

I.R.IRAN Global Youth Tobacco Survey (GYTS) Report 2007

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Introduction:

Tobacco use is one of the most important preventable causes of death worldwide. According to WHO estimates, smoking now causes about 5 million deaths per year all over the world and by the year 2020 it will rise to 8.4 million deaths per year that 70% of these deaths will occur in developing countries. Data shows that most people start smoking before the age of 18, as in Iran we know that 66.7% of current smokers have experimented their first cigarette at age 14. Recent trends indicate rising smoking prevalence rates among children and adolescents and earlier age of initiation. If these patterns continue, tobacco use will result in the deaths of 250 million children and adolescents alive today, many of them in developing countries. In our region, Eastern Mediterranean Region (EMRO), smoking is like other parts of the world and it resembles the characteristics of smoking in developing countries worldwide. In EMRO we face another problem which is different from other parts of the world and it is use of water-pipe, which is named qalian in Persian language; that has become so popular especially among youth.

Data collected from different studies in I.R.Iran shows that about 12% of adults aged between 15-99 years are smokers (25% males Vs. 1.4% females) that as mentioned above 66.7% of them had smoked their first cigarette at age 14. In 2003, I.R.Iran in cooperation with WHO/EMRO and CDC has planned and implemented GYTS. I.R.Iran GYTS report on 2003 showed that 16.9% of youth in 13-15 years old age group have ever smoked cigarettes even 1 or 2 puffs. In this study 15% of 13-15 years old youth were current smokers and it was surprising that only 3.1% of them were current cigarette smokers. 14.5% of current smokers in this age group were using other types of tobacco products which mainly was water-pipe. In 2003, 12.5% of 13-15 years old people were susceptible to smoke in the next year and about 67% of have bought cigarettes from a store without refusing form the side of the shopkeeper because of their age.

Methods

Sampling

The 2007 I.R. Iran GYTS is a school-based survey, which employed a two-stage cluster sample design to produce nationally representative sample of students in grades 2 and 3 in middle school and 1 in high school. The first-stage sampling frame consisted of all middle schools and high schools all over the country. Schools were selected with probability proportional to school enrolment size. 52 schools were selected in this stage.

The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All classes in the selected school were included in the sampling frame. 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. For the 2007 I.R. Iran GYTS 1996 questionnaires were completed in 52 schools. The school response rate was 92.3% and the student response rate was 93.1%. The overall response rate was 85.9%. SUDAAN and Epi Info were used to compute 95% confidence interval for the estimates.

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. Students recorded their response directly on an answer sheet that could be scanned by a computer. The questionnaire contained 63 multiple-choice questions. These 52 selected schools were placed in 15 provinces all over the country and tobacco control program focal points of University of Medical Sciences in these 15 provinces were invited to the ministry of health and a 1 day workshop established for them in 2007. In this workshop they were taught about the process of data collection and working with school staff and students in order to implement the survey. Also we reviewed the questionnaire completely with them and explained how to collect materials after termination of data collection and send them back to the ministry of health/tobacco control country committee.

Results

Table 1: Percent of students who had ever smoked cigarettes, Percent of students ever tried or experimented with qalian smoking, even once; percent of students who ever smoked that first tried a cigarette before age 10, , IRAN GYTS, 2007 (Ages 13-15).

State	Ever smoked cigarettes, even one or two puffs	Ever tried or experimented with qalian smoking, even once	Ever smokers who first tried smoking before age 10
IRAN	17.5 (12.8 - 23.4)	43.8 (34.5-53.5)	36.1 (27.1 - 46.1)
Male	23.7 (16.1 - 33.5)	55 (42.9-66.5)	40.7 (32.7 - 49.3)
Female	11.0 (7.2 - 16.3)	32 (24.3-40.9)	27.0 (15.1 - 43.5)

Near half of students (43.8%) have tried qalian smoking even once and boys tried more significantly than girls (55% Vs.32%). Nearly one-fifth (17.5%) of 13-15 years old student have experimented cigarettes. More than one third (36.1%) of ever smokers have tried their first cigarette before age 10.

Table 2: Percent of students who were current cigarette smokers, current users of tobacco products other than cigarettes, percent of current smokers who use qaliam, and percent of students who had never smoked that were susceptible to start smoking in the next year, IRAN GYTS, 2007 (Ages 13-15).

State	Current cigarette smoker	Currently use other tobacco products	Current Qaliam user	Percent never smokers likely to initiate smoking within a year
IRAN	3.0 (1.7 - 5.5)	26.1 (20.6 - 32.4)	16.5 (11.7-22.7)	8.7 (7.0 - 10.6)
Male	5.1 (2.8 - 9.1)	31.9 (24.4 - 40.4)	22.8 (16.8-30.1)	10.3 (7.9 - 13.4)
Female	0.9 (0.4 - 1.9)	19.5 (15.6 - 24.2)	9.4 (6.3-13.9)	7.0 (4.9 - 9.9)

Only 3% of current smokers are cigarette smokers and boys smoke cigarettes more than girls (5.1Vs.0.9). About one third of current tobacco users (26.1%) are using other types of tobacco products and again boys smoke more than girls (31.9Vs.19.5 respectively). One out of 5 of students (16.5%) are using qaliam. The differences between boys and girls in all three groups are significant. One of 10 never smokers think that they will initiate smoking within next year and there is no significant differences between boys and girls.

Table 3: Percent of students exposed to smoke at home, exposed to smoke in public, and supported banning smoking in public places, IRAN GYTS, 2007 (Ages 13-15).

State	Percent exposed to smoke from others at home	Percent exposed to smoke from others in public places	Percent who think smoking should be banned in public places
IRAN	35.4 (30.1 - 41.1)	44.8 (38.5 - 51.3)	70.3 (63.0 - 76.6)
Male	38.1 (32.3 - 44.3)	49.8 (42.8 - 56.9)	73.2 (67.4 - 78.4)
Female	32.7 (24.1 - 42.6)	39.6 (29.2 - 51.0)	67.3 (54.6 - 77.8)

Nearly 3 out of 10 students (35.4%) are exposed to tobacco smoke from others at home and about half (44.8%) of them are exposed in public places. There are no significant differences between boys and girls in this situation. About two-third (70.3%) of boys and girls think that smoking must be banned in public places.

Table 4: Percent of students who were taught dangers of smoking, discussed reasons why people their age use tobacco, taught effects of using tobacco, IRAN GYTS, 2007 (Ages 13-15).

State	Percent taught dangers of smoking/chewing tobacco	Percent discussed reasons why people their age smoke/chew tobacco	Percent taught about the effects of smoking/chewing tobacco
IRAN	29.1 (23.2 - 35.9)	29.0 (24.1 - 34.5)	31.1 (27.1 - 35.4)
Male	36.3 (28.6 - 44.8)	33.8 (26.5 - 41.9)	34.3 (26.6 - 43.0)
Female	21.3 (15.9 - 28.1)	24.1 (19.2 - 29.7)	27.6 (23.0 - 32.8)

Table 4 shows that only one third of students is taught about dangers of smoking and discussed reasons why people their age use tobacco products (29.1% and 29.0% respectively). The results about teaching about the effects of using tobacco products are the same (31.1%). There are no significant differences between boys and girl.

Table 5: Percent of students who have been offered "free" cigarettes by a tobacco company representative, and had an object with a tobacco company logo on it, and Percent of current smokers who usually buy tobacco in a store, IRAN GYTS, 2007 (Ages 13-15).

State	Percent who have been offered "free" cigarettes by a tobacco company representative	Percent who have an object with a cigarette or tobacco logo on it	Percent current smokers who usually buy their tobacco in a store
IRAN	4.9 (3.5 - 6.8)	9.3 (7.0 - 12.4)	59.4 (42.4 - 74.4)
Male	6.4 (4.9 - 8.4)	9.9 (7.1 - 13.5)	*
Female	3.1 (2.0 - 4.9)	8.8 (6.2 - 12.4)	*

* < 35 cases in the denominator

One out of 20 (4.9%) have been offered “free” cigarettes by a tobacco company representative and one out of 10 of students(9.3%) have an object with a tobacco company logo on it . More than half of current cigarette smokers (59.4%) usually buy their tobacco in a store and were not refused cigarette purchase because of their age.

Table 6: Prevalence – IRAN 2003 and 2007 (13-15 Years ONLY)

Prevalence	2003			2007		
	Total	Boy	Girl	Total	Boy	Girl
Ever smoked cigarettes	14.2 (11.5 - 17.4)	22.8 (19.0 - 27.2)	7.4 (5.4 - 9.9)	17.5 (12.8 - 23.4)	23.7 (16.1 - 33.5)	11.0 (7.2 - 16.3)
Ever Smokers, first smoked cigarettes before age 10	17.6 (13.2 - 23.0)	15.1 (10.6 - 21.1)	20.8 (13.2 - 31.3)	36.1 (27.1 - 46.1)	40.7 (32.7 - 49.3)	27.0 (15.1 - 43.5)
Current cigarette smoker	2.0 (1.4 - 2.8)	3.2 (2.3 - 4.5)	1.0 (0.6 - 1.6)	3.0 (1.7 - 5.5)	5.1 (2.8 - 9.1)	0.9 (0.4 - 1.9)
Current user of other tobacco products	12.1 (10.2 - 14.4)	16.0 (13.0 - 19.5)	8.7 (6.9 - 11.0)	26.1 (20.6 - 32.4)	31.9 (24.4 - 40.4)	19.5 (15.6 - 24.2)
Never smokers likely to initiate smoking in the next year	12.2 (10.8 - 13.7)	17.0 (14.5 - 19.8)	8.9 (7.5 - 10.5)	8.7 (7.0 - 10.6)	10.3 (7.9 - 13.4)	7.0 (4.9 - 9.9)

Ever smokers tried their first cigarette before age 10, dramatically raised about two folds from 2003 to 2007 (17.6% Vs.36.1%). This rising is mainly among boys (15.1% in 2003 Vs.40.7% in 2007). Other tobacco products use has significantly raised from 2003 to 2007 (12.1% Vs.26.1%). There is a small but statistically significant decrease in susceptibility of never smokers initiating smoking in the next year between years 2007 and 2003 (8.7% Vs.12.2%, respectively). Table 6 shows number of youth experiment cigarette for the first time is raised in 2007 in comparison to 2003; although the difference is not significant (17.5% Vs.14.2%, respectively). Also there is no significant change in current cigarette smoking from 2003 to 2007 (2.0% Vs.3.0, respectively).

Table 7: Factors influencing tobacco use – IRAN 2003 and 2007 (13-15 Years ONLY)

Factors	2003			2007		
	Total	Boy	Girl	Total	Boy	Girl
EXPOSURE TO SMOKE						
One or more parents smoke	33.3 (31.2 - 35.4)	34.5 (31.4 - 37.9)	32.1 (29.3 - 35.2)	32.1 (28.7 - 35.7)	32.1 (26.2 - 38.6)	32.1 (28.4 - 35.9)
All or most best friends smoke	4.6 (3.6 - 5.9)	7.1 (5.5 - 9.2)	2.6 (1.9 - 3.5)	4.6 (2.9 - 7.3)	7.1 (5.0 - 10.0)	1.9 (1.0 - 3.5)
Exposed to smoke in public places	50.6 (47.9 - 53.3)	58.1 (55.6 - 60.6)	44.6 (41.7 - 47.6)	44.8 (38.5 - 51.3)	49.8 (42.8 - 56.9)	39.6 (29.2 - 51.0)
In favor of banning smoking in public places	89.5 (87.9 - 90.9)	87.3 (85.0 - 89.2)	91.2 (88.9 - 93.1)	70.3 (63.0 - 76.6)	73.2 (67.4 - 78.4)	67.3 (54.6 - 77.8)
SCHOOL						
During this school year, were taught in any classes about the dangers of smoking	38.6 (34.4 - 43.0)	48.5 (42.0 - 55.0)	31.1 (26.0 - 36.7)	29.1 (23.2 - 35.9)	36.3 (28.6 - 44.8)	21.3 (15.9 - 28.1)
MEDIA/ADVERTISING						
During the past month saw any anti-smoking media messages	84.1 (82.2 - 85.8)	85.5 (82.9 - 87.7)	83.0 (80.2 - 85.5)	79.3 (74.5 - 83.4)	79.8 (70.8 - 86.5)	79.0 (75.2 - 82.3)
During the past month saw any advertisement for cigarettes on billboards	53.3 (51.0 - 55.6)	54.2 (50.6 - 57.7)	52.4 (48.8 - 56.0)	55.8 (51.4 - 60.0)	57.2 (50.8 - 63.4)	54.0 (47.0 - 60.9)

Table 7: Factors influencing tobacco use – IRAN 2003 and 2007 (13-15 Years ONLY)- continued

Factors	2003			2007		
	Total	Boy	Girl	Total	Boy	Girl
During the past month saw any advertisements or promotions for cigarettes in newspapers or magazines	52.7 (50.5 - 54.9)	51.3 (47.5 - 55.2)	53.8 (51.1 - 56.6)	48.2 (43.1 - 53.3)	48.0 (39.5 - 56.7)	48.4 (41.4 - 55.5)
Have an object (t-shirt, pen, backpack, etc) with a cigarette brand logo on it	17.2 (15.6 - 18.9)	18.7 (16.3 - 21.4)	15.9 (13.9 - 18.1)	9.3 (7.0 - 12.4)	9.9 (7.1 - 13.5)	8.8 (6.2 - 12.4)
CESSATION Current smokers who want to stop smoking now	60.1 (44.7 - 73.8)	70.5 (51.7 - 84.2)	33.1 (11.7 - 64.8)*	63.3 (46.7 - 77.4)*	67.8 (51.8 - 80.6)*	0.0*
Current smokers who always feel like having a cigarette first thing in the morning	8.6 (2.3 - 27.9)	12.2 (3.4 - 35.5)	0.0*	3.2 (0.4 - 22.9)*	4.2 (0.4 - 30.3)*	0.0*
ACCESS Current smokers who usually buy their cigarettes in a store were not refused purchase because of their age	72.5 (56.3 - 84.3)*	72.3 (54.5 - 85.0)*	100.0*	68.2 (51.4 - 81.3)*	63.7 (47.9 - 76.9)*	100.0*
Ever offered a “free” cigarette by a cigarette company representative	6.5 (5.5 - 7.8)	9.5 (8.1 - 11.0)	4.1 (3.1 - 5.4)	4.9 (3.5 - 6.8)	6.4 (4.9 - 8.4)	3.1 (2.0 - 4.9)

Except two items, their favor of banning smoking in public places and percent of those who has an object with cigarette brand logo on it which show a significant decrease(respectively); no significant changes have been occurred in factors influencing tobacco use from 2003 to 2007.

Discussion

According to our data, there is no significant difference between boys and girls who ever smoked cigarettes, even one or two puffs. Also there is no significant difference between boys and girls who tried their first cigarette before age 10. This shows that we will be facing with an increase in smoking prevalence among young girls in near future. This is strengthened by the fact that we see no significant differences between boys and girls likely to initiate smoking within next year.

About half of 13-15 years old youth (43.8%) has tried qaliam which is an alarming sign for the future because of the role of qaliam in initiation of tobacco smoking among youth in Eastern Mediterranean Region and our country as a member of this region too. There is significant difference between boys and girls in this respect and boys are at greater risk than girls (55% Vs.32%).

In case of current smoking, there is a significant difference between boys and girls in using cigarettes (5.1% Vs.0.9) and also other types of tobacco products (31.9% Vs.19.5%) that shows boys are at greater risks to become a regular smoker. Data analysis shows that other types of tobacco products are more popular than cigarettes among young people (26.1% Vs.3.0% respectively) and these types of tobacco products could act as an initiator for tobacco smoking which may be shift to cigarette smoking in their more adulthood periods of life. Also qaliam is the more common route for using tobacco products among Iranian boys and girls; 16.5% of all students are using qaliam.

More than one-third of students (35.4%) are exposed to smoke from others at home and about half of them (44.8%) are exposed to others smoke in public places, this shows that we need push the enforcement of our newly passed law, comprehensive act for national control and campaign for tobacco products, related to prohibition of smoking in enclosed public places including workplace, public transport vehicles and other places like them. Also it is necessary to has more educational programs for adults specially parents in relation with passive smoking and its adverse effect on non-smokers. In enforcement of this issue we have a good support from the side of the youth; 70.3% of them think that smoking should be banned in public places.

Data show that we have a weak basis in our educational programs for youth in respect of tobacco related issues including dangers of smoking, effects of smoking on smokers' body and health; and reasons why people initiate smoking in their teen ages. Only 29% of students were taught on these issues in last year. So it is necessary to include tobacco related issues in our schools curriculum specially topics related to qaliam

including its effects on health and its role as an initiator in formation of tobacco products addiction.

Although any type of tobacco advertisements, direct and indirect, are prohibited by law; but a number of students (9.3%) have objects with a cigarette or tobacco logo on it and some one (4.9%) have been offered “free” cigarettes by a tobacco company representative. This shows that we must be more serious in enforcement of the law particularly on indirect advertisement bans.

Also it is very important to enforce bans on selling tobacco products to minors which has predicted in law, because 59.4% of current cigarette smokers said that they had bought their cigarettes from a store.

Comparing GYTS results in first round (2003) with second round (2007), shows that smoking of other types of tobacco products which mainly contains qalian, is dramatically raised (12.1% Vs.26.1%, respectively). This raise alarms that the country is in a real danger of facing a great risk of sever increase in smoking prevalence in near future among youth population. This concern seems to be more important when we see that increase in other tobacco products is made significantly in both boys and girls. Table 6 shows that smoking of these products especially qalian raised from 16.0% to 31.9% in boys and from 8.7% to 19.5% in girls.

Another important issue is that the percent of ever smokers tried their first cigarettes before age 10 is significantly raised from 2003 through 2007 (17.6% Vs.36.1%) that predominantly occurs among boys (15.1% Vs.40.7%).

As table 7 shows there is no significant difference among other tobacco related issues have been surveyed in two rounds of GYTS implementation in 2003 and 2007.

Conclusion

GYTS 2007 results and its comparison to 2003, shows that smoking of other types of tobacco products especially qalian is the most important problem among youth in I.R.Iran in the present and near future. This truth that smoking experimentation age is lowering to under age 10 makes this issue worst. So, we need to implement comprehensive act for national control and campaign for tobacco products completely to achieve better control on tobacco accessibility for youth and reduce probability of tobacco consumption specially qalian among this age group.

Recommendations

The nature of tobacco use epidemic requires a comprehensive prevention intervention plan focusing on the community as well as school in order to achieve the followings:

- Enforcement of existing laws restricting youth access to tobacco products by banning tobacco sales to minors
- Prohibition of smoking in public places in order to reduce youth exposure to environmental tobacco exposure.
- Effective and comprehensive educational programs on the health risks of tobacco consumption and exposure to tobacco smoke to students.
- Development of youth tobacco cessation facilities to help smoker students gets rid of their smoking habit.
- Involvement of youth NGOs and parents in tobacco control programs.
- Licensing the distribution of tobacco products in order to decrease the availability of tobacco products.

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