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Philippines 2007 Regional Study on Smoking in Girls and Young Women

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ABSTRACT

The 2007 Philippines Regional Survey on Smoking in Girls and Young Women provides updated information on women and young girls' smoking experience and behavior, awareness of smoking bans and advertisements, their attitude and beliefs on smoking, and the smoking prevalence and behavior of their family members. A Cross-sectional survey was done for phase I and a qualitative study for phase 2. The survey was conducted in Manila and Zamboanga with a total of 3,000 respondents from 15 schools and 14 college institutions. The quantitative and qualitative analyses revealed a higher prevalence of 37.8% of respondents who had ever smoked cigarette from which 18.7% of the girls are current smokers. The high 60.3% of the girls first tried cigarette smoking at the age of 18 years and above. Drawn from the qualitative results is a mixed form of tobacco promotions in the country with weak on penalty measures as claimed by the girls. Despite a high knowledge and awareness of anti-smoking messages, the tobacco smoking is still prevalent. Cigarette access is widely available, accessible and tobacco advertisements still flourish with young girls and women as captured consumers. There are promising counter strategies, laws and policies to be learned for the campaigns to succeed. Based on the findings, smoking prevention can be effective if a strong community-school based partnership is forged. There is a need for a more concrete and empirical evidence on sanctions and penalties meted-out to those who violete smoking policies, laws and media campaigns on the adverse effects of smoking and second hands smoking on one's health. Further, there is a need of health programs on smoking intervention, training for teachers, deans of discipline and guidance counselors initiated at the first four years high school to include monitoring, evaluation and smoking surveillance in all schools and campuses.

Keywords: Smoking, Young Women

INTRODUCTION

Smoking prevalence among the youth in Southeast Asia has been regarded as one of the highest in Asia. Smoking prevalence among young men aged 15-19 is high: 38% in Indonesia, 33% in Thailand, 30% in Taiwan, 28% in the Philippines, and 12% in Nepal. Smoking prevalence is very low among young women in all of the Asian countries under study, the highest being 5 percent in Taiwan.

The Philippines (population 80 million) is the 15th biggest consumer of cigarettes in the world and the largest consumer among the Association of

Southeast Asian Nations (ASEAN). Some 54% of adult men and 11% of adult women smoke with overall adult smoking prevalence being the fourth highest among ASEAN countries. Tobacco use among Filipino youth (18 years or less) is high, with approximately 37% of young men and 18% of young women smoking on at least a monthly basis. There has been a 33% increase in the prevalence of having ever smoked since 1995. Alarmingly, almost one fifth of young Filipinos begin smoking before age 10. A 1999 government white paper on smoking calculated that two Filipinos die every hour from tobacco use.

The 2007 Philippines Regional Survey on *Smoking in Girls and Young Women* provides updated data on women and young girls smoking experience and behavior, awareness to smoking ban and advertisements, attitude and beliefs on smoking, smoking prevalence and smoking behavior of the respondent's family. Smoking prevalence among young women is rapidly increasing globally whereas for men it is in decline. Although current overall prevalence is about four times higher among men than women globally (48% vs 12%), this situation is quickly changing. Recent studies show that young girls are smoking in most countries nearly as much as young boys, and in some, their prevalence is already higher. Between 1950 and 2000, about 10 million women died from tobacco use and the figure is expected to double in the next 30 years. According to Mackay and Amos, "the epidemic (of tobacco use) among women will not reach its peak until well into the 21st century. This will have enormous consequences not only for women's health and economic wellbeing but also for that of their families"

The Philippine Situation

In 2004, the BMJ World Health Intelligence Report revealed that the Philippines overall adult smoking prevalence is (54%) for adult men and (11%) for adult women. The report of Mackay, 2002 placed Philippines as the fourth highest among ASEAN countries in smoking prevalence. Likewise the news article in 1996 also reported tobacco use among Filipino youths from ages 18 years old and below to be high. Approximately, there are (37%) young men and (18%) young women who smoke on at least on a monthly basis according to the studies done by Alechnowics and Chapman in 2004.

From the government report, there has been (33%) increase in prevalence of having ever smoked since 1995. It is quite alarming that almost one fifth of the young Filipinos begin smoking even before reaching the age ten years old (Baquilod, 2001). The WHO study in 1999 on smoking related hazards, revealed an average of two Filipinos die every hour from tobacco use.

The Philippine population is close to 77 million. This country is considered as the biggest consumer of cigarettes in the world which also ranked as the largest consumer of cigarette among the Association of Southeast Asian Nations (ASEAN). Presently, in the Philippines, cigarette prices are low (Guindon et al, 2002) with the price of Malboro brand being second lowest for all ASEAN nations. The cigarette market has been dominated by menthol brands for several decades, although non menthol volume has been steadily improving in recent years. La Suerte Cigar and Cigarette Company and Fortune Tobacco Company (FTC) have been the leading producers with licensing agreements. The FTC commands a (67%) market share while La Suerte holds only (25%) share.

The local tobacco company sponsors annual sports tours and produces yearly calendars featuring sexy pop stars posing with cigarette packs (Philip Morris Asia, 1993; Villasis, 1972; Anon, 1973). Added to these are home utilities, Tshirts and traveling bags bearing cigarette brand name on it. Tobacco had sponsorship on sports (Phillip Morris, 1983; 1993; INFACT, 1994; Feliciano, 1988), prominent ads for bistros, boutiques, travel companies and TV films all bearing tobacco company logos locally. These are the very special concern in all the regions in the Philippines especially that awareness of the hazards of smoking is low and sometimes nonexistent. Local governments where this situation is rampant lack financial resources and experience in dealing with the tactics of the tobacco industry.

Tobacco Use in the Philippines

According to Baquilod (2001) the latest survey done for Philippines, one in every three adult Filipinos smoked. From the estimated 33% of the adult Filipinos the remaining 33% has ceased smoking. Of the 74 million Filipinos in 1999, the 34 million from this figure have been approximately directly exposed to risks for cancer and other disease related to tobacco use. While there are less than a half of all Filipinos actually using tobacco, however their smoking directly affects at least 60% of all household in the Philippines. Estimates from the report revealed the households are smoke free. With an average of 5.1 members per household, there would be approximately 35 million passive smokers in the country.

From the results of the GYTS survey, tobacco use among Filipino youths is alarming with 30% adolescent from the urban areas smoke. The 70% of which has been reported started smoking between 13-15 years old. Overall, from the same report, the 40% of the boys and 19% of the girls aged 10-14 are already considered regular smokers. The World Health organization expects this figure to rise as tobacco companies are aggressively marketing products to the children to the extent of promoting sample packs for free hoping to make them addicted to nicotine and thus ensure continuing market for tobacco.

The GYTS 2000 and 2003 survey for the Philippines revealed approximately four in ten students ever smoke cigarettes even in one or two puffs. The estimates showed a higher percentage (42.8%) in 2000 compared to (41.9%) in 2003. The adolescent boys more likely smoked than adolescent girls. The same report also revealed that one in eight students who had smoke cigarette had started smoking below 12 years old. Almost equal percentages were also revealed with 12.9% in 2000 and 12.7% in 2003 for boys who smoked below 12 years old.

To date, there is often little known about the less emphasis on the health risks of second hand smoke from tobacco faced by women. Tobacco control programs particularly in developing rural cities are not popular and not well disseminated or even inadequate, and those that are exists are often directed for men. Specific campaigns for girls and women are rare and principally concentrated on the health effects of the unborn child or fetus. There are few programs encouraging and campaigning women to quit smoking for their health sake and family.

OBJECTIVES OF THE RESEARCH

This research aims to find out what are the governing factors that lead youths to smoke and causes influencing them otherwise. Specifically, the research will try:

1. To determine the vulnerability and extent of smoking of the respondents.

2. To examine the girls' and young women's awareness and perception of ban on advertising, promotion and sponsorship and health warnings on cigarette.

3. To determine exposure to tobacco advertising, promotion and sponsorship among the respondents.

4. To examine respondents' support for tobacco control policies.

5. To examine respondents' perception of tobacco industry's youth smoking prevention programme and corporate social responsibility activities.

METHODS

Cross-sectional surveys of lower and upper secondary school girls and female college/university students were conducted. A combined quantitative and qualitative method was used to investigate the above objectives. The first phase of the study involved cross-sectional sample surveys of female secondary and college students. Data were collected using a self-administered structured questionnaire. This was followed by a more in-depth examination of key findings obtained from the surveys using focus group discussion method. The objective was to elicit better understanding and interpretation of survey results.

The Survey Instruments and Data Collection

The survey questionnaires were the main instrument for the data collection for the first part of the study. The Philippine instruments consisted of two parts with a total of sixty eight items. Part I of the survey consisted of four aspects namely; (1) smoking behavior (2) smoking experience and awareness (3) smoking ban (4) attitudes and beliefs. The Part II included the (5) respondents family demographics and lastly the (6) smoking prevalence.

In the administration of the questionnaires, the objectives and instructions were provided to the students on how best to answer the items. These were administered to in-tact classes in the secondary schools as well as in the tertiary institutions.

The study obtained a total sample of 3,046 female secondary and college/university students in the category of 13-15, 16-19 and the 20-25 year olds. The breakdown in samples according to geographical location and age group is presented below.

Table 1. Sampling Categories and Sizes

Location	**13-15 years old**	**16-19 years old**	**20-25 years old**	**Total**
Urban (Manila)	525	501	505	1531
Rural(Zamboanga)	510	505	500	1515
Total	1,035	1,006	1005	3046

The responses on the questionnaires were done by marking the boxes on the choices provided or by filling out the actual data requested. The survey was administered between Sept to Oct 2007 which lasted for six weeks. The questionnaires from the urban areas after retrieval were sent through post to be incorporated with the rural samples prior to data analysis. The cities of Manila and Zamboanga are geographically located at extreme north and south of the Philippine archipelago. The response to the survey was voluntary with no additional incentives provided to increase the response rate, at 100%.

The survey was done for a period of six weeks. Prior to the survey, a cursory list of schools and universities were obtained from the National Capital Region, Manila from the Offices of the Department of Education and Commission on Higher Education. The selection of schools from both the rural and urban capital areas was done randomly based on school locations. Permission was also sought from both DEPed and CHED to administer the survey questionnaires for the two locations. The schools were designated either urban or rural likewise public and private.

Sampling for School based Survey

The urban samples were obtained from seven high schools and seven tertiary institutions were from Manila, Quezon City, the capital urban area. However, after one school decline to participate, an alternate school from Makati City was added in order to complete the one thousand five hundred samples required for the urban quota.

Likewise from the rural area, eight high schools and seven tertiary Institutions were obtained from Zamboanga City to complete one thousand five hundred respondents. In the survey, the private high schools were medium size schools while the public schools were large schools. The other three tertiary schools were public state universities with 16,000 to 20,000 students' population.

Overall, there were a total of fifteen secondary schools which consisted of nine large public high schools and the remaining six schools were private medium size schools. The term *large schools* refers to schools with more or less 6,000 student population while medium schools have more or less 2,000 to 3000 thousand students' population.

Sampling of Female College and University Students

For some of the tertiary schools, the classrooms were highly selected due to the limited number of girls in the classrooms with ages 23-25. The age brackets from 21 to 25 years old among Filipinos have usually finished their Bachelors degree. The classes that qualified for the age group 20 to 25 years old were obtained mostly from courses with five year degree program or those enrolled in the graduate programs of the school.

Table 2. Percentage by Respondents' Year Level

Items		Year level of Respondents									
Category		1st year high school	2nd year high school	3rd year high school	4th year high school	1st year BS	2nd year BS	3rd year BS	4th year BS	5th year BS	Graduate
AGE GROUP											
13-15	Urban	66.0	38.9	60.4	42.9						
	Rural	34.0	61.1	39.6	57.1						
16-19	Urban			67.0	36.3	49.3	59.7	45.7	34.1		
	Rural			33.0	63.7	50.7	40.3	54.3	65.9		
20-25	Urban							54.0	39.5	49.5	94.4
	Rural							46.0	60.5	50.5	5.6
Location	Urban	62.3	39.9	61.1	39.9	46.2	62.9	50.9	38.6	49.0	94.5
	Rural	37.7	60.1	38.9	80.1	53.8	37.1	49.1	61.4	51.0	5.5
Total Philippines		3.7	11.0	17.0	11.9	8.7	10.3	14.8	16.8	3.2	2.4

From Table 2, the young girls were sampled from various high schools from the first year to fourth year classes for both urban and rural areas. Overall, for the high school level, the first year constituted (3.7%), (11.0 %) second year (17.0%) third year and (11.9%) from fourth year. The greater percentage was obtained from the third year high school.

Among the young women respondents, the (8.7%) were first year college, (10.3%) second year college, (14.8%) third year college, (16.8%) fourth year and (3.2 %) for those in the five year program of their bachelors degree with only (2.4%) from the higher degrees respectively. The greater percentage came from the fourth year level.

The survey data also shows the overall proportion of the rural and urban respondents by year levels. Among the urban respondents the greater majority equally came from (62.3%) first year high school and (62.9%) second year college and (94.5%) from the higher degrees respectively.

On the other hand, from the rural area, the greatest proportion were from (80.1%) fourth year high school, (60.1%) second year high school, and (61.4%) fourth year.

Survey Questions

The survey included measures of:

a. Awareness of and support for tobacco control policies and regulations such as smoking restrictions, ban on advertising, promotion and sponsorship, as well as warnings labels on cigarette pack.
b. Exposures to tobacco advertising and promotion and anti-smoking activity.
c. Beliefs about the tobacco industry and perception of tobacco industry youth smoking prevention programme and corporate social responsibility activities.
d. Smoking status and smoking history, including daily consumption, brand used, and age of onset.
e. Demographic characteristics (grade, age, gender, etc.)

Data analysis

The data collected were processed and analyzed using SPSS. Cross-sectional comparisons each category of respondent and between urban and rural area were carried out. Analyses of relationships between awareness, beliefs and smoking status were examined. Quantitative data obtained from the survey of female respondents were analyzed using descriptive statistics. Frequencies, means, and standard deviations were calculated where appropriate for socio-demographic variables (such as gender, age, etc.), knowledge-attitudes-perception about tobacco and tobacco use; smoking behaviors; and environmental factors.

The Survey data

The data from the questionnaires were analyzed using SPSS and DTREG software. Means, frequencies and percentages were used to describe the smoking behavior and experience, awareness on health risks on smoking, exposures to tobacco advertising, promotion, sponsorship and bans, attitude and beliefs towards smoking among girls and young women. The data were further cross tabulated and analyzed using Pearson chi square to determine significant differences across age groups and location.

The Multinomial Logistic Regression (MLR) was used as an index for comparison on the association of the observed variable to smoking.

Measures of Smoking Behaviour

Smoking status was assessed by asking "Have you ever smoked a cigarette, even just a few puffs?" and "How many cigarettes have you smoked in your life?" Respondent who had smoked at least one cigarette were asked: "Think about the last 30 days. How often did you smoke?" The following criteria were used to define smoking status: *Never Smokers* (have never smoked a cigarette); *Ever smokers* (have tried cigarettes, even just a few puffs) and *Current smokers* (smoked in the past 30 days).

Age of initiation was measured by asking, "How old were you when you first smoked a whole cigarette?" Cigarette consumption among current smokers was assessed by asking, "During the past week, on the days you smoked, how many cigarettes did you smoke each day?" Current smokers were also asked the reasons for smoking, how often they smoke with friends and in the presence of their parents, their preferred brand, where they usually get their cigarettes, where they usually smoke, and expenditure on cigarettes in the last month.

In addition, current smokers were also asked to report the date of their last quit attempt, their intention to quit, and whether various things have made them think about quitting.

The survey included one measure of susceptibility: "If you are not smoking now, do you think you will smoke a cigarette in the near future?" Perception of the ease of quitting was assessed by asking, "Once someone has started smoking regularly, do you thing it would be easy or hard for them to quit?"

Exposure to advertising and promotion

Exposure to cigarette advertising was assessed by asking respondents whether they have noticed cigarettes or tobacco products advertised in any of the following places: on posters, in magazines, at shops or stores, in discos/karaoke clubs, in lounges, etc., and on or around street vendors; and how often they have seen advertisements for cigarettes at sports events, fairs, concerts, or community events. Exposure to cigarette promotion was evaluated by two items: "In the last year, has anyone offered you a free sample of cigarettes, other than friends or family?"

Exposure to anti-smoking media campaigns

Exposure to anti-smoking media campaigns was measured by asking respondents, "In the last six months, have you noticed advertising or information that talks about the dangers of smoking, or encourages quitting, in any of the following places: television, radio, posters, billboards, newspapers or magazines, cinema, shops/stores, or on cigarette packs?" Respondents were also asked if they saw any advertisements from tobacco companies on the dangers of smoking.

Opinion on tobacco control measures

Respondents were asked their opinion on health warning on cigarette packs, ban on tobacco advertising, promotion and sponsorship, ban on smoking scenes in movies and TV programmes, ban on display of cigarette packs at point-of-purchase, tobacco industry and their corporate social responsibility activities of tobacco industry and implementation of tobacco control measures such as smoke free.

Opinion on smoke-free areas

Respondents were asked their opinion whether smoking should be allowed at various public places (hospital, workplace, air-conditioned and non air-conditioned restaurants, public transport, place of worship, college).

Knowledge and perception of risks of smoking

Knowledge and perception of the risks caused by smoking were assessed by asking if smoking causes various diseases, whether light or mild cigarettes are less harmful than regular cigarettes, consists cigarette smoking is harmful to smokers' health, and whether cigarette smoke is dangerous to nonsmokers.

Beliefs and attitudes toward smoking

Attitudes toward male and female smoking were measured using a six item scale and rated on a 4-point Likert scale ranging from "strongly agree" to "strongly disagree". Beliefs about smoking were assessed using an eight item scale ranging from "strongly agree" to "strongly disagree". Respondents were also asked about their overall opinion of smoking. Peer smoking was measured by asking respondents to indicate how many of their five closest friends smoke.

Results (MLR)

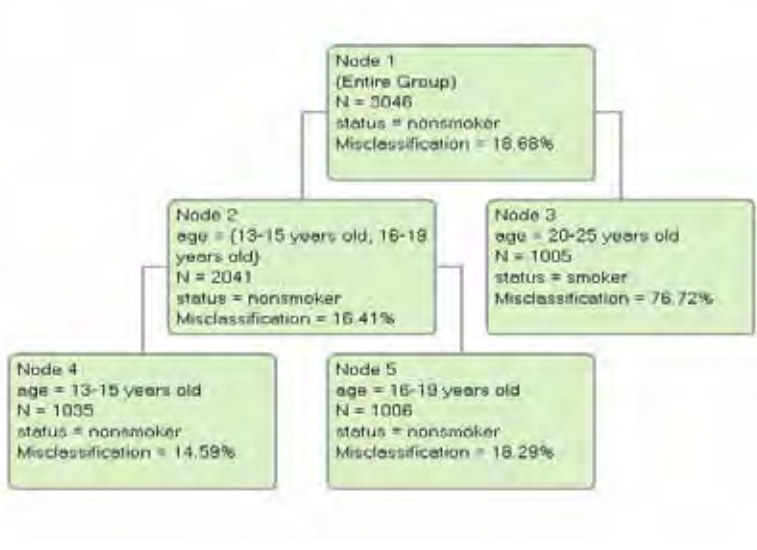

Figure 1. Decision/Classification Tree by Respondents' Age and Smoking Status

From initial classification in Fig.1, younger students (aged 13-15 and 16-19 years old) are most probable to be non-smokers with a high probability of 0.836 with a misclassification of 0.164. In contrast, older students aged 20-25 years old only have a probability of 0.236 and with a high misclassification of 0.767. Branching out among the younger students who don't smoke, misclassification for those aged 13-15 years old further decreases indicative that this age group has a greater predictive efficiency and higher odds to be non-smokers over older students.

Smoking is highly associated with student's age with girls aged 13-15 years old are most likely to be non-smokers.

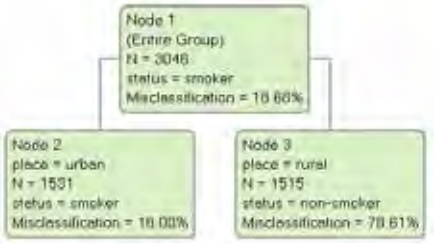

Figure 2. Decision/Classification Tree by Place and Smoking Status

From Figure 2, higher reliability is attained in predicting respondents' smoking status coming from urban areas. For urban areas, a 0.84 probability is expected for respondents' who are likely to be smokers.

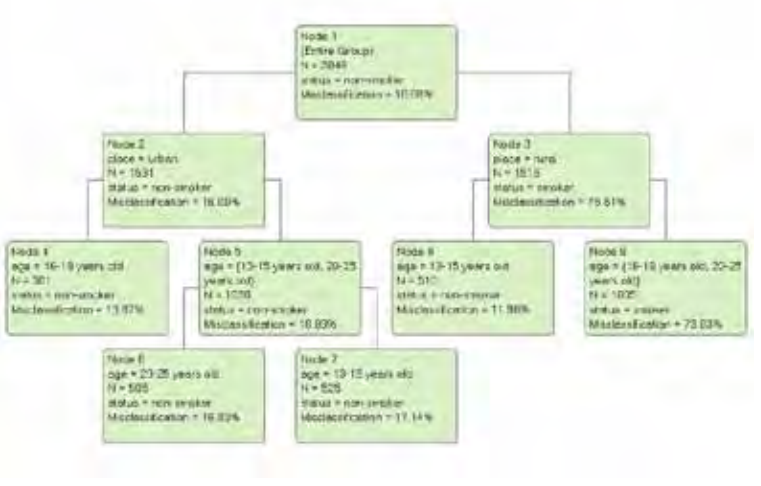

Figure 3. Decision/Classification Tree by Place,
Respondents' Age and Smoking Status

From Figure 3, higher predictive efficiency is attained at the urban category with a misclassification of 0.16. Under this category misclassification for younger students to be smokers is only 0.14 to 0.17.

Figure 4. Variable of Importance

By comparison between the two predictor variables, "age" is a more "important" variable than "place". In predicting respondents' smoking status (being a non-smoker or a smoker), prediction by age is 71% more accurate than prediction using "place".

Summary of Results

Not all predictors were in accord with the results in the preceding tables. Although the association between age and smoking status had been established, the other factors used to test the vulnerability to smoking; younger students (aged 13-15 and 16-19 years old) did not show similar results. However some predictors were associated with respondents' age and were consistent with the fact that smokers are generally older students aged 20-25 years old.

From the results, the most probable explanations on the associations revealed that the smokers are more exposed to smoking ads and promotional schemes and are less exposed to anti-smoking warnings on media, and subsequently awareness on smoking-related risks are lesser compared to the non-smokers. There is also a widely accepted perception among smokers that smoking has positive effects especially on social acceptability and other related outlook like signs of being modern or sophistication or trend. These perceptions are directly linked to tobacco companies' promotions and marketing schemes that exploit all types of media available.

The younger girls may not be aware on other smoke-encouraging ads but are also inattentive to anti-smoking messages and infomercials on disease-warnings allowing them to be vulnerable to smoking in some later time or as they grow older. In turn, younger students may have been led to doubt the factors affecting smoking-ban implementation and the means of effective prevention. Although girls generally believed that smoking is bad for the health, the information that this is so may have come from sources other than exposure to anti-smoking ads currently being implemented.

Authorities should focus and exploit other forms of media for anti smoking campaigns using an approach parallel to what tobacco companies are employing and investing heavily to promote their products.

CONCLUSIONS

The study found that the prevalence of smoking among girls is high, mixed forms of tobacco promotions flourished in the country with weak control on penalty measures. Despite knowledge and awareness on anti-smoking messages prevention the tobacco smoking in the country are still observed prevalent with no clear agreement on how to counter advertisement on smoking targeting young girls and women. Although there are promising strategies, laws and policies much have to be learn from those first implementers on the success of their tobacco control programs and campaigns.

From the results of the quantitative and qualitative analysis, the smoking prevalence is high and greater in the rural areas with girls starting to smoke from ages eight to nine years old. From the findings, varied forms of tobacco advertising are flourishing in the country with no measures to discourage youth from smoking. Despite awareness on anti-smoking messages, tobacco smoking by minors is still observed with no sustained and clear programs on how to counter smoking among young girls and women. Although there are promising strategies, laws and policies much have to be learn from first hand implementers on the success of their programs and restriction campaigns.

RECOMMENDATIONS

Based on the conclusions, effectiveness of smoking preventions should be focused on smoking cessations with strong community-school based partnership to effectively reduced smoking prevalence among youths regardless of gender. There is also a need for more empirical evidences shown on penalties, and sanction covering smoking policies and laws, media campaigns on the adverse effects of smoking focused on children in schools. There is also a greater need on health programs on smoking intervention, training for teachers and guidance counselors initiated at the first four years in the high school including establishment of monitoring and evaluation and smoking surveillance in most school and campuses.

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