

# Evaluation of the Thai Tobacco Control Policy

*Convincing smokers of the need to quit is best done by emphasizing the negative impacts of smoking on health, not only their own but also the health of others, especially family members.*

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Tobacco use has been identified by the World Health Organization (WHO) as the most preventable cause of death and disability in the world. Globally, there are 1.1 billion people who smoke, over 80 per cent of whom live in low- and middle-income countries. Of all the people alive today, 500 million will die of tobacco-related causes. Although a staggering 100 million tobacco-related deaths occurred in the twentieth century, it is estimated that, by the end of the twenty-first century, 10 times that number, or 1 billion people, will have died because of tobacco use, and this burden will be borne most heavily by developing countries.

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Currently, 5 million people die of tobacco use each year worldwide, but by 2030, the number of such deaths will rise to 10 million per year and 70 per cent of them will be in developing countries. In addition to the personal costs of this preventable tragedy will be the economic and social costs; these will pose major challenges to the aspirations of greater economic growth and stability in the developing world (WHO, 1997).

In recognition of the threat that tobacco use signifies, all 192 WHO Member States, representing 95 per cent of the world's population, recently adopted the WHO Framework Convention on Tobacco Control, the first treaty devoted entirely to health, and over 120 countries have already ratified it. The convention specifies national-level tobacco-control policies that the signatories are or will be obligated to implement in the coming years. These include banning of misleading brand descriptors, restrictions/prohibitions on advertising and the promotion of tobacco products, increases in taxation, measures to limit exposure to second-hand smoke and those designed to eliminate illicit trade in tobacco products.

The convention is a major milestone in global health, yet there are formidable challenges in approaching the implementation phase, especially that of facilitating the passage of the convention's provisions in a timely fashion. Countries throughout the world will face extraordinary resistance in this process from a variety of quarters, particularly the tobacco industry. Tobacco control policymakers will need to compile and put forward their best case for implementation of the convention's policies. It is in this context that evidence supporting the efficacy of the convention's policies will be in great demand.

As tobacco-control policies are formulated and implemented, it is important for such policies to be accompanied by rigorous evaluation. Good evaluation not only answers the question of whether a policy works as intended, but it also should demonstrate the mechanisms by which it is effective and the reasons for any lack of success. Generally speaking, a policy may not work as intended for three broad classes of reasons, as described below.

First, the policy is wrong. The behaviours it seeks to change do not actually affect tobacco use as hypothesized, or the policy does not have the capacity to change the target behaviours. This may be an inherent limitation of the policy or a failure in some socio-cultural contexts. For example, a policy linking tobacco use to religious concerns may be very effective in a country or region which follows a particular religion, but may have no effect in countries with different religions or in secular societies.

Second, a policy may not work because of failures in implementation. Two types of failure are particularly important in this context: failure to provide the

necessary infrastructure to support implementation and failure to adapt the policy or programme to the socio-cultural context.

In tobacco control there is a third possible class of reasons: countervailing actions by the tobacco industry. The tobacco industry has the capacity to modify its products and their distribution as well as the marketing of those products.

In discerning the various patterns of implementation, longitudinal data are particularly important. The collection of data from the same population, indeed the same persons, before and after the introduction of the policy provides the data that will enable assessment of the impact of tobacco-control policies. In particular, it will enable assessment of the extent to which individuals have been exposed to the tobacco-control policies and how such exposure has had an impact upon their behaviour, as demonstrated in this article which presents the initial findings from an ongoing study in Thailand.

Thailand has joined the longitudinal International Tobacco Control Policy Evaluation Project (ITC Project) in order to examine the impact of its tobacco-control policies. As described by Thompson and others (2006), the ITC Project has two key design features. The first of these involves is the use of natural experiments. In essence, this means that tobacco controls are occurring in many countries and study designs can take advantage of these controls by designing data-collection schemes that provide evidence of the impact of the controls. In turn, this relates to the second design feature of the study, the collection of longitudinal data with a panel design. In this design, the respondents are differentially exposed over time to policy changes, which provides researchers with the opportunity to differentiate changes over time within individuals from differences in the baseline levels, or cohort effects.

## **Study background and methods**

The prevalence of smoking tobacco among Thais has declined since 1976. The surveys conducted by the National Statistical Office (NSO) from 1976 to 2006 found that in 1976 the prevalence of smoking among Thais aged 15 and older was 30.1 per cent, slowly declining to 26.4 per cent in 1986. The latest survey in 2006 found that 18.9 per cent of Thais aged 15 and older were smokers (table 1). Males are much more likely to smoke than females. The average age at which a person smokes his or her first cigarette is 18 years old, and the average number of cigarettes smoked per day is 10.4 (NSO, 2006).

Thailand is widely seen as a global leader in tobacco control and thus the tobacco-control policies and programmes that are implemented in Thailand are of

considerable interest and importance throughout the world. This is particularly true among developing countries. Thailand has recently implemented two world-leading tobacco control policies: the introduction of graphic warning labels on cigarette packaging in March 2005 and the ban on all marketing (signage, products) at point-of-sale locations in September 2005, both of which are anti-tobacco measures recommended by the convention. No studies have evaluated the impact of graphic warnings in low- or middle-income countries. Evidence concerning the Thai graphic warning labels would thus be crucial in informing labelling policies throughout the world. The evaluation of the Thai point-of-sale ban would be important because it would be the first evaluation of a national comprehensive point-of-sale ban.

**Table 1. Number and percentage of smokers aged 15 and older, 1976-2006**

Year	Number	Percentage
1976	8 629 510	30.1
1986*	10 377 000	26.4
1988	10 109 890	25.0
1991	11 402 100	26.3
1993*	10 406 200	22.8
1996	11 254 200	23.4
1999	10 230 600	22.4
2001	10 570 100	22.5
2004	9 627 600	19.5
2006	9 507 000	18.9

*Source:* National Statistical Office (2006).

\* Aged 10 years and older.

To assess the extent of the introduced measures and their impact on people's behaviour, a study was initiated as part of the South East Asia Tobacco Control Policy Survey-ITC-SEA (Thailand). That study, which adopted a prospective cohort design, will last for five years (2005 to 2009). It compares the results of the first and second waves of a prospective study of adult smokers. The study has three major objectives, as follows:

- (a) Explore smoking behaviour, the knowledge of, and attitudes towards smoking, and knowledge of tobacco policies;

(b) Analyse the individual and environmental determinants of smoking behaviour;

(c) Evaluate the effects of the tobacco-control policy on smoking behaviour.

The wave 1 survey (2005) involved 2,000 adult smokers (aged 18 years or older) who were sampled and interviewed in the period January-February 2005. Only those who smoked were included in the sample. Smokers were defined as those persons who had smoked at least 100 cigarettes in their lifetime and currently smoked at least 1 cigarette per week. Both females and males were eligible for sampling and had equal probabilities of selection, although only one male and one female respondent could be selected from a household. The sample was designed to be representative at the regional level and for rural and urban areas. The sample design was stratified multi-stage sampling.

After the wave 1 data collection was completed, the Government of Thailand implemented several new policies designed to reduce the incidence of smoking. These policies included the introduction of new warning displays on cigarette packets that were illustrated by graphic pictures of the damage to health caused by smoking, and the banning of displays of cigarettes at points of sale. A comparison of wave 1 and wave 2 data provides an opportunity to examine the impact of these new policies.

In the wave 2 survey (2006), the study attempted to interview all those respondents who were interviewed in wave 1. A total of 1,568 respondents were successfully reinterviewed in the period August-September 2006, resulting in a follow-up rate of 78.4 per cent. Only in Bangkok was the follow-up rate below 50 per cent (47.5 per cent). A replenishment sample of 512 adult smokers was also selected and interviewed. In this article, the results are provided only for the 1,568 respondents who were interviewed in both waves of the study. Where comparisons were made between the two waves, the analysis treats each wave as a separate sample.

### **Main findings**

Of the 1,568 persons reinterviewed in wave 2, 1,358 (87.2 per cent) were smokers at wave 2 and the remaining 200 (12.8 per cent) had quit smoking in the interval between wave 1 and wave 2. Males comprised 90.9 per cent of the sample. The proportion of males was similar for the group that still smoked and the group that had quit smoking. The average age of smokers was 49 years and for those who had quit smoking the mean age was 53 years. Almost 75 per cent of the sample had a secondary school level of education and approximately 80 per cent of them were married.

Among the smokers, approximately half reported that their health was satisfactory. By comparison, almost 75 per cent of those who had quit smoking stated that their health was good or very good. Most smokers lived in households where at least one household member smoked, while most persons who had quit smoking lived in households where no one in the household smoked.

As can be seen from the data presented in table 2, the average number of cigarettes smoked daily declined significantly from 13.3 in wave 1 to 10.2 in wave 2. This decline was observed in both rural and urban areas. Among those persons who were smokers in both wave 1 and wave 2, the decline in the average number of cigarettes smoked daily was from 13.6 to 10.8. Much of the decline can be attributed to a high proportion of the smokers reducing their frequency of smoking from daily to less than daily. Apart from this change in frequency was a trend towards fewer cigarettes being smoked by those who smoked daily.

**Table 2. Percentage distribution and mean of average number of cigarettes smoked per day, by place of residence and survey wave**

Number of cigarettes smoked daily	Urban		Rural		Total	
	Wave 1 (406)	Wave 2 (355)	Wave1 (1,100)	Wave 2 (991)	Wave 1 (1,506)	Wave 2 (1,346)
0	0.5	8.5	0.0	13.5	0.1	12.2
1-4	8.6	14.9	11.4	14.1	10.6	14.3
5-8	16.3	19.2	17.4	18.1	17.1	18.4
9-12	33.3	25.4	27.1	24.8	28.8	25.0
13-16	10.8	9.6	13.6	11.5	12.9	11.0
17-20	24.6	16.3	22.1	12.7	22.8	13.7
21 or more	5.9	6.2	8.5	5.2	7.8	5.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Mean	13.2	10.9	13.3	9.9	13.3	10.2

*Note:* The 166 persons who did not smoke on a daily basis are coded as 0. The results of a paired t-test show that smokers decreased the daily number of cigarettes smoked from 13.6 to 10.8 (significant at the 0.0000 level).

The data for urban, rural and total are significant at the 0.001 level.

Also, there was a statistically significant shift between waves in the type of tobacco product smoked. In wave 1, more than a third (34.7 per cent) of the respondents smoked hand-rolled cigarettes only; this proportion had increased to half (49.9 per cent) in wave 2 (see table 3). This change is probably a result of the tax increases implemented by the Government, which increased the price of factory-produced cigarettes over that of hand-rolled ones.



The shift in smoking hand-rolled cigarettes was most apparent in rural areas, which may be because rural smokers are more sensitive to price increases than are urban smokers. The shift in type of cigarette smoked is not a function of the quitters being more likely to be smokers of factory-made cigarettes; the shift also occurred for those who were smoking in both waves (results not shown). The shift to hand-rolled cigarettes was noted mainly among those who previously had smoked both hand-rolled and factory-made cigarettes.

**Table 3. Percentage distribution of main type of cigarettes smoked, by place of residence and survey wave**

Type of cigarette	Urban		Rural		Total	
	Wave 1 (420)	Wave 2 (355)	Wave 1 (1,138)	Wave 2 (993)	Wave 1 (1,558)	Wave 2 (1,351)
Factory-made only	67.4	64.0	33.0	29.1	42.2	38.3
Hand-rolled only	19.3	27.9	40.4	57.8	34.7	49.9
Both types	13.3	8.1	26.6	13.1	23.0	11.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Note:* The data for urban, rural and total are significant at the 0.001 level, and the numbers of smokers are contained within parentheses.

From wave 1 to wave 2 there were increases in the proportions of respondents who supported bans on smoking in a variety of public places, such as hospitals, air-conditioned and non-air-conditioned restaurants, workplaces, places of worship and public transport (see table 4). This phenomenon indicates that the general public increasingly accepted the restrictions on smoking.

There is an increasing belief that smoking has a strong impact on health, with almost 75 per cent of the respondents in wave 2 agreeing that smoking had a large impact on their health. This increase is largely confined to rural areas (see table 5). In wave 1 only 8 per cent reported that smoking had no effect on their health at all and this was reduced to 6 per cent in wave 2.

From table 6 it can be seen that knowledge of the adverse impacts of tobacco use on health increased between wave 1 and wave 2, and that knowledge is possibly related to the increasing proportions who believe that smoking has had a significant impact on health. Most of the increase was confined to conditions where knowledge was only moderate during wave 1: stroke and male impotence; statistically significant increases were also observed for knowledge about tobacco's effects on premature ageing. The increases are likely to be related to the pictorial warnings that have been introduced on cigarette packets.

**Table 4. Percentage distribution of opinions of where smoking should be allowed in specified public places, by place of residence and survey wave**

Areas where smoking should be allowed	Urban		Rural		Total	
	Wave 1 (420)	Wave 2 (414)	Wave 1 (1,137)	Wave 2 (1,137)	Wave 1 (1,557)	Wave 2 (1,551)
<b>Hospital</b>						
All indoor areas	0.5	0.0	0.2	0.5	0.3	0.4
Some indoor areas	22.4	10.9	28.0	15.8	26.5	14.5
Nowhere at all	77.1	89.1	71.8	83.7	73.2	85.2
<b>Workplace</b>						
All indoor areas	3.6	0.5	3.6	0.4	3.6	0.4
Some indoor areas	43.3	29.1	41.0	26.1	41.7	26.9
Nowhere at all	53.1	70.5	55.4	73.6	54.7	72.7
<b>Air-conditioned restaurant</b>						
All indoor areas	0.5	0.0	0.1	0.6	0.2	0.5
Some indoor areas	28.8	10.2	24.7	10.0	25.8	10.1
Nowhere at all	70.7	89.8	75.2	89.4	74.0	89.5
<b>Non-air-conditioned restaurant</b>						
All indoor areas	7.4	8.8	12.4	6.2	11.0	6.9
Some indoor areas	68.8	48.5	65.1	52.3	66.1	51.3
Nowhere at all	23.8	42.7	22.5	41.5	22.8	41.8
<b>Public transport</b>						
All indoor areas	0.5	0.2	0.0	0.8	0.1	0.6
Some indoor areas	0.7	2.2	3.0	1.9	2.4	2.0
Nowhere at all	98.8	97.6	97.0	97.3	97.5	97.4
<b>Place of worship</b>						
All indoor areas	2.1	1.0	3.3	0.9	3.0	0.9
Some indoor areas	43.8	4.6	47.7	4.7	46.7	4.7
Nowhere at all	54.0	94.4	48.9	94.4	50.3	94.4

*Note:* The data for all the locations are significant at the 0.001 level, except for the category public transport; the number of respondents is contained within parentheses.



**Table 5. Percentage distribution of the self-reported effect of smoking on the health of the respondents, by place of residence and survey wave**

Effect on health	Urban		Rural		Total	
	Wave 1 (417)	Wave 2 (404)	Wave 1 (1,128)	Wave 2 (1,123)	Wave 1 (1,545)	Wave 2 (1,527)
None at all	7.9	9.4	8.2	5.3	8.2	6.4
Some effect	26.6	21.8	28.3	18.9	27.8	19.6
Large effect	65.5	68.8	63.5	75.8	64.0	73.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Note:* The data for rural and total are significant at the 0.001 level; the number of respondents is contained within parentheses.

**Table 6. Percentage who agreed that smoking caused specified health outcomes, by place of residence and survey wave**

Health outcome	Urban		Rural		Total	
	Wave 1 (420)	Wave 2 (413)	Wave 1 (1,138)	Wave 2 (1,140)	Wave 1 (1,558)	Wave 2 (1,553)
Stroke	40.2	73.1 ***	44.2	79.6 ***	43.1	79.6 ***
Male impotence	68.3	74.1 ***	69.9	76.9 ***	69.5	76.9 ***
Lung cancer in smokers	94.8	94.2	94.4	95.0	94.5	95.0
Stained teeth	93.1	95.7	95.1	95.3	94.5	95.3
Premature ageing	87.1	93.8 ***	88.0	91.6 ***	87.7	91.9 ***
Lung cancer in non-smokers	91.0	91.6	90.3	90.2	90.5	92.0

*Note:* The number of respondents is contained within parentheses.

\*\*\* Significant at the 0.001 level.

In comparing wave 1 and wave 2, there was a significant increase in the proportions who had noticed the warning labels on cigarette packets often or very often (see table 7). However, this increase was confined mainly to rural areas. The gap between rural and urban areas in the proportions who had noticed warning labels often, or very often, narrowed over the two waves. In wave 1, the gap was about 7 percentage points. By wave 2, the gap was less than 4 percentage points.

**Table 7. Percentage distribution of the frequency of noticing warning labels on cigarette packets in the previous month, by place of residence and survey wave**

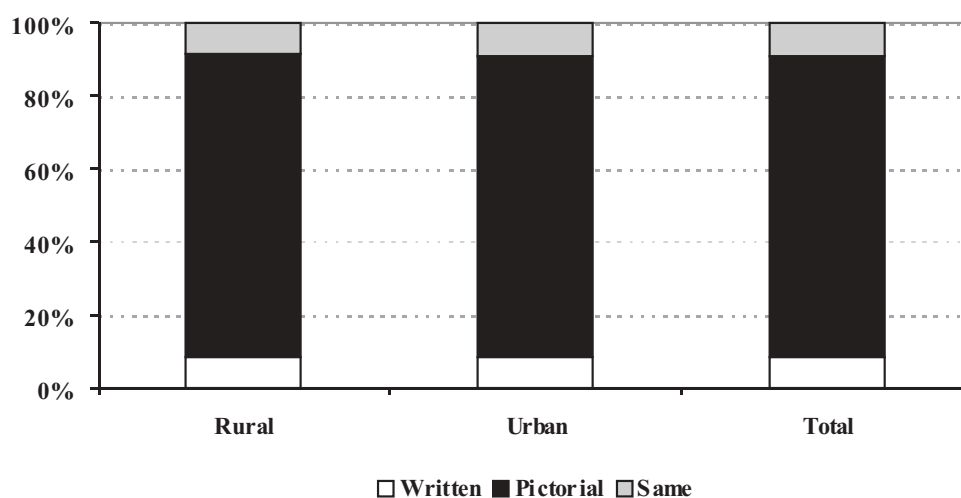
Frequency of noticing warning labels	Urban		Rural ***		Total ***	
	Wave 1 (407)	Wave 2 (408)	Wave 1 (1,083)	Wave 2 (1,133)	Wave 1 (1,490)	Wave 2 (1,541)
Never	15.2	16.4	16.8	18.6	16.4	18.0
Once in a while	16.7	14.2	22.0	16.2	20.5	15.6
Often	40.0	44.4	40.7	50.8	40.5	49.1
Very often	28.0	25.0	20.5	14.5	22.6	17.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Note:* The number of respondents is contained within parentheses.

\*\*\* Data for rural and total are significant at the 0.001 level.

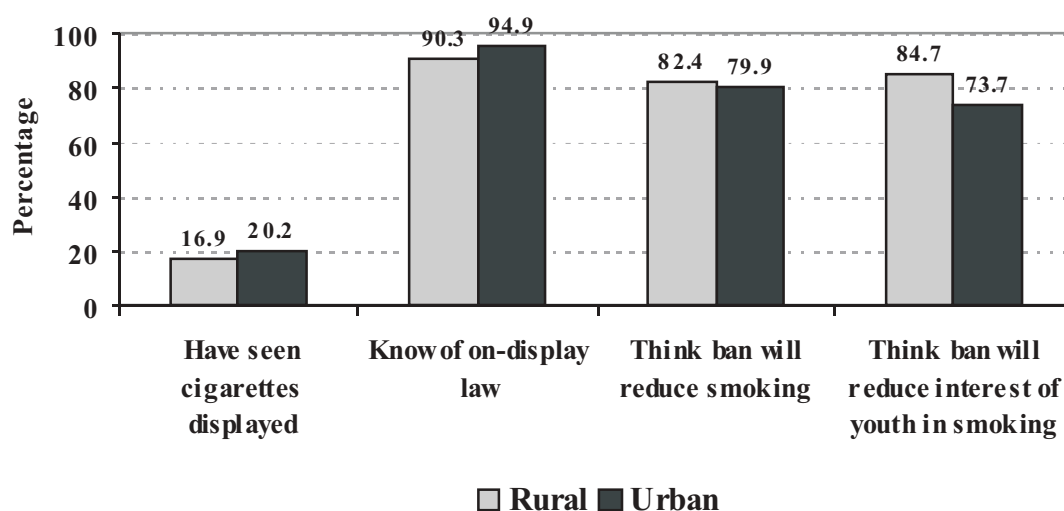
When comparing pictorial versus written warning labels on cigarette packets, over 80 per cent of the smokers in wave 2 reported that the pictorial warnings on the packets were most effective in making people think about the dangers of smoking. Almost all the smokers reported having seen the pictorial warnings (see figure 1), and there was very little difference between the rural and urban areas in the distributions.

**Figure 1. Percentage distribution of respondents reporting the most effective type of warning labels on cigarette packets (wave 2)**



In the six months before wave 2, less than one fifth of the respondents had seen cigarettes displayed at places of sale and almost all the smokers knew of the law restricting cigarette displays at the points of sale. The majority of smokers agreed that this law would have an effect on reducing smoking and that it would also have the effect of reducing the interest of youth in smoking (see figure 2). Rural respondents were more likely than urban respondents to believe that the law would be effective in reducing smoking and curbing the interest of youth in smoking.

**Figure 2. Percentage who had seen displays of cigarettes in the previous six months, knew of the law forbidding the display of cigarettes, thought the law has had an effect and thought that the law has reduced the interest of youth in smoking, by place of residence (wave 2)**



Attempts have been made to reduce the incidence of smoking through increased emphasis on the use of medical consultations to convince people of the dangers of smoking. To some extent it appears that these efforts are working. There was a significant increase in the proportions receiving advice from medical professionals to quit smoking, especially in rural areas (see table 8). However, there was no increase in assistance from medical professionals in helping their patients to quit. There has also been no significant increase in the proportion of smokers receiving information materials at health facilities. The relatively small proportion receiving such materials is disappointing in view of the large amount of information material that has been distributed.

**Table 8. Percentage who visited a health professional in previous year who received specified service, by place of residence and survey wave**

Service	Urban		Rural		Total	
	Wave 1 (132)	Wave 2 (159)	Wave 1 (393)	Wave 2 (456)	Wave 1 (425)	Wave 2 (615)
Advice to quit smoking	63.6	77.4 ***	66.7	80.3 ***	65.9	79.5 ***
Assistance or referral for quitting	0.0	2.5	3.6	3.1	2.7	2.9
Received pamphlet or other information sheet about quitting smoking	13.5	20.1	20.3	16.9	18.6	17.7

*Note:* The number of respondents is contained within parentheses.

\*\*\* Significant at the 0.001 level.

Among the smokers interviewed in wave 2, the majority had no plan to quit smoking; moreover, there was a significant increase from wave 1 to wave 2 in both rural and urban areas in the percentage who had no plan to quit smoking. One possible reason for this is selectivity: the longer a cohort is followed, the more it will be composed of hardcore smokers. Less than 5 per cent of the smokers planned to quit within the month following the wave 2 survey and a further 16 per cent planned to quit within the next six months (see table 9).

**Table 9. Percentage distribution of those planning to quit smoking, by place of residence and survey wave**

Plan to quit smoking	Urban		Rural		Total	
	Wave 1 (420)	Wave 2 (347)	Wave 1 (1,138)	Wave 2 (942)	Wave 1 (1,558)	Wave 2 (1,289)
Next month	5.2	3.2	7.7	3.9	7.1	3.7
In next six months	9.5	14.7	15.1	17.0	13.6	16.4
Beyond next six months	21.0	10.1	18.9	12.7	19.4	12.0
No plan to quit	64.3	72.0	58.3	66.3	59.9	67.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Note:* The data for urban, rural and total are significant at the 0.001 level; the number of respondents is contained within parentheses.

In the 18 months between the wave 1 and wave 2 surveys, only slightly over 12 per cent had managed to quit and remain a non-smoker in wave 2, even though over 40 per cent of the smokers in wave 1 reported that they had a plan to quit smoking. While it is true that those who stated that they had plan to quit smoking were more likely to quit smoking than those without such a plan, the majority of those who had a plan to quit were not able to carry through with their plan.

Table 10 shows that health concerns, both the health of the smokers themselves and that of non-smokers who were exposed to their smoking, were the major reasons for smokers to think about quitting smoking. These reasons became more important over the two survey waves. The other main factor that made smokers think about quitting was their desire to be a good model for their children.

**Table 10. Percentage who stated that the specified conditions made them think very much about quitting smoking in the previous six months, by place of residence and survey wave**

Condition	Urban		Rural		Total	
	Wave 1 (420)	Wave 2 (413)	Wave 1 (1,138)	Wave 2 (1,140)	Wave 1 (1,558)	Wave 2 (1,553)
Personal health	33.6	47.2 ***	37.9	43.2 ***	36.7	44.3 ***
Health of non-smokers	26.7	41.9 ***	34.8	40.9 ***	32.6	41.1 ***
Societal disapproval of smoking	21.2	22.2	27.4	21.0 ***	25.7	21.3 *
Price of cigarettes	17.6	18.0	24.1	19.0 **	22.4	18.7 *
Restrictions on smoking in public places	16.5	19.7	28.0	17.2 ***	24.9	17.9 ***
Information on risks of smoking	17.7	26.0 **	28.7	22.0 ***	25.8	23.1 *
Warning labels on packets	17.3	27.8 ***	27.6	24.8 ***	24.8	25.4 ***
Wanting to be good model for children	39.1	40.2	43.0	34.2 ***	41.9	35.8 ***

*Note:* The number of respondents is contained within parentheses.

\* Significant at the 0.05 level; \*\* significant at the 0.01 level; \*\*\* significant at the 0.001 level.

Although the policies related to warning labels, prices and restrictions on smoking were relatively less important in making smokers think about quitting smoking than were health concerns, one fifth or more of the smokers reported that each of these reasons was important in their thinking about the decision to quit. Furthermore, some of these policies, such as those on warning labels, could be expected to have had an indirect impact by making the smokers more aware of the adverse health impacts of smoking.

In general, smokers in urban areas were increasing likely to have each condition lead them to think about quitting smoking, while in rural areas there was a reduction in the percentage thinking very much about quitting in terms of each condition (except for health).

### **Discussion and conclusion**

The longitudinal data collected by the ITC Project have enabled a close examination of the impact of the tobacco-control policies in Thailand. Although there are several promising signs of success in the attempts by the Government of Thailand to reduce the use of tobacco, the study also indicates some concerns. The study found that the proportion smoking hand-rolled cigarettes had increased, probably as a result of the tax increases on cigarettes, which made factory-produced cigarettes more expensive. Because hand-rolled cigarettes made with local tobacco do not have the associated warning labelling that factory-made cigarettes must display, the shift in the type of tobacco consumption may be reducing the exposure of smokers to information about the health dangers of smoking. This suggests that there is a need to formulate policies and develop regulations that attempt to reduce smoking and raise awareness of the dangers of tobacco use among the smokers who smoke hand-rolled cigarettes. Further rounds of the project will monitor whether the changes observed in smoking behaviour continue.

Most of the sample approved of the prohibition on smoking in hospitals, offices, restaurants and other public places. The proportions agreeing with these bans increased between wave 1 and wave 2. The increasing public acceptance of placing restrictions on smoking provides the Government with the opportunity to aggressively promote tougher anti-smoking regulations.

The policy to place graphic warning labels on cigarette packets has met with success. Knowledge of the health impacts of smoking increased, and most smokers reported that the graphic warning labels were most effective in making them think about the health dangers of smoking. The success of this policy suggests that the Government should increase the number of warning graphics that are used on cigarette packets. However, there is also concern that as smokers, and

indeed non-smokers, become more used to these warnings their impact will diminish. Therefore, it is essential to collect longitudinal data to monitor the impacts of warning labels.

Compared with wave 1, the proportion of smokers in wave 2 who did not have a plan to quit smoking increased. The proportion that had planned to quit within the next six months changed little between the two rounds. These results suggest that there is a need for more vigorous campaigns to influence smokers to reduce or quit smoking.

The study found that only 4 per cent of those who wanted to quit smoking had received assistance or been influenced by public health facilities that are intended to assist smokers to quit. This is a very low proportion in view of the fact that the Government has designated places, such as tobacco-quitting centres, to take responsibility for assisting smokers to stop smoking. The Government should therefore develop and expand the system of helping smokers to quit. It should also disseminate information among smokers about the assistance available to help them quit.

The majority of smokers who had planned to quit smoking did not quit, although those with a plan to quit were more likely than those without such a plan to have quit smoking. These results clearly show that an effective policy to help smokers quit smoking requires two strategies. The first is to convince smokers of the need to stop smoking and the second is to help those who see the need to quit to actually stop smoking.

Convincing smokers of the need to quit is best done by emphasizing the negative impacts of smoking on health, not only their own but also the health of others, especially family members. The new health warning policies appear to be having an impact in this regard. Once a smoker wants to quit, other policies such as the banning of cigarette displays can be effective in reducing the social acceptability of smoking.

How the observed trends will play out in the future will be the focus of the next three years of the current project. Comparison of data from the first two waves with those to be collected in the next three waves will produce greater understanding of the changes in smoking behaviours, attitudes, beliefs and knowledge about the effects of tobacco use. The results of the data collected will enable careful assessment of the immediate and longer-term effects of the tobacco-control policies essential to the formulation of appropriate responses.



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