

**GLOBAL YOUTH TOBACCO SURVEY IN HUANCAYO, LIMA,  
TRUJILLO AND TARAPOTO, PERU.**

**FINAL REPORT**

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## INTRODUCTION

To date 1.1 billion people smoke worldwide, with 800,000 in the American continent. Ten percent (10%) of deaths in the region are related to tobacco. The Pan American Health Organization in Washington DC has been undertaking extensive efforts to develop a vigilance system for the diagnosis, monitoring and evaluation of tobacco demand and the effectiveness of the tobacco-control programs. To date it is estimated that tobacco has caused the deaths of 4 million people throughout the world (WHO, 1998), where approximately one fifth of all deaths has occurred in developed countries and one tenth in developing countries.

Global estimates also indicate that for the year 2000, tobacco may have caused 2 million deaths in developing countries, with a very significant number associated to countries in the American continent.

If we take into consideration the epidemiological aspects of consumption, recent data collected and analyzed by PAHO during the year 2000 shows that the current consumption of tobacco reaches one third of the urban population in Latin American countries, the United States and Canada. This data also reveals that while in the North American countries (the United States and Canada) there is a continuing decline of current use, the countries in the southernmost part of the continent are evidencing higher rates of consumption followed by the Andean countries. Furthermore, this situation seems to have remained stable during the second part of the last decade (Rojas, M., 2000).

Rojas indicates that even though the information gathered allows the specific location of the epidemiological situation in certain countries within the region, a significant number of countries do not have updated information that can accurately point out the real impact of tobacco over specific populations. This situation is caused by factors that affect the Health Information Systems (HIS): from data collection all the way up to the timely delivery of information to pertinent organizations. This involves a number of aspects, from scientific technology to attitudes, which bring about serious consequences over the planning of policies and programs to face the problem (Rojas, M., 2000).

In many countries youngsters start smoking at earlier ages, with a median initiation age of approximately 15 years in many countries; thus, tobacco life prevalence is very high among adolescents. It is widely accepted that tobacco is the most important cause of premature death in many countries, and it is related to cardiovascular diseases; lung, pharynx, mouth, esophagus and bladder cancer; cerebral-vascular accidents; and chronic obstructive lung disease. The initiation of smoking at an early age increases the risk of tobacco-related deaths; and reduces the age at which death normally occurs. Youngsters who begin smoking at an early age frequently have more difficulty to stop smoking. Half of the habitual smokers began their smoking habit during adolescence and died due to tobacco use.

In Peru, more than 75% of the population is exposed to becoming involved in tobacco consumption, and 60.5% have smoked at least once in their lives.

In 1998, tobacco life prevalence was estimated at 71% (range 12-64 years, Contradrogas, 1998). The prevalence for the last year was 44.5% and the current use was estimated at 46.3%. Among the general population, tobacco is most frequently used by men (83.1%). Only 60.4% of women smoke. Life prevalence among the age group 12-19 tends to increase rapidly: 12-13 year (18.1%), 14-16 (45.2%), 17-19 (70.4%), 20-40 (80.5%). It is symptomatic to note that higher use is found among the younger population (12-13: 6.5%; 14-16: 14.6%; 17-19: 15.2%; 20-40: 3.2%). The annual rate for tobacco consumption incidence climbs in an inverse relation to the reduction of socio-economic conditions.

The median age for tobacco use in Peru is 17 years among the general population, and 16 years among men. It has been noted that women are adopting patterns of use similar to those of the men, with an increase in the risk level of dependence and sicknesses related to its use.

In Huancayo, 11.3% of students ranging between 12 and 18 years used tobacco during the last month. The average number of cigarettes smoked during the last month was 4.4. Many smokers, including youngsters, are addicted to nicotine and need help to stop smoking. Therefore, in order to accomplish adequate results related to tobacco use among adolescents, priority must be placed in prevention and support to help the smoker quit.

Ever since environmental tobacco smoke (ETS) became an important risk factor for lung cancer, heart disease, exacerbation of asthma, respiratory infections, and adverse reproductive effects, it has become necessary to avoid exposure of adolescents to ETS. It is also important to evaluate and measure the degree of exposure to environmental tobacco smoke.

The current study took place in four representative cities: Lima, the capital city of Peru, a cosmopolitan city with more than 7 million inhabitants that concentrates almost 30% of the country's total population, being the main industrial and financial center; Huancayo, in the central highlands of Peru, a region that concentrates the agricultural, stock-breeding and mining activities, and that represents the Andean population; Tarapoto, located in the high Jungle area, with a high production of cocaine destined for the illegal market; and Trujillo, which represents the Coastal populations of the country. Many previous studies have applied different criterion and categories; therefore a direct comparison with other results will not be possible.

Youngsters responding to the questionnaire where male and female school students attending second, third and fourth level high-school education with ages fluctuating between 11 and 17 years.

The study was undertaken within the framework of The Tobacco Free Initiative of the World Health Organization (TFI/WHO). It was developed as part of the Global Youth Tobacco Survey, (GYTS).

GYTS is a tobacco-related study in schools with emphasis on students between 13 and 15 years of age that is applied in different countries throughout the world. Each country identifies the education grades, years, forms or levels corresponding to students between 13 and 15. These grades, forms or levels are the study population

for GYTS. The purpose is to measure the knowledge, attitudes and conducts of the students with respect to tobacco use, quitting, exposure to environmental tobacco smoke, and also the views of the students towards the preventive curricula at school, the community-based programs, and the messages transmitted through the communications mass media.

GYTS provides information regarding the places where tobacco products are procured and used, and also about the effectiveness of control measures.

The GYTS undertaken in Peru is a survey that focuses school students between 13 and 15 years (second, third and fourth years of high school). The survey includes different aspects related to the students' attitudes towards tobacco, alcohol, and illegal drugs.

School surveys are powerful tools to gather low-cost information that can be easily handled, and that lead to adequate reports on results. Rejections are significantly lower than home surveys. The most common approach for this specific population is the self-administered questionnaire. All the above reasonably justify the fact that a school-based survey is the most appropriate. This is why the United Nations' Youth and Tobacco Program selected this methodology.

GYTS has two main objectives:

- 1) To document and monitor tobacco use prevalence including cigarette use and current use of smokeless tobacco, cigars and pipes.
- 2) Understand and better evaluate knowledge, attitudes and conducts among students regarding tobacco use and its impact on their health, including quitting its use, exposure to environmental tobacco smoke (ETS), mass media and advertising, access to tobacco by minors, and school curricula.

GYTS aims to address the following aspects:

- determination of the level of tobacco use.
- estimation of the age of initiation of tobacco use.
- estimation of the levels of responsiveness among adolescents to become smokers.
- identification of key variables that influence tobacco use, such as tobacco-related attitudes and beliefs among youth that could be used in prevention programs.
- evaluation of the magnitude of the main prevention programs' outreach in school populations and establish subjective opinions from this population regarding school interventions.

## **MATERIALS AND METHODS**

### ***SAMPLE DESCRIPTION***

GYTS Peru 2000 was a school-based transversally cut survey that used a bi-stage design by conglomerates to produce four representative samples for the cities of Lima, Trujillo, Tarapoto and Huancayo. (Figure 1) The survey was applied during the months of June, July, and August 2000.

Separate samples were taken from schools located in the four selected cities. Every school (public and private) that provided high school education in each of the four cities was included in the sampling program.

The data used to select the sample was obtained from the 1999 National School Census, provided by the Peruvian Ministry of Education.

Within each city a two-stage sample was used to produce a representative sample of students in these schools. The first stage consisted of all the schools that provided any of the second, third and/or fourth level high-school education. Schools were selected with a proportional probability to the size of the school involved. Fifty schools were selected for Lima, 25 for Trujillo, 13 for Tarapoto and 25 for Huancayo.

The second stage of the sampling methodology consisted of an equal probability systematic sampling with a random beginning, of classrooms in each school that participated in the survey. All the high-school second, third and fourth grades in the selected schools were included in the design of the sample. All the students in the selected classrooms were eligible to participate in the survey. The number of classrooms selected in each school fluctuated between 1 and 3.

### ***QUESTIONNAIRE***

The GYTS-Peru questionnaire was divided into three parts:

- The first part contained 57 questions related to tobacco. These questions were designed by a group of experts on tobacco addiction from 8 of the different countries participating in the GYTS Project, all of which were members of the Tobacco Free Initiative Program (TFI/WHO/UNICEF). To date, this group of questions has been used in all the surveys applied in more than 40 countries throughout the world during the past three years.
- The second part has 22 questions selected from a database of alternate questions related to tobacco consumption and health, and intra-family relationships.
- The third part of the survey has 20 questions elaborated by CEDRO's Research Unit staff, which included epidemiological data on alcohol and illegal drugs (marijuana, coca paste/crack, and cocaine) consumption, perception or knowledge on drugs, access, and family and inter-personal relationships.

This report only presents epidemiological results gathered for tobacco consumption.

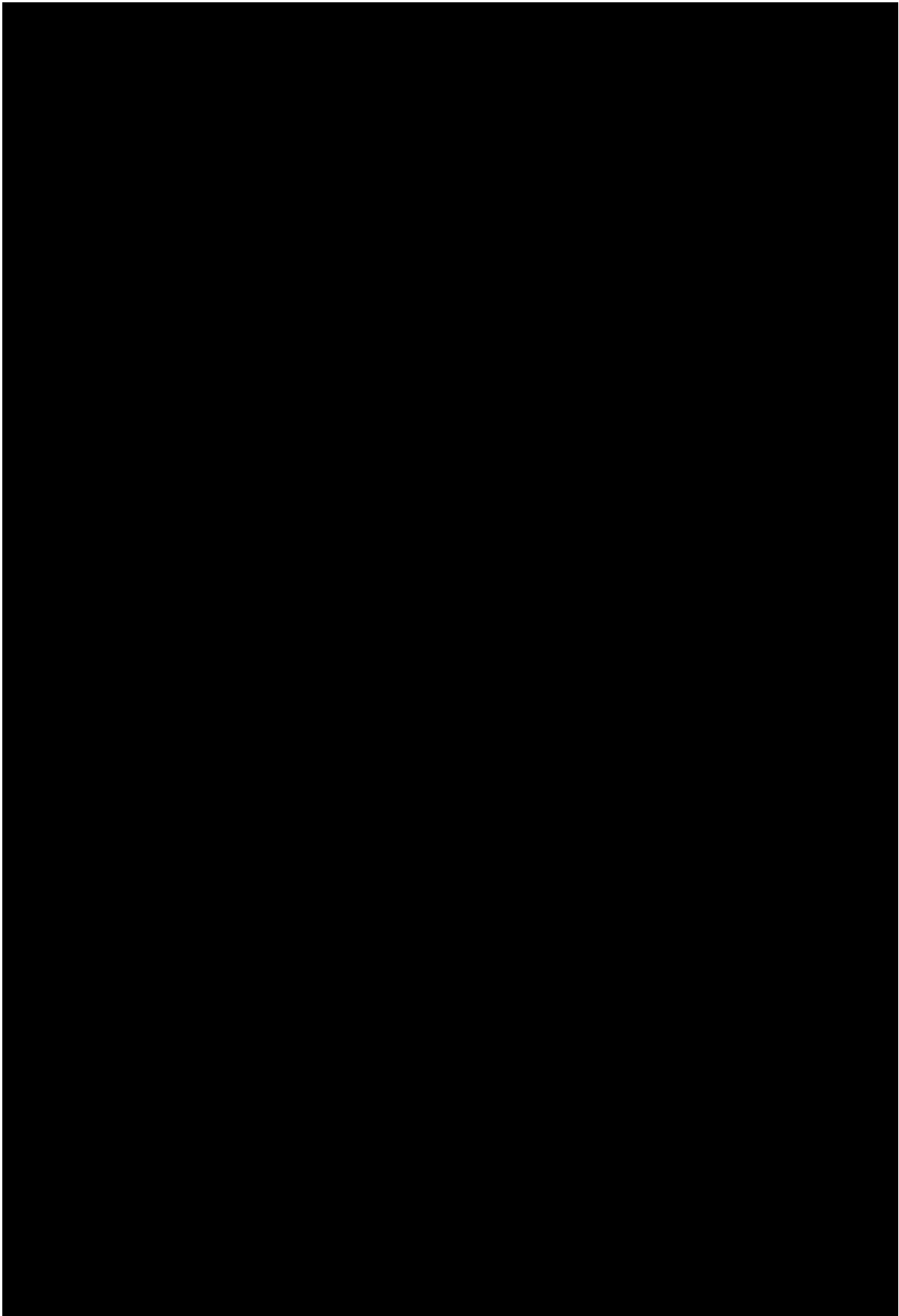


Figure 1: Geographical location of the four Peruvian cities included in the GYTS - Peru 2000.

## **DATA COLLECTION**

CEDRO was in charge of coordinating data collection activities. Before it started, coordination meetings took place with Ministry of Education officials who provided their authorization to recruit schools from the four cities. In addition, meetings took place with the schools to coordinate:

- Permission from school principals to develop the survey.
- Gather information regarding number of eligible classrooms in order to facilitate design of classroom sample.
- Logistical arrangements with school administrators to apply the survey.
- Gather information regarding the best access routes to the school, and on schools located in the same route or geographical zone.

School Principals were informed on the objectives of the survey, how it would be applied and the procedures to be used to ensure anonymity and confidentiality for students and the school. Students' parents were also advised during data collection, procedures were designed for the application of the survey oriented to protect the students' privacy through anonymous and voluntary participation. The questionnaire was self-administered during class. The students registered their answers directly in specially prepared answer sheets that would be read through computerized scanning. The questionnaire had 99 questions and had duration of approximately 45 minutes. It was to be completed during class.

Data recollection took place between June 1<sup>st</sup> and August 29<sup>th</sup>, 2000. The study had the participation of 25 fully trained surveyors, as well as 4 supervisors.

## **DATA ANALYSIS**

### **Punctual estimates**

To calculate punctual estimates (e.g., percentages, averages) from the GYTS data, sample weights were used which were calculated at the moment of selecting the samples. These sample weights adjust any probability of unequal selection, non-response, and disproportionate selection of different population groups. To carry out the assumptions regarding the studied population, we had to use sampling weights.

### **Sample Errors**

The procedures for the estimation of sample differences and standard errors from certain statistical software are based on the assumption of a simple randomized sample scheme. GYTS has a more complex sampling design that also estimates the variations and standard sampling errors. Statistical packages that accept this complex design were used during this survey: SUDAAN and the C-Sample package from Epi-Info version 6.0. The SUDAAN software was used to calculate sampling errors and percentage weights. The C-Sample software from Epi-Info version 6.0 was used to run simple averages and frequencies taken into account within the sample design, knowing the stratum data, primary units of sampling, and final weight of the sample.



## **Weights**

A weight was associated to each questionnaire to reflect the credibility of the sampling for each student and reduce dispersion by compensating the different patterns of reply. The weight (W) used for estimation was calculated with the following formula:

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

Where:

W1 = the inverse of the probability of selecting the school

W2 = the inverse of the probability of selecting the school classroom within said school

f1 = an adjustment factor for the level of non-response of the school calculated by the size category (small, medium, big)

f2 = an adjustment factor for the classroom calculated by school

f3 = an adjustment factor for the level of students' non-response calculated by classroom

f4 = a post-stratification adjustment factor calculated by sex and age

The weighted results were used to make assumptions regarding the use of drugs by students attending second, third and fourth high school grades.

## **Staff participating in the Study**

The study had the collaboration and authorization of the Peruvian Ministry of Education. The Coordinator of the study was Dr. Alfonso Zavaleta, Chief of CEDRO's Research Unit. The following staff from CEDRO's Research Unit also participated: Dr. Ramiro Castro de la Mata; Economist Virgilio Chavez; Psychologist Luis Tapia; Mr. Eduardo Romero; Ms. Viviana Maldonado; and Ms. Patricia Nores. Finally, the study had the support of 20 surveyors, and a supervisor each for the cities of Lima, Trujillo, Tarapoto and Huancayo.

## RESULTS

### STUDIED POPULATION

#### *Samples*

A total of 5268 surveys were applied and analyzed in the cities of Huancayo, Lima, Tarapoto, and Trujillo. Twenty-five schools were sampled in Huancayo, 48 in Lima, 13 in Tarapoto, and 23 in Trujillo; where 1332 questionnaires were satisfactorily analyzed for the city of Huancayo, 1623 for Lima, 1048 for Tarapoto and 1265 for Trujillo. The global average response rate for the cities is 88.25%, i.e., from the total number of students to be interviewed, 88.25% satisfactorily completed the questionnaire (Tables 1 and 2).

**Table 1. Sample of Student Population and Survey's Rate of Response GYTS-2000**

City	Total sample	Total enrolments	% Response rate	% total response
Huancayo	1462	1351	92.41	92.41
Lima	1790	1647	92.01	90.13
Tarapoto	1196	1057	88.38	88.38
Trujillo	1491	1277	85.65	82.08
Total	5939	5332	88.25	---

**Table 2. Sample of School Population and Survey's Rate of Response GYTS-2000**

City	Total sample	Total enrolments	% School participation
Huancayo	25	25	100.00
Lima	49	48	97.96
Tarapoto	13	13	100.00
Trujillo	24	23	95.83

#### *Student Profile*

Table 3 shows the distribution of the school population surveyed in the four cities by sex, school grade and age at the moment when the survey was applied.

**Table 3. Characteristics of School Population (Second to Fourth form of high school education) enrolled by city.**

Characteristic		Huancayo N (%)	Lima n (%)	Tarapoto n (%)	Trujillo n (%)
Gender	Male	654 (48.3)	632 (47.0)	535 (52.4)	563 (48.2)
	Female	643 (51.7)	957 (53.0)	493 (47.6)	673 (51.8)
Form	Two	460 (33.8)	619 (36.5)	384 (36.2)	560 (36.8)
	Three	414 (34.7)	518 (33.3)	343 (31.9)	353 (32.7)
	Four	439 (31.5)	457 (30.2)	309 (31.9)	337 (30.5)
Age	< 12	12 (01.0)	23 (01.5)	15 (01.4)	8 (00.7)
	12	79 (05.9)	128 (7.5)	46 (04.3)	58 (04.2)
	13	307 (22.8)	378 (22.3)	177 (16.9)	311 (21.0)
	14	355 (27.3)	448 (27.5)	284 (26.3)	359 (28.8)
	15	344 (24.8)	391 (24.5)	310 (30.7)	356 (30.3)
	16	155 (12.4)	177 (11.5)	135 (13.5)	121 (11.0)
	16+	68 (05.8)	68 (05.1)	68 (06.9)	43 (04.0)

n: Number of persons giving a valid answer

?: Percentage column expanded

## PREVALENCE

The study has found that tobacco's life prevalence is higher in the city of Lima (the country's capital city, 55.9%) than in the other three cities in the provinces (Huancayo, 48.8%; Trujillo, 48.9%; Tarapoto, 44.7%). (Table 4).

Table 5 shows the results for prevalence of life, monthly prevalence and percentage of students who smoked a cigarette before they were 10 years for the four cities included in the study.

Tobacco's monthly prevalence follows a similar pattern to that of life prevalence: Lima's is higher (20.24%) with respect to the other three provincial cities (Huancayo 16.7%, Trujillo 19.15%, and Tarapoto 16.19%).

The study also found that tobacco's life prevalence in all of the cities was higher among men. However, this sex-related difference in life prevalence had a lesser magnitude in the city of Lima when compared with the differences in life prevalence by sex noted in the other cities (Tables 4, 5A and 5B). The same phenomenon was noted for monthly prevalence (Tables 5A and 5B).

**TABLE 4. Ever smoked tobacco in students from second to fourth form of high school education in four Peruvian cities - 2000**

City	Answer	Total	Gender		Form			Age				
			Male	Woman	Two	Three	Four	12	13	14	15	16+
Huancayo	Yes	48.8	60.0	37.9	41.1	42.7	63.0	39.3	36.8	47.5	56.2	58.6
	No	51.2	40.0	62.1	58.9	57.3	37.0	60.7	63.2	52.5	43.8	41.4
Lima	Yes	55.9	63.1	48.9	44.9	55.6	68.7	45.6	40.8	54.6	67.0	67.7
	No	44.1	36.9	51.1	55.1	44.4	31.3	54.4	59.2	45.4	33.0	32.3
Tarapoto	Yes	44.7	56.2	32.2	28.7	50.0	57.3	23.8	24.5	41.1	53.8	60.2
	No	55.3	43.8	67.8	71.3	50.0	42.7	76.2	75.5	58.9	46.2	39.8
Trujillo	Yes	48.9	59.5	38.2	33.3	53.3	61.4	33.5	31.5	46.9	56.4	65.9
	No	51.1	40.1	61.8	66.7	46.7	38.6	66.5	68.5	53.1	43.6	34.1

**TABLE 5A. % Students who used tobacco in Huancayo and Lima – Peru 2000**

City		Ever smoked cigarettes %	Current use			1ST smoked cigarettes before age 10 %	
			Cigarettes %	Other tobacco products %	Any Tobacco products %		
HUANCAYO	Total	48.85	16.72	7.91	20.82	7.37	
	Gender	Male	59.97	22.66	10.80	27.62	8.23
		Female	37.94	10.80	4.65	13.66	6.34
	Form	2	41.06	8.69	7.18	14.26	8.78
		3	42.71	13.45	7.08	17.25	4.69
		4	62.97	28.33	9.36	31.18	8.70
	Age	<12	45.07	9.58	7.39	15.12	8.19
		12	38.41	6.95	10.93	14.78	10.01
		13	36.82	6.89	6.01	11.21	9.94
		14	47.47	13.95	7.84	19.62	8.10
		15	56.19	25.48	8.94	28.71	5.23
		16	57.54	25.30	8.18	26.77	6.02
		17+	60.86	23.87	7.04	24.13	2.73
LIMA	Total	55.86	20.24	6.77	23.36	5.93	
	Gender	Male	63.09	23.62	8.16	26.86	7.46
		Female	48.88	17.42	5.29	20.07	4.62
	Form	2	44.85	13.93	7.71	19.08	7.53
		3	55.65	20.61	6.08	23.14	4.89
		4	68.65	27.14	6.44	28.39	5.17
	Age	<12	60.64	16.72	19.00	27.94	5.14
		12	42.44	12.47	0.98	12.26	6.68
		13	40.80	10.56	5.08	14.40	7.97
		14	54.64	17.84	6.16	20.89	6.34
15		67.03	27.03	7.67	29.43	6.53	
16		68.12	32.93	8.17	33.31	2.27	
	17+	66.68	30.77	15.16	40.43	-	

**TABLE 5b. % Students who used tobacco in Tarapoto and Trujillo – Peru 2000**

City		Ever smoked cigarettes %	Current use			1ST smoked cigarettes before age 10 %	
			Cigarettes %	Other tobacco products %	Any Tobacco products %		
TARAPOTO	Total	44.72	16.19	5.16	18.54	3.87	
	Gender	Male	56.22	21.65	5.61	23.29	4.22
		Female	32.20	10.12	4.42	13.05	3.25
	Form	2	28.70	11.55	6.48	15.31	3.42
		3	50.02	15.25	4.87	17.52	4.84
		4	57.30	21.62	3.77	22.74	3.55
	Age	< 12	51.86	9.47	9.21	14.49	6.11
		12	14.06	5.10	5.12	9.65	-
		13	24.45	8.77	6.31	12.66	5.13
		14	41.13	11.87	6.10	16.12	4.85
		15	53.82	19.57	4.68	21.30	3.60
		16	57.33	20.69	3.12	19.55	2.21
	16+	66.07	37.51	4.52	36.20	4.23	
TRUJILLO	Total	48.87	19.15	5.83	21.29	5.30	
	Gender	Male	59.88	27.15	6.73	27.87	7.26
		Female	38.22	10.47	5.14	14.06	3.19
	Form	2	33.29	12.20	5.73	16.38	5.40
		3	53.25	21.43	6.75	22.84	5.42
		4	61.37	24.33	5.17	24.95	4.79
	Age	<12	76.27	64.50	11.69	54.36	9.81
		12	25.34	14.42	4.16	17.37	3.03
		13	31.53	9.67	5.29	14.36	5.75
		14	46.92	18.29	4.96	19.58	6.54
15		56.40	19.43	5.50	20.74	4.54	
16		69.56	35.01	7.09	36.39	3.78	

Life prevalence for tobacco use exceeded 50% by the age of 15 in all of the cities (Tables 4 and 5). It was observed that consumption during the last month was mainly for cigarettes (16 to 20%). The use of other forms of tobacco was lower (5 to 7%). (Table 4). The use of tobacco in any of its forms reached values between 20 and 23.3% for the last month.

In all the cities, life prevalence and monthly prevalence increased as the study grade went up (Tables 4, 5A and 5B).

The figures related to tobacco consumption before the age of 10 were as follows: Huancayo, 7.37%; Lima, 5.93%; Tarapoto, 3.87%; and Trujillo, 5.3%. The proportion of men who smoked for the first time before the age of 10 with respect to women was higher in the city of Trujillo (men 7.26%, IC: 5.29-9.23; women 3.19%, IC: 2.11-4.26). There were no differences for the other three cities (Tables 5A and 5B).

## **ACCESS**

The results reached under the category access are demonstrated in Tables 6A and 6B. They show where and under which situations the students smoke, as well as where they procure them, and if those who got the cigarettes were turned down due to their age.

**TABLE 6A. % Students who currently smoke cigarettes by where they usually smoke and how they obtain their cigarettes – Huancayo & Lima – Peru 2000.**

City		Usually smoke at home %	Usually smoke at school %	Usually smoke at a friend's place %	Usually smoke in social events %	Usually smoke at other public spaces %	Usually smoke at any place %	Bought cigarettes in a store %	Bought cigarettes & were not refused because of age %
HUANCAYO	Sex: Male	8.87	1.36	9.57	25.41	29.68	22.58	68.18	15.13
	Female	8.01	--	14.80	35.91	19.95	21.34	41.24	18.07
	Form: two	25.56	--	15.81	16.17	22.47	11.27	43.43	31.41
	Three	6.18	1.84	12.32	33.48	28.76	17.42	54.22	21.01
	Four	4.28	0.74	9.13	32.69	24.06	29.11	66.12	12.98
	Age: <12	--	--	--	100.00	--	--	--	--
	12	39.09	--	--	19.49	19.75	21.68	19.75	32.42
	13	15.34	--	15.85	33.86	16.90	11.97	57.68	38.31
	14	9.81	--	15.28	25.34	29.48	15.46	43.26	16.91
	15	4.67	2.21	8.88	31.52	25.35	27.37	69.15	9.60
	16	5.62	--	8.96	30.49	39.30	15.64	73.76	21.18
	17+	24.62	--	13.52	15.86	8.76	37.24	35.04	11.38
	LIMA	Sex: Male	5.57	1.52	9.36	27.77	28.07	24.39	75.16
Female		18.55	3.25	8.93	24.18	25.22	18.48	53.99	28.20
Form: two		17.24	6.63	10.52	10.67	39.84	15.09	46.92	30.26
Three		14.56	1.07	7.56	26.91	26.75	21.31	68.66	29.04
Four		5.79	0.38	9.93	33.16	20.63	25.19	78.12	20.01
Age: <12		--	--	38.42	61.58	--	--	65.10	--
12		30.00	5.70	--	19.85	21.46	23.00	60.16	29.35
13		23.49	8.76	9.36	6.05	31.62	20.74	43.73	30.71
14		17.94	2.83	7.30	21.10	36.38	13.16	64.11	35.24
15		6.44	0.85	9.45	28.41	20.28	34.58	68.00	24.74
16		3.93	--	13.01	36.48	30.48	16.05	78.38	22.59
17+		--	--	--	41.83	14.28	17.01	67.74	4.71



**TABLE 6B. % Students who currently smoke cigarettes by where they usually smoke and how they obtain their cigarettes – Tarapoto and Trujillo**

City		Usually smoke at home %	Usually smoke at school %	Usually smoke at a friend's place %	Usually smoke in social events %	Usually smoke at other public spaces %	Usually smoke at any place %	Bought cigarettes in a store %	Bought cigarettes & were not refused because of age %
TARAPOTO	Sex: Male	7.21	1.22	13.45	58.49	4.14	13.43	57.80	31.00
	Female	43.94	--	12.14	33.66	--	10.27	38.12	39.46
	Form: two	8.04	3.67	15.26	42.21	6.71	17.93	29.04	47.81
	Three	28.95	--	15.76	44.56	2.06	8.68	63.62	22.97
	Four	13.93	--	10.48	61.49	1.61	12.48	57.74	28.84
	Age: <12	--	--	--	--	--	--	100.00	--
	12	--	--	--	--	--	100.00	--	--
	13	7.86	10.65	8.85	37.32	17.48	17.85	49.43	16.09
	14	40.15	--	20.13	33.57	--	6.06	48.16	23.36
	15	13.79	--	13.64	59.27	1.90	7.54	57.31	32.90
16	8.92	--	8.01	58.80	--	24.27	56.35	39.01	
17+	13.71	--	15.03	57.17	5.08	9.02	51.02	44.13	
TRUJILLO	Sex: Male	8.01	1.33	9.09	31.30	24.35	25.16	68.21	17.72
	Female	14.33	2.93	21.93	38.74	12.48	9.60	55.68	19.36
	Form: two	24.87	2.99	10.10	19.07	19.72	21.17	55.64	19.61
	Three	5.49	2.76	21.84	27.91	22.31	19.69	55.79	12.39
	Four	6.62	--	5.24	44.81	20.99	22.35	76.71	21.21
	Age: <12	--	--	--	15.77	--	84.23	84.23	84.23
	12	54.96	--	--	16.71	13.74	14.58	100.00	14.58
	13	20.47	2.62	9.66	12.32	30.64	24.29	59.90	15.64
	14	8.50	3.02	15.66	30.47	26.12	16.24	56.19	18.56
	15	6.11	2.00	12.99	34.92	25.55	18.43	63.53	12.88
16	8.55	--	14.84	52.71	8.39	13.10	62.64	22.00	
17+	11.83	--	--	24.31	16.43	47.43	84.33	--	

Students smoke mainly in social events (Huancayo. 30.7%; Lima, 26.3%; Tarapoto, 46%; Trujillo, 35%) and in other public places (Huancayo, 24.8%; Lima, 26.6%; Tarapoto, 4%; Trujillo, 18.4%). The proportion of students who smoke at school was lower than 3.5% in all the four cities included in the study.

There were no differences by sex among those who mainly smoked at home in Huancayo (men: 8.87%, IC: 3.17-14.56); women: 8.01%, IC: 0.05-16.08) and in Trujillo (men: 8.01%, IC: 1.34-14.68; women: 14.33%, IC: 3.66-24.99). On the contrary, in Lima and Tarapoto, the percentage of women who smoked at home was larger (Lima: men: 5.57%, IC: 1.42-9.72; women: 18.55%, IC: 10.83-26.27; Tarapoto: men: 7.21%, IC: 1.99-12.42; women: 43.94%, IC: 24.71-63.16). (Tables 6A and 6B).

Those students who mentioned that they normally smoke anywhere were one fifth of the total number of smokers for the cities of Huancayo (21.9%), Lima (21.4%) and Trujillo (17.38%). However, in Tarapoto, only 11.8% declared that they normally smoke anywhere.

Ten to fifteen percent of all the students who smoke mentioned that they usually smoke with friends (Huancayo: 12.18%; Lima: 9.1%; Tarapoto: 12.79%; Trujillo: 15.5%). Furthermore, in the four cities, no differences were detected between male and female students who smoke with friends.

Among the group of students in Lima who smoke mainly in social events, the study noted a proportional tendency to increase by age, for groups between 13 and 16 years, compared to the values of the 13 year-old group (13 years: 6.05%, IC - 0.72; 14 years: 21.1%, IC 13.7-26.49); 15 years: 28.41%, IC: 14.72-42.11; 16 years: 36.48%, IC: 23.72-49.24). (Tables 6A and 6B). This finding was not noted in the other three cities.

In all the cities of Peru we find that cigarettes are offered through the retail sale of 20-cigarette packets or through the unitary sale of cigarettes, one by one. There is a vast supply of single cigarettes through ambulatory vendors in almost every other street, in bus stops and even in movie theaters, bars and coliseums. Ambulatory sales involve people of all ages and sexes, even children under the age of 10. The supply of cigarettes through vending machines is minimal in Peru.

This situation is especially notorious among the percentage of students who buy cigarettes in a store (Huancayo: 53.17%; Lima: 64.70%; Tarapoto: 45.96%; Trujillo: 61.9%). The proportion is slightly higher in the coastal cities (Lima and Trujillo) than in the cities located in the highlands (Huancayo) or Jungle (Tarapoto). The study also found that the proportion of men in Lima and Huancayo who bought cigarettes in stores was higher than women. Huancayo (men: 68.18%, IC: 58.6-77.7; women: 41.24%, IC: 26.19-56.29) and Lima (men: 75.16%, IC: 67.42-82.9; women: 53.99%, IC: 44.91-63.08).

In the cities of Lima and Tarapoto, the percentage of students who buy cigarettes in a store increases as the level of education rises (Lima: Second grade: 46.92%, IC: 37-18-56.65; Third grade: 68.66%, IC: 58.86-78.45; Fourth grade: 78.12%, IC: 64.11-86.13) (Tarapoto: Second grade: 29.04%, IC: 15.18-42.9; Third grade: 63.62%, IC:

51.75-75.49; Fourth grade: 57.74%, IC: 47.4-68.08). This increase was not clear for the cities of Huancayo and Trujillo.

The number of students who bought cigarettes and were not turned down due to their age varies by city: Huancayo 16.6%; Lima 25.4%; Tarapoto 47.96%; and Trujillo 18.54%. (Tables 6A and 6B). There was no clear relationship with the level of education or sex. These results are consistent with the observation that in Peru there is a permissive attitude towards the supply of tobacco to minors, which is notably higher among street vendors.

## **CESSATION**

The number of students who wish to stop smoking now is high and in all cases it exceeds 65% of the students in all the four cities. The desire to stop smoking is found in all age groups, all levels of high school education, and in both sexes, without a definite pattern (Tables 7A and 7B).

**Table 7A. % Students who currently smoke cigarettes but desire to stop and attempt to stop smoking – Huancayo & Lima - Peru 2000**

City		Desire to stop %	Tried to stop %	To stop smoking if wish to %		
HUANCAYO	Gender	Male	77.69	66.58	94.59	
		Female	66.16	68.16	100.00	
	Form	2	73.22	88.43	90.41	
		3	80.75	73.13	100.00	
		4	71.73	62.43	94.88	
	Age	11	100.00	--	--	
		12	--	--	100.00	
		13	90.99	84.81	82.04	
		14	63.16	63.63	96.50	
		15	67.55	65.72	98.55	
		16	85.49	66.73	100.00	
		17+	91.44	58.65	80.18	
	LIMA	Gender	Male	70.49	66.70	91.49
			Female	64.26	59.89	93.31
Form		2	61.42	58.66	86.99	
		3	62.33	66.77	92.70	
		4	74.29	64.41	94.69	
Age		11	100.00	100.00	100.00	
		12	72.62	54.51	90.68	
		13	36.98	54.07	100.00	
		14	61.65	56.42	86.68	
		15	66.20	66.11	95.50	
		16	73.19	70.00	88.81	
		17+	89.48	63.95	95.48	

**Table 7B. % Students who currently smoke cigarettes but desire to stop and attempt to stop smoking – Tarapoto & Trujillo- Peru 2000**

City		Desire to stop %	Tried to stop %	To stop smoking if wish to %		
TARAPOTO	Gender	Male	83.20	77.49	95.05	
		Female	95.17	90.06	95.53	
	Form	2	86.72	95.95	100.00	
		3	85.58	78.88	96.56	
		4	86.31	69.96	91.44	
	Age	11	100.00	--	--	
		12	100.00	100.00	100.00	
		13	100.00	100.00	100.00	
		14	81.23	79.95	94.69	
		15	80.24	31.79	95.94	
		16	82.29	70.11	93.27	
		17+	100.00	91.36	92.85	
	TRUJILLO	Gender	Male	80.96	79.67	95.90
			Female	65.64	69.66	95.60
Form		2	85.24	85.08	87.24	
		3	73.81	71.98	95.23	
		4	79.27	81.31	96.49	
Age		11	100.00	--	100.00	
		12	100.00	100.00	100.00	
		13	82.80	79.13	80.90	
		14	74.38	74.29	97.47	
		15	83.21	82.76	94.33	
		16	73.99	73.46	93.28	
		17+	57.27	61.03	100.00	

The number of smoking students who has tried to quit smoking is high. Seven out of every 10 smoking students has tried quitting in Huancayo and Lima, and eight out of ten have done so in Tarapoto and Trujillo. In contrast, nine out of every 10 smoker students interviewed believed that they could stop smoking whenever they wished to.

(Tables 7A and 7B). There were no significant differences by age, sex, or educational level in any of the cities involved in the study.

## KNOWLEDGE AND ATTITUDES

Table 8 shows the perception that smoking is harmful for the health among smoking and non-smoking groups for the four cities.

The number of habitual smokers (HS) who believe that smoking is harmful is greater for both sexes than among the non-smokers (NS). There were no differences between habitual and non-smokers of both sexes.

Huancayo:	HS:	men:	19.51%	(IC: 13.17 - 25.84)
		women:	17.23%	(IC: 6.55 - 27.92)
	NS:	men:	5.7%	(IC: 3.72 - 7.68)
		women:	8.28%	(IC: 3.09 - 9.48)
Lima:	HS:	men:	27.78%	(IC: 17.90 - 33.67)
		women:	15.74%	(IC: 10.10 - 21.37)
	NS:	men:	11.03%	(IC: 7.57 - 14.50)
		women:	7.8%	(IC: 5.50 - 10.08)
Tarapoto:	HS:	men:	15.65%	(IC: 9.69 - 21.62)
		women:	23.25%	(IC: 9.88 - 36.63)
	NS:	men:	8.12%	(IC: 13.36 -28.17)
		women:	5.05%	(IC: 2.32 - 7.78)
Trujillo:	HS:	men:	20.77%	(IC: 13.36 - 28.17)
		women:	22.48%	(IC: 6.08 - 38.88)
	NS:	men:	6.07%	(IC: 0.75 - 11.38)
		women:	6.70%	(IC: 2.41 - 10.98)

With respect to the question, “is it difficult to stop smoking once you have started?” the answers among habitual smokers and non-smokers did not keep a specific pattern: Huancayo (HS: 13.2%, NS: 13.0%), Lima (HS: 7.91%, NS: 17.35%), Tarapoto (HS: 11%, NS: 15.87%), Trujillo (HS: 8.59%, NS: 13.1%).

One third of the students who smoked and almost half of the non-smokers from the four cities considered that “it is safe to smoke for one or two years, provided you quit afterwards”: Huancayo (HS: 33.35%; NS: 46.42%); Lima (HS: 32.05%; NS: 54.33%); Tarapoto (HS: 35.17%; NS: 52.82%); Trujillo (HS: 33.02%; NS: 54.61%). (Tables 8A and 8B).

**TABLE 8A. % Students who know about the dangers of tobacco and attitudes towards smoking, for current and never smokers- Huancayo & Lima – Peru 2000.**

City		Current smokers: Tobacco is harmful %	No smokers: Tobacco is harmful %	Current smokers: Once someone starts smoking, difficult to stop %	No smokers: Once someone starts smoking, difficult to stop %	Current smokers: Safe to smoke for 1 / 2 years %	No smokers: Safe to smoke for 1 / 2 years %	
HUANCAYO	Gender	Male	19.510	5.707	8.779	14.254	31.056	46.344
		Female	17.235	6.288	17.682	11.934	35.652	46.519
	Form	2	12.096	3.433	8.742	11.332	25.843	51.460
		3	24.192	8.060	11.831	15.056	32.188	41.430
		4	18.605	8.383	13.638	11.586	35.598	47.260
	Age	11	--	--	100.000	13.551	--	41.886
		12	19.876	1.895	--	11.642	21.677	55.381
		13	--	4.708	10.061	9.313	38.638	50.366
		14	17.275	4.869	15.317	14.257	36.175	44.374
		15	19.085	9.017	12.813	16.359	35.901	52.960
		16	24.248	5.994	6.002	10.103	29.311	31.310
		17+	29.861	17.155	13.969	11.551	15.227	20.750
	LIMA	Gender	Male	25.78	11.03	4.38	20.31	27.61
Female			15.74	7.80	11.44	14.48	36.50	53.43
Form		2	24.75	9.07	4.86	16.14	29.48	54.80
		3	20.25	9.36	8.04	17.67	25.79	50.88
		4	21.09	9.43	9.16	16.30	37.03	56.42
Age		11	--	9.44	74.99	--	40.09	39.20
		12	43.32	9.58	--	13.10	50.20	60.59
		13	25.77	9.34	2.10	16.25	27.43	51.73
		14	15.16	6.61	6.40	17.88	30.61	57.64
		15	23.24	10.27	10.30	19.20	30.02	46.45
	16	24.75	8.75	5.43	15.44	34.64	64.12	
	17+	10.97	18.45	13.71	14.63	37.48	50.24	

**TABLE 8B. % Students who know about the dangers of tobacco and attitudes towards smoking, for current and never smokers- Tarapoto & Trujillo – Peru 2000.**

City		Current smokers: Tobacco is harmful %	No smokers: Tobacco is harmful %	Current smokers: Once someone starts smoking, difficult to stop %	No smokers: Once someone starts smoking, difficult to stop %	Current smokers: Safe to smoke for 1 / 2 years %	No smokers: Safe to smoke for 1 / 2 years %	
TARAPOTO	Gender	Male	15.65	8.12	6.99	16.85	33.49	53.25
		Female	23.25	5.05	16.05	14.89	36.86	52.39
	Form	2	22.12	6.45	7.92	19.26	20.28	51.84
		3	23.55	6.53	4.21	11.92	47.86	52.93
		4	9.94	4.84	14.62	13.38	34.06	53.49
	Age	11	--	--	--	--	--	29.25
		12	--	--	--	16.76	--	37.63
		13	24.37	5.34	--	20.28	41.58	54.70
		14	32.22	9.57	9.13	11.95	28.48	52.90
		15	12.54	4.26	10.89	15.09	42.34	59.60
		16	9.27	11.18	13.33	15.54	18.38	46.10
		17+	18.10	--	10.14	24.16	33.78	41.09
	TRUJILLO	Gender	Male	20.77	6.07	11.17	14.43	31.95
Female			22.48	6.70	6.01	11.62	34.09	52.61
Form		2	19.74	8.30	13.90	11.85	26.70	48.17
		3	21.48	5.38	7.08	15.00	41.60	50.74
		4	19.32	4.35	8.47	10.65	25.00	57.13
Age		11	--	--	72.75	--	--	--
		12	16.71	2.98	--	14.83	16.71	45.48
		13	17.75	10.81	9.22	13.15	19.23	43.86
		14	23.36	4.94	11.36	13.42	40.09	57.73
		15	20.79	2.89	10.14	12.78	38.58	53.36
	16	13.97	7.72	5.35	9.49	29.93	39.46	
	17+	31.39	16.39	--	5.23	15.23	58.65	



## INFLUENCE OF THE MASS MEDIA AND ADVERTISING

**TABLE 9A. % Students who have seen anti-smoking messages and also advertisements for cigarettes – Huancayo & Lima – Peru 2000**

City		Saw anti-Smoking Media Messages %	Saw Anti-Smoking Messages at sporting & other Events %	Discussed effects of smoking in a school class %	Saw Advertisements For cigarettes on Billboards %	Saw Advertisements For cigarettes in newspapers & magazines %	Saw Brand names when watching sports events or other programs on TV %	Saw Ads for Cigarettes at Sports Events %	
HUANCAYO	Gender	Male	44.98	19.40	36.89	16.13	22.43	9.78	23.24
		Female	41.40	25.88	34.90	13.34	16.26	12.42	18.20
	Form	2	45.01	26.65	37.79	14.81	18.39	10.74	20.83
		3	47.75	27.91	40.53	14.86	19.94	11.94	21.80
		4	35.87	12.02	70.81	13.67	20.30	11.00	19.88
	Age	11	81.98	36.41	15.11	46.97	78.94	--	51.62
		12	42.53	28.03	37.10	12.98	19.59	13.04	15.68
		13	44.01	27.79	39.55	13.09	16.14	11.52	17.43
		14	46.68	21.92	43.78	17.14	19.87	9.60	23.08
		15	34.67	16.01	30.98	16.11	21.53	9.43	22.89
16		43.06	20.08	25.31	9.89	17.91	16.72	21.21	
17+		49.75	32.26	30.04	5.84	12.03	14.83	15.48	
LIMA	Gender	Male	37.40	18.40	31.33	21.71	25.69	21.31	20.06
		Female	41.00	28.02	31.03	17.96	22.72	7.41	20.17
	Form	2	49.40	24.54	30.95	23.73	25.45	7.16	22.92
		3	34.08	24.63	28.76	17.99	21.79	7.41	20.48
		4	34.28	20.07	35.41	16.90	26.30	6.62	17.92
	Age	11	63.56	28.72	35.63	12.75	4.65	21.31	12.82
		12	44.52	26.45	32.90	21.59	19.87	7.41	20.93
		13	45.93	22.79	26.24	23.58	25.12	6.89	22.61
		14	37.97	27.28	29.03	19.45	25.04	7.47	20.23
		15	35.41	19.48	30.40	17.57	23.33	6.23	18.08
16		31.80	21.37	39.30	15.84	26.91	6.50	20.87	
17+		42.75	20.57	45.96	20.72	24.59	12.84	23.44	

**TABLE 9A. % Students who have seen anti-smoking messages and also advertisements for cigarettes – Tarapoto & Trujillo– Peru 2000**

City		Saw anti-Smoking Media Messages %	Saw Anti-Smoking Messages at sporting & other Events %	Discussed effects of smoking in a school class %	Saw Advertisements For cigarettes on Billboards %	Saw Advertisements For cigarettes in newspapers & magazines %	Saw Brand names when watching sports events or other programs on TV %	Saw Ads for Cigarettes at Sports Events %		
TARAPOTO	Gender	Male	58.14	15.19	49.74	19.19	22.42	8.71	31.44	
		Female	60.50	16.14	55.25	19.44	20.45	9.45	19.85	
	Form	2	65.73	23.80	52.40	21.04	21.96	9.43	28.65	
		3	56.30	13.03	47.05	19.55	20.43	8.93	25.49	
		4	53.59	10.18	56.52	17.19	22.50	8.67	24.16	
	Age	11	62.85	44.66	61.05	16.32	39.03	--	78.24	
		12	66.39	11.10	43.46	13.53	15.47	7.44	26.38	
		13	65.93	21.72	51.25	19.85	20.36	10.52	21.18	
		14	53.68	16.93	46.58	22.37	23.74	4.92	25.10	
		15	56.63	12.11	53.82	17.08	17.58	10.72	25.58	
		16	61.89	18.94	54.62	17.90	23.95	14.49	24.85	
		17+	59.31	9.21	65.77	21.09	31.20	6.07	35.55	
	TRUJILLO	Gender	Male	46.49	16.12	44.12	19.14	25.31	8.16	24.07
			Female	48.80	26.54	41.81	13.25	14.52	11.66	18.83
Form		2	53.46	27.27	47.19	16.02	19.38	11.88	22.21	
		3	45.93	22.07	42.26	16.67	22.97	10.82	20.91	
		4	42.26	13.42	37.76	14.63	17.06	6.16	20.63	
Age		11	45.40	37.80	47.74	81.47	27.02	--	72.75	
		12	52.65	19.16	48.25	19.60	25.57	9.90	13.81	
		13	50.48	22.93	49.41	16.12	18.54	12.03	21.22	
		14	46.46	24.13	40.94	19.45	24.12	6.70	24.31	
		15	45.18	17.70	41.74	12.82	14.51	12.94	20.61	
	16	44.38	17.24	39.28	14.73	21.42	9.45	14.78		
	17+	57.74	31.45	30.75	2.25	22.92	4.49	25.12		

The tables on media and advertisement (Table 9A & 9B) show students exposure to both positive and negative information from different mediums. The role of the media

in influencing behavior is well known, and this is a starting point for most programs that try to advocate for anti-smoking. Students were asked about their exposure to anti-smoking messages as well as cigarettes advertisements.

Four or five students out of every ten mentioned having seen many messages against tobacco through the mass media. This figure is higher between second grade high school students in the city of Lima: second grade: 49.4% (IC: 45.04 - 53.74); third grade: 34.08% (IC: 31.18 - 36.99); fourth grade: 34.28% (IC: 27.8 - 40.76).

Approximately two out of every 10 students saw many messages against tobacco while attending sporting events, concerts and others events (Tables 9AA and 9B). In Lima, a higher proportion of female students saw many messages against tobacco while attending sporting events, concerts and others (male 18.4% (IC: 14.45 - 22.35); female 28.02% (IC: 24.12-31.92)). The study did not find this difference in the other cities. No differences were found either for educational level or age.

We found that in the schools located in the four cities of the study, teachers and students discussed the effects of smoking during class. In Tarapoto, 5 out of every 10 students mentioned affirmatively to the question, and 3-4 out of every 10 students from Huancayo, Lima and Trujillo stated the same. (Tables 9A and 9B).

Between 15 and 20% of the students stated having seen cigarettes ads in panels in the streets of the four cities. The proportions by sex are similar. The study did not find any major differences by age of educational level either.

Two out of every 10 students saw cigarette commercials in newspapers and magazines in the past 30 days. The proportion of male students who saw the ads was higher than the female students in Huancayo (male: 22.43% (IC: 20.19 - 24.68); female: 16.26% (IC: 12.69 - 19.82)) and in Trujillo (male: 25.31% (IC: 21.46 - 29.16; female: 14.52% (IC: 11.20 - 17.85)). A smaller proportion (one out of every 10 students) saw cigarette name brands while watching sports events or other television programs. There were no differences by sex, educational level or age.

Two or three out of every 10 students saw cigarette ads during sporting events. There were no differences between sex, educational level, or age groups.

## **EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE**

The results are presented in Tables 10A and 10B.

**TABLE 10A. % Students who are exposed to ETS and their attitudes towards ETS – Huancayo & Lima- Peru 2000**

City		Other smoke in their home %	Around others who smoke in other places %	Definitely think smoke from others is harmful to them %	Think smoking should be banned from public places %	
HUANCAYO	Gender	Male	24.42	38.37	46.50	87.25
		Female	20.92	30.38	53.41	91.09
	Form	2	17.55	27.59	55.58	90.38
		3	24.84	33.83	42.93	89.09
		4	24.98	42.15	52.63	88.02
	Age	11	24.91	46.49	59.71	91.16
		12	22.26	27.76	62.84	88.71
		13	15.51	27.85	56.73	90.09
		14	26.68	33.39	45.89	89.06
		15	27.80	41.40	48.58	88.77
16		16.28	33.93	47.32	89.60	
17+		26.69	41.52	40.13	86.91	
LIMA	Gender	Male	29.30	46.04	53.46	85.41
		Female	32.99	44.00	57.97	90.67
	Form	2	29.99	43.39	55.93	86.96
		3	30.99	44.40	54.97	88.32
		4	33.45	48.76	55.84	88.69
	Age	11	20.77	38.16	47.20	91.91
		12	21.22	34.76	55.06	88.78
		13	30.87	42.81	56.26	86.73
		14	30.77	40.05	58.12	89.83
		15	31.01	50.93	53.28	87.77
16		36.41	57.12	56.02	88.83	
17+		42.41	44.94	55.49	82.35	

**TABLE 10B. % Students who are exposed to ETS and their attitudes towards ETS – Tarapoto & Trujillo - Peru 2000**

City		Other smoke in their home %	Around others who smoke in other places %	Definitely think smoke from others is harmful to them %	Think smoking should be banned from public places %	
TARAPOTO	Gender	Male	35.10	43.39	52.55	85.43
		Female	32.83	39.47	58.34	93.52
	Form	2	32.07	35.71	51.42	82.71
		3	35.02	42.78	55.15	91.63
		4	36.33	47.00	58.77	93.92
	Age	11	35.78	39.43	32.47	83.43
		12	33.52	33.03	42.75	85.45
		13	28.20	40.29	64.76	85.06
		14	36.86	40.20	55.30	90.23
		15	32.32	38.44	56.93	93.58
16		39.92	50.21	51.13	84.39	
17+		36.61	55.61	36.34	91.17	
TRUJILLO	Gender	Male	31.58	46.62	57.33	90.39
		Female	24.52	37.92	63.92	90.54
	Form	2	28.68	34.74	63.94	87.36
		3	26.57	40.73	58.98	90.49
		4	27.93	52.90	58.09	93.97
	Age	11	78.40	54.36	69.23	81.59
		12	29.89	37.38	66.61	89.79
		13	29.23	34.24	62.37	87.95
		14	25.69	41.30	61.62	88.78
		15	28.81	43.57	60.59	92.21
16		23.29	52.85	51.16	92.30	
17+		34.76	47.17	55.09	93.70	

Exposure to environmental smoke is high in all Peruvian cities. For home exposure, two out of every 10 students in Huancayo stated having been near to persons who were smoking inside the house; while in Lima, Tarapoto, and Trujillo, three out of every ten students made the same reference.

Exposure to environmental smoke outside the house was even higher in all four cities: Huancayo (34.3%), Lima (45.2%), Tarapoto (41.43%) and Trujillo (42.97%).

Between five (in Huancayo) and six (in Lima, Tarapoto and Trujillo) students out of every ten respondents believed that cigarette smoke from other people was harmful. Nine out of every 10 students agreed that smoking should be banned from public places (Tables 10A and 10B). There were no differences by sex, age, or educational level.

## COMMENTS

The GYTS-Peru study was developed in four cities of the country: Lima, the capital city, with a population of close to 7 million inhabitants and that holds one third of the country's entire population; Trujillo, the second most important city in the country, located in the Peruvian Coastal region; Huancayo, located at 2300 meters above sea level, in the highlands of the Andes; and Tarapoto, a city located in the Jungle area of the country.

This study has defined the characteristics of tobacco prevalence among the student population of the four cities. Life prevalence in Lima was higher than in the other provincial cities. Consumption was higher among men than women, although in Lima, consumption among women shows a quick tendency to narrow the difference with male patterns, similarly to existing patterns in developed countries. Almost half of the student population interviewed had smoked at least once in their lives at age 15. In the city of Trujillo, it is more frequent to find men smoking before the age of 10 than women.

Students smoke mainly during social events, with friends or anywhere else. Women tend to smoke more at home than men in certain cities of Peru. It is less frequent to find that students smoke in school. The main models of retail commercialization of cigarettes are through stores and street vendors, who sell them by the unit. Half of the students bought their cigarettes in the stores. In Tarapoto, half of the students who purchased their cigarettes in a store were not turned down due to their age. The latter was noted in two out of every 10 students in the cities of Huancayo, Lima, and Trujillo, and none were turned down due to their age.

A large percentage of students who have smoked (more than 65%) wish to quit smoking. Seven out of every 10 students have tried to quit. This need to quit is frequently frustrated due to lack of institutional support, and also because most of the young students (9 out of 10) believe that they can quit smoking anytime they want to.

Even though 2-3 out of every 10 habitual smokers believe that smoking is harmful for their health, one third of the smokers, and almost half of the non-smokers in the four cities felt that "smoking is safe during one or two years, provided you quit afterwards".

There is a clear advertising campaign by tobacco companies that has great impact over the youngsters, particularly among those who attend high schools in Peru. Half of the students had seen anti-tobacco messages in the communications media. Two out of every ten students had seen anti-tobacco ads during sporting events, concerts and others, or in panels. The effects of smoking are discussed at school, although the level is still insufficient.

Exposure to environmental tobacco smoke is high in the four cities of the study. Two out of every 10 students are exposed inside their homes, and 3-4 out of every ten is exposed outside their homes. Five (Huancayo) to six (Lima, Tarapoto, Trujillo) out of every ten students interviewed considered that the smoke from other persons' cigarettes were harmful. Nine out of 10 students agreed that smoking in public places should be banned. Peru has legal regulations that prohibit smoking in public places, however, it is necessary to implement the mechanisms that will force the public to comply with the law, or respect the right to keep an environment free of tobacco smoke.

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