

# THE EFFECTIVENESS OF LEGISLATION IN MINIMIZING CIGARETTE SMOKING AMONG HIGH SCHOOL STUDENTS IN THAILAND.

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## ABSTRACT

Smoking damages most organs in the body and accounts for 30% of all cancer deaths. Most smokers begin smoking before age of 18. In 1992, the Legislated Act on Tobacco was passed in Thailand. Although the smoking rate is decreasing, some smokers have remained steadfast against the smoking restrictions including smoking in public areas such as schools.

This study sought to survey the effectiveness of the laws in protecting persons younger than 18-year old from smoking. Surveys were done in four provinces within Thailand, including Phitsanulok, Khon Kaen, Bangkok, and Songkla. The surveys were done by observation, interviews, and questionnaires on the current tobacco legislation in Thailand.

Results found 7.91% of students were not complying with the smoking laws. Smoking within school was occurred mostly in the following locations, 22.29% in courtyard and 17.92% in boy's bathroom. When student-smokers moved off the school premises, they tended to cluster in commercial malls (40%) and public parks (40%). The law to protect persons younger than 18-year old from smoking in school was found to be effective in reducing the consumption of cigarettes during the school days. Approximately, 6% of teachers are active smokers. Smoking among persons with influence on the students' life and attitudes towards smoking could have an impact on the adolescents' smoking. An effective intervention program in the school needs to include a component targeting teachers and parents smoking to reduce perceived smoking norms. Another effective mechanism to help a current student-smoker quit is that of the social sanction.

**Keywords:** Cigarette smoking, high school students, legislation act on tobacco.

## INTRODUCTION

Smoking and the inhalation of second-hand smoke can be harmful to an individual's health. Smoking damages nearly every organ in the human body, is linked to at least 10 different kinds of cancers, and accounts for some 30% of all cancer deaths (American Lung Association, 2005).

Furthermore, smoking cigarettes is one of the first step drugs that lead to other drug use by adolescences (Crossett et al., 1999). Currently, it is estimated that second-hand smoke causes at least 12,000 deaths each year in the United Kingdom and billions of dollars each year in health care costs

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(House of Commons Health Committee, 2005). Therefore, preventing initiation of tobacco use is a public health priority.

In Thailand, smoking and second-hand smoke are the second leading cause of damage to the health of the Thai population. In 2003, ten million Thai people still continued to smoke with more than 1.5 billion packs of cigarettes being sold. Approximately 80% of persons who use tobacco begin before the age of 18 (Thailand National Statistic Office, 2004). In the U.S.A., the risk factors associated with the transition of an occasional smoker to a regular smoking during middle adolescence include: 1) pro-smoking attitudes, 2) peer smoking, 3) weak academic orientation, and 4) less parental support (Center of Disease Control, 1998). In addition, smoking with persons having influence on the student's life such as a best friend, father, mother, or a teacher, can reinforce with social rewards the student's decision to smoke (Tucker et al., 2003). Schools around Thailand offer a wide variety of programs to keep students from smoking and from using drugs. A campaign is conducted on "World No Tobacco Day" every year to discourage tobacco use.

The Thai government has issued a national policy for tobacco control. The Legislated Act on Tobacco, passed in 1992, presented a plan for a ban on smoking in public places such as schools. In addition, in November 1997, the Thai Government passed legislation banning smoking in all air-conditioned buildings (Thailand Government Gazette, 1997). These laws include clean indoor air provisions that restrict smoking in places ranging from areas in government buildings, virtually all public places and workplaces as well as all private workplaces, restaurants, and bars. Although the smoking rate is decreasing, most smokers are against restrictions including smoke-free areas, the sale of cigarettes to persons under 18-year old, and advertising in order to promote tobacco products.

The objectives of this study were: 1) to survey the compliance of legislation restricting smoking in schools since its passage in 1992, 2) to

survey public opinions on the efficiency of the legislated compliance, and 3) to survey the effectiveness of the laws in protecting persons younger than 18-year old from smoking.

## MATERIALS AND METHODS

The study area consisted mainly of four provinces within Thailand: Phitsanulok province in the Northern region, Khon Kaen province in the North-Eastern region, Bangkok province in the Central region, and Songkhla province in the Southern region. Data were collected from January to April 2005. The survey was done mainly by observation, interviews, and questionnaires on the current tobacco legislation in Thailand which includes: 1) the law to protect persons from second hand smoke exposure, and 2) the law to protect persons younger than 18-year old from smoking.

A combination of observations and interviews were conducted on 2,565 participants, 480 in school and 2,085 in public places such as universities, government offices, bus stations, theaters, gymnasiums and recreation centers, department stores and supermarkets. Observations were done using checklists in order to understand the smoking habits of persons younger than 18-year old. The observations were performed for one week in February 2005.

Interviews were conducted on 1,117 of the 2,085 participants using multiple choice questions to test on the knowledge and perception of the participants toward the current national policy on tobacco control. Ninety-five students and 231 teachers within the primary school and secondary school setting were interviewed in depth for compliance on the laws prohibiting persons younger than 18 from smoking. Open-ended questionnaires were used to gain insight on their opinions toward the current national tobacco control law.

Two thousand questionnaires were distributed nationwide to government officers responsible for enforcing the smoking laws (including principals and vice-principals of primary and high schools). The questionnaires asked them

their attitude towards the policies meant to protect persons younger than 18-year old from smoking as well as the degree to which they were enforcing them. Of the 2,000 questionnaires, 1,776 questionnaires were returned.

Six television channels, 27 newspapers and 84 magazines were monitored for tobacco advertisements over a three-month period from February to April 2005.

Questionnaires were checked for the completeness of the data. Multiple choice questions were coded and recorded on SPSS program version 11.5. Data were analyzed using descriptive statistics and chi-square test. Open-ended questions and observational data were coded as qualitative data by typology and taxonomy.

## RESULTS

### Observation results

As shown in Table 1, the observation of student-smokers most often found in a courtyard (22.29%), in the boy's bathroom (17.92%), and the main entrance way (15.63%) into the school. Most students leave school property to smoke and congregate in two or three different places. Twenty-seven percent of the students smoke on the sidewalks or streets adjacent to the school, on the edge of the school property, or between the sidewalk and the street. Often the preferred patch of sidewalk or street is at the main entrance way, gate, or pathways into the school. This happens to be an area also frequently used by parents, school buses, and public transit vehicles to drop off students. When student-smokers move off the school premises, they tend to cluster in commercial malls (40 %), public parks or lane ways (40 %), and the lawns and driveways of private residences (12 %). Some students smoke in their cars or in parking lots (8 %), as shown in Table 2.

Table 1. Smoking densities in school areas.

Areas that found smoking	Number of smokers	(%)
Courtyard	107	22.29
Student's bathrooms	86	17.92
The main entrance way	75	15.63
Teacher's bathrooms	65	13.54
Canteen	41	8.54
Teacher's rooms	35	7.29
Meeting hall	31	6.46
Glossary shop in school	16	3.33
Library	14	2.92
First aid rooms	10	2.08
Total	480	100.00

Note: Observation was performed for one week in February 2005, in five secondary schools in each province (i.e., Phitsanulok, Khon Kaen, Bangkok, and Songkhla).

**Table 2.** Smoking densities of persons younger than 18-year old in designated public smoke-free areas.

Areas that found smoking in public place smoke-free areas	Number of smokers	(%)
Bus stations/sidewalks adjacent to school	536	27.00
Department stores and supermarkets	363	17.41
Restaurants in commercial malls	272	13.05
Lawns/driveway of private residences	251	12.04
Cars or in parking lots	167	8.01
Public parks	146	7.00
Theaters in commercial malls	110	5.28
Internet café in commercial malls	84	4.03
Walk ways at universities	53	2.54
Walk ways at government offices	32	1.53
Walk ways at gymnasiums	23	1.10
Walk ways at recreation centers	21	1.01
Total	2,085	100.00

Note: Observation was performed for one week in February 2005, in the downtown of four provinces (i.e., Phitsanulok, Khon Kaen, Bangkok, and Songkhla).

### Interviewed results

Interviews were conducted on 1,117 participants in downtown to test on their knowledge and perception towards the current national policy on tobacco control. Results show 53.70% known that there is law to protect persons from second-hand smoke exposure existing, while 46.30% have never heard about this law.

Ninety-five students were interviewed for compliance on the laws prohibiting persons younger than 18 from smoking. Of these 95 students, 7.91% found not in compliance with the smoking laws. This validates what most teachers have suspected regarding compliance by the students to the smoking laws. Sixty-four percents of students (n=95) would like to have smoking areas in school since there are some students that smoke.

Interviewed results in 231 teachers found 62.33% have never smoked, 31.98% used to smoke

but have since quit, and 5.69% are active smokers. When asked about their opinion regarding the adverse health effects of cigarettes: 42.53% of the teacher said that smoking is bad for a person's health, 31.42% said smoking was a nuisance, while 20.31% said smoking produced an unpleasant smell. Responses indicating current thinking towards the different types of restrictions to protect an individual from second-hand smoke showed that 40.20% said that smoking should not be allowed in any public area since it can be harmful to public health, and 59.80% said that we should provide designated areas for smoking since it is difficult for a smoker to abruptly stop. Most teachers will request that a student or parent that is smoking to leave the school grounds.

This study found that 66.91% of the teachers are aware of the legislated act on tobacco; however,

only 17.75% believed that this act will produce beneficial results. Most teachers indicated that they became aware of the tobacco laws from seeing smoking signs in public areas. Most teachers do not have confidence that this law will ever work since they still see both teachers and students smoking in schools that by law are designated as smoke-free areas. When asked about the overall effectiveness of the laws to protect persons younger than 18-year old from smoking, 43% of schools reported that the law was somewhat effective and 57 % reported that the law was not effective at all. Those who thought the law was effective suggested:

*"...it made the non-smoking message more serious...it made students more aware of the hazards of smoking... that students think that if there is a law, there must be a good reason for it"*

Some school representatives who thought the law was not effective felt that the regulations had not gone far enough.

*"We may have banned it on school property but we are still endorsing smoking because we are still allowing kids to smoke, sometimes right under our nose, and there is nothing we can do about it."*

*It is illegal for kids to smoke on public property whether that property is one mile or one inch away from school property".*

Interviewed results in 1,776 government officers (who enforce the smoking laws including the principals and vice-principals of primary and secondary schools) found that approximately 85.69% of government officers did not have the duty identification card and 93.58 % had never taken enforcement action on those people that violate the laws outlined in the legislated acts on tobacco. A correlation between number of government officers who have duty identification cards and those that have taken enforcement action was found to exist ( $\chi^2=16.52$ ,  $p\text{-value}<0.001$ ) as shown in Table 3. Government officers who do not have duty identification cards admitted that they had problems enforcing the smoking laws since they felt they did not have the proper authority nor the confidence to act. Some principals have verbally advised smokers smoking in those prohibited public places not to do so; however, none of the principals and vice-principals have reported these people to the police.

**Table 3.** The correlation between the possession of duty identification cards and enforcement among government officers.

Having duty identification card	Taken action		Never taken action		Having duty
	Number	(%)	Number	(%)	
Have identification card	31	1.75	223	12.56	$\chi^2 = 16.52$
Do not have identification card	83	4.67	1439	81.02	$p\text{-value}<0.001$
Total	114	6.42	1662	93.58	$n=1776$ (100%)

### Monitoring of the mass media.

This study found that there were no tobacco product advertisements or promotions on television channels, in magazines, or in newspaper during the three-month period of observation. This may be partially due to the media's worry of developing a

bad image with the public. In addition, the penalty and fine associated with violating the smoking laws are financially very costly. However, after midnight, tobacco product advertisements are hidden in the form of signs on the Formula One Racing shows.

## DISCUSSION

The law to protect persons younger than 18-year old from smoking in schools was found to be effective in reducing the consumption of cigarettes by student-smokers during the school day. When students have violated the smoking law, they will try to leave very little or no evidence as was indicated by the finding of cigarettes in the toilets in the boys' bathrooms. This is consistent with results from other studies on the effect of restrictions on student smoking (Darling and Reeder, 2003). The results of the school survey on the effect of restricting the amount of students smoking during the school days, and the findings from the research on smoking restrictions on the school premises, provide grounds for arguing that the law is an important component of an ongoing effort to reduce the consumption of tobacco by high school students.

Smoking among persons with influence on the students' life and attitudes towards smoking can have an impact on the adolescents smoking both directly and indirectly. An effective adolescent smoking intervention program in the school needs to include a component targeting adults (i.e., teachers and parents) smoking in order to reduce perceived smoking norms.

In Thailand, the law designating smoking areas and non-smoking areas can help raise people's awareness about the existence of the smoking law. Just recently, more "no smoking" signs have been placed in public areas. Non-smokers will be mindful if an individual smokes near them and in an area that has been designated as "no smoking" since they know that smoking is bad for their health. Most student-smokers would like to quit because of the social sanctions.

## Recommendation

The government should introduce a comprehensive ban on smoking that includes posting "no smoking" signs in all schools, public places, and workplaces. In addition, government should provide duty identification card to officers who enforce the smoking laws so that the officers

will have more confidence to taking action. In addition, educational campaigns for people in all age groups are needed to reduce problems associated with the law.

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