi	31.3 (± 7.3)	26.1 (± 5.7)	15.6 (± 5.6)	18.1 (± 3.2)	17.9 (± 2.9)
Al-Assema	24.5 (± 4.0)	24.4 (± 3.5)	12.2 (± 3.1)	19.3 (± 3.2)	17.9 (± 2.9)
Hawalli	31.5 (± 4.4)	31.2 (± 3.8)	17.7 (± 3.5)	24.1 (± 3.2)	19.9 (± 2.9)

Ever Smoked Cigarettes

From this table, approximately one third of all students (28.8%) have ever smoked cigarettes (smoked cigarettes even one or two puffs), and the prevalence among males (37.6 (± 3.5)) is significantly higher than that among females (17.6 (± 2.8)).

Any Tobacco Product

The percentage of students currently use (one or more days in the past 30 days preceding the survey) any tobacco product is 27.0 (± 2.5), the percentage among current use any tobacco product male students 33.3 (± 2.8) is significantly higher than that among female students 18.4 (± 2.1).

Current use of cigarettes

The percentage of students currently use (one or more days in the past 30 days preceding the survey) of Cigarettes is 14.9 (± 2.4), with current use of cigarettes significantly higher for male 21.1 (± 2.7) than female students 6.7 (± 2.1).

Other tobacco products

The percentage of students currently use (one or more days in the past 30 days preceding the survey) tobacco products other than cigarettes is 20.4 (± 1.9) with a gender significant difference as it is higher in males 24.1

(± 2.3) than that in females 15.3 (± 1.9).

Never Smokers Susceptible to Initiating Smoking

The percentage of never smoke students who are susceptible to initiating smoking next year is 20.0 (± 1.6) and the percentage is significantly higher among male students 23.3 (± 1.6) than that among female students 17.6 (± 2.2)

Table 2: School Curriculum, Kuwait - Total GYTS, 2001

Category	Percent taught dangers of smoking	Percent discussed reasons why people their age smoke
Total	29.1 (± 2.4)	30.0 (± 2.3)
Sex		
Male	34.6 (± 3.5)	33.6 (± 3.2)
Female	24.3 (± 2.6)	26.9 (± 3.2)
Al-Ahmadi	25.6 (± 6.0)	28.0 (± 6.0)
Al-Assema	29.3 (± 2.7)	29.4 (± 2.6)
Hawalli	32.6 (± 3.7)	33.1 (± 3.2)

Percent taught dangers of smoking

Almost only one third (29.1%) of students had been taught the dangers of smoking in school during the past year, and the percentage is significantly higher among male students {34.6 (± 3.5)} than that among female students {24.3 (± 2.6)}

Percent-discussed reasons why people their age smoke

One third (30%) of students discussed in school during the past year why people their age smoke, and the percentage is significantly higher among male students {33.6 (± 3.2)} than that among female students {26.9 (± 3.2)}

Table 3: Cessation, Kuwait - Total GYTS, 2001

Category	Current Smokers	
	Percent desire to stop	Percent tried to stop this year
Total	63.9 (± 4.0)	27.6 (± 4.8)
Sex		
Male	67.0 (± 4.1)	23.6 (± 4.7)
Female	50.4 (± 8.9)	38.3 (± 11.6)
Al-Ahmadi		

	67.4 (± 6.6)	25.7 (± 9.4)
Al-Assema	62.2 (± 8.5)	28.7 (± 10.3)
Hawalli	62.7 (± 5.8)	28.5 (± 5.4)

Over six in ten (63.9%) students who currently smoke cigarettes desire to stop smoking ,with students who currently smoke cigarettes desire to stop smoking significantly higher for male 67.0 (± 4.1) than female students 50.4 (± 8.9)

Approximately three in ten (27.6%) students who currently smoke cigarettes tried to stop smoking in the past year but failed, and there was no significant difference by gender .

Table 4: Environmental Tobacco Smoke, Kuwait - Total GYTS, 2001

Category	Exposed to smoke from Others in their home		Exposed to smoke from others in public places		Percent think smoking should be banned from public places		Definitely think smoke from others is harmful to them	
	Never Smokers	Current Smokers	Never Smokers	Current Smokers	Never Smokers	Current Smokers	Never Smokers	Current Smokers
Total	38.3 (± 2.2)	68.4 (± 3.3)	54.5 (± 1.9)	83.1 (± 2.4)	85.8 (±1.4)	59.5 (± 3.1)	68.2 (± 2.0)	51.4 (±2.9)
Sex								
Male	32.7 (± 3.7)	65.0 (± 4.1)	54.0 (± 3.3)	85.1 (± 3.0)	84.1 (± 1.8)	58.8 (± 3.9)	66.0 (± 2.8)	55.9 (± 3.7)
Female	41.4 (± 2.5)	72.4 (± 6.4)	54.8 (± 2.1)	83.1 (± 4.1)	87.4 (± 2.0)	62.7 (± 6.6)	70.5 (± 2.3)	46.6 (± 7.4)
Al-Ahmadi	41.4 (± 3.7)	69.9 (± 4.2)	52.1 (± 3.5)	81.7 (± 3.6)	86.4 (± 3.7)	59.3 (± 4.8)	66.3 (± 3.7)	51.4 (± 4.5)
Al-Assema	35.4 (± 4.0)	66.8 (± 8.1)	56.8 (± 2.5)	83.9 (± 5.0)	85.7 (± 1.3)	62.0 (± 5.7)	69.8 (± 3.2)	51.6 (± 5.2)
Hawalli	38.9 (± 2.9)	68.6 (± 5.8)	53.8 (± 3.9)	83.9 (± 4.1)	87.3 (± 2.1)	57.4 (± 5.3)	67.9 (± 3.6)	51.4 (± 5.2)

The exposure to secondhand smoke was high for all students in Kuwait ,both in their home and in public place.

Percentage of students who had never smoked cigarettes was significantly lesser than current smoker in exposure to a second hand smoker at home and public places.

85.8% of students who never smoked cigarettes, and 59.5% of students who are currently smokers think that smoking should be banned in public places, and there is a significant difference between them.

68.2% of students who had never smoked cigarettes and 51.4% of students who currently smoke think smoke from others is harmful to them, and there is a significant difference between male {66.0 (± 2.8)}, and female students (70.5 (± 2.3)) who had never smoked cigarettes think smoke from others is harmful to them.

Percentage of students who are exposed to environmental tobacco smoke and their attitude towards it.

Table 5: Knowledge and Attitudes, Kuwait - Total GYTS, 2001

Category	Think boys who smoke have more friends		Think girls who smoke have more friends		Think smoking makes boys look more attractive		Think smoking makes girls look more attractive	
	Never Smokers	Current Smokers	Never Smokers	Current Smokers	Never Smokers	Current Smokers	Never Smokers	Current Smokers

Total	24.0 (± 1.5)	34.4 (± 3.3)	17.5 (± 1.9)	29.5 (± 3.7)	20.1 (± 1.5)	36.7 (± 3.9)	13.3 (± 1.6)	28.3 (± 2.8)
Sex								
Male	24.0 (± 2.5)	36.3 (± 4.0)	21.3 (± 2.8)	30.5 (± 5.3)	20.2 (± 2.7)	33.9 (± 4.7)	18.2 (± 2.3)	27.8 (± 3.2)
Female	23.6 (± 2.1)	29.7 (± 7.5)	14.2 (± 2.0)	26.9 (± 6.6)	19.4 (± 1.9)	44.2 (± 6.8)	9.4 (± 2.0)	25.4 (± 6.1)
Al-Ahmadi	26.7(± 3.3)	35.2(± 5.3)	18.9(± 3.9)	32.6(± 6.2)	18.8(± 1.7)	41.9(± 6.2)	14.3(± 3.9)	32.5(± 3.8)
Al-Assema	21.6(± 2.1)	34.8(± 6.6)	15.7(± 3.1)	27.1(± 6.9)	20.3(± 2.9)	29.8(± 6.9)	12.1(± 1.9)	24.8(± 5.3)
Hawalli	24.7(± 2.3)	33.3(± 5.1)	18.4(± 2.6)	28.9(± 5.3)	21.0(± 2.9)	38.1(± 5.9)	14.1(± 3.0)	27.6(± 4.7)

Percentage of student knowledge and the attitudes towards smoking ,for both never and current smokers.

About one forth (24%) of students who never smoke and one third (34.4%) of students who currently smoke think boys who smoke have more friends. There was no significant difference between male

students and female students.

17.5% of students who never smoke and 29.5% of students who are currently smoke think girls who smoke have more friends . There is significant difference between males and females that never smoke, and there is a significant difference between never smoked and currently smoke students who think smoked girls have more friends.

20.1% of students who never smoked, and 36.7% of students who are current smoke think smoking makes boys look more attractive, there is a significant difference between never smoked {20.1 (± 1.5)} and current smoke students {36.7 (± 3.9)}.

13.3% of students who never smoked and 28.3% of students who are current smoke think smoking makes girls look more attractive. There is a significant difference between never smoke {13.3 (± 1.6)} and current smoke students { 28.3 (± 2.8)}

Table 6: Media and Advertising Kuwait - Total GYTS, 2001

Category	Percent Saw Anti-Smoking Media Messages	Percent Saw Pro-Tobacco Messages in Newspapers and Magazines		Percent Who Had Object With a Cigarette Brand Logo On It		Percent Offered Afree Cigarettes by a Tobacco Company	
		Never Smokers	Current Smokers	Never Smokers	Current Smokers	Never Smokers	Current Smokers
Total	68.4 (± 1.5)	89.2 (± 1.1)	87.8 (± 2.3)	17.0 (± 1.3)	34.8 (± 3.6)	18.0 (± 1.7)	58.3 (± 3.9)
Sex							
Male	69.7 (± 2.1)	87.5 (± 1.8)	89.7 (± 2.0)	19.8 (± 2.3)	34.1 (± 4.1)	25.6 (± 2.3)	61.2 (± 4.5)
Female	66.9 (± 2.3)	90.3 (± 1.3)	89.2 (± 3.8)	15.2 (± 1.6)	37.8 (± 7.3)	12.8 (± 1.6)	51.2 (± 6.4)
Al-Ahmadi	70.4(± 3.4)	90.8(± 2.0)	86.9 (± 4.5)	17.5 (± 2.6)	38.5 (± 5.5)	17.7 (± 4.7)	55.6 (± 6.5)
Al-Assema	65.8(± 2.0)	89.2(± 1.8)	85.2 (± 4.2)	16.0 (± 1.5)	30.4 (± 5.2)	18.1 (± 1.8)	60.0 (± 6.6)
Hawalli	69.7(± 2.9)	87.6(± 2.0)	90.9 (± 3.6)	17.9 (± 3.0)	35.5 (± 7.6)	18.3 (± 2.2)	59.2 (± 6.9)

Percentage of students who have seen anti-smoking messages, and advertisement for cigarettes

-Nearly seven in ten (68.4%) of students saw anti-smoking media messages in the past 30 days with no significant difference by gender.

-Approximately 9 in every 10 students(89.2%) who never smoked and 8 in ten(87.8%) currently smokers students saw pro-tobacco messages in newspapers and magazines, there is a significant difference between never smoked {17.0 (± 1.3)} and current smoke students {34.8 (± 3.6)}.

-17% of never smoked and 34.8% of current smoker's students had an object with a cigarette brand logo on it, and there is a significant difference between never smoked{18.0 (± 1.7)} and current smoke students {58.3 (± 3.9)}.

-18% of never smoked, and 58.3% of current smokers students have been offered a free cigarettes by a tobacco company. There is a significant difference between never smoked {(18.0 (± 1.7))} and current smokers students { 58.3 (± 3.9)}.

Table7: Access and Availability, Kuwait - Total GYTS, 2001

Category	Percent Current Smokers who Usually Smoke at Home	Percent Current Smokers who Purchased Cigarettes in a Store	Percent Current Smokers Who Bought Cigarettes in a Store Who Were Not Refused Because of Their Age Table 12
Total	21.2 (± 3.7)	24.6 (± 4.1)	89.4 (± 3.8)
Sex			
Male	13.0 (± 2.4)	27.2 (± 5.2)	88.7 (± 5.5)
Female	46.3 (± 9.7)	16.5 (± 5.8)	*
Al-Ahmadi	23.8 (± 8.4)	20.6 (± 8.3)	84.9 (± 6.4)
Al-Assema	19.2 (± 5.4)	28.4 (± 7.4)	95.1 (± 6.8)
Hawalli	20.5 (± 5.3)	25.0 (± 4.8)	88.1 (± 5.1)

*The number of respondents (n) in this cell less than 35

Percentage of students who currently smoke cigarettes by where they usually smoke and how they obtain their cigarettes.

- Almost one fifth of students (21.2%) who currently smoke cigarettes, smoke at home, and approximately one fourth of them (24.6%) purchased their cigarettes at stores, with a significant difference between male 13.0 (± 2.4) and female 46.3 (± 9.7) students who usually smoke at home.
- Almost 9 in every 10 of (89.4%) of currently smokers cigarettes who bought cigarettes in a store were not refused because of their age.

Discussion:

The Global Youth Tobacco Survey (Kuwait 2001) is the first nation wide survey done in Kuwait concerning issues about tobacco use by school students age 13 to 15 years old .

The Global Youth Tobacco Survey is a school-based survey which was undertaken among school students aging 13 - 15 years old. It presents a clear picture of the magnitude of the problem of tobacco use among youths. The survey in Kuwait was done in three governorates (Al-Ahmadi,Al-Assema and Hawalli) which differ in population composition, and represent 61% of the whole Kuwait population.

Tobacco use is quite high among school students, where nearly one third (28.8%) of students sample in the survey tried smoking cigarettes even if it was one or two puffs . Like in most countries males were significantly more likely than females to have ever tried smoking cigarettes. .

14.9% of students sample were current use of cigarettes on one or more days in the past 30 days preceding the survey . Males who currently use cigarettes were significantly more than female students.

24.1% of students currently use other tobacco products other than cigarettes such as water pipe ,little cigar,cigar and pipe.The percentage of students with current use of other tobacco products other than cigarettes was significantly more than the current smoking cigarette students. Female students who currently use other tobacco products other than cigarettes were significantly more than female students who currently use cigarettes. We should encompass all types of tobacco use when developing the intervention and not only focus on cigarette smoking.

One in five (20%) of never smoke students are susceptible to initiating smoking in future. This figure is quite high and need more effort and co-operation between Ministry of Education , Ministry of Health and all governmental and non-governmental agencies to establish intervention to protect the susceptible students. Significantly more male than female students are susceptible to initiating smoking in future.

The majority of current smoking students want to stop smoking . Six in ten (63.9%) of current smoking students want to stop smoking. Only near three in ten (27.6%) of current smoking students tried to stop smoking but failed . There is a study which showed that those who start smoking at younger age find more difficulty to stop smoking (10.11) . This means that the current smoking students need more effort and intervention to help them.

Exposure of the young to environmental tobacco smoke is high in Kuwait . A Significantly more percentage of current smoking students than never smoker students are exposed to someone else smoke in their home or in public places. Despite the presence of a legislation in Kuwait banned smoking in public places ,the law has not been successfully implemented. On the other hand we need wide awareness campaigns to alert current smoker parents, teachers and other current smokers about the harmful effect of smoking on themselves and on the others around them. We need also to enforce the law. A positive finding was the high percentage of both never and current smoker students who want to ban smoking in public places.

The current smoker students think that smoker students have more friends and look more attractive. This shows shortness in knowledge and bad attitude of the young about smoking . Regarding this matter we need to develop a plan of education especially for the young to change these attitudes.

The international research shows that tobacco advertising targets and influences smoking patterns of the young (12 ,13). A large percentage of students saw anti-smoking media messages, also a large percentage of students saw pro-tobacco messages in newspapers and magazines. Despite we have a legislation in Kuwait banned tobacco advertising in media, the law has not been successfully implemented.

The percentage of current smoker students who have object with a cigarette brand logo on it is significantly more than the never smoke students. There is a direct relationship between owning object with a cigarette brand logo on it and increased susceptibility of becoming a smoker (12 ,13).

There is a significantly higher percentage of current smoker students who were offered a free cigarettes by tobacco company than the never smoke students. We need to renew the legislation of tobacco control in Kuwait to include the ban of free cigarettes and distribution of object with a cigarette brand logo on it to protect future generation.

One in four (21.2%) of current smoker students smoke at home. The percentage of current smoker females who usually smoke at home is significantly more than current smoker male students. This reflects the cultural factor in Kuwait . Nine in ten (89.4%) of current smoker students bought cigarettes in stores without being refused because of their age . Despite the presence of a legislation in Kuwait banned sale of cigarettes to the young below 18 years, the law has not been successfully implemented. It is important to find suitable mechanisms to enforce the law and ensure that transgressors of the law are prosecuted, and it is important to alert the retailers about this legislation to protect the health of young generation.

Recommendation and conclusion

The GYTS Kuwait 2001 has shown high prevalence of ever smoke cigarette students. This indicates we need to establish and adopt a strategy especially for youth to decrease prevalence of smoking and to help smokers to stop smoking and to protect school environment from smoking.

Despite high percentage of ever smoke students, only 30% of students discussed the harmfulness of tobacco in their school. It is important to establish Tobacco Control Education Committee to develop strategies especially for youth, and develop mechanisms to integrate these strategies through the school curriculum. This committee should include professionals from Ministry of Education , Ministry of Health and other governmental and non-governmental agencies with interest in anti-smoking .

Creation of wide anti-smoking campaigns to focus on the awareness of the dangerous effects of cigarette smoking and other tobacco products on health of students ,through regular health education and health promotion campaigns. It is important that students and parents participate in this activity .

From the survey we notice that students in schools of Kuwait use other tobacco products other than cigarettes more than cigarettes, this point needs more investigation and we should consider this matter when developing youth tobacco control intervention .

There is a high percentage of current smoker students who desire to stop however those who tried to stop smoking failed. All these students need support and intervention to help them. I think to develop anti-smoking clinic in school is very helpful for them .

Despite the presence of a legislation banned smoking in school, there are many teachers and school workers who smoke cigarettes in front of students at school. Awareness of teachers and school workers about the legislation is important to enforce the legislation and ensure that transgressors of law are prosecuted. On the other hand we have in Kuwait good legislation for banned smoking in public places, health sector and schools but we need to enforce these laws to develop free tobacco community.

High exposure of the young to environmental tobacco smoke in both home and public places is alarming. We need a plan to increase awareness of the adults especially parents about the harmful effects of smoking on themselves and their children.

Data from the survey show that the youth are highly exposed to extensive cigarette advertisement. Advertisements of cigarettes and other tobacco products should be banned in mass media especially in sport pages. On the other hand, we can use mass media to increase awareness of the community about the harmful effects of tobacco smoking .

WHO recommended to repeat the GYTS every three years. I think it is a good way to evaluate the anti-smoking programs in schools of Kuwait ,also to give clear information about smoking tobacco among students in schools.

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